

INFORMATION HANDOUT

**For Contract No. 08-043514
At 08-SBd-58-R22.2/R31.1**

**Identified by
Project ID 0800000010**

PERMITS

California Department of Fish and Wildlife: No. 2081-2013-071-06

U.S. Fish and Wildlife Service : Biological Opinion (BO)

United States Army Corps of Engineers

WATER QUALITY

California Regional Water Quality Control Board Lahontan region

Board Order No. R6T-2003-0004

AGREEMENTS

California Department of Fish and Wildlife:

Notification No. 1600-2014-0001-R6

MATERIALS INFORMATION

Revised Foundation Report for Lenwood Road OC

Foundation Report for Hinkley Road OC



California Department of Fish and Wildlife
Inland Deserts Region
3602 INLAND EMPIRE BLVD SUITE C-220
ONTARIO, CA 91764

California Endangered Species Act
Incidental Take Permit No. 2081-2013-071-06

STATE ROUTE 58 (SR-58) HINKLEY EXPRESSWAY PROJECT

Authority: This California Endangered Species Act (CESA) incidental take permit (ITP) is issued by the Department of Fish and Wildlife (CDFW) pursuant to Fish and Game Code section 2081, subdivisions (b) and (c), and California Code of Regulations, Title 14, section 783.0 et seq. CESA prohibits the take¹ of any species of wildlife designated by the California Fish and Game Commission as an endangered, threatened, or candidate species.² CDFW may authorize the take of any such species by permit if the conditions set forth in Fish and Game Code section 2081; subdivisions (b) and (c) are met. (See Cal. Code Regs., tit. 14, § 783.4).

Permittee:	California Department of Transportation
Principal Officer:	Scott Quinnell, Senior Environmental Planner
Contact Person:	Kyle Myrick
Mailing Address:	California Department of Transportation 464 West 4th Street, 6th Floor, MS 822 San Bernardino, CA 92401-1400

Effective Date and Expiration Date of this ITP:

This ITP shall be executed in duplicate original form and shall become effective once a duplicate original is acknowledged by signature of the Permittee on the last page of this ITP and returned to CDFW's Habitat Conservation Planning Branch at the address listed in the Notices section of this ITP. Unless renewed by CDFW, this ITP's authorization to take the Covered Species shall expire on **January 1, 2019**.

¹Pursuant to Fish and Game Code section 86, "Take' means hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." See also *Environmental Protection Information Center v. California Department of Forestry and Fire Protection* (2008) 44 Cal.4th 459, 507 (for purposes of incidental take permitting under Fish and Game Code section 2081, subdivision (b), "take' ... means to catch, capture or kill").

²The definition of an endangered, threatened, and candidate species for purposes of CESA are found in Fish and Game Code sections 2062, 2067, and 2068, respectively.

Notwithstanding the expiration date on the take authorization provided by this ITP, Permittee's obligations pursuant to this ITP do not end until CDFW accepts as complete the Permittee's Final Mitigation Report required by Condition of Approval (7.7) of this ITP.

Project Location:

The project is located on SR-58 and approximately five miles west of the city of Barstow, San Bernardino County, California. The project consists of the widening and realignment of a two-lane conventional highway to a four-lane expressway near the unincorporated community of Hinkley, from Post Mile (PM) 21.8 to PM 31.1. The project area lies within a number of Sections of Townships 9 and 10 North, and Ranges 2, 3, 4, and 5 West, as depicted on the "Barstow, California;" "Hinkley, California;" and "Twelve Gauge Lake, California" 7.5-minute topographic quadrangles (USGS 1993, 1993, 1973, respectively). The Project is within the Mojave and Coyote-Cuddeback Lakes Watersheds (HUCs 180902071104, 180902071101, 180902071001, and 180902081102). (Figure 1. Project Location Map).

Project Description:

The project will consist of realignment and widening SR-58 from a two-lane roadway to a 4-lane expressway/freeway from PM 21.8 west of Hidden River Road near Hinkley and eastward to PM 31.1, 0.775 miles east of Lenwood Road. This is a distance of approximately 9 miles of road realignment and widening. In addition to using Caltrans' right-of way, land will be acquired from private land owners (approximately 506 acres), the Bureau of Reclamation (approximately 100 acres), and Pacific Gas and Electric (approximately 42 acres). A cut and fill procedure of up to four feet will be used for the new pavement construction. Fill will be obtained from an existing off-site location. The existing SR-58 will continue to be used while the alignment is under construction. During construction, one lane of the current SR-58 will be closed and the terminal half mile at each end of the Project will be used for staging. Outside the Project area, there will be no off-road travel or parking areas (Project).

Access to the work areas will be gained through the use of existing easements on SR-58, which gives full access to the proposed realignment and widening areas. The staging areas involved with this Project will be located along the proposed right of way of the new alignment of SR-58. Crossings at Valley View Road, Summerset Road, and Hinkley Road will be modified to have full standard shoulder and traveled way widths, and Hinkley and Summerset Roads will have left-turn pocket lanes.

Expressway access will be at Hinkley Road, and the Lenwood Interchange. All other roads bisecting the expressway will be converted to cul-de-sacs. New traffic lights and stop signs

will be installed. Permanent desert tortoise fencing will be installed to protect the species from road-related mortalities.

Drainage facilities will be located on site in the form of two detention/retention basins and approximately 22 box culverts. One basin would be located west of Valley View Road, south of the new SR-58, and the other basin would be located west of Lenwood Road between the existing alignment of SR-58 and the realigned portion. Box culverts will be constructed for the dual purpose of drainage and wildlife crossings. The detention basins will have a maximum size of 200-ft by 3,000-ft (61-m by 914.4-m), and average depth of six- to seven-feet (1.8- to 2.1-meters) with a maximum depth of 10-feet (3.1-meters), and the slope ratios vary from 20:1 to 4:1. Culverts will be attached to each of the basins and they will be approximately 36 inches (91.4 centimeters) minimum, round, and non-corrugated.

The Project is incorporating desert tortoise fencing, and would design stream undercrossings in such a way as to accommodate the desert tortoise movement. Approximately 22 culverts will be designed as box culverts (with minimum dimension of three by five feet) 7 of which will function as wildlife crossings for Desert tortoises and other species. All drainages will be designed with a flat bottom to allow desert tortoise to use them as a crossing. The culverts will be used to provide/maintain desert tortoise connectivity and will be monitored and maintained by the applicant during the life of this Projects and the subsequent maintenance of the culverts.

Permanent desert tortoise fencing will be installed along the right-of-way limits; therefore, this would result in a permanent loss of desert tortoise habitat and will be mitigated for during the incidental take permit process. Location of the culverts and desert tortoise undercrossing are presented in the Attached Table 1 Culverts and Wildlife Undercrossing Locations.

Covered Species Subject to Take Authorization Provided by this ITP:

This ITP covers the following species:

Name	CESA Status
1. Desert tortoise (<i>Gopherus agassizii</i>)	Threatened ³
2. Mohave ground squirrel (<i>Xerospermophilus mohavensis</i>)	Threatened ⁴

These species and only these species are the "Covered Species" for the purposes of this ITP.

³ See Cal. Code Regs. tit. 14 § 670.5, subd. (b)(4)(A).

⁴ See *Id.*, § 670.5, subd. (b)(6)(A).

Impacts of the Taking on Covered Species:

Project activities and their resulting impacts are expected to result in the incidental take of individuals of the Covered Species. The activities described above expected to result in incidental take of individuals of the Covered Species include clearing and grading, fence installation, and backfilling, cleanup, restoration, capture and relocation activities, and other activities described in the Project Description Section of this ITP (Covered Activities).

Incidental take of individuals of the Covered Species in the form of mortality ("kill") may occur as a result of Covered Activities such as loss of burrows, increase in predators due to human activities, accidental crushing by construction equipment. Incidental take of individuals of the Covered Species may also occur from the Covered Activities in the form of pursue, catch, capture, or attempt to do so of the Covered Species from capture or entrapment in holes or trenches, uncovering Covered Species through the excavation of burrows, by corralling the Covered Species into a confined area when barrier fencing is constructed, and relocation of Covered Species when required by this ITP. The areas where authorized take of the Covered Species is expected to occur include: within the Caltrans right-of-way (collectively, the Project Area).

The Project is expected to cause the temporary and permanent loss of 502.34 acres of habitat for the Covered Species. Impacts of the authorized taking also include adverse impacts to the Covered Species related to temporal losses, increased habitat fragmentation and edge effects, and the Project's incremental contribution to cumulative impacts (indirect impacts). These impacts include: stress resulting from noise and vibrations, capture and relocation, and long-term effects due to increased pollution, displacement from preferred habitat, increased competition for food and space, disturbance to burrows, removal and/or damage of vegetation comprising and increased vulnerability to predation.

Incidental Take Authorization of Covered Species:

This ITP authorizes incidental take of the Covered Species and only the Covered Species. With respect to incidental take of the Covered Species, CDFW authorizes the Permittee, its employees, contractors, and agents to take Covered Species incidentally in carrying out the Covered Activities, subject to the limitations described in this section and the Conditions of Approval identified below. This ITP does not authorize take of Covered Species from activities outside the scope of the Covered Activities, take of Covered Species outside of the Project Area, take of Covered Species resulting from violation of this ITP, or intentional take of Covered Species except for capture and relocation of Covered Species as authorized by this ITP.

Conditions of Approval:

Unless specified otherwise, the following measures apply to all Covered Activities within the Project Area, including areas used for vehicular ingress and egress, staging and parking, and noise and vibration generating activities that may/will cause take. CDFW's issuance of this ITP and Permittee's authorization to take the Covered Species are subject to Permittee's compliance with and implementation of the following Conditions of Approval:

1. **Legal Compliance:** Permittee shall comply with all applicable federal, state, and local laws in existence on the effective date of this ITP or adopted thereafter.
2. **CEQA Compliance:** Permittee shall implement and adhere to the mitigation measures related to the Covered Species in the Biological Resources section of Environmental Impact Report/Environmental Impact Study (State Clearing House Number.: 2007051067) certified by the lead agency California Department of Transportation, July 1, 2013 as lead agency for the Project pursuant to the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.).
3. **LSA Agreement Compliance:** Permittee shall implement and adhere to the mitigation measures and conditions related to the Covered Species in the Lake and Streambed Alteration Agreement (LSAA) (Notification No. 1600-2014-0001-R6) for the Project executed by CDFW pursuant to Fish and Game Code section 1600 et seq.
4. **ESA Compliance:** Permittee shall implement and adhere to the terms and conditions related to the Covered Species in the Biological Opinion for the SR-58 Hinkley Expressway Project, (8-8-13-F-15) for the Project pursuant to the Federal Endangered Species Act (ESA). For purposes of this ITP, where the terms and conditions for the Covered Species in the federal authorization are less protective of the Covered Species or otherwise conflict with this ITP, the conditions of approval set forth in this ITP shall control.
5. **ITP Time Frame Compliance:** Permittee shall fully implement and adhere to the conditions of this ITP within the time frames set forth below and as set forth in the Mitigation Monitoring and Reporting Program (MMRP), which is included as Attachment1 to this ITP.
6. **General Provisions:**
 - 6.1. Designated Representative. Before starting Covered Activities, Permittee shall designate a representative responsible for communications with CDFW and overseeing compliance with this ITP. Permittee shall notify CDFW in writing before starting Covered Activities of the Designated Representative's name, business

address, and contact information, and shall notify CDFW in writing if a substitute Designated Representative is selected or identified at any time during the term of this ITP.

- 6.2. Authorized Biologist(s). Permittee shall submit to CDFW in writing the name, qualifications, business address, and contact information for biologists who, in addition to meeting the qualifications to be Biological Monitor(s) identified in Condition 6.3 below, possess a valid Memorandum of Understanding (MOU) with CDFW for handling the Covered Species. Only Authorized Biologist(s) shall be allowed to excavate burrows, handle, and relocate Covered Species.
- 6.3. Biological Monitor(s). Permittee shall submit to CDFW in writing the name, qualifications, business address, and contact information of a Biological Monitor(s) at least 30 days before starting Covered Activities or with change of personnel. Permittee shall ensure that the Biological Monitor(s) is knowledgeable and experienced in the biology, natural history, collecting and handling of the Covered Species. The Biological Monitor(s) shall be responsible for monitoring Covered Activities to help minimize and fully mitigate or avoid the incidental take of individual Covered Species and to minimize disturbance of Covered Species' habitat.
- 6.4. Authorized Biologist(s) and Biological Monitor(s) Authority. Only Authorized Biologist with an MOU with CDFW is authorized to excavate burrows, handle, and relocate Covered Species. To ensure compliance with the Conditions of Approval of this ITP, the Biological Monitor(s) and/or Authorized Biologist(s) shall have authority to immediately stop any activity that does not comply with this ITP, and/or to order any reasonable measure to avoid the unauthorized take of an individual of the Covered Species.
- 6.5. Education Program. Permittee shall conduct an education program for all persons employed or otherwise working in the Project Area before performing any work. The program shall consist of a presentation from the Biological Monitor(s) that includes a discussion of the biology and general behavior of the Covered Species, information about the distribution and habitat needs of the Covered Species, sensitivity of the Covered Species to human activities, its status pursuant to CESA including legal protection, recovery efforts, penalties for violations and Project-specific protective measures described in this ITP. Permittee shall provide interpretation for non-English speaking workers, and the same instruction shall be provided to any new workers before they are authorized to perform work in the Project Area. Permittee shall prepare and distribute wallet-sized cards or a fact sheet handout containing this information for workers to carry in the Project Area. Upon completion of the program, employees shall sign a form stating they attended the program and understand all protection measures.

- 6.6. Construction Monitoring Notebook. The Biological Monitor(s) shall maintain a construction-monitoring notebook on-site throughout the construction period, which shall include a copy of this ITP with attachments and a list of signatures of all personnel who have successfully completed the education program. Permittee shall ensure a copy of the construction-monitoring notebook is available for review at the Project site upon request by CDFW.
- 6.7. Trash Abatement. Permittee shall initiate a trash abatement program before starting Covered Activities and shall continue the program for the duration of the Project. Permittee shall ensure that trash and food items are contained in animal-proof containers and removed at least once a week to avoid attracting opportunistic predators such as ravens, coyotes, and feral dogs.
- 6.8. Dust Control. Permittee shall implement dust control measures during Covered Activities to facilitate visibility for monitoring of the Covered Species by the Biological Monitor(s). Permittee shall keep the amount of water used to the minimum amount needed, and shall not allow water to form puddles.
- 6.9. Erosion Control Materials. Permittee shall prohibit use of erosion control materials potentially harmful to Covered Species and other species, such as monofilament netting (erosion control matting) or similar material, in potential Covered Species' habitat.
- 6.10. Delineation of Property Boundaries. Before starting Covered Activities along each part of the route in active construction, Permittee shall clearly delineate the boundaries of the Project Area with fencing, stakes, or flags. Permittee shall restrict all Covered Activities to within the fenced, staked, or flagged areas. Permittee shall maintain all fencing, stakes, and flags until the completion of Covered Activities.
- 6.11. Delineation of Habitat. Permittee shall clearly delineate habitat of the Covered Species within the Project Area with posted signs, posting stakes, flags, and/or rope or cord, and place fencing as necessary to minimize the disturbance of Covered Species' habitat.
- 6.12. Project Access. Project-related personnel shall access the Project Area using existing routes, or routes identified in the Project Description and shall not cross Covered Species' habitat outside of or en route to the Project Area. Permittee shall restrict Project-related vehicle traffic to established roads, staging, and parking areas. Permittee shall ensure that vehicle speeds do not exceed 20 miles per hour to avoid Covered Species on or traversing the roads. If Permittee determines construction of routes for travel are necessary outside of the Project Area, the Designated

Representative shall contact CDFW for written approval before carrying out such an activity. CDFW may require an amendment to this ITP, among other reasons, if additional take of Covered Species will occur as a result of the Project modification.

- 6.13. Staging Areas. Permittee shall confine all Project-related parking, storage areas, laydown sites, equipment storage, and any other surface-disturbing activities to the Project Area using, to the extent possible, previously disturbed areas. Additionally, Permittee shall not use or cross Covered Species' habitat outside of the marked Project Area unless provided for as described in Condition of Approval 6.11 of this ITP.
- 6.14. Hazardous Waste. Permittee shall immediately stop and, pursuant to pertinent state and federal statutes and regulations, arrange for repair and clean up by qualified individuals of any fuel or hazardous waste leaks or spills at the time of occurrence, or as soon as it is safe to do so. Permittee shall exclude the storage and handling of hazardous materials from the Project Area and shall properly contain and dispose of any unused or leftover hazardous products off-site.
- 6.15. Firearms and Dogs. Permittee shall prohibit firearms and domestic dogs from the Project Area and site access routes during Covered Activities, except those in the possession of authorized security personnel or local, State, or federal law enforcement officials
- 6.16. CDFW Access. Permittee shall provide CDFW staff with reasonable access to the Project and mitigation lands under Permittee control, and shall otherwise fully cooperate with CDFW efforts to verify compliance with or effectiveness of mitigation measures set forth in this ITP.
- 6.17. Refuse Removal. Upon completion of Covered Activities, Permittee shall remove from the Project Area and properly dispose of all temporary fill and construction refuse, including, but not limited to, broken equipment parts, wrapping material, cords, cables, wire, rope, strapping, twine, buckets, metal or plastic containers, and boxes.

7. Monitoring, Notification and Reporting Provisions:

- 7.1. Notification before Commencement. The Designated Representative shall notify CDFW 14 calendar days before starting Covered Activities and shall document compliance with all pre-Project Conditions of Approval before starting Covered Activities.
- 7.2. Notification of Non-compliance. The Designated Representative shall immediately notify CDFW in writing if it determines that the Permittee is not in compliance with any

Condition of Approval of this ITP, including but not limited to any actual or anticipated failure to implement measures within the time periods indicated in this ITP and/or the MMRP. The Designated Representative shall report any non-compliance with this ITP to CDFW within 24 hours.

- 7.3. Compliance Monitoring. The Authorized Biologist(s) shall be on-site daily when Covered Activities occur. The Authorized Biologist(s) shall conduct compliance inspections to (1) minimize incidental take of the Covered Species; (2) prevent unlawful take of species; (3) check for compliance with all measures of this ITP; (4) check all exclusion zones; and (5) ensure that signs, stakes, and fencing are intact, and that Covered Activities are only occurring in the Project Area. The Authorized Biologist(s) shall prepare daily written observation and inspection records summarizing: (1) oversight activities and compliance inspections; (2) observations of Covered Species and their sign; (3) survey results; and (4) monitoring activities required by this ITP. Once Covered Activities are completed, the Biological Monitor(s) shall conduct compliance inspections. The Biological Monitor(s) or Designated Representative shall conduct compliance inspections at a minimum of twice a day (once during the onset of the day's work and once at the conclusion of that day's work).
- 7.4. Quarterly Compliance Report. The Biological Monitor(s) or Authorized Biologist(s) shall compile the observation and inspection records identified in Condition of Approval 7.3 into a Quarterly Compliance Report and submit it to CDFW along with a copy of the MMRP table with notes showing the current implementation status of each mitigation measure. Quarterly Compliance Reports shall be submitted to CDFW's Regional Office at the address listed in the Notices section of this ITP and via e-mail to CDFW's Regional Representative. At the time of this ITP's approval, the CDFW Regional Representative is Heather Weiche (heather.weiche@wildlife.ca.gov). CDFW may at any time increase the timing and number of compliance inspections and reports required under this provision depending upon the results of previous compliance inspections. If CDFW determines the reporting schedule must be changed, CDFW will notify Permittee in writing of the new reporting schedule.
- 7.5. Annual Status Report. Permittee shall provide CDFW with an Annual Status Report (ASR) no later than January 31 of every year beginning with issuance of this ITP and continuing until CDFW accepts the Final Mitigation Report identified below. Each ASR shall include, at a minimum: (1) a summary of all Quarterly Compliance Reports for that year identified in Condition of Approval 7.4; (2) a general description of the status of the Project Area and Covered Activities, including actual or projected completion dates, if known; (3) a copy of the table in the MMRP with notes showing the current implementation status of each mitigation measure; (4) an assessment of the effectiveness of each completed or partially completed mitigation measure in

avoiding, minimizing and mitigating Project impacts; (5) all available information about Project-related incidental take of the Covered Species; (6) an accounting of the number of acres subject to both temporary and permanent disturbance, both for the prior calendar year, and a total since ITP issuance; and (7) information about other Project impacts on the Covered Species.

- 7.6. CNDDDB Observations. The Biological Monitor(s) shall submit all observations of Covered Species to CDFW's California Natural Diversity Database (CNDDDB) within 60 calendar days of the observation and the Biological Monitor(s) shall include copies of the submitted forms with the next Quarterly Compliance Report or ASR, whichever is submitted first relative to the observation.
- 7.7. Final Mitigation Report. No later than 45 days after completion of all mitigation measures, Permittee shall provide CDFW with a Final Mitigation Report. The Biological Monitor(s) shall prepare the Final Mitigation Report which shall include, at a minimum: (1) a summary of all Quarterly Compliance Reports and all ASRs; (2) a copy of the table in the MMRP with notes showing when each of the mitigation measures was implemented; (3) all available information about Project-related incidental take of the Covered Species; (4) information about other Project impacts on the Covered Species; (5) beginning and ending dates of Covered Activities; (6) an assessment of the effectiveness of this ITP's Conditions of Approval in minimizing and fully mitigating Project impacts of the taking on Covered Species; (7) recommendations on how mitigation measures might be changed to more effectively minimize take and mitigate the impacts of future Projects on the Covered Species; and (8) any other pertinent information.
- 7.8. Notification of Take or Injury. Permittee shall immediately notify the Authorized Biologist(s) and/or the Biological Monitor(s) if a Covered Species is taken or injured by a Project-related activity, or if a Covered Species is otherwise found dead or injured within the vicinity of the Project. The Biological Monitor(s) or Designated Representative shall provide initial notification to CDFW by calling the Regional Office at (909) 466-8462 and by notifying the CDFW Regional Representative Heather Weiche (heather.weiche@wildlife.ca.gov). The initial notification to CDFW shall include information regarding the location, species, and number of animals taken or injured and the ITP Number. Following initial notification, Permittee shall send CDFW a written report within two calendar days. The report shall include the date and time of the finding or incident, location of the animal or carcass, and if possible provide a photograph, explanation as to cause of take or injury, and any other pertinent information.

8. Take Minimization Measures:

The following requirements are intended to ensure the minimization of incidental take of Covered Species in the Project Area during Covered Activities. Permittee shall implement and adhere to the following conditions to minimize take of Covered Species.

Desert Tortoise

- 8.1. Pre-Construction Surveys. No more than 30 days prior to Covered Activities, the Authorized Biologist(s) shall conduct pre-construction surveys for Covered Species. These surveys shall cover 100 percent of the Project Area with a 50-foot buffer zone. The Authorized Biologist(s) shall follow the survey methodology in the most recent United States Fish and Wildlife Service (USFWS) Desert Tortoise Field Manual. The Authorized Biologist(s) shall flag all potential burrows within this area. Within 30 days of performing the pre-construction surveys, the Authorized Biologist(s) shall submit a report to CDFW documenting results (using the USFWS Protocol data sheet) and include a Translocation Plan (following the most current USFWS guidance document). Upon report receipt and Translocation Plan approval by CDFW, Covered Species burrows shall be excavated and individuals relocated by the Authorized Biologist(s).
- 8.2. Handling Covered Species and Excavating Burrows. Only the Authorized Biologist(s) may excavate burrows and handle the Covered Species. During pre-construction clearance surveys the Authorized Biologist(s) shall excavate all burrows by hand that cannot be avoided within the area to be impacted as a result of the Project, including burrows not recently used that are considered by the Authorized Biologist(s) to be potentially suitable for the Covered Species. Potentially suitable burrows shall be excavated and collapsed by the Authorized Biologist(s) at the time of survey to prevent re-entry by the Covered Species. The Authorized Biologist(s) shall excavate potentially suitable burrows in accordance with the handling protocol outlined in Chapter 7- Guidelines for Handling Desert Tortoises (US Fish and Wildlife Service 2009) (Attachment 2). If the Covered Species is active above-ground, a final survey for the Covered Species shall occur no more than 48 hours before the onset of surface-disturbing activities. Burrow excavation shall follow procedures established in the Handling Guidelines.
- 8.3. Desert Tortoise Fencing. Permittee shall install permanent desert tortoise exclusion fencing along the proposed Project length paralleling the Right of Way (ROW) prior to surface disturbance to prevent encounters with desert tortoise. Permittee shall tie the permanent desert tortoise fencing into the wildlife crossings, attach to the culverts, and then parallel the ROW again. The fence will allow for wildlife to follow the fence line into the culvert for safe crossings and eliminates the possibility of desert tortoise entering the culverts that are not designed as wildlife crossings.

- 8.4. Desert Tortoise Fencing Maintenance. During the Covered Activities the Authorized Biologist(s) shall inspect the fence at the end of each working day to ensure the Covered Species is prohibited from entering the site. If the fence is compromised, repairs shall be completed at that time. Once Covered Activities are finished the Biological Monitor(s) shall inspect the fence weekly and during and immediately after heavy rainfalls.
- 8.5. Pre-construction sweeps. The Authorized Biologist(s) shall conduct sweeps before construction, to ensure that desert tortoises are absent from the Project area. Additionally, the Authorized Biologist(s) shall be on site during construction of the desert tortoise exclusion fencing and all Covered Activities. Upon completion of construction of the desert tortoise exclusion fencing and all Covered Activities, a Biological Monitor(s) shall be on site at least two days a week and on-call during the days he/she is not onsite. If handling of a Covered Species is required, the Biological Monitor(s) shall contact the on-call Authorized Biologist(s). Only an Authorized Biologist(s) shall be allowed to excavate burrows, handle, and relocate Covered Species.
- 8.6. Vehicle Inspection. Workers shall inspect for Covered Species under vehicles and equipment before the vehicles and equipment are moved. If a Covered Species is present, the worker shall contact the Biological Monitor(s) and wait for the Covered Species to move unimpeded to a safe location OR the Authorized Biologist(s) shall translocate the Covered Species as described in Condition of Approval 8.10 and 8.11 of this ITP before moving vehicles and equipment.
- 8.7. Minimization of Vegetation Removal. Permittee shall minimize vegetation removal associated with construction activities to the fullest extent possible. Biological Monitor(s) shall review and approve or deny any grubbing or clearing of vegetation.
- 8.8. Covered Species Observations. All personnel on the Project site shall immediately report all encounters with the Covered Species to the Biological Monitor(s). If a Covered Species is identified during Project activities, the Permittee shall immediately stop all work in the area and contact the Biological Monitor(s). The Biological Monitor(s) shall allow the Covered Species to escape unimpeded or contact the Authorized Biologist(s). The Authorized Biologist(s) shall relocate the Covered Species as described in this ITP and the Chapter 7- Guidelines for Handling Desert Tortoises (US Fish and Wildlife Service 2009) (Attachment 2). Permittee shall not resume work until the Authorized Biologist(s) has relocated the animal or allowed it to move outside the Project Area on its own. The Designated Representative shall immediately, or no later than noon on the next business day, notify CDFW of any Covered Species observations. Notification to CDFW shall be via telephone and e-mail, followed by a written report. Notification and the written report shall include the date, location, and circumstances of the observation, the name of the Authorized Biologist(s) that relocated the individual, and the location (including GPS coordinates)

where the individual was moved.

- 8.9. Clearance Survey and Burrow Collapse. Immediately prior to start of ground disturbance activities, the Authorized Biologist(s) shall resurvey the Project Area and access route for Covered Species and their burrows. The Authorized Biologist(s) shall inspect all the burrows within the Project Area for habitation prior to collapsing them in accordance to this ITP.
- 8.10. Desert Tortoise Translocation Plan. Permittee shall submit a desert tortoise translocation plan to CDFW for review and approval prior to initiating construction. Permittee shall include in the Translocation Plan a description of the flora and fauna of the entire planned translocation parcel (Figure 2; Map of Desert Tortoise Relocation Site and Survey Results), as well as an estimated number of tortoises that occupy the translocation site.
- 8.11. Relocation of Desert Tortoise. Using the methods described in the Chapter 7. Guidelines For Handling Desert Tortoises (US Fish and Wildlife Service 2009) (Attachment 2) and the approved translocation plan, the Authorized Biologist(s) shall capture, collect measurement and identification data, permanently mark, and relocate any desert tortoise found within the Project site to suitable, undisturbed CDFW-approved off-site habitat. The Authorized Biologist(s) shall relocate and/or move the desert tortoise far enough away from the proposed realignment so that toxins and other invasive species from vehicle pollution will not impact the tortoise. The Authorized Biologist(s) shall follow all excavation, capture, handling, and relocation procedures described in the Handling Guidelines to protect the health and well-being of desert tortoise. If a desert tortoise is found above ground, the Authorized Biologist(s) shall release it above ground in suitable habitat and conditions. If a desert tortoise is found during burrow excavation, the Authorized Biologist(s) shall relocate it to an unoccupied burrow of similar size. If no such burrow is available for relocating, the Authorized Biologist(s) shall construct an artificial burrow similar in size, depth, and orientation as the original burrow. The Authorized Biologist(s) shall follow all protocols for the construction of the artificial burrows found in the Chapter 7- Guidelines for Handling Desert Tortoises (US Fish and Wildlife Service 2009) (Attachment 2). The Authorized Biologist(s) shall record the location of all desert tortoise burrows, desert tortoises, and relocation sites using GPS technology. The Authorized Biologist(s) shall collapse all potential or actual desert tortoise burrows present within the work site after establishing that desert tortoise does not currently occupy them.
- 8.12. Ambient Air Temperature. The Authorized Biologist(s) shall ensure that desert tortoises are not captured, moved, transported, released, or purposefully caused to leave their burrow for any reason when the ambient air temperature is above 95 degrees Fahrenheit (35 degrees Celsius). The Authorized Biologist(s) shall ensure that no desert tortoise is 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, the Authorized Biologist(s) shall ensure the desert tortoise is kept in a shaded environment with a temperature that does not exceed 95 degrees Fahrenheit, and that the individual is not released until ambient air temperature declines to below 95 degrees Fahrenheit. Desert tortoises moved during inactive periods shall be monitored by the Authorized Biologist(s) for at least 2 days after placement in the new burrows to ensure their safety. During relocation, the Authorized Biologist(s) may hold a captured desert tortoise overnight and move them the following morning within these temperature constraints.

- 8.13. **Desert Tortoise Re-hydration.** If a desert tortoise voids its bladder as a result of being handled, the Authorized Biologist(s) shall rehydrate the individual(s). The Authorized Biologist(s) shall rehydrate the desert tortoise at the location where the individual(s) was or were captured, or the location where the individual(s) is or will be relocated. The Authorized Biologist(s) shall rehydrate the desert tortoise by placing it in a tub with a clean plastic disposable liner. The Authorized Biologist(s) shall add water to the lined tub while ensuring that the water level is not higher than the lower jaw of the desert tortoise. The Authorized Biologist(s) shall rehydrate each desert tortoise individually for a minimum of 10 to 20 minutes. The Authorized Biologist(s) shall place the lined tub in a quiet protected area during rehydration. After each tortoise is rehydrated the water shall be emptied and a new plastic disposable liner placed in the tub.

Mohave Ground Squirrel

- 8.14. **Mohave Ground Squirrel Burrow Excavation.** The Authorized Biologist(s) shall fully excavate by hand all burrows OR scope each burrow within the Project Area that are suspected or known to be occupied by Mohave ground squirrels. The Authorized Biologist(s) shall allow Mohave ground squirrels encountered in the excavated burrows during their *active period* to escape out of harm's way. During the Mohave ground squirrel *dormant period*, the Authorized Biologist(s) shall collect and immediately relocate them to an artificial burrow at a protected off-site location approved in advance by CDFW's Regional Representative. The Mohave ground squirrel may only be relocated by the Authorized Biologist(s). The Authorized Biologist(s) shall prepare relocation burrows in the following manner: (1) A hole of at least two feet deep shall be dug; (2) install a nine-inch diameter non-collapsible plastic container, which shall be connected to a three-inch diameter non-collapsible plastic pipe that runs to the ground surface at a 45-degree angle; (3) The Authorized Biologist(s) shall place the Mohave ground squirrel in the artificial burrow and lightly plug the burrow mouth with soil in a manner that is similar to a natural Mohave ground squirrel burrow.

Other Minimization Measure:

- 8.15. **Trench Inspection.** The Biological Monitor(s) or Authorized Biologist(s) and the Designated Representative shall inspect all open holes and trenches within the Project Area at the beginning, middle, and end of each day for trapped animals. To prevent inadvertent entrapment of Covered Species or any other animals, the Biological Monitor(s) shall oversee the covering of all excavated, steep-walled holes or trenches more than two feet deep, or of any depth if they contain water or other material, at the close of each working day by plywood or other barrier materials such that animals are unable to enter and become entrapped. Permittee shall provide escape ramps in holes greater than two feet deep that do not hold water or other material, to allow animals to escape. Before holes or trenches are filled, the Biological Monitor(s) shall thoroughly inspect them for trapped animals. If any worker discovers that Covered Species have become trapped, they shall halt Project-related activities and notify the Authorized Biologist(s) immediately. Project workers and the Biological Monitor(s) shall allow the Covered Species to escape unimpeded if possible, or the Authorized Biologist(s) shall move the Covered Species out of harm's way before allowing work to continue. The use of temporary fencing, around the perimeter of trenches or holes is an acceptable minimization measure.
- 8.16. **Care of Injured Covered Species.** If a Covered Species is injured or killed as a result of Project-related activities or if a Covered Species is otherwise found dead within the Project Area, Permittee shall immediately notify the Authorized Biologist(s) as described in Conditions of Approval 7.8. The Authorized Biologist(s) shall immediately take injured individuals to a CDFW-approved wildlife rehabilitation or veterinary facility. Permittee shall identify the facility prior to the start of Covered Activities. Permittee shall bear any costs associated with the care or treatment of such injured Covered Species.
- 8.17. **Vehicular Traffic Restrictions.** Permittee shall restrict Project-related vehicle traffic to established roads and the delineated Project Area; cross-country (off-road) vehicle travel is prohibited and signs shall be posted to this affect during maintenance activities. If a Covered Species is encountered, drivers shall stop, wait for the Covered Species to move off the road, and immediately notify the Biological Monitor(s) of the Covered Species location. If handling of a Covered Species is required the Biological Monitor(s) shall notify the Authorized Biologist(s) and shall halt Project-related activities immediately.

9. Habitat Management Land Acquisition:

CDFW has determined that acquisition, permanent protection and perpetual management of compensatory habitat is necessary and required pursuant to CESA to fully mitigate Project-related impacts of the taking on the Covered Species that will result with implementation of

the Covered Activities. This determination is based on factors including an assessment of the importance of the habitat in the Project Area, the extent to which the Covered Activities will impact the habitat, and CDFW's estimate of the acreage required to provide for adequate compensation.

To meet this requirement, the Permittee shall either purchase 2,273 acres (at a ratio of 3:1 east of Hinkley Road and 5:1 west of Hinkley Road) of Covered Species credits from a CDFW-approved mitigation or conservation bank (Condition of Approval 9.2) OR shall provide for both the permanent protection and management of 2,273 acres of occupied Covered Species Habitat Management (HM) lands pursuant to Condition of Approval 9.3 below and the calculation and deposit of the management funds pursuant to Condition of Approval 9.4 below. Permanent protection and funding for perpetual management of compensatory habitat must be complete before starting Covered Activities or within 18 months of the effective date of this ITP if Security is provided pursuant to Condition of Approval 10 below for all uncompleted obligations.

The Permittee has currently secured 104 acres of suitable habitat to partially mitigate for the effects of this Project through an existing mitigation bank located in Mount Diablo Meridian and San Bernardino Meridian, through a Memorandum of Agreement (MOA) with California Department of Transportation and CDFW (Figure 3: Map of Caltrans Mitigation Lands and Attachment 6: Memorandum of Agreement). CDFW acknowledges that if the 104 acres is used as part of mitigation for this Project, it will reduce the Permittees' estimated cost for mitigation to \$3,162,402.00 for 2,169 acres, compared to \$3,314,034.00 for 2,273 acres. The rate used for the calculation is based on the Land Acquisition cost of \$1458/acre. This change will also reduce the Security Amount to \$8,099,403.00 compared to \$8,451,651.00. The Permittee is nevertheless responsible for mitigating the total amount of 2,273 acres.

9.1. Cost Estimates. CDFW has estimated the cost of acquisition, protection, and perpetual management of the HM lands as follows:

9.1.1. Land acquisition costs for HM lands identified in Condition of Approval 9.3 below, estimated at \$1458/acre for 2,169 acres: **\$3,162,402.00**. Land acquisitions costs are estimated using local fair market current value for lands with habitat values meeting mitigation requirements;

9.1.2. Start-up costs for HM lands, including initial site protection and enhancement costs as described in Condition of Approval 9.3.5 below, estimated at \$290.00/acre for 2,169 acres: **\$629,010.00**;

9.1.3. Interim management period funding as described in Condition of Approval 9.3.6 below, estimated at **\$750,000.00**;

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9.1.4. Long-term management funding as described in Condition of Approval 9.4 below, estimated at \$1490.00/acre for 2,169 acres: **\$3,231,810.00**. Long-term management funding is estimated initially for the purpose of providing Security to ensure implementation of HM lands management, plus the ten percent contingency fee as described in Condition 9.4.2.2.1 (**\$323,181.00**) for a total of **\$3,554,991.00**. The long-term management funding is estimated initially for the purpose of providing Security to ensure implementation of HM lands management.

9.1.5. Related transaction fees including but not limited to account set-up fees, administrative fees, title and documentation review and related title transactions, expenses incurred from other state agency reviews, and overhead related to transfer of HM lands to CDFW as described in Condition of Approval 9.5, estimated at **\$3000.00**.

9.2. Covered Species Credits. Permittee shall purchase 2,273 acres of Covered Species credits from a CDFW-approved mitigation or conservation bank prior to initiating Covered Activities or no later than 18 months from the issuance of this ITP if Security is provided pursuant to Condition of Approval 10 below.

OR:

9.3. Habitat Acquisition and Protection. To provide for the acquisition and perpetual protection and management of the HM lands, the Permittee shall:

9.3.1. Fee Title/Conservation Easement. Transfer fee title to the HM lands to CDFW pursuant to terms approved in writing by CDFW. Alternatively, CDFW, in its sole discretion, may authorize a governmental entity, special district, non-profit organization, for-profit entity, person, or another entity to hold title to and manage the property provided that the district, organization, entity, or person meets the requirements of Government Code sections 65965-65968, as amended. If CDFW does not hold fee title to the HM lands, CDFW shall act as grantee for a conservation easement over the HM lands or shall, in its sole discretion, approve a non-profit entity, public agency, or Native American tribe to act as grantee for a conservation easement over the HM lands provided that the entity, agency, or tribe meets the requirements of Civil Code section 815.3. If CDFW does not hold the conservation easement, CDFW shall be expressly named in the conservation easement as a third-party beneficiary. The Permittee shall obtain CDFW written approval of any conservation easement before its execution or recordation. No conservation easement shall be approved by CDFW unless it complies with

Government Code sections 65965-65968, as amended and includes provisions expressly addressing Government Code sections 65966(j) and 65967(e);

- 9.3.2. HM Lands Approval. Obtain CDFW written approval of the HM lands before acquisition and/or transfer of the land by submitting, at least three months before acquisition and/or transfer of the HM lands, a formal Proposed Lands for Acquisition Form (Attachment 3B) identifying the land to be purchased or property interest conveyed to an approved entity as mitigation for the Project's impacts on Covered Species;
- 9.3.3. HM Lands Documentation. Provide a recent preliminary title report, initial hazardous materials survey report, and other necessary documents (Attachment 3A). All documents conveying the HM lands and all conditions of title are subject to the approval of CDFW, and if applicable, the Wildlife Conservation Board and the Department of General Services;
- 9.3.4. Land Manager. Designate both an interim and long-term land manager approved by CDFW. The interim and long-term land managers may, but need not, be the same. The interim and/or long-term land managers may be the landowner or another party. Documents related to land management shall identify both the interim and long-term land managers. Permittee shall notify CDFW of any subsequent changes in the land manager within 30 days of the change. If CDFW will hold fee title to the mitigation land, CDFW will also act as both the interim and long-term land manager unless otherwise specified;
- 9.3.5. Start-up Activities. Provide for the implementation of start-up activities, including the initial site protection and enhancement of HM lands, once the HM lands have been approved by CDFW. Start-up activities include, at a minimum: (1) preparing a final management plan for CDFW approval (see: <http://www.dfg.ca.gov/habcon/conplan/mitbank/>); (2) conducting a baseline biological assessment and land survey report within four months of recording or transfer; (3) developing and transferring Geographic Information Systems (GIS) data if applicable; (4) establishing initial fencing; (5) conducting litter removal; (6) conducting initial habitat restoration or enhancement, if applicable; and (7) installing signage;
- 9.3.6. Interim Management (Initial and Capital). Provide for the interim management of the HM lands. The Permittee shall ensure that the interim land manager implements the interim management of the HM lands as described in the final management plan and conservation easement approved by CDFW. The interim management period shall be a minimum of three years from the date of HM land acquisition and protection and full funding of the Endowment and includes

expected management following start-up activities. Interim management period activities described in the final management plan shall include fence repair, continuing trash removal, site monitoring, and vegetation and invasive species management. Permittee shall either (1) provide a security to CDFW for the minimum of three years of interim management that the land owner, Permittee, or land manager agrees to manage and pay for at their own expense, (2) establish an escrow account with written instructions approved in advance in writing by CDFW to pay the land manager annually in advance, or (3) establish a short-term enhancement account with CDFW or a CDFW-approved entity for payment to the land manager.

- 9.4. Endowment Fund. If the Permittee will permanently protect and perpetually manage compensatory habitat as described in Condition of Approval 9.3, The Permittee shall ensure that the HM lands are perpetually managed, maintained, and monitored by the long-term land manager as described in this ITP, the conservation easement, and the final management plan approved by CDFW. After obtaining CDFW approval of the HM lands, Permittee shall provide long-term management funding for the perpetual management of the HM lands by establishing a long-term management fund (Endowment). The Endowment is a sum of money, held in a CDFW-approved fund that provides funds for the perpetual management, maintenance, monitoring, and other activities on the HM lands consistent with the management plan(s) required by Condition of Approval 9.3.5. Endowment as used in this ITP shall refer to the endowment deposit and all interest, dividends, other earnings, additions and appreciation thereon. The Endowment shall be governed by this ITP, Government Code sections 65965-65968, as amended, and Probate Code sections 18501-18510, as amended.

After the interim management period, Permittee shall ensure that the designated long-term land manager implements the management and monitoring of the HM lands according to the final management plan. The long-term land manager shall be obligated to manage and monitor the HM lands in perpetuity to preserve their conservation values in accordance with this ITP, the conservation easement, and the final management plan. Such activities shall be funded through the Endowment.

- 9.4.1. Identify an Endowment Manager. The Endowment shall be held by the Endowment Manager, which shall be either CDFW or another entity qualified pursuant to Government Code sections 65965-65968, as amended. Permittee shall submit to CDFW a written proposal that includes: (i) the name of the proposed Endowment Manager; (ii) whether the proposed Endowment Manager is a governmental entity, special district, nonprofit organization, community foundation, or congressionally chartered foundation; (iii) whether the proposed Endowment Manager holds the property or an interest in the property for

conservation purposes as required by Government Code section 65968(b)(1) or, in the alternative, the basis for finding that the Project qualifies for an exception pursuant to Government Code section 65968(b)(2); and (iv) a copy of the proposed Endowment Manager's certification pursuant to Government Code section 65968(e). Within 30 days of CDFW's receipt of Permittee's written proposal, CDFW shall inform Permittee in writing if it determines the proposal does not satisfy the requirements of Fish and Game Code section 2081(b)(4) and, if so, shall provide Permittee with a written explanation of the reasons for its determination. If CDFW does not provide Permittee with a written determination within the thirty-day period, the proposal shall be deemed consistent with Section 2081(b)(4);

9.4.2. Calculate the Endowment Funds Deposit. After obtaining CDFW written approval of the HM lands, long-term management plan, and Endowment Manager, Permittee shall prepare a Property Analysis Record (PAR) or PAR-equivalent analysis (hereinafter "PAR") to calculate the amount of funding necessary to ensure the long-term management of the HM lands (Endowment Deposit Amount). The Permittee shall submit to CDFW for review and approval the results of the PAR before transferring funds to the Endowment Manager.

9.4.2.1. Capitalization Rate and Fees. Permittee shall obtain the capitalization rate from the selected Endowment Manager for use in calculating the PAR and adjust for any additional administrative, periodic, or annual fees;

9.4.2.2. Endowment Buffers/Assumptions. Permittee shall include in PAR assumptions the following buffers for endowment establishment and use that will substantially ensure long-term viability and security of the Endowment:

9.4.2.2.1. 10 Percent Contingency. A 10 percent contingency shall be added to each endowment calculation to hedge against underestimation of the fund, unanticipated expenditures, inflation, or catastrophic events.

9.4.2.2.2. Three Years Delayed Spending. The endowment shall be established assuming spending will not occur for the first three years after full funding.

9.4.2.2.3. Non-annualized Expenses. For all large capital expenses to occur periodically but not annually such as fence replacement or well replacement, payments shall be withheld from the annual disbursement until the year of anticipated need or upon request to Endowment Manager and CDFW.

9.4.3. Transfer Long-term Endowment Funds. Permittee shall transfer the long-term endowment funds to the Endowment Manager upon CDFW approval of the Endowment Deposit Amount identified above. The approved Endowment Manager may pool the Endowment with other endowments for the operation, management, and protection of HM lands for local populations of the Covered Species but shall maintain separate accounting for each Endowment. The Endowment Manager shall, at all times, hold and manage the Endowment in compliance with this ITP, Government Code sections 65965-65968, as amended, and Probate Code sections 18501-18510, as amended.

9.5. Reimburse CDFW. Permittee shall reimburse CDFW for all reasonable expenses incurred by CDFW such as transaction fees, account set-up fees, administrative fees, title and documentation review and related title transactions, expenses incurred from other state agency reviews, and overhead related to transfer of HM lands to CDFW.

10. Performance Security

The Permittee may proceed with Covered Activities only after the Permittee has ensured funding (Security) to complete any activity required by Condition of Approval 9 that has not been completed before Covered Activities begin. Permittee shall provide Security as follows:

- 10.1. Security Amount. The Security shall be in the amount of **\$8,099,403.00**. This amount is based on the cost estimates identified in Condition of Approval 9.1 above.
- 10.2. Security Form. The Security shall be in the form of an irrevocable letter of credit (Attachment 4) or another form of Security approved in advance in writing by CDFW's Office of the General Counsel.
- 10.3. Security Timeline. The Security shall be provided to CDFW before Covered Activities begin or within 30 days after the effective date of this ITP, whichever occurs first.
- 10.4. Security Holder. The Security shall be held by CDFW or in a manner approved in advance in writing by CDFW.
- 10.5. Security Transmittal. If CDFW holds the Security, Permittee shall transmit it to CDFW with a completed Mitigation Payment Transmittal Form (Attachment 5) or by way of an approved instrument such as escrow, irrevocable letter of credit, or other.
- 10.6. Security Drawing. The Security shall allow CDFW to draw on the principal sum if CDFW, in its sole discretion, determines that the Permittee has failed to comply with the Conditions of Approval of this ITP.

10.7. **Security Release.** The Security (or any portion of the Security then remaining) shall be released to the Permittee after CDFW has conducted an on-site inspection and received confirmation that all secured requirements have been satisfied, as evidenced by:

- Written documentation of the acquisition of the HM lands;
- Copies of all executed and recorded conservation easements;
- Written confirmation from the approved Endowment Manager of its receipt of the full Endowment; and
- Timely submission of all required reports.

Even if Security is provided, the Permittee must complete the required acquisition, protection and transfer of all HM lands and record any required conservation easements no later than 18 months from the effective date of this ITP. CDFW may require the Permittee to provide additional HM lands and/or additional funding to ensure the impacts of the taking are minimized and fully mitigated, as required by law, if the Permittee does not complete these requirements within the specified timeframe.

Amendment:

This ITP may be amended as provided by California Code of Regulations, Title 14, section 783.6, subdivision (c), and other applicable law. This ITP may be amended without the concurrence of the Permittee as required by law, including if CDFW determines that continued implementation of the Project as authorized under this ITP would jeopardize the continued existence of the Covered Species or where Project changes or changed biological conditions necessitate an ITP amendment to ensure that all Project-related impacts of the taking to the Covered Species are minimized and fully mitigated.

Stop-Work Order:

CDFW may issue Permittee a written stop-work order requiring Permittee to suspend any Covered Activity for an initial period of up to 25 days to prevent or remedy a violation of this ITP, including but not limited to the failure to comply with reporting or monitoring obligations, or to prevent the unauthorized take of any CESA endangered, threatened, or candidate species. Permittee shall stop work immediately as directed by CDFW upon receipt of any such stop-work order. Upon written notice to Permittee, CDFW may extend any stop-work order issued to Permittee for a period not to exceed 25 additional days. Suspension and revocation of this ITP shall be governed by California Code of Regulations, Title 14, section 783.7, and any other applicable law. Neither the Biological Monitor(s) nor CDFW shall be liable for any costs incurred in complying with stop-work orders.

Compliance with Other Laws:

This ITP sets forth CDFW's requirements for the Permittee to implement the Project pursuant to CESA. This ITP does not necessarily create an entitlement to proceed with the Project. Permittee is responsible for complying with all other applicable federal, state, and local law.

Notices:

The Permittee shall deliver a fully executed duplicate original ITP by registered first class mail or overnight delivery to the following address:

Habitat Conservation Planning Branch
California Department of Fish and Wildlife
Attention: CESA Permitting Program
1416 Ninth Street, Suite 1260
Sacramento, CA 95814

Written notices, reports and other communications relating to this ITP shall be delivered to CDFW by registered first class mail at the following address, or at addresses CDFW may subsequently provide the Permittee. Notices, reports, and other communications shall reference the Project name, Permittee, and ITP Number (2081-2013-071-06) in a cover letter and on any other associated documents.

Original cover with attachment(s) to:

David Elms, Acting Regional Manager
California Department of Fish and Wildlife
3602 Inland Empire Blvd., Suite C-220
Ontario, CA 91764
Telephone (909) 466-8462
FAX (909) 948-4358

Unless Permittee is notified otherwise, CDFW's Regional Representative for purposes of addressing issues that arise during implementation of this ITP is:

Heather Weiche, Environmental Scientist
California Department of Fish and Wildlife
3602 Inland Empire Blvd. Suite C220
Ontario, CA 91764
Telephone (909) 980-8607
Fax (909) 481-2945

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Compliance with California Environmental Quality Act (CEQA):

CDFW's issuance of this ITP is subject to CEQA. CDFW is a responsible agency pursuant to CEQA with respect to this ITP because of prior environmental review of the Project by the lead agency, California Department of Transportation. (See generally Pub. Resources Code, §§ 21067, 21069.) The lead agency's prior environmental review of the Project is set forth in the of EIR/EIS, (State Clearinghouse No. 2007051067) dated December 2012 that the California Department of Transportation certified for SR-58 Hinkley Expressway Project on July 1, 2013. At the time the lead agency certified the EIR/EIS and approved the Project it also adopted various mitigation measures for the Covered Species as conditions of Project approval.

This ITP, along with CDFW's related CEQA findings, which are available as a separate document, provide evidence of CDFW's consideration of the lead agency's EIR/IES for the Project and the environmental effects related to issuance of this ITP (CEQA Guidelines, § 15096, subd. (f)). CDFW finds that issuance of this ITP will not result in any previously undisclosed potentially significant effects on the environment or a substantial increase in the severity of any potentially significant environmental effects previously disclosed by the lead agency. Furthermore, to the extent the potential for such effects exists, CDFW finds adherence to and implementation of the Conditions of Project Approval adopted by the lead agency, and that adherence to and implementation of the Conditions of Approval imposed by CDFW through the issuance of this ITP, will avoid or reduce to below a level of significance any such potential effects. CDFW consequently finds that issuance of this ITP will not result in any significant, adverse impacts on the environment.

Findings Pursuant to California Endangered Species Act (CESA):

These findings are intended to document CDFW's compliance with the specific findings requirements set forth in CESA and related regulations. (Fish & G. Code § 2081, subs. (b)-(c); Cal. Code Regs., tit. 14, §§ 783.4, subds, (a)-(b), 783.5, subd. (c)(2).)

CDFW finds based on substantial evidence in the ITP application, SR-58 Hinkley Expressway Project Final EIR/EIS, the results of site visits and consultations, and the administrative record of proceedings, that issuance of this ITP complies and is consistent with the criteria governing the issuance of ITPs pursuant to CESA:

- (1) Take of Covered Species as defined in this ITP will be incidental to the otherwise lawful activities covered under this ITP;
- (2) Impacts of the taking on Covered Species will be minimized and fully mitigated through the implementation of measures required by this ITP and as described in the MMRP.

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Measures include: (1) permanent habitat acquisition; (2) establishment of avoidance zones; (3) worker education; and (4) Quarterly Compliance Reports. CDFW evaluated factors including an assessment of the importance of the habitat in the Project Area, the extent to which the Covered Activities will impact the habitat, and CDFW's estimate of the acreage required to provide for adequate compensation. Based on this evaluation, CDFW determined that the protection and management in perpetuity of 2,273 acres of compensatory habitat that is contiguous with other protected Covered Species habitat and/or is of higher quality than the habitat being destroyed by the Project, along with the minimization, monitoring, reporting, and funding requirements of this ITP minimizes and fully mitigates the impacts of the taking caused by the Project;

- (3) The take avoidance and mitigation measures required pursuant to the conditions of this ITP and its attachments are roughly proportional in extent to the impacts of the taking authorized by this ITP;
- (4) The measures required by this ITP maintain Permittee's objectives to the greatest extent possible;
- (5) All required measures are capable of successful implementation;
- (6) This ITP is consistent with any regulations adopted pursuant to Fish and Game Code sections 2112 and 2114;
- (7) Permittee has ensured adequate funding to implement the measures required by this ITP as well as for monitoring compliance with, and the effectiveness of, those measures for the Project; and
- (8) Issuance of this ITP will not jeopardize the continued existence of the Covered Species based on the best scientific and other information reasonably available, and this finding includes consideration of the species' capability to survive and reproduce, and any adverse impacts of the taking on those abilities in light of (1) known population trends; (2) known threats to the species; and (3) reasonably foreseeable impacts on the species from other related projects and activities. Moreover, CDFW's finding is based, in part, on CDFW's express authority to amend the terms and conditions of this ITP without concurrence of the Permittee as necessary to avoid jeopardy and as required by law.

Tables and Figures:

Table 1	Culverts and Wildlife Undercrossing Locations
Figure 1	Map of Project Location
Figure 2	Map of Desert Tortoise Relocation Site and Survey Results
Figure 3	Map of Caltrans Mitigation Lands

Attachments:

ATTACHMENT 1	Mitigation Monitoring and Reporting Program
ATTACHMENT 2	Chapter 7. Guidelines for Handling Desert Tortoise
ATTACHMENT 3A	Habitat Management Lands Checklist
ATTACHMENT 3B	Proposed Lands for Acquisition Form
ATTACHMENT 4	Letter of Credit Form
ATTACHMENT 5	Mitigation Payment Transmittal Form
ATTACHMENT 6	Memorandum of Agreement for the Mitigation Bank

ISSUED BY THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

on 6-26-14



David Elms, Acting Regional Manager
Inland Deserts Region

ACKNOWLEDGMENT

The undersigned: (1) warrants that he or she is acting as a duly authorized representative of the Permittee, (2) acknowledges receipt of this ITP, and (3) agrees on behalf of the Permittee to comply with all terms and conditions.

By: Scott Quinnell Date: 6-30-14

Printed Name: Scott Quinnell Title: Senior Environmental Planner

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Table of Content attachments

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Figure 3	Map: Caltrans Mitigation Lands

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Table 1. Culverts and Wildlife Undercrossing Locations

Sheet	System	Unit	Description	Soft Bottom	Wildlife Crossing	Easting	Northing
D-1	2	c	5' x 3' RCB	41.2	yes	E 6 784 258.898	N 2 158 774.983
D-2	6	c	6' x 3' RCB	28.8	yes	E 6 785 220.851	N 2 158 676.732
D-3	11	c	Double 5' x 3' RCB	85.4	yes	E 6 786 449.898	N 2 158 330.503
D-5	13	c	Double 5' x 3' RCB	85.0	yes	E 6 786 778.634	N 2 158 191.349
D-5	15	c	Double 5' x 3' RCB	79.4	yes	E 6 787 410.963	N 2 157 859.864
D-5	17	c	Double 5' x 3' RCB	62.2	yes	E 6 788 002.923	N 2 157 486.315
D-10	27	c	5' x 3' RCB	27.8	yes	E 6 792 623.647	N 2 155 856.306
D-14	31	c	Double 42" RCB		no	E 6 796 847.399	N 2 155 814.019
D-14	34	c	Double 42" RCB		no	E 6 797 372.399	N 2 155 814.027
D-14	35	c	Double 42" RCB		no	E 6 797 900.520	N 2 155 814.035
D-15	36	c	Double 42" RCB		no	E 6 799 116.701	N 2 155 814.053
D-16	38	c	Triple 42" RCB		no	E 6 800 726.762	N 2 155 833.540
D-18	40	c	Double 36" RCB		no	E 6 801 371.064	N 2 155 870.142
D-19	42	c	Double 42" RCB		no	E 6 802 664.255	N 2 156 001.150
D-19	44	c	Double 42" RCB		no	E 6 802 996.016	N 2 156 047.267
D-21	48	c	Double 36" RCB		no	E 6 804 158.339	N 2 156 249.840
D-27	62	b	Double 4' x 8' RCB		no	E 6 805 253.774	N 2 156 484.566
D-29	81	c	Double 36" RCB		no	E 6 806 196.750	N 2 156 688.392
D-29	83	c	Triple 24" RCB		no	E 6 806 685.464	N 2 156 794.028
D-30	85	c	Double 36" RCB		no	E 6 808 057.477	N 2 157 071.912
D-31	89	c	Double 42" RCB		no	E 6 810 058.854	N 2 157 325.969
D-32	90	c	Double 42" RCB		no	E 6 810 939.043	N 2 157 379.160
D-33	92	c	Double 42" RCB		no	E 6 812 699.371	N 2 157 391.627
D-33	93	c	Double 42" RCB		no	E 6 813 416.261	N 2 157 382.242
D-34	94	c	Double 42" RCB		no	E 6 813 820.817	N 2 157 367.563
D-34	96	c	Double 42" RCB		no	E 6 814 156.945	N 2 157 349.691
D-35	97	c	Double 42" RCB		no	E 6 815 165.697	N 2 157 264.981
D-35	98	c	Double 42" RCB		no	E 6 815 341.485	N 2 157 245.422
D-35	100	c	Double 42" RCB		no	E 6 816 368.229	N 2 157 102.418
D-36	101	c	Double 42" RCB		no	E 6 817 332.616	N 2 156 929.775
D-36	102	c	Double 42" RCB		no	E 6 817 659.927	N 2 156 872.074
D-37	103	c	Double 42" RCB		no	E 6 818 339.668	N 2 156 775.574
D-38	105	c	36" RCB		no	E 6 820 620.336	N 2 156 674.094
D-41	107	b	36" RCB		no	E 6 825 131.080	E 6 825 131.080

Figure 1 - Map: Project Location

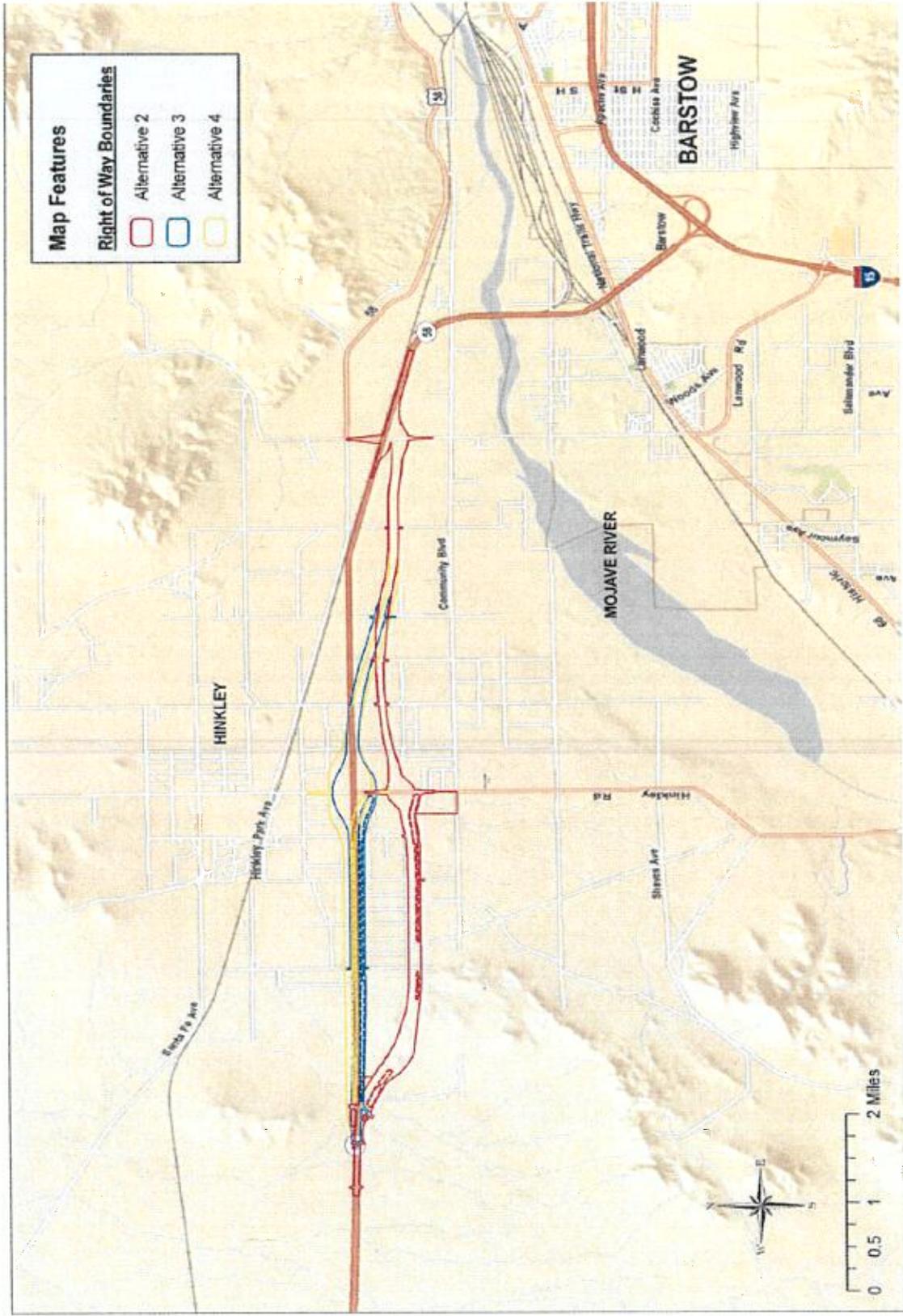
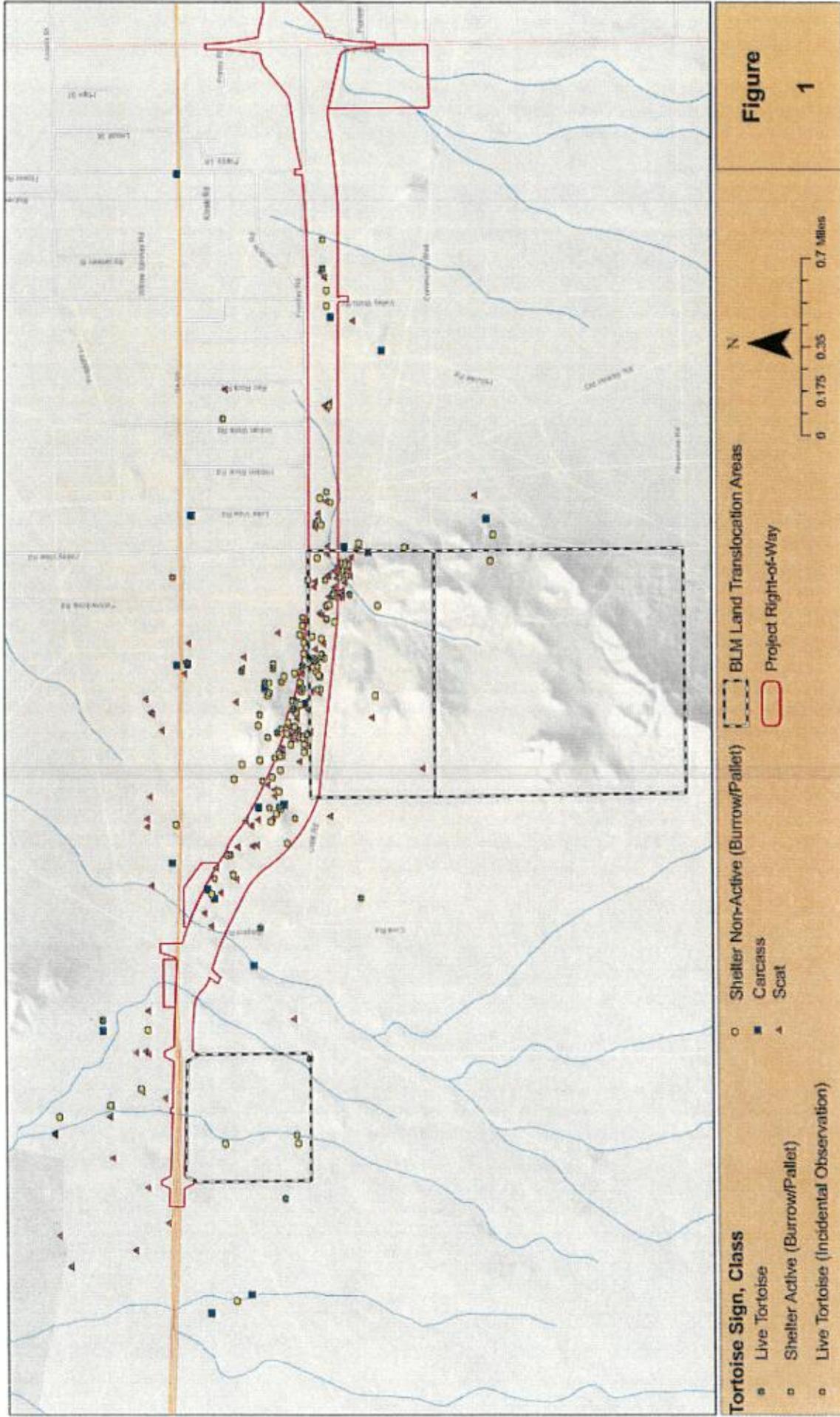


Figure 2

Desert Tortoise Translocation/Relocation Areas



ATTACHMENT 1

Mitigation Monitoring and Reporting Program

Attachment 1

**CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
CALIFORNIA ENDANGERED SPECIES ACT**

INCIDENTAL TAKE PERMIT NO. 2081-2013-071-06

PERMITTEE: California Department of Transportation

PROJECT: State Route (SR-58) Hinkley Expressway Project

PURPOSE OF THE MMRP

The purpose of the MMRP is to ensure that the impact minimization and mitigation measures required by the Department of Fish and Wildlife (CDFW) for the above-referenced Project are properly implemented, and thereby to ensure compliance with section 2081(b) of the Fish and Game Code and section 21081.6 of the Public Resources Code. A table summarizing the mitigation measures required by CDFW is attached. This table is a tool for use in monitoring and reporting on implementation of mitigation measures, but the descriptions in the table do not supersede the mitigation measures set forth in the California Incidental Take Permit (ITP) and in attachments to the ITP, and the omission of a permit requirement from the attached table does not relieve the Permittee of the obligation to ensure the requirement is performed.

OBLIGATIONS OF PERMITTEE

Mitigation measures must be implemented within the time periods indicated in the table that appears below. Permittee has the primary responsibility for monitoring compliance with all mitigation measures and for reporting to CDFW on the progress in implementing those measures. These monitoring and reporting requirements are set forth in the ITP itself and are summarized at the front of the attached table.

VERIFICATION OF COMPLIANCE, EFFECTIVENESS

CDFW may, at its sole discretion, verify compliance with any mitigation measure or independently assess the effectiveness of any mitigation measure.

TABLE OF MITIGATION MEASURES

The following items are identified for each mitigation measure: Mitigation Measure, Source, Implementation Schedule, Responsible Party, and Status/Date/Initials. The Mitigation Measure column summarizes the mitigation requirements of the ITP. The Source column identifies the ITP condition that sets forth the mitigation measure. The Implementation Schedule column shows the date or phase when each mitigation measure will be implemented. The Responsible Party column identifies the person or agency that is primarily responsible for implementing the mitigation measure. The Status/Date/Initials column shall be completed by the Permittee during preparation of each Status Report and the Final Mitigation Report, and must identify the implementation status of each mitigation measure, the date that status was determined, and the initials of the person determining the status.

Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
BEFORE STARTING COVERED ACTIVITIES				
1 Before starting Covered Activities, Permittee shall designate a representative responsible for communications with CDFW and overseeing compliance with this ITP. Permittee shall notify CDFW in writing before starting Covered Activities of the Designated Representative's name, business address, and contact information, and shall notify CDFW in writing if a substitute Designated Representative is selected or identified at any time during the term of this ITP.	ITP Condition # 6.1	Before Starting Covered Activities- or vegetation- disturbing activities/ Entire Project	Permittee	
2 Permittee shall submit to CDFW in writing the name, qualifications, business address, and contact information for biologists who, in addition to meeting the qualifications to be Biological Monitor(s) identified in Condition 6.3 below, possess a valid Memorandum of Understanding (MOU) with CDFW for handling the Covered Species. Only Authorized Biologist(s) shall be allowed to excavate burrows, handle, and relocate Covered Species.	ITP Condition # 6.2	Before Starting Covered Activities- or vegetation- disturbing activities/ Entire Project	Permittee	
3 Permittee shall submit to CDFW in writing the name, qualifications, business address, and contact information of a Biological Monitor(s) at least 30 days before starting Covered Activities or with change of personnel. Permittee shall ensure that the Biological Monitor(s) is knowledgeable and experienced in the biology, natural history, collecting and handling of the Covered Species. The Biological Monitor(s) shall be responsible for monitoring Covered Activities to help minimize and fully mitigate or avoid the incidental take of individual Covered Species and to minimize disturbance of Covered Species' habitat.	ITP Condition #6.3	Before Starting Covered Activities- or vegetation- disturbing activities/ Entire Project	Permittee	
4 Only Authorized Biologist with an MOU with CDFW is authorized to excavate burrows, handle, and relocate Covered Species. To ensure compliance with the Conditions of Approval of this ITP, the Biological Monitor(s) and/or Authorized Biologist(s) shall have authority to immediately stop any activity that does not comply with this ITP, and/or to order any reasonable measure to avoid the unauthorized take of an individual of the Covered Species.	ITP Condition # 6.4	Before Starting Covered Activities- or vegetation- disturbing activities	Biological Monitor(s)/Authorized Biologist(s)	
5 Permittee shall conduct an education program for all persons employed or otherwise working in the Project Area before performing any work. The program shall consist of a presentation from the Biological Monitor(s) that includes a discussion of the biology and general behavior of the Covered Species, information about the distribution and habitat needs of the Covered Species, sensitivity of the Covered Species to human activities, its status pursuant to CESA including legal protection, recovery efforts, penalties for violations and Project-specific protective measures described in this ITP. Permittee shall provide interpretation for non-English speaking workers, and the same instruction shall be provided to any new workers before they are authorized to perform work in the Project Area. Permittee shall prepare and distribute wallet-sized cards or a fact sheet handout containing this information for workers to carry in the Project Area. Upon completion of the program, employees shall sign a form stating they attended the program and understand all protection measures.	ITP Condition # 6.5	Before Starting Covered Activities- or vegetation- disturbing activities / Entire Project	Permittee	
6 Permittee shall initiate a trash abatement program before starting Covered Activities and shall continue the program for the duration of the Project. Permittee shall ensure that trash and food items are contained in animal-proof containers and removed at least once a week to avoid attracting opportunistic predators such as ravens, coyotes, and feral dogs.	ITP Condition # 6.7	Before Starting Covered Activities- or vegetation- disturbing activities / Entire Project	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
7	Before starting Covered Activities along each part of the route in active construction, Permittee shall clearly delineate the boundaries of the Project Area with fencing, stakes, or flags. Permittee shall restrict all Covered Activities to within the fenced, staked, or flagged areas. Permittee shall maintain all fencing, stakes, and flags until the completion of Covered Activities.	ITP Condition # 6.10	Before Starting Covered Activities- or vegetation- disturbing activities / Entire Project	Permittee	
8	Permittee shall clearly delineate habitat of the Covered Species within the Project Area with posted signs, posting stakes, flags, and/or rope or cord, and place fencing as necessary to minimize the disturbance of Covered Species' habitat.	ITP Condition # 6.11	Before Starting Covered Activities- or vegetation- disturbing activities / Entire Project	Permittee	
9	The Designated Representative shall notify CDFW 14 calendar days before starting Covered Activities and shall document compliance with all pre-Project Conditions of Approval before starting Covered Activities.	ITP Condition # 7.1	Before Starting Covered Activities- or vegetation- disturbing activities	Designated Representative	
10	No more than 30 days prior to Covered Activities, the Authorized Biologist(s) shall conduct pre-construction surveys for Covered Species. These surveys shall cover 100 percent of the Project Area with a 50-foot buffer zone. The Authorized Biologist(s) shall follow the survey methodology in the most recent United States Fish and Wildlife Service (USFWS) Desert Tortoise Field Manual. The Authorized Biologist(s) shall flag all potential burrows within this area. Within 30 days of performing the pre-construction surveys, the Authorized Biologist(s) shall submit a report to CDFW documenting results (using the USFWS Protocol data sheet) and include a Translocation Plan (following the most current USFWS guidance document). Upon report receipt and Translocation Plan approval by CDFW, Covered Species burrows shall be excavated and individuals relocated by the Authorized Biologist(s).	ITP Condition #8.1	Before Starting Covered Activities- or vegetation- disturbing activities	Authorized Biologist(s)	
11	Only the Authorized Biologist(s) may excavate burrows and handle the Covered Species. During pre-construction clearance surveys the Authorized Biologist(s) shall excavate all burrows by hand that cannot be avoided within the area to be impacted as a result of the Project, including burrows not recently used that are considered by the Authorized Biologist(s) to be potentially suitable for the Covered Species. Potentially suitable burrows shall be excavated and collapsed by the Authorized Biologist(s) at the time of survey to prevent re-entry by the Covered Species. The Authorized Biologist(s) shall excavate potentially suitable burrows in accordance with the handling protocol outlined in Chapter 7- Guidelines for Handling Desert Tortoises (US Fish and Wildlife Service 2009) (Attachment 2). If the Covered Species is active above-ground, a final survey for the Covered Species shall occur no more than 48 hours before the onset of surface-disturbing activities. Burrow excavation shall follow procedures established in the Handling Guidelines.	ITP Condition #8.2	Before Starting Covered Activities- or vegetation- disturbing activities	Authorized Biologist(s)	
12	Permittee shall install permanent desert tortoise exclusion fencing along the proposed Project length paralleling the Right of Way (ROW) prior to surface disturbance to prevent encounters with desert tortoise. Permittee shall tie the permanent desert tortoise fencing into the wildlife crossings, attach to the culverts, and then parallel the ROW again. The fence will allow for wildlife to follow the fence line into the culvert for safe crossings and eliminates the possibility of desert tortoise entering the culverts that are not designed as wildlife crossings.	ITP Condition #8.3	Before Starting Covered Activities- or vegetation- disturbing activities	Permittee	

Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
<p>13 The Authorized Biologist(s) shall conduct sweeps before construction, to ensure that desert tortoises are absent from the Project area. Additionally, the Authorized Biologist(s) shall be on site during construction of the desert tortoise exclusion fencing and all Covered Activities. Upon completion of construction of the desert tortoise exclusion fencing and all Covered Activities, a Biological Monitor(s) shall be on site at least two days a week and on-call during the days he/she is not onsite. If handling of a Covered Species is required, the Biological Monitor(s) shall contact the on-call Authorized Biologist(s). Only an Authorized Biologist(s) shall be allowed to excavate burrows, handle, and relocate Covered Species.</p>	ITP Condition #8.5	Before Starting Covered Activities- or vegetation- disturbing activities	Authorized Biologist(s)	
<p>14 Immediately prior to start of ground disturbance activities, the Authorized Biologist(s) shall resurvey the Project Area and access route for Covered Species and their burrows. The Authorized Biologist(s) shall inspect all the burrows within the Project Area for habitation prior to collapsing them in accordance to this ITP.</p>	ITP Condition #8.9	Before Starting Covered Activities- or vegetation- disturbing activities	Authorized Biologist(s)	
<p>15 Permittee shall submit a desert tortoise translocation plan to CDFW for review and approval prior to initiating construction. Permittee shall include in the Translocation Plan a description of the flora and fauna of the entire planned translocation parcel (Figure 2; Map of Desert Tortoise Relocation Site and Survey Results), as well as an estimated number of tortoises that occupy the translocation site.</p>	ITP Condition #8.10	Before Starting Covered Activities- or vegetation- disturbing activities	Permittee	
<p>16 To meet this requirement, the Permittee shall either purchase 2,273 acres (at a ratio of 3:1 east of Hinkley Road and 5:1 west of Hinkley Road) of Covered Species credits from a CDFW-approved mitigation or conservation bank (Condition of Approval 9.2) OR shall provide for both the permanent protection and management of 2,273 acres of occupied Covered Species Habitat Management (HM) lands pursuant to Condition of Approval 9.3 below and the calculation and deposit of the management funds pursuant to Condition of Approval 9.4 below. Permanent protection and funding for perpetual management of compensatory habitat must be complete before starting Covered Activities or within 18 months of the effective date of this ITP if Security is provided pursuant to Condition of Approval 10 below for all uncompleted obligations.</p>	ITP Condition # 9	Before Starting Covered Activities- or vegetation- disturbing activities (or within 18 months of issuance of the ITP if Security is provided)	Permittee	
<p>The Permittee has currently secured 104 acres of suitable habitat to partially mitigate for the effects of this Project through an existing mitigation bank located in Mount Diablo Meridian and San Bernardino Meridian, through a Memorandum of Agreement (MOA) with California Department of Transportation and CDFW (Figure 3; Map of Caltrans Mitigation Lands and Attachment 6: Memorandum of Agreement). CDFW acknowledges that if the 104 acres is used as part of mitigation for this Project, it will reduce the Permittees' estimated cost for mitigation to \$3,162,402.00 for 2,169 acres, compared to \$3,314,034.00 for 2,273 acres. The rate used for the calculation is based on the Land Acquisition cost of \$1458/acre. This change will also reduce the Security Amount to \$8,095,403.00 compared to \$8,451,651.00. The Permittee is nevertheless responsible for mitigating the total amount of 2,273 acres.</p>				

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
17	<p>Mitigation Measure Cost Estimates. CDFW has estimated the cost of acquisition, protection, and perpetual management of the HM lands as follows:</p> <ul style="list-style-type: none"> i) Land acquisition costs for HM lands identified in Condition of Approval 9.3 below, estimated at \$1458/acre for 2,169 acres: \$3,162,402.00. Land acquisitions costs are estimated using local fair market current value for lands with habitat values meeting mitigation requirements; ii) Start-up costs for HM lands, including initial site protection and enhancement costs as described in Condition of Approval 9.3.5 below, estimated at \$290.00/acre for 2,169 acres: \$629,010.00; iii) Interim management period funding as described in Condition of Approval 9.3.6 below, estimated at \$750,000.00; iv) Long-term management funding as described in Condition of Approval 9.4 below, estimated at \$1490.00/acre for 2,169 acres: \$3,231,810.00. Long-term management funding is estimated initially for the purpose of providing Security to ensure implementation of HM lands management, plus the ten percent contingency fee as described in Condition 9.4.2.2.1 (\$323,181.00) for a total of \$3,554,991.00. The long-term management funding is estimated initially for the purpose of providing Security to ensure implementation of HM lands management. v) Related transaction fees including but not limited to account set-up fees, administrative fees, title and documentation review and related title transactions, expenses incurred from other state agency reviews, and overhead related to transfer of HM lands to CDFW as described in Condition of Approval 9.5, estimated at \$3000.00. 	ITP Condition #9.1 # 9.1.1. #9.1.2. #9.1.3 #9.1.4 #9.1.5	Before Starting Covered Activities- or vegetation- disturbing activities (or within 18 months of issuance of the ITP if Security is provided)	Permittee	
18	Permittee shall purchase 2,273 acres of Covered Species credits from a CDFW-approved mitigation or conservation bank prior to initiating Covered Activities or no later than 18 months from the issuance of this ITP if Security is provided pursuant to Condition of Approval 10 below. OR:	ITP Condition #9.2	Before Starting Covered Activities- or vegetation- disturbing activities (or within 18 months of issuance of the ITP if Security is provided)	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
19	<p>Mitigation Measure</p> <p>To provide for the acquisition and perpetual protection and management of the HM lands, the Permittee shall:</p> <p>Fee Title/Conservation Easement. Transfer fee title to the HM lands to CDFW pursuant to terms approved in writing by CDFW. Alternatively, CDFW, in its sole discretion, may authorize a governmental entity, special district, non-profit organization, for-profit entity, person, or another entity to hold title to and manage the property provided that the district, organization, entity, or person meets the requirements of Government Code sections 65965-65968, as amended. If CDFW does not hold fee title to the HM lands, CDFW shall act as grantee for a conservation easement over the HM lands or shall, in its sole discretion, approve a non-profit entity, public agency, or Native American tribe to act as grantee for a conservation easement over the HM lands provided that the entity, agency, or tribe meets the requirements of Civil Code section 815.3. If CDFW does not hold the conservation easement, CDFW shall be expressly named in the conservation easement as a third-party beneficiary. The Permittee shall obtain CDFW written approval of any conservation easement before its execution or recordation. No conservation easement shall be approved by CDFW unless it complies with Government Code sections 65965-65968, as amended and includes provisions expressly addressing Government Code sections 65966(j) and 65967(e).</p> <p>Obtain CDFW written approval of the HM lands before acquisition and/or transfer of the land by submitting, at least three months before acquisition and/or transfer of the HM lands, a formal Proposed Lands for Acquisition Form (Attachment 3B) identifying the land to be purchased or property interest conveyed to an approved entity as mitigation for the Project's impacts on Covered Species.</p>	ITP Condition #9.3.1	Before Starting Covered Activities- or vegetation- disturbing activities (or within 18 months of issuance of the ITP if Security is provided)	Permittee	
20	<p>Obtain CDFW written approval of the HM lands before acquisition and/or transfer of the land by submitting, at least three months before acquisition and/or transfer of the HM lands, a formal Proposed Lands for Acquisition Form (Attachment 3B) identifying the land to be purchased or property interest conveyed to an approved entity as mitigation for the Project's impacts on Covered Species.</p>	ITP Condition #9.3.2	Before Starting Covered Activities- or vegetation- disturbing activities (or within 18 months of issuance of the ITP if Security is provided)	Permittee	
21	<p>Provide a recent preliminary title report, initial hazardous materials survey report, and other necessary documents (Attachment 3A). All documents conveying the HM lands and all conditions of title are subject to the approval of CDFW, and if applicable, the Wildlife Conservation Board and the Department of General Services;</p>	ITP Condition #9.3.3	Before Starting Covered Activities- or vegetation- disturbing activities (or within 18 months of issuance of the ITP if Security is provided)	Permittee	
22	<p>Designate both an interim and long-term land manager approved by CDFW. The interim and long-term land managers may, but need not, be the same. The interim and/or long-term land managers may be the landowner or another party. Documents related to land management shall identify both the interim and long-term land managers. Permittee shall notify CDFW of any subsequent changes in the land manager within 30 days of the change. If CDFW will hold fee title to the mitigation land, CDFW will also act as both the interim and long-term land manager unless otherwise specified;</p>	ITP Condition #9.3.4	Before Starting Covered Activities- or vegetation- disturbing activities (or within 18 months of issuance of the ITP if Security is provided)	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
23	<p>Provide for the implementation of start-up activities, including the initial site protection and enhancement of HM lands, once the HM lands have been approved by CDFW. Start-up activities include, at a minimum: (1) preparing a final management plan for CDFW approval (see: http://www.dfg.ca.gov/habcom/complan/mitbank/); (2) conducting a baseline biological assessment and land survey report within four months of recording or transfer; (3) developing and transferring Geographic Information Systems (GIS) data if applicable; (4) establishing initial fencing; (5) conducting litter removal; (6) conducting initial habitat restoration or enhancement, if applicable; and (7) installing signage;</p>	ITP Condition #9.3.5	Before Starting Covered Activities- or vegetation- disturbing activities (or within 18 months of issuance of the ITP if Security is provided)	Permittee	
24	<p>Provide for the interim management of the HM lands. The Permittee shall ensure that the interim land manager implements the interim management of the HM lands as described in the final management plan and conservation easement approved by CDFW. The interim management period shall be a minimum of three years from the date of HM land acquisition and protection and full funding of the Endowment and includes expected management following start-up activities. Interim management period activities described in the final management plan shall include fence repair, continuing trash removal, site monitoring, and vegetation and invasive species management. Permittee shall either (1) provide a security to CDFW for the minimum of three years of interim management that the land owner, Permittee, or land manager agrees to manage and pay for at their own expense, (2) establish an escrow account with written instructions approved in advance in writing by CDFW to pay the land manager annually in advance, or (3) establish a short-term enhancement account with CDFW or a CDFW-approved entity for payment to the land manager.</p>	ITP Condition #9.3.6	Before Starting Covered Activities- or vegetation- disturbing activities (or within 18 months of issuance of the ITP if Security is provided)	Permittee	
25	<p>If the Permittee will permanently protect and perpetually manage compensatory habitat as described in Condition of Approval 9.3, the Permittee shall ensure that the HM lands are perpetually managed, maintained, and monitored by the long-term land manager as described in this ITP, the conservation easement, and the final management plan approved by CDFW. After obtaining CDFW approval of the HM lands, Permittee shall provide long-term management funding for the perpetual management of the HM lands by establishing a long-term management fund (Endowment). The Endowment is a sum of money, held in a CDFW-approved fund that provides funds for the perpetual management, maintenance, monitoring, and other activities on the HM lands consistent with the management plan(s) required by Condition of Approval 9.3.5. Endowment as used in this ITP shall refer to the endowment deposit and all interest, dividends, other earnings, additions and appreciation thereon. The Endowment shall be governed by this ITP, Government Code sections 65965-65968, as amended, and Probate Code sections 18501-18510, as amended.</p> <p>After the interim management period, Permittee shall ensure that the designated long-term land manager implements the management and monitoring of the HM lands according to the final management plan. The long-term land manager shall be obligated to manage and monitor the HM lands in perpetuity to preserve their conservation values in accordance with this ITP, the conservation easement, and the final management plan. Such activities shall be funded through the Endowment.</p>	ITP Condition #9.4	Before Starting Covered Activities- or vegetation- disturbing activities (or within 18 months of issuance of the ITP if Security is provided)	Permittee	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
26	<p>The Endowment shall be held by the Endowment Manager, which shall be either CDFW or another entity qualified pursuant to Government Code sections 65965-65968, as amended. Permittee shall submit to CDFW a written proposal that includes: (i) the name of the proposed Endowment Manager; (ii) whether the proposed Endowment Manager is a governmental entity, special district, nonprofit organization, community foundation, or congressionally chartered foundation; (iii) whether the proposed Endowment Manager holds the property or an interest in the property for conservation purposes as required by Government Code section 65968(b)(1) or, in the alternative, the basis for finding that the Project qualifies for an exception pursuant to Government Code section 65968(b)(2); and (iv) a copy of the proposed Endowment Manager's certification pursuant to Government Code section 65968(e). Within 30 days of CDFW's receipt of Permittee's written proposal, CDFW shall inform Permittee in writing if it determines the proposal does not satisfy the requirements of Fish and Game Code section 2081(b)(4) and, if so, shall provide Permittee with a written explanation of the reasons for its determination. If CDFW does not provide Permittee with a written determination within the thirty-day period, the proposal shall be deemed consistent with Section 2081(b)(4).</p> <p>After obtaining CDFW written approval of the HM lands, long-term management plan, and Endowment Manager, Permittee shall prepare a Property Analysis Record (PAR) or PAR-equivalent analysis (hereinafter "PAR") to calculate the amount of funding necessary to ensure the long-term management of the HM lands (Endowment Deposit Amount). The Permittee shall submit to CDFW for review and approval the results of the PAR before transferring funds to the Endowment Manager.</p>	<p>ITP Conditions #9.4.1</p>	<p>Before Starting Covered Activities- or vegetation- disturbing activities (or within 18 months of issuance of the ITP if Security is provided)</p>	<p>Permittee</p>	
27	<p>After obtaining CDFW written approval of the HM lands, long-term management plan, and Endowment Manager, Permittee shall prepare a Property Analysis Record (PAR) or PAR-equivalent analysis (hereinafter "PAR") to calculate the amount of funding necessary to ensure the long-term management of the HM lands (Endowment Deposit Amount). The Permittee shall submit to CDFW for review and approval the results of the PAR before transferring funds to the Endowment Manager.</p>	<p>ITP Conditions #9.4.2</p>	<p>Before Starting Covered Activities- or vegetation- disturbing activities (or within 18 months of issuance of the ITP if Security is provided)</p>	<p>Permittee</p>	
28	<p>Permittee shall obtain the capitalization rate from the selected Endowment Manager for use in calculating the PAR and adjust for any additional administrative, periodic, or annual fees;</p>	<p>ITP Conditions #9.4.2.1</p>	<p>Before Starting Covered Activities- or vegetation- disturbing activities (or within 18 months of issuance of the ITP if Security is provided)</p>	<p>Permittee</p>	

Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
<p>29</p> <ul style="list-style-type: none"> Permittee shall include in PAR assumptions the following buffers for endowment establishment and use that will substantially ensure long-term viability and security of the Endowment: A 10 percent contingency shall be added to each endowment calculation to hedge against underestimation of the fund, unanticipated expenditures, inflation, or catastrophic events. The endowment shall be established assuming spending will not occur for the first three years after full funding. For all large capital expenses to occur periodically but not annually such as fence replacement or well replacement, payments shall be withheld from the annual disbursement until the year of anticipated need or upon request to Endowment Manager and CDFW. 	<p>ITP Conditions #9.4.2.2.1 #9.4.2.2.2 #9.4.2.2.3</p>	<p>Before Starting Covered Activities- or vegetation- disturbing activities (or within 18 months of issuance of the ITP if Security is provided)</p>	<p>Permittee</p>	
<p>30</p> <p>Permittee shall transfer the long-term endowment funds to the Endowment Manager upon CDFW approval of the Endowment Deposit Amount identified above. The approved Endowment Manager may pool the Endowment with other endowments for the operation, management, and protection of HM lands for local populations of the Covered Species but shall maintain separate accounting for each Endowment. The Endowment Manager shall, at all times, hold and manage the Endowment in compliance with this ITP. Government Code sections 65965-65968, as amended, and Probate Code sections 18501-18510, as amended.</p>	<p>ITP Conditions #9.4.3</p>	<p>Before Starting Covered Activities- or vegetation- disturbing activities (or within 18 months of issuance of the ITP if Security is provided)</p>	<p>Permittee</p>	
<p>31</p> <p>Permittee shall reimburse CDFW for all reasonable expenses incurred by CDFW such as transaction fees, account set-up fees, administrative fees, title and documentation review and related title transactions, expenses incurred from other state agency reviews, and overhead related to transfer of HM lands to CDFW.</p>	<p>ITP Conditions #9.5</p>	<p>Before Starting Covered Activities- or vegetation- disturbing activities (or within 18 months of issuance of the ITP if Security is provided)</p>	<p>Permittee</p>	

Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
<p>32</p> <p>Mitigation Measure</p> <p>The Permittee may proceed with Covered Activities only after the Permittee has ensured funding (Security) to complete any activity required by Condition of Approval 9 that has not been completed before Covered Activities begin. Permittee shall provide Security as follows:</p> <p>b) Security Amount. The Security shall be in the amount of \$8,099,403.00. This amount is based on the cost estimates identified in Condition of Approval 9.1 above.</p> <p>c) Security Form. The Security shall be in the form of an irrevocable letter of credit (Attachment 4) or another form of Security approved in advance in writing by CDFW's Office of the General Counsel.</p> <p>d) Security Timeline. The Security shall be provided to CDFW before Covered Activities begin or within 30 days after the effective date of this ITP, whichever occurs first.</p> <p>e) Security Holder. The Security shall be held by CDFW or in a manner approved in advance in writing by CDFW.</p> <p>f) Security Transmittal. If CDFW holds the Security, Permittee shall transmit it to CDFW with a completed Mitigation Payment Transmittal Form (Attachment 5) or by way of an approved instrument such as escrow, irrevocable letter of credit, or other.</p> <p>g) Security Drawing. The Security shall allow CDFW to draw on the principal sum if CDFW, in its sole discretion, determines that the Permittee has failed to comply with the Conditions of Approval of this ITP.</p> <p>h) Security Release. The Security (or any portion of the Security then remaining) shall be released to the Permittee after CDFW has conducted an on-site inspection and received confirmation that all secured requirements have been satisfied, as evidenced by:</p> <ul style="list-style-type: none"> • Written documentation of the acquisition of the HM lands; • Copies of all executed and recorded conservation easements; • Written confirmation from the approved Endowment Manager of its receipt of the full Endowment; and • Timely submission of all required reports. <p>Even if Security is provided, the Permittee must complete the required acquisition, protection and transfer of all HM lands and record any required conservation easements no later than 18 months from the effective date of this ITP. CDFW may require the Permittee to provide additional HM lands and/or additional funding to ensure the impacts of the taking are minimized and fully mitigated, as required by law, if the Permittee does not complete these requirements within the specified timeframe.</p>	<p>ITP Condition # 10 #10.1 #10.2 #10.3 #10.4 #10.5 #10.6 #10.7</p>	<p>Before Starting Covered Activities- or vegetation- disturbing activities (or within 18 months of issuance of the ITP if Security is provided)</p>	<p>Permittee</p>	
<p>DURING CONSTRUCTION</p>				

	Mitigation Measure	Implementation Schedule		Responsible Party	Status / Date / Initials
		Source	Schedule		
33	The Biological Monitor(s) shall maintain a construction-monitoring notebook on-site throughout the construction period, which shall include a copy of this ITP with attachments and a list of signatures of all personnel who have successfully completed the education program. Permittee shall ensure a copy of the construction-monitoring notebook is available for review at the Project site upon request by CDFW.	ITP Condition # 6.6	Entire Project	Biological Monitor	
34	Permittee shall implement dust control measures during Covered Activities to facilitate visibility for monitoring of the Covered Species by the Biological Monitor(s). Permittee shall keep the amount of water used to the minimum amount needed, and shall not allow water to form puddles.	ITP Condition # 6.8	Entire Project	Permittee	
35	Permittee shall prohibit use of erosion control materials potentially harmful to Covered Species and other species, such as monofilament netting (erosion control matting) or similar material, in potential Covered Species' habitat.	ITP Condition # 6.9	Entire Project	Permittee	
36	Project-related personnel shall access the Project Area using existing routes, or routes identified in the Project Description and shall not cross Covered Species' habitat outside of or en route to the Project Area. Permittee shall restrict Project-related vehicle traffic to established roads, staging, and parking areas. Permittee shall ensure that vehicle speeds do not exceed 20 miles per hour to avoid Covered Species on or traversing the roads. If Permittee determines construction of routes for travel are necessary outside of the Project Area, the Designated Representative shall contact CDFW for written approval before carrying out such an activity. CDFW may require an amendment to this ITP, among other reasons, if additional take of Covered Species will occur as a result of the Project modification.	ITP Condition # 6.12	Entire Project	Permittee	
37	Permittee shall confine all Project-related parking, storage areas, laydown sites, equipment storage, and any other surface-disturbing activities to the Project Area using, to the extent possible, previously disturbed areas. Additionally, Permittee shall not use or cross Covered Species' habitat outside of the marked Project Area unless provided for as described in Condition of Approval 6.11 of this ITP.	ITP Condition # 6.13	Entire Project	Permittee	
38	Permittee shall immediately stop and, pursuant to pertinent state and federal statutes and regulations, arrange for repair and clean up by qualified individuals of any fuel or hazardous waste leaks or spills at the time of occurrence, or as soon as it is safe to do so. Permittee shall exclude the storage and handling of hazardous materials from the Project Area and shall properly contain and dispose of any unused or leftover hazardous products off-site.	ITP Condition # 6.14	Entire Project	Permittee	
39	Permittee shall prohibit firearms and domestic dogs from the Project Area and site access routes during Covered Activities, except those in the possession of authorized security personnel or local, State, or federal law enforcement officials.	ITP Condition # 6.15	Entire Project	Permittee	
40	Permittee shall provide CDFW staff with reasonable access to the Project and mitigation lands under Permittee control, and shall otherwise fully cooperate with CDFW efforts to verify compliance with or effectiveness of mitigation measures set forth in this ITP.	ITP Condition # 6.16	Entire Project	Permittee	
41	The Designated Representative shall immediately notify CDFW in writing if it determines that the Permittee is not in compliance with any Condition of Approval of this ITP, including but not limited to any actual or anticipated failure to implement measures within the time periods indicated in this ITP and/or the MMRP. The Designated Representative shall report any non-compliance with this ITP to CDFW within 24 hours.	ITP Condition # 7.2	Entire Project	Designated Representative	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
42	<p>The Authorized Biologist(s) shall be on-site daily when Covered Activities occur. The Authorized Biologist(s) shall conduct compliance inspections to (1) minimize incidental take of the Covered Species; (2) prevent unlawful take of species; (3) check for compliance with all measures of this ITP; (4) check all exclusion zones; and (5) ensure that signs, stakes, and fencing are intact, and that Covered Activities are only occurring in the Project Area. The Authorized Biologist(s) shall prepare daily written observation and inspection records summarizing: (1) oversight activities and compliance inspections; (2) observations of Covered Species and their sign; (3) survey results; and (4) monitoring activities required by this ITP. Once Covered Activities are completed, the Biological Monitor(s) shall conduct compliance inspections. The Biological Monitor(s) or Designated Representative shall conduct compliance inspections at a minimum of twice a day (once during the onset of the day's work and once at the conclusion of that day's work).</p>	ITP Condition # 7.3	Entire Project	Biological Monitor(s)/Authorized Biologist(s)	
43	<p>The Biological Monitor(s) or Authorized Biologist(s) shall compile the observation and inspection records identified in Condition of Approval 7.3 into a Quarterly Compliance Report and submit it to CDFW along with a copy of the MMRP table with notes showing the current implementation status of each mitigation measure. Quarterly Compliance Reports shall be submitted to CDFW's Regional Office at the address listed in the Notices section of this ITP and via e-mail to CDFW's Regional Representative. At the time of this ITP's approval, the CDFW Regional Representative is Heather Weiche (heather.weiche@wildlife.ca.gov). CDFW may at any time increase the timing and number of compliance inspections and reports required under this provision depending upon the results of previous compliance inspections. If CDFW determines the reporting schedule must be changed, CDFW will notify Permittee in writing of the new reporting schedule.</p>	ITP Condition # 7.4	Entire Project	Designated Representative or Authorized Biologist(s)	
44	<p>Permittee shall provide CDFW with an Annual Status Report (ASR) no later than January 31 of every year beginning with issuance of this ITP and continuing until CDFW accepts the Final Mitigation Report identified below. Each ASR shall include, at a minimum: (1) a summary of all Quarterly Compliance Reports for that year identified in Condition of Approval 7.4; (2) a general description of the status of the Project Area and Covered Activities, including actual or projected completion dates, if known; (3) a copy of the table in the MMRP with notes showing the current implementation status of each mitigation measure; (4) an assessment of the effectiveness of each completed or partially completed mitigation measure in avoiding, minimizing and mitigating Project impacts; (5) all available information about Project-related incidental take of the Covered Species; (6) an accounting of the number of acres subject to both temporary and permanent disturbance, both for the prior calendar year, and a total since ITP issuance; and (7) information about other Project impacts on the Covered Species.</p>	ITP Condition # 7.5	Entire Project	Permittee	
45	<p>The Biological Monitor(s) shall submit all observations of Covered Species to CDFW's California Natural Diversity Database (CNDDB) within 60 calendar days of the observation and the Biological Monitor(s) shall include copies of the submitted forms with the next Quarterly Compliance Report or ASR, whichever is submitted first, relative to the observation.</p>	ITP Condition # 7.6	Entire Project	Biological Monitor(s)	

Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
<p>46 Permittee shall immediately notify the Authorized Biologist(s) and/or the Biological Monitor(s) if a Covered Species is taken or injured by a Project-related activity, or if a Covered Species is otherwise found dead or injured within the vicinity of the Project. The Biological Monitor(s) or Designated Representative shall provide initial notification to CDFW by calling the Regional Office at (909) 466-8462 and by notifying the CDFW Regional Representative Heather Weiche (heather.weiche@wildlife.ca.gov). The initial notification to CDFW shall include information regarding the location, species, and number of animals taken or injured and the ITP Number. Following initial notification, Permittee shall send CDFW a written report within two calendar days. The report shall include the date and time of the finding or incident, location of the animal or carcass, and if possible provide a photograph, explanation as to cause of take or injury, and any other pertinent information.</p>	<p>ITP Condition # 7.8</p>	<p>Entire Project</p>	<p>Permittee</p>	
<p>47 During the Covered Activities the Authorized Biologist(s) shall inspect the fence at the end of each working day to ensure the Covered Species is prohibited from entering the site. If the fence is compromised, repairs shall be completed at that time. Once Covered Activities are finished the Biological Monitor(s) shall inspect the fence weekly and during and immediately after heavy rainfalls.</p>	<p>ITP Condition # 8.4</p>	<p>Entire Project</p>	<p>Biological Monitor(s)</p>	
<p>48 Workers shall inspect for Covered Species under vehicles and equipment before the vehicles and equipment are moved. If a Covered Species is present, the worker shall contact the Biological Monitor(s) and wait for the Covered Species to move unimpeded to a safe location. OR the Authorized Biologist(s) shall translocate the Covered Species as described in Condition of Approval 8.10 and 8.11 of this ITP before moving vehicles and equipment.</p>	<p>ITP Condition # 8.6</p>	<p>Entire Project</p>	<p>All Personnel</p>	
<p>49 Permittee shall minimize vegetation removal associated with construction activities to the fullest extent possible. Biological Monitor(s) shall review and approve or deny any grubbing or clearing of vegetation.</p>	<p>ITP Condition # 8.7</p>	<p>Entire Project</p>	<p>All Personnel</p>	
<p>50 All personnel on the Project site shall immediately report all encounters with the Covered Species to the Biological Monitor(s). If a Covered Species is identified during Project activities, the Permittee shall immediately stop all work in the area and contact the Biological Monitor(s). The Biological Monitor(s) shall allow the Covered Species to escape unimpeded or contact the Authorized Biologist (s). The Authorized Biologist(s) shall relocate the Covered Species as described in this ITP and the Chapter 7- Guidelines for Handling Desert Tortoises (US Fish and Wildlife Service 2009) (Attachment 2). Permittee shall not resume work until the Authorized Biologist(s) has relocated the animal or allowed it to move outside the Project Area on its own. The Designated Representative shall immediately, or no later than noon on the next business day, notify CDFW of any Covered Species observations. Notification to CDFW shall be via telephone and e-mail, followed by a written report. Notification and the written report shall include the date, location, and circumstances of the observation, the name of the Authorized Biologist(s) that relocated the individual, and the location (including GPS coordinates) where the individual was moved.</p>	<p>ITP Condition # 8.8</p>	<p>Entire Project</p>	<p>All Personnel</p>	

	Mitigation Measure	Implementation Schedule		Responsible Party	Status / Date / Initials
		Source	Schedule #		
51	<p>Using the methods described in the Chapter 7. Guidelines For Handling Desert Tortoises (US Fish and Wildlife Service 2009) (Attachment 2) and the approved translocation plan, the Authorized Biologist(s) shall capture, collect measurement and identification data, permanently mark, and relocate any desert tortoise found within the Project site to suitable, undisturbed CDFW-approved off-site habitat. The Authorized Biologist(s) shall relocate and/or move the desert tortoise far enough away from the proposed realignment so that toxins and other invasive species from vehicle pollution will not impact the tortoise. The Authorized Biologist(s) shall follow all excavation, capture, handling, and relocation procedures described in the Handling Guidelines to protect the health and well-being of desert tortoise. If a desert tortoise is found above ground, the Authorized Biologist(s) shall release it above ground in suitable habitat and conditions. If a desert tortoise is found during burrow excavation, the Authorized Biologist(s) shall relocate it to an unoccupied burrow of similar size. If no such burrow is available for relocating, the Authorized Biologist(s) shall construct an artificial burrow similar in size, depth, and orientation as the original burrow. The Authorized Biologist(s) shall follow all protocols for the construction of the artificial burrows found in the Chapter 7 - Guidelines for Handling Desert Tortoises (US Fish and Wildlife Service 2009) (Attachment 2). The Authorized Biologist(s) shall record the location of all desert tortoise burrows, desert tortoises, and relocation sites using GPS technology. The Authorized Biologist(s) shall collapse all potential or actual desert tortoise burrows present within the work site after establishing that desert tortoise does not currently occupy them.</p>	ITP Condition # 8.11	Entire Project	Authorized Biologist(s)	
52	<p>The Authorized Biologist(s) shall ensure that desert tortoises are not captured, moved, transported, released, or purposefully caused to leave their burrow for any reason when the ambient air temperature is above 95 degrees Fahrenheit (35 degrees Celsius). The Authorized Biologist(s) shall ensure that no desert tortoise is 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, the Authorized Biologist(s) shall ensure the desert tortoise is kept in a shaded environment with a temperature that does not exceed 95 degrees Fahrenheit, and that the individual is not released until ambient air temperature declines to below 95 degrees Fahrenheit. Desert tortoises moved during inactive periods shall be monitored by the Authorized Biologist(s) for at least 2 days after placement in the new burrows to ensure their safety. During relocation, the Authorized Biologist(s) may hold a captured desert tortoise overnight and move them the following morning within these temperature constraints.</p>	ITP Condition # 8.12	Entire Project	Authorized Biologist(s)	
53	<p>If a desert tortoise voids its bladder as a result of being handled, the Authorized Biologist(s) shall rehydrate the individual(s). The Authorized Biologist(s) shall rehydrate the desert tortoise at the location where the individual(s) was or were captured, or the location where the individual(s) is or will be relocated. The Authorized Biologist(s) shall rehydrate the desert tortoise by placing it in a tub with a clean plastic disposable liner. The Authorized Biologist(s) shall add water to the lined tub while ensuring that the water level is not higher than the lower jaw of the desert tortoise. The Authorized Biologist(s) shall rehydrate each desert tortoise individually for a minimum of 10 to 20 minutes. The Authorized Biologist(s) shall place the lined tub in a quiet protected area during rehydration. After each tortoise is rehydrated the water shall be emptied and a new plastic disposable liner placed in the tub.</p>	ITP Condition # 8.13	Entire Project	Authorized Biologist(s)	

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
54	<p>The Authorized Biologist(s) shall fully excavate by hand all burrows OR scope each burrow within the Project Area that are suspected or known to be occupied by Mohave ground squirrels. The Authorized Biologist(s) shall allow Mohave ground squirrels encountered in the excavated burrows during their active period to escape out of harm's way. During the Mohave ground squirrel dormant period, the Authorized Biologist(s) shall collect and immediately relocate them to an artificial burrow at a protected off-site location approved in advance by CDFW's Regional Representative. The Mohave ground squirrel may only be relocated by the Authorized Biologist(s). The Authorized Biologist(s) shall prepare relocation burrows in the following manner: (1) A hole of at least two feet deep shall be dug; (2) install a nine-inch diameter non-collapsible plastic container, which shall be connected to a three-inch diameter non-collapsible plastic pipe that runs to the ground surface at a 45-degree angle; (3) The Authorized Biologist(s) shall place the Mohave ground squirrel in the artificial burrow and lightly plug the burrow mouth with soil in a manner that is similar to a natural Mohave ground squirrel burrow.</p>	ITP Condition # 8.14	Entire Project	Authorized Biologist(s)	
55	<p>The Biological Monitor(s) or Authorized Biologist(s) and the Designated Representative shall inspect all open holes and trenches within the Project Area at the beginning, middle, and end of each day for trapped animals. To prevent inadvertent entrapment of Covered Species or any other animals, the Biological Monitor(s) shall oversee the covering of all excavated, steep-walled holes or trenches more than two feet deep, or of any depth if they contain water or other material, at the close of each working day by plywood or other barrier materials such that animals are unable to enter and become entrapped. Permittee shall provide escape ramps in holes greater than two feet deep that do not hold water or other material, to allow animals to escape. Before holes or trenches are filled, the Biological Monitor(s) shall thoroughly inspect them for trapped animals. If any worker discovers that Covered Species have become trapped, they shall halt Project-related activities and notify the Authorized Biologist(s) immediately. Project workers and the Biological Monitor(s) shall allow the Covered Species to escape unimpeded if possible, or the Authorized Biologist(s) shall move the Covered Species out of harm's way before allowing work to continue. The use of temporary fencing, around the perimeter of trenches or holes is an acceptable minimization measure.</p>	ITP Condition # 8.15	Entire Project	Authorized Biologist(s)	
56	<p>If a Covered Species is injured or killed as a result of Project-related activities or if a Covered Species is otherwise found dead within the Project Area, Permittee shall immediately notify the Authorized Biologist(s) as described in Conditions of Approval 7.8. The Authorized Biologist(s) shall immediately take injured individuals to a CDFW-approved wildlife rehabilitation or veterinary facility. Permittee shall identify the facility prior to the start of Covered Activities. Permittee shall bear any costs associated with the care or treatment of such injured Covered Species.</p>	ITP Condition # 8.16	Entire Project	Permittee	
57	<p>Permittee shall restrict Project-related vehicle traffic to established roads and the delineated Project Area; cross-country (off-road) vehicle travel is prohibited and signs shall be posted to this affect during maintenance activities. If a Covered Species is encountered, drivers shall stop, wait for the Covered Species to move off the road, and immediately notify the Biological Monitor(s) of the Covered Species location. If handling of a Covered Species is required the Biological Monitor(s) shall notify the Authorized Biologist(s) and shall halt Project-related activities immediately.</p>	ITP Condition # 8.17	Entire Project	Permittee	

POST-CONSTRUCTION

	Mitigation Measure	Source	Implementation Schedule	Responsible Party	Status / Date / Initials
58	Upon completion of Covered Activities, Permittee shall remove from the Project Area and properly dispose of all temporary fill and construction refuse, including, but not limited to, broken equipment parts, wrapping material, cords, cables, wire, rope, strapping, twine, buckets, metal or plastic containers, and boxes.	ITP Condition # 6.17	Post-construction	Permittee	
59	No later than 45 days after completion of all mitigation measures, Permittee shall provide CDFW with a Final Mitigation Report. The Biological Monitor(s) shall prepare the Final Mitigation Report which shall include, at a minimum: (1) a summary of all Quarterly Compliance Reports and all ASRs; (2) a copy of the table in the MMRP with notes showing when each of the mitigation measures was implemented; (3) all available information about Project-related incidental take of the Covered Species; (4) information about other Project impacts on the Covered Species; (5) beginning and ending dates of Covered Activities; (6) an assessment of the effectiveness of this ITP's Conditions of Approval in minimizing and fully mitigating Project impacts of the taking on Covered Species; (7) recommendations on how mitigation measures might be changed to more effectively minimize take and mitigate the impacts of future Projects on the Covered Species; and (8) any other pertinent information.	ITP Condition # 7.7	Post-construction and after completion of mitigation	Permittee	
60	CDFW accepts the Final Mitigation Report as complete.		Post-construction	CDFW	

ATTACHMENT 2

Chapter 7. Guidelines for Handling Desert Tortoise

Mojave Population and Their Eggs

CHAPTER 7. GUIDELINES FOR HANDLING DESERT TORTOISES- MOJAVE POPULATION AND THEIR EGGS

7.1. Objectives

- Provide the reader with the most current methods for handling desert tortoises based on research and experience implementing previous handling protocols.
- Provide guidance to ensure the health and well-being of desert tortoises while allowing collection of data and necessary handling of desert tortoises.
- Ensure that diseases and parasites are not transmitted among desert tortoises.

7.2. Specific Considerations before Handling Desert Tortoises

Depending on the circumstances, desert tortoises that are beneath machinery, in trenches or pipes, under pallets, or anywhere on the project site may be in danger and may need to be moved. Desert tortoises may be handled only by authorized personnel, but other project personnel may move a desert tortoise the shortest distance necessary to remove the desert tortoise from imminent danger if an Authorized Biologist is not present. The desert tortoise shall be monitored until an Authorized Biologist or USFWS is contacted for further instruction. If desert tortoises must be moved, a secure location must be available and the appropriate procedures in this Manual must be followed to ensure safe handling. If a secure location is not available, the tortoise must be held pending instruction from USFWS and the appropriate State wildlife agency. Before touching a desert tortoise, implement procedures described in Section 7.6.

7.3. Temperature Considerations

Desert tortoises, particularly small ones, have been observed to be active aboveground every month of the year. However, the preferred daytime body temperature of desert tortoises is 69 degrees F to 101 degrees F (20.5 degrees C to 38 degrees C) (McGinnis and Voigt 1971). The critical maximum body temperature is between 103 degrees F and 112 degrees F (39 degrees C to 44 degrees C) (Brattstrom 1965, Naegle 1976). Berry and Turner (1984) found that juvenile desert tortoises preferred air temperatures of 63 degrees F to 66 degrees F (17 degrees C to 19 degrees C) during March, and 77 degrees F to 83 degrees F (25 degrees C to 28 degrees C) during June. Consequently, more juvenile desert tortoises were located in the morning (76.1 percent) than in the afternoon (23.9 percent). Zimmerman et al. (1994) found that air temperatures were comparable between 2 and 10 inches (5 centimeters to 25.4 centimeters) aboveground, with maximum variance of less than 3.5 degrees F (1.2 degrees C). Current information on lower temperature limits for desert tortoise activity is not well known.

Walde et al. (2003) observed that desert tortoises retreated into burrows when the air temperature reached 91.0 degrees F \pm 3.5 degrees F (32.7 degrees C \pm 1.2 degrees) and ground temperatures reached 95 degrees F \pm 6 degrees F (35 degrees C \pm 2.4 degrees); 95 percent of the desert tortoise observations aboveground occurred at air temperatures less than 91.4 degrees F (33 degrees C). Ground temperatures shall be measured on the ground surface in an area near the desert tortoise in full sun, with the thermometer in the shadow of the observer. Ambient air temperature shall

be measured in the shade, protected from wind, at a height of 2 inches (5 centimeters) above the ground surface.

During extreme heat, desert tortoises that shelter in relatively shallow burrows will remain in the burrow as long as the burrow temperature is lower than the temperature outside of the burrow. At night the air and surface temperatures drop faster than the temperature in the burrow. When the air and surface temperature drop below the burrow temperature, the desert tortoise may exit the burrow in an effort to lower its body temperature. Desert tortoises have been observed moving from a few feet out of the burrow to 50 feet (15 meters) or more during the night (Steve Ferrand, 2009, Nevada Biological Consulting, *in litt.*). Tortoises shall not be blocked in burrows during extreme temperatures and construction sites shall be carefully inspected during these periods for tortoises aboveground.

7.4. Hot Temperatures

Desert tortoises shall be treated in a manner to ensure that they do not overheat or exhibit signs of overheating, which include aggressive struggling by the desert tortoise, hot to the touch, frothing at the mouth, excessive salivation, or voiding its bladder. Desert tortoises shall not be placed in a situation where they cannot maintain surface and core temperatures necessary to their well-being. Desert tortoises shall be kept shaded at all times until it is safe to release them. Ground temperatures are much hotter than air temperatures thus never place a desert tortoise on unshaded ground. Removal of the upper layer of hot substrate would expose a cooler layer below.

No desert tortoise shall be captured, moved, transported, released, or purposefully caused to leave its burrow for whatever reason when the ground temperature is above 95 degrees F (35 degrees C). Temperature must be measured in the shade and protected from the wind at a height of 2 inches (5 centimeters) above the ground. No desert tortoise shall be captured if ground temperature is anticipated to exceed 95 degrees F (35 degrees C) before handling and relocation can be completed. If the ground temperature exceeds 95 degrees F (35 degrees C) during handling or processing, desert tortoises shall be kept shaded in an environment where the ambient air temperatures do not exceed 91 degrees F (32.7 degrees C) and ground temperature does not exceed 95 degrees F (35 degrees C). The desert tortoise shall not be released until ground temperature at the release site declines to below 95 degrees F (35 degrees C).

If a desert tortoise is found aboveground when these upper temperatures are exceeded and the desert tortoise must be moved from harm's way, place the desert tortoise in a clean, unused cardboard box or disinfected open plastic container, and keep it in a climate-controlled environment (e.g., air conditioned vehicle or building) until the ambient air and ground temperatures are below upper limits.

Hyperthermic Desert Tortoises

Before touching a desert tortoise, implement procedures described in Section 7.6. If an animal begins frothing at the mouth, it is probably nearing an upper lethal body temperature and immediate action is required: a) capture, transport, and hold the desert tortoise in a climate-controlled environment, or b) if a nearby climate-controlled environment is unavailable, place the desert tortoise in an unused or open disinfected plastic container in the shade and pour cool water over the shell to a depth that ensures the nares remain above the water level. If no container is available, excavate a depression in a shaded area; place the desert tortoise in the depression and pour water over the shell. Heat-stressed desert tortoises shall not be released until they resume normal behavior. Monitor the desert tortoise after release until normal behavior resumes including sheltering.

7.5. Cold Temperatures

If a desert tortoise is found aboveground during cold temperatures (i.e., ambient temperature less than 55 degrees F or 12.8 degrees C) and its burrow cannot be located nearby or will be destroyed, then capture the animal and implement the appropriate actions in Table 7.1. Before touching a desert tortoise, implement procedures described in Section 7.6. If relocating the desert tortoise to a natural burrow, ensure that the burrow is unoccupied; both a natural or artificial burrow must be of appropriate size within the average home range for that size and sex animal. If the end of the burrow cannot be seen, the burrow must be examined with a fiber-optic scope to ensure that the burrow and all side channels are unoccupied by other desert tortoises. Placing a desert tortoise in a burrow occupied by another desert tortoise may promote disease transmission and aggressive behavior between the desert tortoises.

Table 7.1. Actions to implement for desert tortoises in harm's way or adjacent to project areas during cold temperatures.

CIRCUMSTANCE	ACTIONS		
	Find natural, unoccupied burrow; block tortoise inside	Construct artificial burrow; block tortoise inside	Construct pen around tortoise and burrow (Section 6.9)
Desert tortoise above ground:			
Desert tortoise in harm's way, not in burrow	X	X	
Desert tortoise and burrow in harm's way	X	X	
Desert tortoise in harm's way, nearby burrow not in harm's way			X
Desert tortoise adjacent to project, burrow in harm's way	X	X	
Desert tortoise adjacent to project, no burrow	X	X	
Desert tortoise and burrow adjacent to project, not in harm's way			X
Desert tortoise in burrow:			
Desert tortoise in harm's way	X	X	
Desert tortoise adjacent to project			X

7.6. Procedures to Avoid Transmission of Diseases or Parasites

At all times, handle a desert tortoise as if it has a contagious disease or parasites, and in such a way to avoid transmitting disease or parasites from one desert tortoise to another. Much of the following information was developed by Berry and Christopher 2001.

During handling each desert tortoise, wear a new pair of disposable latex or rubber gloves (i.e., one pair of gloves, per desert tortoise, per encounter). If a glove is torn while handling a desert tortoise, which is likely when its toenail scrapes the glove, put on a new glove over the old one. Used gloves and disposable supplies (e.g., surveyors tape or flagging, etc.) must be placed in a plastic trash bag and disposed of offsite.

All tools that contact desert tortoises shall be disinfected in accordance with procedures described in Section 7.6.2.

7.6.1. Disinfecting Clothing

Do not allow a desert tortoise to contact clothing. If it does, change clothes before handling another desert tortoise. Contaminated clothes must be washed before worn again while handling desert tortoises. Keep a change of clothes on-hand and change clothes, including shoes, before leaving the site for another geographical location (e.g., another valley or mountain range would

be considered a separate location). As an alternative, wear disposable jumpsuits or gowns and disposable paper or plastic shoe covers. Use disposable paper or plastic sheeting to place under the desert tortoise or on the lap of field workers; disposable baby changing sheets may prove useful.

7.6.2. Disinfecting Tools and Equipment

All equipment and work surfaces after contact with each desert tortoise, any equipment (e.g., scales, calipers, ruler, etc.) that comes in contact with a desert tortoise, including poles used to probe burrows or tap desert tortoises from burrows (Medica et al. 1986), must be disinfected. Disinfecting solutions shall be either 0.175 percent sodium hypochlorite (bleach) (Wendland et al. 2009) or *Nolvasan* (prepared according to the manufacturer's instructions). A 0.175 percent sodium hypochlorite bleach is a 1:10 dilution of 5 percent household bleach to water. Before disinfecting, first remove any organic debris (e.g., dirt, feces, etc.) by rinsing the area with water or brushing off the area with paper towels or a scrub brush. If using a bleach solution, the equipment and work surface shall be saturated with the solution and allowed to air dry. If using a *Nolvasan* solution, the equipment and work surface shall be submersed in the solution (bath) for a minimum of 10 minutes before being used on another animal. Equipment baths shall be changed regularly according to the label instructions. Measures should be taken to avoid transmission of pathogens between burrows when using a fiber-optic scope which may include covering the scope with a disposable plastic cover.

Between study sites, equipment, particularly buckets will be scrubbed using a dish soap and bleach solution. After rinsing, the bleach solution will be sprayed on the equipment and allowed to air dry. This will minimize the chance of cross-contamination between study sites.

Only metal or plastic rulers may be used; never use a wooden ruler, which is too porous and cannot be properly disinfected. If permitted to notch desert tortoises, files must be disinfected after each use.

Thoroughly clean field vehicles inside and out at a car wash before moving to another geographical location.

7.7. **Capturing Desert Tortoises**

When encountering a desert tortoise outside its burrow, approach the animal slowly (e.g., if the desert tortoise is 15 feet (4.5 meters) away, pace your approach with pauses to contact the desert tortoise in 30 seconds). Put on a clean, unused pair of latex or rubber gloves and grasp the desert tortoise at its bridge (connection between the carapace and plastron) with both hands, holding it firmly with its plastron parallel to, and facing the ground. Slowly lift the desert tortoise to your waist height and slowly and smoothly walk to where the desert tortoise will be placed (e.g., remove from harm's way).

If a desert tortoise is collected at or near sunset and intended to be released the same day, hold the desert tortoise overnight in a clean, unused cardboard box or open disinfected plastic container, and release it the next morning at or near the capture site. Monitor the desert tortoise until it resumes normal behavior.

7.8. Processing Desert Tortoises

Before touching a desert tortoise, implement procedures described in Section 7.6. A desert tortoise shall only be processed (i.e., weighed, measured, or sexed) if authorized in a biological opinion or permit. An experienced biologist should be able to process a desert tortoise in 5 to 10 minutes. **Do not process a desert tortoise if the ambient temperature exceeds 95 degrees F (35 degrees C) (Section 6.3 or 7.4.)** or if there is a chance that a second desert tortoise could be in harm's way and requires timely action while processing the first one.

Inspect a desert tortoise and record data on size, sex, distinctive features, indications of health and disease (e.g., ectoparasites, shell lesions, signs of osteoporosis or osteomalacia, injuries, evidence of URTD, etc.). Ensure that the desert tortoise is maintained in a horizontal position at all times.

7.8.1. Measuring and Sexing

If authorized and required, measure the midline carapace length (MCL) of the desert tortoise from the nuchal to pygal scutes using calipers, which provide the most accurate measurement. Measurements should be taken in millimeters (mm). Before touching a desert tortoise, implement procedures described in Section 7.6.

The sex of desert tortoises less than 180 mm MCL cannot be accurately determined based on external characteristics. Generally, the following male characteristics differentiate them from females: a) concave plastron; b) longer, more curved gulars; c) larger, well-developed chin glands; d) longer, broader, more conical tail; and e) shorter, thicker toenails. Pay particular attention to the gular projection and the shape of the plastron, which are the two best features for differentiating the sexes. For very large desert tortoises, feel the concave (male) or flattened (female) plastron or see it by holding the desert tortoise at eye level without turning the desert tortoise on its back. When in doubt, record all other information and mark "sex unknown" on the data sheet.

7.8.2. Weighing

Handle desert tortoises carefully. Mishandling may result in injury or cause the tortoise to void its bladder. Before touching a desert tortoise, implement procedures described in Section 7.6. If using a digital scale, immobilize the desert tortoise as described in Section 7.8.3. If using a spring scale, place the desert tortoise inside a harness made of clean, unused cord that will avoid the spread of pathogens. It will also minimize gross contamination to the desert tortoise and to field equipment from urination or defecation. The harness shall consist of a double loop with one loop crossing the plastron posterior to the forelimbs and the other anterior to the hind limbs. As the Authorized Biologist slowly begins to raise the tortoise, the tortoise shall remain positioned horizontally and care shall be taken to ensure that the tortoise does slip out of the harness or fall. Using the harness allows the Authorized Biologist to observe any stressful behavior exhibited by the desert tortoise (e.g., flailing of legs) and act quickly to correct this situation. Suspend the harness from the scale, ensuring the desert tortoise is securely and safely positioned, a few inches above sand or soil substrate. Keep weighing time to a minimum; and

take every precaution to prevent the desert tortoise from falling or voiding. Once the desert tortoise has been weighed, dispose of the harness.

The following spring scale sizes are recommended: a) 0 to 100 gram scale with a 1.0 gram precision for small desert tortoises; b) 1 kilogram scale with a 10 gram precision for moderate-sized desert tortoises; and c) 5 kilogram scale with a 50 gram precision for large desert tortoises. It is best to use the smallest scale that will accommodate the weight of a desert tortoise. Occasionally a desert tortoise will weigh more than 5 kilograms; in this case you may use two 5-kilogram scales simultaneously on the harness and add the weights. Keep scales clean and calibrated.

Experts recommend weighing a desert tortoise immediately after capture. This provides a true weight. Should the desert tortoise void its bladder, weigh it afterwards to determine how much fluid has been lost. Another reason for weighing a desert tortoise is to determine if it is underweight for its size. Low weight may be the result of disease, drought conditions, recent egg-laying, or other factors.

7.8.3. Restricting Mobility

Using cylinders - Before touching a desert tortoise, implement procedures described in Section 7.6. A desert tortoise may be placed on the top of a cylindrical holding stand such as a coffee can or other large can to facilitate processing. The stand should be large enough to support the desert tortoise and small enough to prevent any waving appendages from touching the stand, and tall enough to prevent desert tortoise from touching a solid surface below. Given that desert tortoises come in all sizes, a range of stand sizes will be needed. Note that coffee cans and other types of stands come in several sizes and can be "nested" in one another for ease of transport thereby accommodating different-sized desert tortoises. Freedom to move its appendages may encourage a desert tortoise to extend its head, which allows observation of the eyes, nares, chin glands, and beak where most signs of URTD are observed. The stand must be disinfected before using it with another desert tortoise, or place waterproof plastic on top of the stand prior to each use, then position the desert tortoise on top of the plastic, and discard the plastic afterwards.

7.8.4. Assessing Desert Tortoise Health

A section 7 biological opinion or section 10 permit may require a health assessment for encountered desert tortoises. Before initiating this assessment, contact the appropriate USFWS office to determine the information to be included in the health assessment. This will determine the qualifications needed by the person conducting the health assessment. You will need the approval of the person conducting the health assessment from the USFWS.

7.8.5. Marking Desert Tortoises

You must contact the DTRO and appropriate State wildlife agency before marking desert tortoises. Before touching a desert tortoise, implement procedures described in Section 7.6. If authorized, first restrict movement of the desert tortoise (Section 7.8.3.). Next, use a clean, disinfected toothbrush to remove dirt from the left fourth costal scute, where the desert tortoise will be marked. If this scute is damaged, use the right fourth costal scute. Next, place a small

dot (i.e., no larger than 1/4 inch (0.64 centimeter) in diameter) of correction fluid (i.e., white out) or acrylic paint on the scute. The number is likely to last longer if placed on a rough, off-centered surface where shell-wear is less common, which is one reason only the fourth costal scutes are used for marking. Once the spot is dry, write the identifying mark on the spot using a waterproof, permanent black ink pen. Some biologists recommend using a capillary type technical pen (e.g., fine-tip Sharpie).

Allow the number to dry before applying 5-minute epoxy. Mix the epoxy on a file card or piece of paper, then transfer the mixed epoxy to the dot on the shell using a toothpick, wooden coffee stirrer, or tongue depressor. Wait several seconds until the epoxy starts to thicken but is still liquid enough to spread over the numbered spot with ease. Cover the paint spot overlapping its edges just enough to seal the paint. **Never allow the epoxy to spill over onto the growth area, which occurs at the border between two scutes.** Anticipate this when applying the paint so there will be space for the epoxy to overlap the paint without entering the seams. It may be helpful to cover the margins of the scute with 1/2-inch wide masking tape before applying the epoxy, to ensure that the epoxy does not touch the growth area, especially on smaller desert tortoises. Record the identifying mark on the data sheet. Dispose of used materials appropriately after use on each desert tortoise.

7.8.6. Photographing Desert Tortoises

Before touching a desert tortoise for photographing, implement procedures described in Section 7.6. If permitted, photograph processed desert tortoises as follows: a) dorsal view of the carapace; b) the numbered scute; and c) frontal view of the desert tortoise's face and forelegs. Photograph any recent or previously healed injuries or unusual anomalies. Unless specifically required, do not photograph the plastron which would require unnecessary handling and risk to the tortoise. It is important that each object fills 80 to 90 percent of the frame and that the object be clearly focused. Digital photographs are preferred. Two types of labels are recommended: a) hold a small card adjacent to the desert tortoise so that the above information is clearly visible on the photograph without blocking the part of the desert tortoise being photographed; or, b) attach a 1/2 inch x 1/2 inch, adhesive label to the desert tortoise to allow for closer, more detailed photographs of the subject. Dispose of label appropriately following use on each desert tortoise.

Keep a log of the photographs in your field notes (e.g., "photo number 453, carapace of desert tortoise 4"). You must be familiar with the features of the camera. Label photographs with the following information: date, biologist's name, project name, desert tortoise number, UTM or lat/long, county, and state.

Supplies and equipment:

- 3 inch x 5 inch file cards (for identifying photographs)
- 1/2 inch x 1/2 inch labels or other stickers (to attach to desert tortoise to identify photograph)
- Camera

7.9. Desert Tortoise Urination and Hydration

Desert tortoises may void their bladder: 1) when first encountered, picked up, or carried; 2) the longer you handle them; and (3) during drought conditions, which is also when water availability is at its lowest. Since desert tortoises store water in their bladders, any loss of this fluid may result in death (Averill-Murray 2002). Discourage bladder voiding by gently and slowly moving the desert tortoise. If the tortoise does void, record on the data sheet the quantity, color, and viscosity of the urine. If the desert tortoise has already been weighed, weigh it again to estimate the amount of lost fluid. Avoid all unnecessary actions that may result in stress to the animal.

If the desert tortoise urinates, it should be rehydrated. To rehydrate, soak the desert tortoise at the release location in a tub with a clean unused plastic disposable liner for a minimum of 10 to 20 minutes in a quiet protected area. Water level shall not be higher than the lower jaw of the animal; the water temperature should be tepid. Desert tortoises must be soaked individually. Weigh the desert tortoise before and after placing in water. Even if desert tortoises do not drink, they can absorb water through their cloaca. Weighing the desert tortoise before and after placing it in water will determine if the tortoise took in water (James Jarchow, veterinarian, pers. comm.).

On warm days, transport the desert tortoise in the shade. Remember to roll up your sleeves and wear protective clothing to avoid transmitting disease or parasites to other desert tortoises that may come in contact with your clothing. When handling is complete, remove and properly dispose of your gloves and protective clothing.

7.10. Moving and Releasing Desert Tortoises

In this Manual, relocating desert tortoises is defined as moving them from harm's way but allowing them to remain within their home ranges. To relocate, move the desert tortoise the distance directed in the permit or biological opinion once the desert tortoise has been processed. The minimum distance from the edge of the project footprint that a desert tortoise can be relocated will be determined by its age and sex (different home range sizes), the presence or absence of desert tortoise-proof fencing around the perimeter of the project footprint, and the duration of the project activity. Desert tortoises may attempt to return to their point of capture. A desert tortoise should not be placed on private land without the written permission of the landowner.

In this Manual, translocating desert tortoises is defined as moving them from harm's way to a location outside their home range (e.g., more than 1,000 feet (305 meters)). Translocating tortoises should only occur when authorized by the permitting agencies and in accordance with an approved, project-specific translocation plan. Translocation not only affects the desert tortoise being moved but also may impact resident desert tortoises in the translocation area. The effectiveness of translocation of desert tortoises as a conservation or recovery tool has not been proven. Until its effectiveness is determined, it should be implemented only on an experimental basis and in close coordination with the USFWS and State wildlife agency.

For temperature considerations, refer to Section 7.3. To discourage urination or if the tortoise voided during handling, refer to Section 7.9.

After processing is completed, release the desert tortoise as soon as possible while considering its well-being. Desert tortoises shall be released individually and not in groups. The biological opinion or permit may require that desert tortoises be removed from the project site and placed in the shade of a shrub, in a natural unoccupied burrow, or in an artificial burrow. Desert tortoises shall be released at a safe location as near to the point of capture as possible. If a desert tortoise is found aboveground, release it aboveground if environmental conditions are suitable (Sections 7.4 and 7.5), or hold it until conditions are suitable, then release it. When releasing the desert tortoise, slowly lower the animal to the ground, release it, and slowly walk away. Following release, monitor the desert tortoise until it exhibits and maintains normal behavior. Further, we recommend that desert tortoises not be put into existing burrows to avoid exposing the desert tortoise to diseases.

If a desert tortoise and its burrow are not in harm's way but adjacent to project activities, as an alternative to moving, construct a temporary restraining pen around the desert tortoise and its burrow to protect it during project activities (See Section 6.9.).

7.10.1. Temporarily Holding Desert Tortoises

There may be a situation where a desert tortoise needs to be removed from the field, held overnight or longer, and then released at its point of capture. While held, each desert tortoise shall remain in a clean, unused or disinfected container that is covered or closed. Newspaper placed in the bottom will absorb any urine that is voided. The box shall be ventilated in such a way that a desert tortoise's leg or head cannot be caught in the ventilation hole. Never put more than one desert tortoise in a container, and avoid placing anything in a container occupied by a tortoise that previously came in contact with another tortoise without following disinfection procedures (Section 7.6.).

7.10.2. Transporting by Vehicle

Do not allow desert tortoises to roam freely in the vehicle. Do not transport desert tortoises in shopping or grocery bags or other containers less sturdy than a new cardboard box. Discard the box immediately after use to ensure that it is not used for another desert tortoise.

Never place desert tortoises over the catalytic converter or other area in a vehicle that becomes hot. Pad truck beds or floorboards and travel at speeds that minimize vibrations or shifting of the box. Never leave a desert tortoise unattended in a vehicle. During summer months, transport desert tortoises in an air-conditioned vehicle, placing them in a covered, unused cardboard box while maintaining the vehicle interior temperature between 75 degrees F and 80 degrees F (23.9 degrees C and 26.7 degrees C). If a desert tortoise is captured during the winter, maintain the desert tortoise at its current body temperature, which will be less stressful to it than much warmer temperatures, and may allow it to remain in a physiological state of brumation. When transporting an adult female desert tortoise, assume it may be gravid (i.e., April through July) and take special care to avoid jolting and jostling to ensure that the eggs are not ruptured which may result in her death from egg yolk peritonitis.

7.11. Injured or Dead Desert Tortoises

If an injured desert tortoise is encountered that may have been the result of project activities, follow the instructions of the biological opinion/permit, which typically requires immediate transport to a qualified veterinarian. Contact the USFWS and appropriate State wildlife agency. Document the injury with photographs and a written description of the injury; circumstances and probable cause; and recommendations to avoid future injuries. Submit this information to the USFWS and other appropriate agencies.

If a dying or dead desert tortoise is encountered, you may not salvage or collect it unless authorized to do so under a biological opinion, section 10 permit, or under 50 *Code of Federal Regulations* 17.31.

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Personal Communication

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Attachment 3A, 3B

HABITAT MANAGEMENT LANDS CHECKLIST

PROPOSED LANDS FOR ACQUISITION FORM

ATTACHMENT 3A
DEPARTMENT OF FISH AND WILDLIFE

HABITAT MANAGEMENT LAND ACQUISITION PACKAGE CHECKLIST FOR PROJECT APPLICANTS
The following checklist is provided to inform you of what documents are necessary to expedite the Department of Fish and Wildlife (CDFW) processing of your Habitat Management Land acquisition proposal. Any land acquisition processing requests which are incomplete when received, will be returned. The Region contact will review and approve the document package and forward it to the Habitat Conservation Planning Branch Senior Land Agent with a request to process the land acquisition for formal acceptance.

To: _____
Regional Manager, Region Name

From: _____
Project Applicant

Phone: _____

Tracking #: _____
CDFW assigned permit or agreement #

Project Name: _____

Enclosed is the complete package for the Conservation Easement OR Grant Deed

Documents in this package include:

Fully executed, approved as to form Conservation Easement Deed or Grant Deed.

Date executed: _____

Proposed Lands for Acquisition Form (PLFAF)

Phase I Environmental Site Assessment Report Date on report: _____

(An existing report may be used, but it must be less than two years old.)

Preliminary Title Report(s) for subject property is enclosed and has been reviewed for encumbrances and other easements. The title report must be less than six months old when final processing is conducted.

Included are additional documents:

document(s) to support title exceptions

document(s) to explain title encumbrances

a plot or map of easements/encumbrances on the property

Policy of Title Insurance (an existing title policy is not acceptable)

County Assessor Parcel Map(s) for subject property

Site Location Map (Site location with property boundaries outline on a USGS 1:24,000 scale topo)

Final Permit or Agreement (or other appropriate instrument)

Type of agreement: Bank Agreement Mitigation Agreement

Permit _____ Other: _____

(write in type of permit)

Final Management Plan (if required prior to finalizing permit or agreement or if this package is for a Grant Deed)

Biological Resources Report

Draft Summary of Transactions hard copy electronic copy (both are required)

PROPOSED LANDS FOR ACQUISITION FORM ("PLFAF")

Date: _____

TO: Regional Representative

Facsimile:

FROM: _____

Applicant proposes that the following parcel of land be considered for approval by the CDFW as suitable for purposes of habitat management lands to replace the adverse environmental impacts of the Project:

<u>Section</u>	<u>Township</u>	<u>Range</u>	<u>Number of Acres</u>
_____	_____	_____	_____

Current Legal Owner(s), include Parcel Number(s):

Location of Parcel:

APPROVED _____
REJECTED _____

By: _____

DATE: _____

Region

Explanation: _____

ATTACHMENT 4

IRREVOCABLE STANDBY LETTER OF CREDIT

IRREVOCABLE STANDBY LETTER OF CREDIT
NO. [*Number issued by financial institution*]

Issue Date: [*date*]

Beneficiary:

Department of Fish and Wildlife
1416 Ninth Street, 12th Floor
Sacramento, CA 95814
Attn: HCPB Mitigation Account Coordinator

Amount: U.S. \$[*dollar number*] [(*dollar amount*)]

Expiry: [*Date*] at our counters

Dear Sirs:

1. At the request and on the instruction of our customer, [*name of applicant*] ("Applicant"), we, [*Name of financial institution*] ("Issuer"), hereby establish in favor of the beneficiary, the California Department of Fish and Wildlife ("CDFW"), this irrevocable standby letter of credit ("Credit") in the principal sum of U.S. \$[*dollar number*] [(*dollar amount*)] ("Principal Sum").
2. We are informed this Credit is and has been established for the benefit of the CDFW pursuant to the terms of the incidental take permit for the [*name of project*] issued by the CDFW to the Applicant on [*date*] (No. [*number*]) ("Permit").
3. We are further informed that pursuant to the Permit, the Applicant has agreed to complete certain mitigation requirements, as set forth in Conditions [*numbers*] in the Permit ("Mitigation Requirements").
4. We are finally informed that this Credit is intended by the CDFW and the Applicant to serve as a security device for the performance by the Applicant of the Mitigation Requirements.
5. The CDFW shall be entitled to draw upon this Credit only by presentation of a duly executed Certificate for Drawing ("Certificate") in the same form as Attachment A, which is attached hereto, at our office located at [*name and address of financial institution*].
6. The Certificate shall be completed and signed by an "Authorized Representative" of the CDFW as defined in paragraph 12 below. Presentation by the CDFW of a

completed Certificate may be made in person or by registered mail, return receipt requested, or by overnight courier.

7. Upon presentation of a duly executed Certificate as above provided, payment shall be made to the CDFW, or to the account of the CDFW, in immediately available funds, as the CDFW shall specify.
8. If a demand for payment does not conform to the terms and conditions of this Credit, we shall give the CDFW prompt notice that the demand for payment was not effected in accordance with the terms and conditions of this Credit, state the reasons therefore, and await further instruction.
9. Upon being notified that the demand for payment was not effected in conformity with the Credit, the CDFW may correct any such non-conforming demand for payment under the terms and conditions stated herein.
10. All drawings under this Credit shall be paid with our funds. Each drawing honored by us hereunder shall reduce, *pro tanto*, the Principal Sum. By paying to the CDFW an amount demanded in accordance herewith, we make no representations as to the correctness of the amount demanded.
11. This Credit will be cancelled upon receipt by us of Certificate of Cancellation, which: (i) shall be in the form of Attachment B, which is attached hereto, and (ii) shall be completed and signed by an Authorized Representative of the CDFW, as defined in paragraph 12 below.
12. An "Authorized Representative" shall mean either the Director of the Department of Fish and Wildlife, the General Counsel of the Department of Fish and Wildlife, or a Regional Manager of the Department of Fish and Wildlife.
13. This Credit shall be automatically extended without amendment for additional periods of one year from the present or any future expiration date hereof, unless at least sixty (60) days prior to any such date, we notify the CDFW in writing by registered mail, return receipt requested, or by overnight courier that we elect not to consider this Credit extended for any such period.
14. Communications with respect to this Credit shall be in writing and addressed to us at [**name and address of financial institution**], specifically referring upon such writing to this credit by number. The address for notices with respect to this Credit shall be: (i) for the CDFW: Department of Fish and Wildlife, Habitat Conservation Planning Branch, 1416 Ninth Street, 12th Floor, Sacramento, California 95814-2090 Attn: HCPB Mitigation Account Coordinator; and (ii) for the Applicant: [**name and address of applicant**].
15. This Credit may not be transferred.

16. This Credit is subject to the International Standby Practices 1998 ("ISP 98"). As to matters not covered by the ISP 98 and to the extent not inconsistent with the ISP 98, this credit shall be governed by and construed in accordance with the Uniform Commercial Code, Article 5 of the State of California.
17. This Credit shall, if not canceled, expire on [**expiration date**], or any extended expiration date.
18. We hereby agree with the CDFW that documents presented in compliance with the terms of this Credit will be duly honored upon presentation, as specified herein.
19. This Credit sets forth in full the terms of our undertaking. Such undertaking shall not in any way be modified, amended or amplified by reference to any document or instrument referred to herein or in which this Credit is referred to or to which this Credit relates and any such reference shall not be deemed to incorporate herein by reference any document or instrument.

[Name of financial institution]

By: _____
Name: _____
Title: _____

ATTACHMENT A

IRREVOCABLE STANDBY LETTER OF CREDIT NO. **[Number issued by financial institution]**
CERTIFICATE FOR DRAWING

To:

[Name and address of financial institution]

Re: Incidental Take Permit No. **[permit number]**

The undersigned, a duly Authorized Representative of the Department of Fish and Wildlife ("CDFW"), as defined in paragraph 12 in the above-referenced Irrevocable Standby Letter of Credit ("Credit"), hereby certifies to the Issuer that:

1. **[Insert one of the following statements:** "In the opinion of the CDFW, the Applicant has failed to complete the Mitigation Requirements referenced in paragraph 3 of the Credit." **or** "As set forth in paragraph 13, the Issuer has informed the CDFW that the Credit will not be extended and the Applicant has not provided the CDFW with an equivalent security approved by the CDFW to replace the Credit."]
2. The undersigned is authorized under the terms of the Credit to present this Certificate as the sole means of demanding payment on the Credit.
3. The CDFW is therefore making a drawing under the Credit in amount of U.S. \$ _____.
4. The amount demanded does not exceed the Principal Sum of the Credit.

Therefore, the CDFW has executed and delivered this Certificate as of the ____ day of _____, _____.

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

BY: _____
REGIONAL MANAGER, **[NAME OF REGIONAL OFFICE]**

ATTACHMENT B

IRREVOCABLE LETTER OF CREDIT NO. [*Number issued by financial institution*]
CERTIFICATE FOR CANCELLATION

To:

[Name of financial institution and address]

Re: Incidental Take Permit No. [*permit number*]

The undersigned, a duly Authorized Representative of the California Department of Fish and Wildlife ("CDFW"), as defined in the paragraph 12 in the above-referenced Irrevocable Standby Letter of Credit ("Credit"), hereby certifies to the Issuer that:

1. [*Insert one of the following statements: "The Applicant has presented documentary evidence of full compliance with the Mitigation Requirements referenced in paragraph 3 of the Credit." or "The natural expiration of this Credit has occurred."*]

2. The CDFW therefore requests the cancellation of the Credit.

Therefore, the CDFW has executed and delivered this Certificate for Cancellation as of the ____ day of _____, _____.

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

BY: _____

[Insert one of the following: "DIRECTOR" or "GENERAL COUNSEL" or "REGIONAL MANAGER, [NAME OF REGIONAL OFFICE]"

Attachment 5

MITIGATION PAYMENT TRANSMITTAL FORM

Mitigation Payment Transmittal Form

Project Applicant Instructions: Please fill out and attach this form to payment. For conservation banks, also attach the Bill(s) of Sale for credits sold. One form may be used for multiple transactions, BUT YOU MUST USE A SEPARATE FORM FOR EACH CHECK YOU TRANSMIT. Make sure to include Project Name, Project Tracking Number, and FASB Mitigation Tracking Number (if available) on the attached payment type.

(1) **DATE:** _____

TO: Leslie McNair

3602 Inland Empire Blvd Suite 220, Ontario, CA 91764

(2) **FROM:** _____

Name

Mailing Address

City, State, Zip

Telephone Number/FAX Number

(3) **RE:** State Route 58 (SR-58) Hinkley Expressway

(4) **AGREEMENT/ACCOUNT INFORMATION:**

(Check the applicable type)

2081 Permit Conservation Bank 1802 Agreement

2835 NCCP Other _____

2081-2013-071-06

[Project Tracking Number]

[FASB Mitigation Tracking Number (if available)]

Index _____ PCA _____

(5) **PAYMENT TYPE** (One check per form only): The following funds are being remitted in connection with the above referenced project:

Check information:

Total \$ _____ Check No. _____

Account No. _____ Bank Routing No. _____

a. Endowment: for Long-Term Management Subtotal \$ _____

b. Habitat Enhancement Subtotal \$ _____

c. Security:

1. Cash Refundable Security Deposit Subtotal \$ _____

2. Letter of Credit Subtotal \$ _____

1. Financial Institution: _____

2. Letter of Credit Number: _____

3. Date of Expiration: _____

ATTACHMENT 6

Memorandum of Agreement for the Mitigation Bank

DEPARTMENT OF TRANSPORTATION

DISTRICT 8

ENVIRONMENTAL PLANNING (MS 1222)

464 WEST 4TH STREET, 6TH FLOOR

SAN BERNARDINO, CA 92401-1400

PHONE (909) 388-7725

FAX (909) 383-7445

TTY (909) 383-6300

*Flex your power!
Be energy efficient!*

July 27, 2011

Ms. Tonya Moore, Office Chief
California Department of Fish and Game
Inland Desert Region 6 Office

Dear Ms. Moore:

This letter shows the California Department of Transportation's (Caltrans) intent to make use of the mitigation bank that was acquired by Caltrans in 2001 per the Memorandum of Agreement (MOA) signed by Caltrans and the Department of Fish and Game (DFG) in 2000 that amended a previous MOA dated in 1992. Attached are copies of the above-mentioned MOAs. As shown in the attachments, Caltrans transferred the lands along with the enhancement and endowment fees to your organization in 2001 as agreed in the MOAs. This mitigation land was acquired for several Caltrans projects in different Districts, including the SR-58 Realignment Project at Hinkley (EA 04351). For various reasons this project was not previously built but is now in the process of getting its environmental documentation approved. Caltrans is requesting DFG to modify previous mitigation agreements discussed in meetings with your organization due to the implementation of the mentioned MOAs.

Caltrans is also requesting from DFG the amount of mitigation land that has already been used from the bank and if there is any additional mitigation land still available for other projects. Caltrans has several projects within the vicinity and it is interested in using any additional land left in the mitigation bank as well as purchasing additional parcels within the area to augment the mitigation bank.

Caltrans is available to meet with your agency to discuss these issues and to respond to any questions that may arise. Please note that a resolution of this issue is time sensitive.

Ms. Tonya Moore
July 27, 2011

If you have any questions or concerns please contact me at (909) 388-4252 or Juan Lopez Torres at (909) 388-2070

Sincerely,

Don Copeland
Senior Environmental Planner
Biological Studies and Permits Branch

Attachments

MOA by and between California Department of Transportation and the California Department of Fish and Game

MOA by and between California Department of Transportation and the California Department of Fish and Game

Certificate of Acceptance # 100

CDFG receipt ENV001 # 16155

CDFG receipt ENV001 # 16157

Memorandum

To: STAN LISIEWICZ
District Director
District 8

Date: October 25, 2000

File:

From: The Department of Transportation
District 9

Subject: MOA between Caltrans & the California Department of Fish and Game

Attached, for your records, please find a copy of an executed Memorandum of Agreement (MOA) between the California Department of Transportation (Caltrans) and the California Department of Fish and Game (CDF&G). This MOA and the subsequent purchase of land and payment to the CDF&G brings to conclusion Caltrans obligation of mitigation for the impacts to the Mohave ground squirrel and the desert tortoise on several projects built in Districts 6, 7, 8, and 9. The original obligation was deferred by an MOA dated April 21, 1992, also attached.

The successful conclusion of this matter would not have been possible without the support of your staff, particularly Paul Gonzales and Dick Doyle. I truly appreciate their efforts in responding to the requests for information needed to finalize this commitment.



THOMAS P. HALLENBECK
District Director

Attachment

c: Paul Gonzales ✓
Dick Doyle

TPH:jh

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
PROJECT PERMIT FEE INVOICE
 RWACCPF (8/96)

To: 1. District R/W Planning & Management
 2. Right of Way Accounting Branch

DATE: April 4, 2001
 PROJECT EA/ SUBJOB: 295300

From: D 09 Eastern Sierra Environmental Branch

09 SB L5515
 Dist. Co Rte Post

PAYMENT FOR:

Permit fee - attach fee schedule or agreement

Other - Environmental Mitigation endowment fee & in lieu of purchase of land - as per MOA 014870

FOR ISSUING CHECK(S):

Return to Dist. Cashier by: 4/16/01
 Date in District

Attn: Tom Davak

Mail to payee by: _____
 Date in Mail

CERTIFICATION OF FUNDS

I hereby certify that budgeted funds are available for the period and purpose of the expenditure shown.

Initials: _____ Date _____

PAYMENT INSTRUCTIONS:

(1) Permit type: Environmental Mitigation
 Payee: Department of Fish and Game
 Address: P.O. Box 944209
 Sacramento, CA 94244-2090

Amount: \$748,800.00
 Pmt Identifier: * 9MIT1/295300
 Vendor # _____

(2) Permit type: Environmental Mitigation
 Payee: Department of Fish and Game
 Address: P.O. Box 944209
 Sacramento, CA 94244-2090

Amount: \$814,246.00
 Pmt Identifier: * 9MIT2/295300
 Vendor # _____

(3) Permit type: _____
 Payee: _____
 Address: _____

Amount: \$ _____
 Pmt Identifier: * _____
 Vendor # _____

* Appears on check or remittance advice

REQUESTED BY:

sign: Tom Davak Date: 4/5/01
 print: Tom Davak Telephone: (760)872-0690

APPROVED BY:

sign: T. J. Hallock Date: 4/5/01
 print: Thomas E. Hallock Telephone: (760) 872-0602

RIGHT OF WAY PLANNING AND MANAGEMENT TO COMPLETE UNSHADED FIELDS

TC	INVOICE NUMBER	SRC DIST	UNIT	CHG DIST	EA	SUB JOB	SPECIAL DESIGNATION	FA	OBJ CODE	DOLLAR AMOUNT	FFY
	16157	06	400	09	295300		9MIT1/295300	7	088	\$748,800.00	01
	16158	06	400	09	295300		9MIT2/295300	7	088	\$814,246.00	01
			400				6	7	088		
			400				6	7	088		

R/W PLANNING & MANAGEMENT APPROVAL:

sign: Kathlene Butner Date: 4/5/01
Kathlene Butner

ACCOUNTING NOTE: All data must be entered exactly as shown. Verify coding prior to entry into TRAMS. If any change is necessary, contact R/W Planning and Management who will fax revised copy to R/W Accounting.

DEPARTMENT OF TRANSPORTATION

DISTRICT 9
300 S. Main Street
Bishop, CA 93514



February 4, 1999

Mr. Alan Pickard
Senior Biologist
Department of Fish and Game
407 West Line Street
Bishop, California 93514

Dear Mr. Pickard:

Thank you for meeting with Tom Dayak and myself on Tuesday, February 2, 1999, to discuss the amount of mitigation habitat Caltrans needs to acquire for the Department of Fish and Game to fulfill the terms of the Memorandum of Agreement between the California Department of Transportation and the California Department of Fish and Game signed on April 22, 1992.

Following is a listing of the projects covered by the MOA and the amount of habitat acreage required for each project as determined by the Biological Opinions issued by the Department of Fish and Game and as agreed to in our meetings to date:

• Ker-014-25.5/35.4		1,106.0 acres
• Ker-014-62.0/64.5		
• Ker-395-29.2/30.4		
• Ker-395-30.4/36.8	These three projects were combined.	969.0 acres
• Iny-395-25.8/31.2		395.0 acres
• SBd-015-75.3/75.5		2.0 acres
• SBd-018-97.5/101.1		70.0 acres
• SBd-058-0.0/9.0	This project was never constructed. Mitigation will be determined if the project is reprogrammed for construction.	0.0 acres
• SBd-058-9.0/24.0		1,418.0 acres
• SBd-058-22.7/39.5		920.0 acres
• LA-138-57.2/60.3		3.8 acres
• LA-138-53.0/69.4		<u>14.5 acres</u>
Total acreage required as per MOA:		4,898.3 acres

Mr. Alan Pickard
February 4, 1999
Page two

In addition to the above projects, there were several additional minor projects that were referenced back to the terms of the MOA for purchase of replacement habitat.

• Ker-178-90.6	2.6 acres
• Ker-395-3.7/4.3	26.7 acres
• Iny-395-0.0/11.8	12.2 acres
• Iny-395-6.9/7.9	15.0 acres
• Iny-395-17.7/18.1	1.5 acres
• SBd-178-12.0/14.6	<u>20.0 acres</u>
Total acreage required for projects referenced to the MOA:	78.0 acres

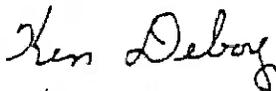
Total acreage to fulfill replacement habitat mitigation requirements
for all of the above listed projects: 4,976.3 acres

As we discussed during our meeting, please provide the Biological Opinion covering the four Inyo county projects (Iny-395-0.0/11.8, Inyo-395-6.9/7.9, Inyo-395-17.7/18.1, and Inyo-395-25.8/31.2) and the San Bernardino project (SBd-178-12.0/14.6) to Caltrans for inclusion in our project records.

Also, please provide Caltrans written confirmation that purchase of this amount of mitigation habitat will fulfill the requirements of the Memorandum of Agreement.

I look forward to meeting with you soon to reach concurrence on areas where suitable mitigation land should be purchased.

Sincerely,



KEN DEBOY
Project Manager

KD:mam

STATE OF CALIFORNIA - THE RESOURCES AGENCY

DEPARTMENT OF FISH AND GAME

Eastern Sierra and Inland Deserts Region
407 West Line Street
Bishop, California 93514
(760)872-1171



February 19, 1999

Mr. Tom Hallenbeck, District Director
Department of Transportation
District 9
500 South Main Street
Bishop, California 93514

99 FEB 22 11 30 AM

Attention: Mr. Ken Deboy

Dear Mr. Deboy:

Department of Fish and Game staff have reviewed your February 4, 1999 letter (attached) regarding mitigation habitat required pursuant to the Memorandum of Agreement between the California Department of Transportation and the California Department of Fish and Game signed on April 22, 1992 (MOA). The Department of Fish and Game concurs with the required acreage for each of the identified projects and the determination of the total acreage requirement of 4,976.3 acres.

I will forward the Biological Opinion for the four Inyo County projects for your files as soon as it is completed. As we have discussed recently, Department of Fish and Game staff will soon begin the process of identification of suitable lands for consideration. This process may involve other participants including Caltrans and the Bureau of Land Management, and perhaps others. I hope to begin this next step during March.

Thanks for your participation and attention to this matter and I look forward to a successful completion to the MOA.

Sincerely,

Alan Pickard
Alan Pickard, Supervisor
Habitat Conservation Program

Attachment

cc: Mr. Curt Taucher
Ms. Denyse Racine

STATE OF CALIFORNIA
 DEPARTMENT OF FISH AND GAME
 SACRAMENTO

CALTRANS
 ATTN: TOM DAYAK
 500 SOUTH MAIN STREET
 BISHOP, CA 93514

INVOICE NO. 16157

03/30/01

DATE _____

DESCRIPTION	AMOUNT
PURSUANT TO MOA (CALTRANS/STIP-MISC MOJAVE PROJECTS) BETWEEN DOT AND DFG AS AMENDED AND EXECUTED ON SEPTEMBER 2000, REF 2.	748,800.00

CALTRANS
 2000 APR -2 (11) 147

CC: LYN PITTS / FASB

QUESTIONS CALL, BILL AGNEW (916) 653-0866 **TOTAL AMOUNT DUE** 748,800.00

ACCOUNTING USE ONLY

TC: 120 FY: 00 INDEX: N961 PCA: P0000 SOURCE: 161400 AS: 98
 PROJECT: MT0207-00 TYPE: 2 - FM: 09 BATCH: 511 BATCH DATE: 03/30/01
 DOC: 00016157-00 AMOUNT: 748,800.00

IMPORTANT Make remittance payable to: Dept. of Fish and Game. Send a copy of the invoice along with the remittance to: Dept. of Fish and Game, P.O. Box 944209, Sacramento, CA 94244-2090

STATE OF CALIFORNIA
DEPARTMENT OF FISH AND GAME
SACRAMENTO

CALTRANS
ATTN: TOM DAYAK
500 SOUTH MAIN STREET
BISHOP, CA 93514

INVOICE NO. 16158

03/30/01

DATE _____

DESCRIPTION	AMOUNT
PURSUANT TO MOA (MOJAVE GROUND SQUIRREL STUDIES) BETWEEN DOT AND DFG AS AMENDED AND EXECUTED ON SEPTEMBER 2000, REF 4.	814,246.00
CC: LYN PITTS / FASB	

APR 2 11 04 AM '01
 CALTRANS

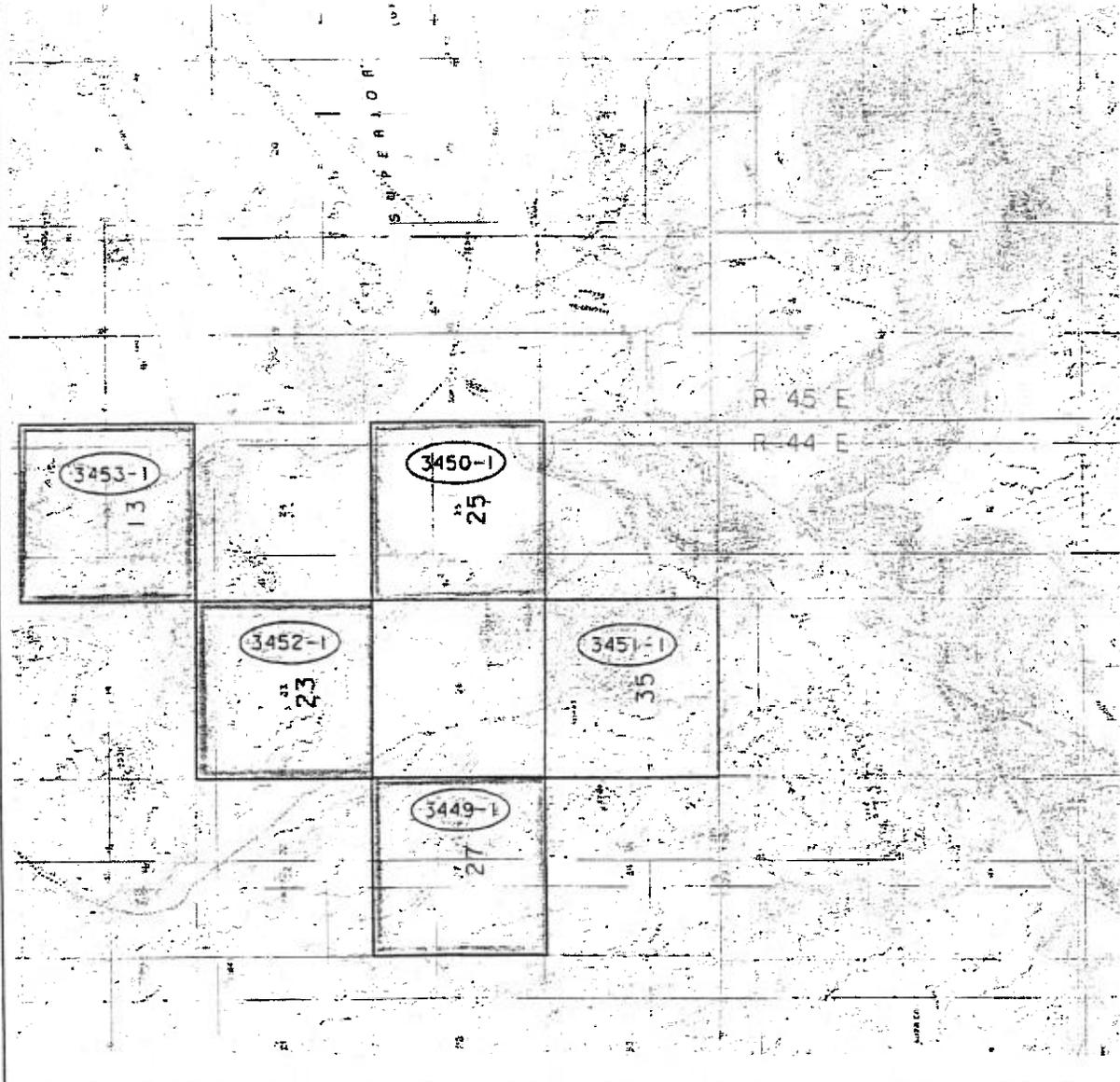
QUESTIONS CALL, BILL AGNEW (916) 653-0866 **TOTAL AMOUNT DUE** 814,246.00

FOR ACCOUNTING USE ONLY

TC: 120 FY: 00 INDEX: N960 PCA: P0300 SOURCE: 161400 AS: 99
 PROJECT: MT0201-06 TYPE: 2 FM: 09 BATCH: 511 BATCH DATE: 03/30/01
 DOC: 00016158-00 AMOUNT: 814,246.00

IMPORTANT Make remittance payable to: Dept. of Fish and Game. Send a copy of the invoice along with the remittance to: Dept. of Fish and Game, P.O. Box 944209, Sacramento, CA 94244-2090

DATE	REVISED	REVISIONS	DATE	REVISED	REVISIONS	DATE	REVISED	REVISIONS



PARCEL	GRANTOR	INST	RECORD	DATE	AREAS - HECTARES/ACRES			F
					REQUIRED	UND.FEE	REMAINDER	
3449-1	CATELLUS	F			259/640			MITIGATI
3450-1	CATELLUS	F			259/640			
3451-1	CATELLUS	F			259/640			
3452-1	CATELLUS	F			259/640			
3453-1	CATELLUS	F			259/640			
3454-1	CATELLUS	F			259/640			

RECORDED AT THE REQUEST OF
FIRST AMERICAN TITLE INSURANCE CO.

Recorded in Official Record, County of
San Bernardino, Larry Walker, Recorder

Doc No. 20010001597
3:00pm 01/03/01

RECORDING REQUESTED BY

WHEN RECORDED MAIL TO:

State of California
Department of Fish and Game
Wildlife Conservation Board
1807 - 13th Street, Suite 101
Sacramento, California 95814-7117

STATE BUSINESS - NO RECORDING FEE
(Gov. Code 27385)

First American Title B # 601

1	2	3	4	5	6	7	8	9	0
PG	FE	AP	RMS	PH	DPY	CR	OPT	ADD	RM
5	0								
NON ST	LI	SVT	CIT-CD	TRANS	TAX	DA	DRS	LEAS	
			5				0.01		

412612 NP

AP 501-071-01 03 05
AP 501-101-03 05 ZIP: 92408 Rec / Sub: Rec

Space above this line for Recorder's Use

GRANT DEED
(CORPORATION)

AP 459-141-05

SE PACIFIC PROPERTIES INC.

a corporation organized and existing under and by virtue of the laws of the State of Delaware

_____ does hereby GRANT to the STATE OF CALIFORNIA all that real property in

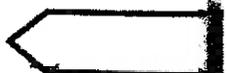
the unincorporated area of the County of San Bernardino, State of California, described as:

Those portions of T. 31 S., R. 44 E., M.D.M. according to the official plat thereof described as:

- All of Section 27.
- All of Section 25.
- All of Section 35.
- All of Section 23.
- All of Section 13.

That portion of T. 11 N., R. 3 W., S.B.M. according to the official plat thereof described as:

- All of Section 13.



**CATEGORICAL EXEMPTION
CATEGORICAL EXCLUSION/PROGRAMMATIC CATEGORICAL EXCLUSION
DETERMINATION FORM**

09-SBD-58	Various	295300	
Dist.-Co.-Rte. (or Local Agency)	K.P./P.M)	E.A. (State project)	Proj. No. (Local project) Fed. Prog. Prefix Proj. No., Agr. No.)

PROJECT DESCRIPTION: (Briefly describe purpose, location, limits, right-of-way requirements, and activities involved.)

The proposed project is to purchase mitigation lands to satisfy a Memorandum of Agreement (MOA) entered into between the California Department of Transportation (Caltrans) and the California Department of Fish and Game (CDFG). Caltrans will purchase mitigation lands to protect, conserve, restore, and enhance habitat for the Mohave ground squirrel and the desert tortoise, which were impacted as a result of several State highway improvement projects. Caltrans will purchase approximately 5,153 acres of habitat, and \$100 for each acre will be transferred to the CDFG for habitat improvements. Caltrans shall also transfer \$95 per acre to the CDFG account for a long-term management endowment at the time title to the habitat management lands is transferred to the CDFG. Moneys not used for the initial improvements shall also go into the long-term management endowment account. (Continued on attached page.)

CEQA COMPLIANCE

LOCAL ASSISTANCE PROJECTS: Record of CEQA compliance is attached.

STATE PROJECTS:

Categorical Exemption (See 14 CCR 15300 et seq.)

- If the project falls within exempt class 3, 4, 5, 6 or 11, it does not impact an environmental resource of hazardous waste or critical concern where designated, precisely mapped and officially adopted pursuant to law.
- There will not be a significant cumulative effect by this project and successive projects of the same type in the same place, over time.
- There is not a reasonable possibility that the project will have a significant effect on the environment due to unusual circumstances.
- This project does not damage a scenic resource within an officially designated state scenic highway.
- This project is not located on a site included on any list compiled pursuant to Govt. Code § 65962.5 (Cortese List).
- This project does not cause a substantial adverse change in the significance of a historical resource.

CALTRANS CEQA DETERMINATION (for State Projects only)

Exempt by Statute (PRC 21080)

Based on an examination of this proposal, supporting information, and the above statements, the project is:

Categorically Exempt Class 13 or General Rule exemption (This project does not fall within an exempt class, but it can be seen with certainty that there is no possibility that the activity may have a significant effect on the environment [CCR1506] (b)(3))

Thomas B. Dayak 2/4/00
Signature: Environmental Office Chief Date

Kenneth M. Delany 5-1-00
Signature: Project Manager Date

NEPA COMPLIANCE (23 CFR 771.117)

CATEGORICAL EXCLUSION

- This project does not have a significant impact on the environment as defined by the NEPA.
- This project does not involve substantial controversy on environmental grounds.
- This project does not involve significant impacts on properties protected by Section 4(f) of the DOT Act or Section 106 of the National Historic Preservation Act.
- In non-attainment or maintenance areas for Federal air quality standards: this project comes from a currently conforming plan and Transportation Improvement Program.
- This project is consistent with all Federal, State, & local laws, requirements or administrative determinations relating to the environmental aspects of this action.

PROGRAMMATIC CATEGORICAL EXCLUSION

Based on the evaluation of this project and supporting documentation in the project files, all the conditions of the September 7, 1990 Programmatic Categorical Exclusion have been met.

CALTRANS NEPA DETERMINATION

Based on an examination of this proposal, supporting information, and the above statements, it is determined the project is a:

Categorical Exclusion

Programmatic Categorical Exclusion

Thomas B. Dayak 2/4/00
Signature: Environmental Office Chief Date
(for all State & Local CEs)

Kenneth M. Delany 5-1-00
Signature: Project Manager/DLA Engineer Date
(PM: for all State CEs / DLAE: for Local Asst. PCEs)

FHWA DETERMINATION (if applicable)

Based on the evaluation of this project and the statements above, it is determined that the project meets the criteria of and is properly classified as a Categorical Exclusion.

Signature: FHWA Transportation Engineer

Date

Continuation of the project description for the Categorical Exemption/Exclusion EA-09-295300.

Listed by district, county, route, and post mile (PM) are projects that were required to set aside moneys for the mitigation land and are thus covered under the MOA:

07-LA-138, PM 53.0-69.9

07-LA-138, PM 57.2-60.3

08-SBD-15; PM 75.3-75.5

08-SBD-18; PM 97.7-101.1

08-SBD-58; PM 9.0-24.0

08-SBD-58; PM 22.7-39.5

09-KER-14; PM 25.5-30.7

09-KER-14; PM 30.7-35.5

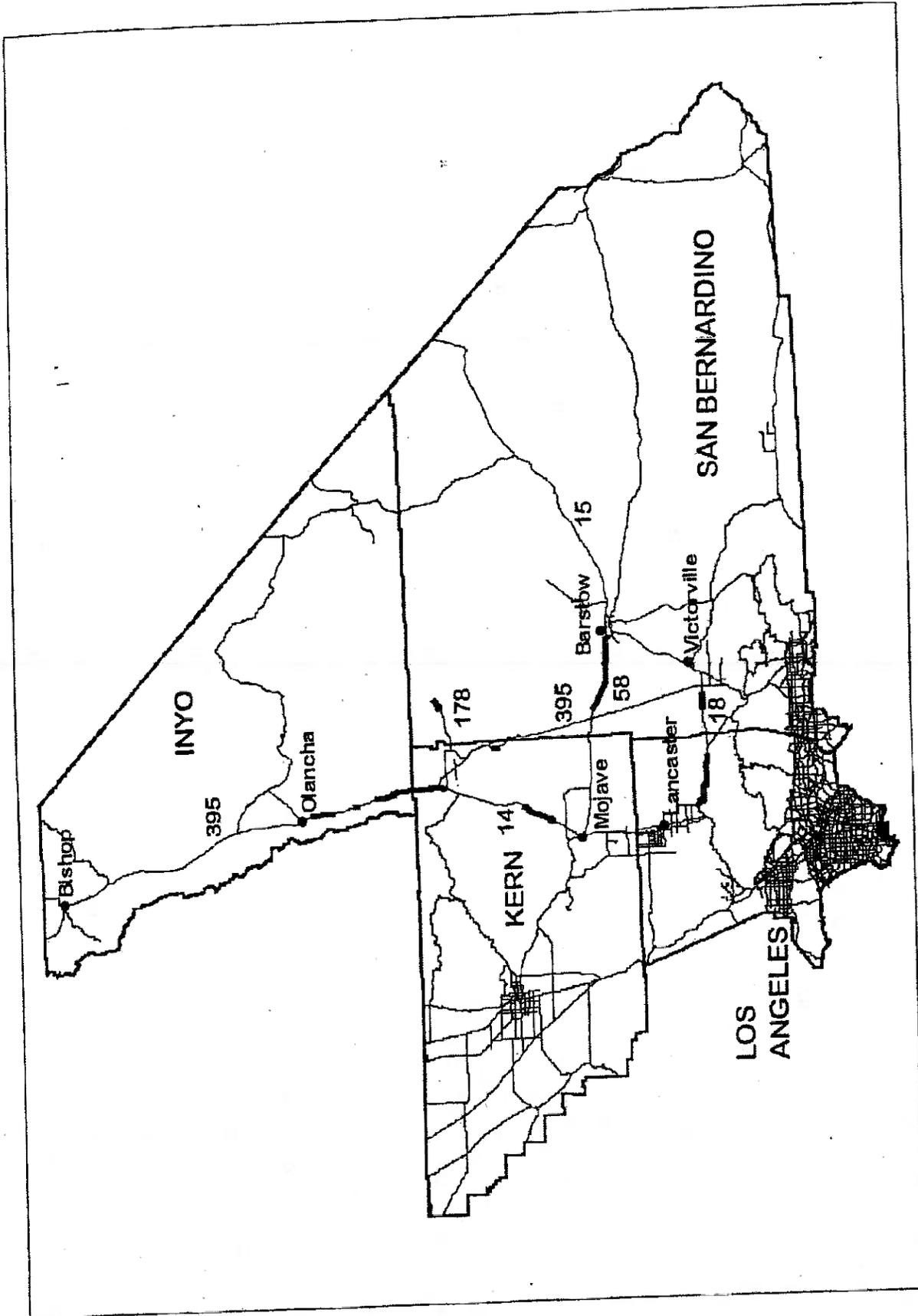
09-KER-14; PM 42.0-46.2

09-KER-14/395; PM 62.0-64.5/29.2-30.7

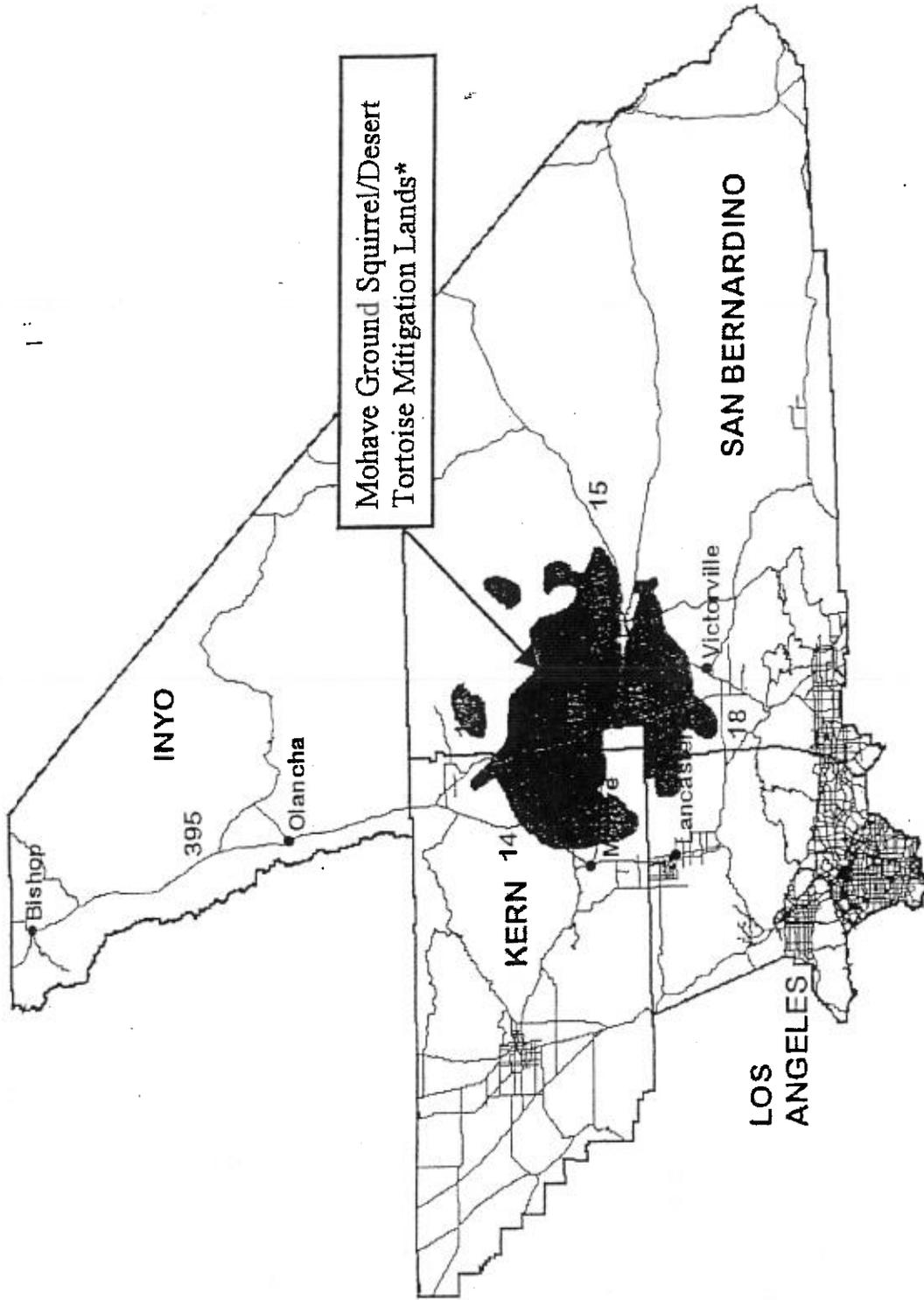
09-KER/INY-395; PM 30.0-36.8/0.0-0.7

09-INY-395; PM 25.8-31.2

Upon the transfer of mitigation lands and associated moneys to the CDFG, the MOA will have been honored and Caltrans will have no further involvement. No sensitive environmental resources will be impacted by this project as proposed.



— Highway projects covered by MOA



* Area where suitable mitigation acreage may be purchased

MEMORANDUM OF AGREEMENT

CERTIFIED COPY
Kathleen Becken

by and between the

CALIFORNIA DEPARTMENT OF TRANSPORTATION

and the

CALIFORNIA DEPARTMENT OF FISH AND GAME

THIS AGREEMENT IS AN AMENDMENT TO THE MEMORANDUM OF AGREEMENT BETWEEN THE CALIFORNIA DEPARTMENT OF TRANSPORTATION AND THE CALIFORNIA DEPARTMENT OF FISH AND GAME, MADE AND ENTERED INTO ON APRIL 21, 1992, REGARDING THE PURCHASE OF LAND FOR THE MITIGATION OF TRANSPORTATION PROJECTS IN THE MOJAVE DESERT.

RECITALS

- A. WHEREAS, a Memorandum of Agreement (MOA) was made and entered into on April 21, 1992, between the California Department of Transportation, hereinafter referred to as CALTRANS, and the California Department of Fish and Game, hereinafter referred as CDFG, to provide a process whereby CALTRANS could proceed with the construction of certain specified projects prior to the purchase of the mitigation habitat required for said projects, and provide said habitat land at a future date, and;
- B. WHEREAS, CALTRANS and CDFG have determined that the required amount of mitigation land to be purchased by CALTRANS for the CDFG is 4,976.3 acres to fulfill the requirements of the original MOA, and;
- C. WHEREAS, the Biological Opinion for an additional project CALTRANS has constructed (9-Ker-14-42.0/46.2, Red Rock Four-lane Project) requires that 177 acres of compensation habitat be provided as per the provisions of the April 21, 1992, MOA, and;

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D. WHEREAS, CDFG has determined that the data needed to develop a plan to better ensure the continued survival of the Mohave ground squirrel is inadequate, and that additional information concerning the habitat range of the species and the habitat requirements such as terrain, vegetation, climatic conditions, etc., is needed in order to better develop said plan, and to identify suitable habitat for land acquisitions that may be required as mitigation for future Caltrans transportation projects, and;

E. WHEREAS, CDFG has requested that the purchase price of \$425.00 per acre, plus the endowment fee of \$95.00 per acre, and the habitat improvement fee of \$100.00 per acre for 1,313.3 acres of the required 5,153.3 acres be paid to CDFG in lieu of the actual acreage, said monies to be used for additional research of the Mohave ground squirrel,

NOW, THEREFORE, in consideration of the mutual terms and provisions herein set forth, the parties agree to the following:

1. CALTRANS shall purchase six sections (3840 acres) of land for and in the name of CDFG described as follows:

Mount Diablo Meridian, California

T. 31 S., R.44 E.

Sec. 13	640 acres
Sec. 23	640 acres
Sec. 25	640 acres
Sec. 27	640 acres
Sec. 35	640 acres

San Bernardino Meridian, California

T. 11 N., R.3 W

Sec. 13	640 acres
---------	-----------

2. CALTRANS shall transfer \$ 748,800 to CDFG, as an endowment, upon completion of the land purchase. This endowment consists of \$100 per acre for mitigation enhancement, and \$ 95 per acre for long term management of the purchased habitat mitigation lands, as per the provisions of the original MOA.

3. Upon receipt of title and possession of the 3840 acres of mitigation land, CDFG will be responsible for management activities on said parcels. Management activities may include, but are not limited to fencing and signs needed for protection of the property; biological monitoring; patrolling; interaction with Local, State and Federal individuals and organizations working with similar species and land holdings and conducting research; reporting; management of access including vehicles; and removal of trash and other items as determined. All of the above activities shall be performed at no additional expense to CALTRANS.
4. CALTRANS shall transfer the sum of \$ 814,246 to CDFG upon completion of the above land purchase in lieu of purchasing the 1,313.3 additional acres required to fulfill the habitat replacement acreage determined under the provisions of the original MOA. Said monies shall be utilized by CDFG to fund additional research of the Mohave ground squirrel to better determine the habitat requirements and range of the species. Any monies of this allocation not spent by CDFG for research on the species shall be used by CDFG to purchase additional Mojave ground squirrel and desert tortoise mitigation habitat.
5. Interpretation. This agreement shall be governed by and construed in accordance with the laws of the State of California. The captions of paragraphs used in this MOA are for convenience only. No addition to or modification of any term or provision shall be effective unless set forth in writing, and signed by all parties.
6. Exhibits. All exhibits referred to herein are attached hereto and by reference incorporated herein.

"Exhibit A": Memorandum of Agreement between the California Department of Transportation and the California Department of Fish & Game dated April 21, 1992.

"Exhibit B": Map showing general location of constructed projects that require purchase of mitigation habitat land.

"Exhibit C": Map showing where suitable mitigation acreage may be purchased for the Mohave ground squirrel and desert tortoise.

"Exhibit D": Letter from CDFG confirming mitigation acreage required.

"Exhibit E": Biological Opinion for project 9-Ker-14-42.0/46.2, listing the habitat mitigation acreage requirement.

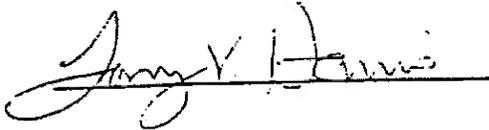
"Exhibit F": Parcel map for land purchase.

7. Any notice permitted or required by this agreement shall be delivered to the persons set forth below or shall be deemed given five (5) days after deposit in the United States mail, certified and postage prepaid, return receipt requested and addressed as follows or at such other address which any party may from time to time notify each of the other parties in writing: (1) Caltrans, District Director, 500 S. Main St., Bishop, CA 93514; (2) California Department of Fish and Game, 407 West Line St., Bishop, CA 93514.
8. This Agreement may be executed in any number of duplicate and counterpart originals. A complete original of this Agreement containing original signatures of each of the parties shall be circulated to each of the parties by Caltrans, and a complete original of this Agreement shall be maintained in the official records of each of the parties hereto.
9. This Agreement has been executed on the day set by each signature attached hereto and shall become effective on the day and year written below.
10. This agreement may be amended only with the written consent of each of the parties hereto.

014870

Executed this _____ day of _____, 2000.

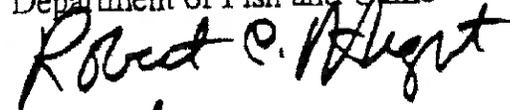
STATE OF CALIFORNIA
Department of Transportation



Director

Date: 9/6/00

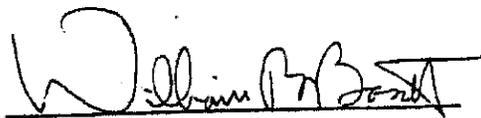
STATE OF CALIFORNIA
Department of Fish and Game


Sept 14-00

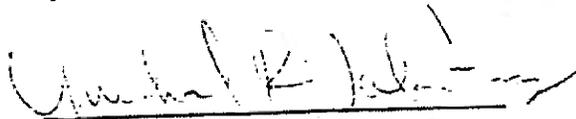
Director

Date: _____

Approved as to form:



Attorney, Dept. of Transportation



Attorney, Dept. of Fish & Game

MEMORANDUM OF AGREEMENT

by and between

CALIFORNIA DEPARTMENT OF TRANSPORTATION

and the

CALIFORNIA DEPARTMENT OF FISH AND GAME

This Memorandum of Agreement (MOA), made and entered into between the California Department of Transportation, hereinafter referred to as CALTRANS, and the California Department of Fish and Game, hereinafter referred to as CDFG, establishes a Land Bank to protect, conserve, restore, and enhance habitat for the Mohave ground squirrel (*Spermophilus mohavensis*) and the desert tortoise (*Gopherus agassizii*), impacted as a result of State highway improvement projects listed in the seven year State Transportation Improvement Program (STIP) adopted by the California Transportation Commission (CTC), and the Minor Improvement Program adopted by CALTRANS for projects in Inyo, Kern, Los Angeles and San Bernardino counties. This MOA also defines agency roles and responsibilities, and provides a common understanding of actions that will be undertaken for the conservation and protection of the listed species and their habitats during the construction of the State highway projects.

The aforementioned agencies enter into this Memorandum in accordance with the California Endangered Species Act of 1984 (CESA), the California Environmental Quality Act (CEQA), the California Endangered Species Act (CSEA) Consultation Memorandum of Understanding (MOU) between Caltrans and CDFG, and the Memorandum of Agreement on Early Mitigation Planning for Transportation Improvements in California.

WHEREAS, the improvement of State highways is required to improve deteriorating congestion conditions and improve public safety, and;

WHEREAS, pursuant to Fish and Game Code Sections 2052 and 2055, CALTRANS has an affirmative duty to utilize its authority to conserve, protect, restore and enhance State listed endangered and threatened species and their essential habitats, and;

WHEREAS, CALTRANS has determined in accordance with CEQA procedures that certain portions, listed hereafter, of the State highways in Inyo, Kern, Los Angeles and San Bernardino counties should be upgraded, and;

WHEREAS, the proposed State highway projects are in areas that have been determined to be habitat for and support numbers of the State listed Mohave ground squirrel, and the State and Federally listed desert tortoise, and;

WHEREAS, funding will be secured by CALTRANS to cover the costs of measures to mitigate and offset project effects to the listed species, and;

WHEREAS, CALTRANS, through formal consultation and agreement with the CDFG has developed a series of measures, including habitat acquisition, to conserve the listed species and their associated habitats during project activities, and;

WHEREAS, the conditions and mitigation necessary to avoid jeopardizing the endangered species pursuant to the CESA are identified in the CDFG's Biological Opinion, and;

WHEREAS, these projects are scheduled to begin construction within the fiscal year listed in the 1990 and subsequent STIPs, or Minor Improvement Program, and;

WHEREAS, the CDFG has not completed development of a Management Plan for the conservation of the listed species, and;

WHEREAS, the identification, appraisal and acquisition of land suitable for habitat mitigation is a lengthy process;

THEREFORE, in order that the projects listed in the STIP and the Minor Improvement Program may commence construction within the time frames scheduled in the STIP, or the Minor Improvement Program, it is mutually agreed and understood that:

1. The purpose of this MOA is to establish a LAND BANK to be held and administered by CDFG from which habitat management lands will be drawn and placed into a Compensation Account managed to offset impacts to habitat lost to listed species caused by the highway improvement projects listed in the 1990 and subsequent STIPs, including the specific projects listed below, and the Minor Improvement Program. Habitat management land identified for the LAND BANK will be acquired by CALTRANS and transferred to the CDFG to fulfill requirements of CESA Biological Opinions for specific projects.

When endangered species habitat for the LAND BANK is acquired by CALTRANS, title to said land may be acquired in the name of the CDFG, or it may be acquired in the name of CALTRANS and transferred to the CDFG at the time habitat management land is required for a specific project.

A compensation account for the LAND BANK shall be administered by the CDFG. This account will list the amount of total acreage placed in the LAND BANK, each project covered by this agreement, the habitat acreage impacted by each project, the amount of compensation habitat management land required for each project, and the amount of remaining land available in the LAND BANK for future projects.

The amount of habitat management land acres transferred to the LAND BANK for each project will be the acreage determined by the CDFG's Cumulative Human Impact Evaluation for Mohave Ground Squirrel Habitat (CHEFMGSH). (Said habitat evaluation method is attached to and is a part of this agreement). If the project has not been evaluated by this method, the acres deeded will be five times the number of habitat acres impacted by the project.

This agreement covers projects listed in the current STIP, the Minor Improvement Program, and the projects in the 1990 STIP listed below:

Project

Ker-014-25.5/35.4

Ker-014-62.0/64.5

Ker-395-29.2/30.4

Ker-395-30.4/36.8

Iny-395-25.8/31.2

SBd-015-75.3/75.5

SBd-018-97.5/101.1

SBd-058-0.0/9.0

SBd-058-9.0/24.0

SBd-058-22.7/39.5

LA-138-57.2/60.3

LA-138-53.0/69.4

2. A separate California Endangered Species Biological Opinion for each project covered under this MOA will be prepared by the CDFG. Each Biological Opinion will identify the reasonable and prudent measures required to offset specific project impacts in order to avoid jeopardizing the continued existence of the species.
3. Habitat management lands, if required by the Biological Opinion, will be acquired by CALTRANS as mitigation for habitat impacted by the highway improvement projects covered under this MOA. Parcels acquired for use as habitat management lands must be suitable habitat for both the Mohave ground squirrel and the desert tortoise. CDFG and CALTRANS shall jointly identify suitable habitat for endangered species in the general area bordered by State Highway Route 14 on the West, the western boundary of Fort Irwin and Fort Irwin Road on the East, State Highway Route 58 on the South, and the El Paso Mountains, the Lava Mountains, and the southern boundary of the military facilities on the North.
4. CALTRANS shall transfer to the CDFG a sum of money to perform habitat improvements on the land and a long-term management endowment at the time title to the habitat management lands are transferred to the CDFG.

The amount required for habitat improvement shall be at the rate of \$ 100 per acre transferred, and shall be used by the CDFG for such initial improvements as fencing, revegetation and construction of micro-relief features. Any amount of this fee not used for habitat improvements shall be deposited in an interest bearing account for subsequent use of the principal and interest by CDFG for benefiting the management needs of the species.

The amount required for the long-term management endowment for habitat management lands shall be at the rate of \$ 95 per acre transferred. The CDFG will place the funds in an interest bearing endowment account the interest from which shall be used by the CDFG for the long-term management of the habitat management lands.

5. Land that is transferred to the LAND BANK to satisfy habitat management requirements shall become the responsibility of the CDFG. The CDFG shall have the authority to manage the land to best insure the conservation of the listed species and their habitat and associated ecosystem, including the right to effect land trades to acquire land that may be more suitable to support the goals of a Management Plan for the species, or to turn the land over to a third party such as the Bureau of Land Management or the Nature Conservancy for management purposes. If the land is transferred to a third party for management purposes, yearly interest from the endowment fund for the management of the land will also be transferred to the party taking over the habitat management lands.
6. Land acquired by CALTRANS for use as habitat management lands may either be land purchased in fee and added to the LAND BANK, or by conservation easement on land presently owned by the U.S. Government and managed by the U.S. Bureau of Land Management (BLM), or a combination of private and BLM lands. If BLM lands are utilized, said lands must be managed in a manner that is consistent with the long-term species survival of the Mohave ground squirrel and the desert tortoise. Only land uses that are compatible with the management of viable wild populations of the target species will be allowed.
7. CALTRANS agrees to acquire the required compensation habitat acreage within 36 months from the date of the signing of this MOA. This land will be placed in the LAND BANK for the habitat management required for the above listed projects. This time limit may be extended only by mutual written agreement of CDFG and CALTRANS.
8. In order to help achieve a viable management plan for the Mohave ground squirrel and the desert tortoise, CALTRANS will assist in the preparation of the "WEST MOJAVE COORDINATED MANAGEMENT PLAN". This is a multi-agency plan being prepared by the BUREAU OF LAND MANAGEMENT, in cooperation with the U.S. FISH AND WILDLIFE SERVICE and the CALIFORNIA DEPARTMENT OF FISH AND GAME, for the management of the target species.

CALTRANS will establish a fund of \$ 300,000 to be used to help finance the preparation of this plan. The fund will be administered by the CDFG, and will be used to fund elements of the plan preparation jointly agreed upon by CDFG, CALTRANS and BLM.

Upon the successful completion of this management plan, BLM acreage within the Management Plan area may be utilized by CALTRANS as compensation habitat provided that CALTRANS obtains conservation easements or other agreements necessary to eliminate land uses incompatible with the long-term survival of the target species. BLM habitat utilized as compensation habitat will be credited to CALTRANS on a one-to-one basis against the total amount of compensation habitat required to offset impacts to habitat lost to listed species by the construction projects.

If the proposed "West Mojave Coordinated Management Plan" for the target species is not completed, or if the plan is not satisfactory to all three of the sponsoring agencies, (BLM, U.S Fish and Wildlife Service, and CDFG), CALTRANS will not utilize BLM managed lands as part of the replacement habitat lands required under this agreement and the California Endangered Species Act Biological Opinion for each project.

9. If CDFG and CALTRANS determine that acreage remains in the LAND BANK in excess of that needed to satisfy the CESA Biological Opinion for the impacts of CALTRANS' projects set out in Section 1 above, those lands shall be retained in the LAND BANK, subject to being credited to CALTRANS as provided below.

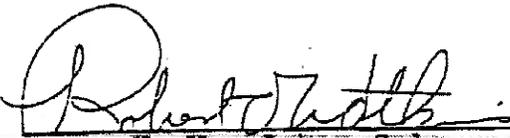
CDFG and CALTRANS shall enter a written agreement to determine the credit amount of acreage remaining in the LAND BANK.

CALTRANS may receive credit in a number of ways including, but not limited to, receiving credit for any remaining acreage in the LAND BANK as compensation habitat for future highway projects. CALTRANS may also sell the remaining acreage credits in the LAND BANK to a third party to satisfy a habitat management obligation, or CDFG may purchase the remaining acreage credits from CALTRANS. Once added to the LAND BANK, acreage cannot be used for any other purpose than for habitat management to offset project impacts to listed species.

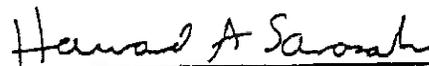
10. This MOA may be amended by the mutual consent of the CDFG and CALTRANS.

STATE OF CALIFORNIA
Department of Transportation

STATE OF CALIFORNIA
Department of Fish and Game



For James W. Van Loben Sels
Director
Date: April 13, 1992



Boyd Gibbons
Director
Date: 4-21-92

Approved as to form and procedure



Attorney, Department of Transportation



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ventura Fish and Wildlife Office
2493 Portola Road, Suite B
Ventura, California 93003



IN REPLY REFER TO:
08EVEN00-2013-F-0104

April 19, 2013

Scott Quinnell, Office Chief
Biological Studies and Permits
District 8, California Department of Transportation
464 W. 4th Street, 6th Floor, MS-822
San Bernardino, California 92401-1400

Mickey Quillman, Chief of Resources
Bureau of Land Management
2601 Barstow Road
Barstow, California 92311

Subject: Biological Opinion for the SR-58 Realignment and Widening Project, San Bernardino County, California (8-8-13-F-15)

Dear Mr. Quinnell:

This document transmits the U.S. Fish and Wildlife Service's (Service) biological opinion based on our review of the California Department of Transportation's (Caltrans) proposal to realign and widen approximately 9 miles of an existing 2-lane conventional highway into a 4-lane expressway between Post Mile (PM) 22.2 and 31.1, on State Route 58 (SR-58) in San Bernardino County, near Hinkley, California. At issue are the effects of the proposed action on the federally threatened desert tortoise (*Gopherus agassizii*). This document was prepared in accordance with section 7(a)(2) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) (Act). The Federal Highway Administration has delegated responsibility for consultation to Caltrans for federally funded actions. Consequently, your request and our response are made pursuant to section 7(a)(2) of the Act. The request for formal consultation from Caltrans was dated October 17, 2012.

This biological opinion is based on information in the biological assessment for the proposed project (Caltrans 2012), various reports and publications, and conversations with your staff and representatives of the Bureau of Land Management (Bureau), which had agreed to be a

cooperating agency. A complete administrative record of this consultation is on file at the Service's Ventura Fish and Wildlife Office.

The proposed action is not located within the boundaries of critical habitat of the desert tortoise and will not affect critical habitat. Consequently, we will not discuss critical habitat again in this biological opinion.

BIOLOGICAL OPINION

CONSULTATION HISTORY

Coordination between Caltrans and representatives of the Service and other agencies has been ongoing since the mid-1980s for this project. Additionally, there have been many personnel at Caltrans and at various agencies who have commented on stages of the development of the proposed project.

The Service issued a biological opinion to the Federal Highway Administration on June 22, 1990 (Service 1990). In that biological opinion, the Service determined that the action, as proposed at that time, was not likely to jeopardize the continued existence of the desert tortoise. In 2001, Caltrans proposed substantial revisions to the proposed action and re-initiated consultation with the Service in 2012.

DESCRIPTION OF THE PROPOSED PROJECT

Description of the Proposed Road Realignment and Widening

We summarized the following description of the proposed action from the biological assessment (Caltrans 2012). Caltrans is proposing to realign and widen SR-58 from a two-lane roadway to a 4-lane expressway/freeway from PM 22.2, 2.86 miles west of Hidden River Road near Hinkley, California, eastward to PM 31.1, 0.75 mile east of Lenwood Road. This is a distance of approximately 9 miles of road realignment and widening. In addition to using Caltrans' right-of-way, land would be acquired from private land owners (approximately 506 acres), the Bureau (approximately 100 acres), and Pacific Gas and Electric (approximately 42 acres).

The project is proposed as a gap closure that will provide route continuity between the four-lane divided freeway to the west and the four-lane divided expressway to the east. SR-58 provides intrastate travel connectivity between SR-101 in San Luis Obispo County, I-5 and SR-99 in Bakersfield County, and I-15 and I-40 in San Bernardino County (Figure 1 in Caltrans 2012). SR-58 has been extensively upgraded to a four-lane controlled access expressway along most of

its length within the western Mojave Desert region; however this section near Hinkley contains only 2 lanes which is insufficient for handling present and anticipated future travel demands.

As described in the biological assessment, Caltrans will be using typical construction equipment and methods within the project area. A cut and fill procedure of up to four feet will be used for the new pavement construction. Fill will be obtained from an existing off-site location; the exact location is unknown at this time and will depend on the contractor who is awarded the project. The existing SR-58 will continue to be used while the alignment is under construction. During construction, one lane of the current SR-58 will be closed and the terminal half mile at each end of the project will be used for staging. Outside the project area, there will be no off-road travel or parking areas.

Measures Proposed to Protect Desert Tortoises

To minimize adverse effects to the desert tortoise, Caltrans would implement the following protective measures during realignment and widening of SR-58. We summarized these measures from the biological assessment (Caltrans 2012) and from personal communications with Caltrans. The authorized biologist will follow the protocols established by the Service in the Desert Tortoise Field Manual (Service 2009) for all handling and translocation of desert tortoises and fencing of desert tortoise habitat. The field manual is located at http://www.fws.gov/ventura/species_information/protocols_guidelines/index.html.

1. Caltrans will designate a field contact representative who is responsible for overseeing compliance with protective stipulations for the desert tortoise and for coordination on compliance. The field contact representative will halt all construction activities that are in violation of the stipulations. The field contact representative will have a copy of the stipulations when on the site. The field contact representative may be the resident engineer or a contracted biologist.
2. At least 30 days prior to the initiation of construction activities within the proposed project site, Caltrans will ensure that their final plans and specifications include all requirements for preconstruction surveys for desert tortoises in all proposed construction staging areas, parking areas, and project elements, and flagging of these areas. The field contact representative will verify compliance with this and all other protective measures.
3. Caltrans will ensure that all construction personnel attend a worker education program presented by the authorized biologist. The program will include information on special status species within the project area, identification of these species and their habitats, techniques being implemented during construction to avoid impacts to species, consequences of killing or injuring

an individual of a listed species, and reporting procedures when encountering listed or sensitive species. Construction crews, foremen, and other personnel potentially working on site will attend this desert tortoise education program and place their name on a sign-in sheet. At a minimum, the construction monitoring notebook will include a copy of the Service's biological opinion, the California Department of Fish and Wildlife (CDFW) section 2081 permit, and a summary of the education program.

4. Only biologists authorized by the Service will handle desert tortoises. Caltrans will submit the name(s) of the proposed authorized biologist(s) to the Service for review and approval at least 30 days prior to the onset of activities. No construction activities will begin until the approval of the authorized biologist(s). The authorized biologist(s) will follow the protocols outlined in chapter 7 of the Desert Tortoise Field Manual (Service 2009) for handling and marking desert tortoises.

5. Prior to the start of construction, Caltrans will require the contractor to install fencing to exclude desert tortoises from all work areas and rights-of-way under the direction of an authorized biologist. Caltrans will construct the fence according to the protocols provided in chapter 8 of the Desert Tortoise Field Manual (Service 2009). If desert tortoises are encountered during installation of the fence, the authorized biologist will move the individual the shortest distance possible to an area outside the fence where it will be safe. Caltrans will be relocating any tortoises found inside the permanent desert tortoise fence onto adjacent Bureau land per agreement with the Bureau. The authorized biologist will use his or her judgment regarding the best measures to use to ensure the desert tortoise does not immediately return to the area inside of the fence. The authorized biologist may contact the Service or CDFW to discuss specific situations if the need arises.

6. Caltrans will maintain the integrity of the fence to ensure that desert tortoises are excluded from the work area during construction and from the roadway thereafter. The fence will be inspected regularly; initially, it will be inspected on a monthly basis, but Caltrans may adopt a different schedule, based on experience. Caltrans will inspect and, if necessary, repair the fence immediately after any rainstorm that occurs during times of the year or at temperatures when desert tortoises are likely to be active.

7. After the fencing is installed and before the onset of ground-disturbing activities, the authorized biologist will survey the area and remove all desert tortoises. The authorized biologist will survey the area as much as is needed to ensure that all desert tortoises have been found; generally, all desert tortoises will be considered to have been removed once a complete survey of the work area is conducted without finding any additional animals. Desert tortoises that are found inside the fenced area will be placed on the other side of the desert tortoise

exclusion fence onto Bureau land. The authorized biologist will use his or her best judgment to determine the optimal location for placement of desert tortoises. In general, desert tortoises will be moved to the nearest safe area south of the road realignment. The authorized biologist will follow the protocols provided in chapter 7 of the Desert Tortoise Field Manual (Service 2009) for marking and translocating desert tortoises.

8. All desert tortoises that need to be moved will be handled as described in chapter 7 of the Desert Tortoise Field Manual (Service 2009) for marking and translocating desert tortoises. These procedures will ensure desert tortoises that are being moved are protected to the greatest degree possible from transmission of disease, exposure to adverse weather conditions, and other adverse situations that may arise during handling.

9. Caltrans will have an authorized biologist on-site throughout the construction period to monitor relocated desert tortoises and to remove any additional individuals encountered during construction. The authorized biologist will follow the protocols provided in chapter 7 of the Desert Tortoise Field Manual (Service 2009) for marking and translocating desert tortoises.

10. Caltrans will ensure that workers do not bring firearms and pets into the project area. This measure does not apply to law enforcement personnel and working dogs.

11. Caltrans will implement a program to ensure that trash and litter generated by the proposed action do not attract common ravens (*Corvus corax*) and other potential predators of the desert tortoise. All trash and food items will be promptly contained within closed, common raven-proof containers. Caltrans will remove containers regularly from the project site to reduce the attractiveness of the area to common ravens and other desert tortoise predators. Project workers will secure vehicle loads to prevent litter from blowing out along the road.

12. As a means of minimizing incidental take of the desert tortoise, the Service shall require the Project applicant to post speed limits of 20 miles per hour (between February 1 and July 1), and strictly enforce speed limits within the project construction area. This speed limit does not apply to existing paved roads.

13. Caltrans will submit a post-construction report to the Service and CDFW within 30 days of the completion of work. This report will include information on: the number of desert tortoises handled, injured, and killed; the results of monitoring of relocated desert tortoises; and any difficulties in implementing the protective measures.

Caltrans is also incorporating many soft bottom culverts along the new alignment as well as ripping up a certain distance of the existing SR-58 and allowing it to revert back to its natural

state in order to accommodate movement of wildlife including desert tortoise. The twenty nine culverts range in size from 36 to 54 inches in diameter.

Caltrans will acquire approximately 2,273 acres of habitat to be managed for the conservation of the desert tortoise (Caltrans 2012, page 29). The location of these lands is unknown at this time.

In addition, the donation and retirement of Bureau grazing allotments and subsequent allocation of forage for wildlife purposes in the West Mojave will occur (Quinnell 2013). The location of these allotments will be in the Western Mojave Recovery Unit, including at a minimum the Lava Mountains Allotment.

ANALYTICAL FRAMEWORK FOR THE JEOPARDY DETERMINATION

Section 7(a)(2) of the Endangered Species Act requires that Federal agencies ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of listed species. “Jeopardize the continued existence of” means to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species (50 Code of Federal Regulations 402.02).

The jeopardy analysis in this biological opinion relies on four components: (1) the Status of the Species, which describes the range-wide condition of the desert tortoise, the factors responsible for that condition, and its survival and recovery needs; (2) the Environmental Baseline, which analyzes the condition of the desert tortoise in the action area, the factors responsible for that condition, and the relationship of the action area to the survival and recovery of the desert tortoise; (3) the Effects of the Action, which determines the direct and indirect impacts of the proposed Federal action and the effects of any interrelated or interdependent activities on the desert tortoise; and (4) the Cumulative Effects, which evaluates the effects of future, non-Federal activities in the action area on the desert tortoise.

In accordance with policy and regulation, the jeopardy determination is made by evaluating the effects of the proposed federal action in the context of the current status of the desert tortoise, taking into account any cumulative effects, to determine if implementation of the proposed action is likely to cause an appreciable reduction in the likelihood of both the survival and recovery of the desert tortoise in the wild.

STATUS OF THE SPECIES

Section 4(c)(2) of the Act requires the Service to conduct a status review of each listed species at least once every 5 years. The purpose of a 5-year review is to evaluate whether or not the species' status has changed since it was listed (or since the most recent 5-year review); these reviews, at the time of their completion, provide the most up-to-date information on the range-wide status of the species. For this reason, we are appending the 5-year review of the status of the desert tortoise (Appendix 1; Service 2010b) to this biological opinion and are incorporating it by reference to provide most of the information needed for this section of the biological opinion. The following paragraphs provide a summary of the relevant information in the 5-year review.

In the 5-year review, the Service discusses the status of the desert tortoise as a single distinct population segment and provides information on the Federal Register notices that resulted in its listing and the designation of critical habitat. The Service also describes the desert tortoise's ecology, life history, spatial distribution, abundance, habitats, and the threats that led to its listing (i.e., the 5-factor analysis required by section 4(a)(1) of the Endangered Species Act). In the 5-year review, the Service concluded by recommending that the status of the desert tortoise as a threatened species be maintained.

With regard to the status of the desert tortoise as a distinct population segment, the Service concluded in the 5-year review that the recovery units recognized in the original and revised recovery plans (Service 1994 and 2011e, respectively) do not qualify as distinct population segments under the Service's distinct population segment policy (61 Federal Register 4722; February 7, 1996). We reached this conclusion because individuals of the listed taxon occupy habitat that is relatively continuously distributed, exhibit genetic differentiation that is consistent with isolation-by-distance in a continuous-distribution model of gene flow, and likely vary in behavioral and physiological characteristics across the area they occupy as a result of the transitional nature of, or environmental gradations between, the described subdivisions of the Mojave and Colorado deserts.

In the 5-year review, the Service summarizes information with regard to the desert tortoise's ecology and life history. Of key importance to assessing threats to the species and to developing and implementing a strategy for recovery is that desert tortoises are long-lived, require up to 20 years to reach sexual maturity, and have low reproductive rates during a long period of reproductive potential. The number of eggs that a female desert tortoise can produce in a season is dependent on a variety of factors including environment, habitat, availability of forage and drinking water, and physiological condition. Predation seems to play an important role in clutch failure. Predation and environmental factors also affect the survival of hatchlings.

In the 5-year review, the Service also discusses various means by which researchers have attempted to determine the abundance of desert tortoises and the strengths and weaknesses of those methods. The Service provides a summary table of the results of range-wide monitoring, initiated in 2001, in the 5-year review. This ongoing sampling effort is the first comprehensive attempt to determine the densities of desert tortoises across their range. Table 1 of the 5-year review provides a summary of data collected from 2001 through 2007; we summarize data from the 2008 through 2010 sampling efforts in subsequent reports (Service 2010b, 2010c, 2010d). As the Service notes in the 5-year review notes, much of the difference in densities between years is due to variability in sampling; determining actual changes in densities will require many years of monitoring. Additionally, due to differences in area covered and especially to the non-representative nature of earlier sample sites, data gathered by the range-wide monitoring program cannot be reliably compared to information gathered through other means at this time.

In the 5-year review, the Service provides a brief summary of habitat use by desert tortoises; more detailed information is available in the revised recovery plan (Service 2011e). In the absence of specific and recent information on the location of habitable areas of the Mojave Desert, especially at the outer edges of this area, the 5-year review also describes and relies heavily on a quantitative, spatial habitat model for the desert tortoise north and west of the Colorado River that incorporates environmental variables such as precipitation, geology, vegetation, and slope and is based on occurrence data of desert tortoises from sources spanning more than 80 years, including data from the 2001 to 2005 range-wide monitoring surveys (Nussear et al. 2009). The model predicts the probability that desert tortoises will be present in any given location; calculations of the amount of desert tortoise habitat in the 5-year review and in this biological opinion use a threshold of 0.5 or greater predicted value for potential desert tortoise habitat. The model does not account for anthropogenic effects to habitat and represents the potential for occupancy by desert tortoises absent these effects.

To begin integrating anthropogenic activities and the variable risk levels they bring to different parts of the Mojave and Colorado deserts, the Service completed an extensive review of the threats known to affect desert tortoises at the time of their listing and updated that information with more current findings in the 5-year review. The review follows the format of the five-factor analysis required by section 4(a)(1) of the Act. The Service described these threats as part of the process of its listing (55 Federal Register 12178; April 2, 1990), further discussed them in the original recovery plan (Service 1994), and reviewed them again in the revised recovery plan (Service 2011e).

To understand better the relationship of threats to populations of desert tortoises and the most effective manner to implement recovery actions, the Desert Tortoise Recovery Office is developing a spatial decision support system that models the interrelationships of threats to

desert tortoises and how those threats affect population change. The spatial decision support system describes the numerous threats that desert tortoises face, explains how these threats interact to affect individual animals and habitat, and how these effects in turn bring about changes in populations. For example, we have long known that the construction of a transmission line can result in the death of desert tortoises and loss of habitat. We have also known that common ravens, known predators of desert tortoises, use the transmission line's pylons for nesting, roosting, and perching and that the access routes associated with transmission lines provide a vector for the introduction and spread of invasive weeds and facilitate increased human access into an area. Increased human access can accelerate illegal collection and release of desert tortoises and their deliberate maiming and killing, as well as facilitate the spread of other threats associated with human presence, such as vehicle use, garbage and dumping, and invasive plants (Service 2011e). Changes in the abundance of native plants because of invasive weeds can compromise the physiological health of desert tortoises, making them more vulnerable to drought, disease, and predation. The spatial decision support system allows us to map threats across the range of the desert tortoise and model the intensity of stresses that these multiple and combined threats place on desert tortoise populations.

The threats described in the listing rule and both recovery plans continue to affect the species. Indirect impacts to desert tortoise populations and habitat occur in accessible areas that interface with human activity. Most threats to the desert tortoise or its habitat are associated with human land uses; research since 1994 has clarified many mechanisms by which these threats act on desert tortoises. As stated earlier, increases in human access can accelerate illegal collection and release of desert tortoises and deliberate maiming and killing, as well as facilitate the spread of other threats associated with human presence, such as vehicle use, garbage and dumping, and invasive weeds.

Some of the most apparent threats to the desert tortoise are those that result in mortality and permanent habitat loss across large areas, such as urbanization and large-scale renewable energy projects, and those that fragment and degrade habitats, such as proliferation of roads and highways, OHV activity, and habitat invasion by non-native invasive plant species. However, we remain unable to quantify how threats affect desert tortoise populations. The assessment of the original recovery plan emphasized the need for a better understanding of the implications of multiple, simultaneous threats facing desert tortoise populations and of the relative contribution of multiple threats on demographic factors (i.e., birth rate, survivorship, fecundity, and death rate; Tracy et al. 2004).

We have enclosed a map that depicts the 12 critical habitat units of the desert tortoise and the aggregate stress that multiple, synergistic threats place on desert tortoise populations (Appendix 2). The map also depicts linkages between conservation areas for the desert tortoise (which

include designated critical habitat) recommended in the revised recovery plan (Service 2011e) that are based on an analysis of least-cost pathways (i.e., areas with the highest potential to support desert tortoises) between conservation areas for the desert tortoise. This map illustrates that areas under the highest level of conservation management for desert tortoises remain subjected to numerous threats and stresses. This indicates that current conservation actions for the desert tortoise are not substantially reducing mortality sources for the desert tortoise across its range.

Since the completion of the 5-year review, the Service has issued several biological opinions that affect large areas of desert tortoise habitat because of numerous proposals to develop renewable energy within its range. These biological opinions concluded that proposed solar plants were not likely to jeopardize the continued existence of the desert tortoise primarily because they were located outside of critical habitat and DWMA that contain most of the land base required for the recovery of the species. The proposed actions also included numerous measures intended to protect desert tortoises during the construction of the projects, such as translocation of affected individuals. Additionally, the Bureau and California Energy Commission, the agencies permitting these facilities, have required the project proponents to fund numerous measures, such as land acquisition and the implementation of recovery actions intended to offset the adverse effects of the proposed actions. In aggregate, these projects resulted in an overall loss of approximately 30,180 acres of habitat of the desert tortoise; three of the projects (BrightSource Ivanpah, Stateline Nevada, and Desert Sunlight) constricted linkages between conservation areas that are important for the recovery of the desert tortoise. We also predicted that these projects would translocate, injure, or kill up to 1,621 desert tortoises (see table below); we concluded that most of the individuals in these totals would be juveniles. The mitigation required by the Bureau and California Energy Commission will result in the acquisition of private land within critical habitat and DWMA and funding for the implementation of various actions that are intended to promote the recovery of the desert tortoise; at this time, we cannot assess how successful these measures will be.

The following table summarizes information regarding the proposed solar projects that have undergone formal consultation with regard to the desert tortoise. Data are from Service (2010e [Chevron Lucerne Valley], f [Calico], g [Genesis], h [Blythe]; 2011f [BrightSource Ivanpah], g [Desert Sunlight], h [Abengoa Harper Lake], i [Palen]; and Burroughs (2012; Nevada projects). Projects are in California, unless noted.

Project	Acres of Desert Tortoise Habitat	Estimated Number of Desert Tortoises Onsite	Recovery Unit
BrightSource Ivanpah	3,582	1,136	Eastern Mojave
Stateline Nevada - NV	2,966	123	Eastern Mojave
Amargosa Farm Road - NV	4,350	4	Eastern Mojave
Calico*			Western Mojave
Abengoa Harper Lake	Primarily in abandoned agricultural fields	4	Western Mojave
Chevron Lucerne Valley	516	10	Western Mojave
Nevada Solar One - NV	400	**	Northeastern Mojave
Copper Mountain North - NV	1,400	30 **	Northeastern Mojave
Copper Mountain - NV	380	**	Northeastern Mojave
Moapa K Road Solar - NV	2,152	202	Northeastern Mojave
Genesis	1,774	8	Colorado
Blythe	6,958	30	Colorado
Palen	1,698	18	Colorado
Desert Sunlight	4,004	56	Colorado
Total	30,180	1,621	

* The applicant has proposed changes to the proposed action; the Bureau has re-initiated formal consultation with the Service, pursuant to section 7(a)(2) of the Endangered Species Act, as part of its re-evaluation of the project (Service 2012e)

** These projects occurred under the Clark County Multi-species habitat conservation plan; we estimate that all three projects combined will affect fewer than 30 desert tortoises.

In addition to the biological opinions issued for solar development within the range of the desert tortoise, the Service (2012c) also issued a biological opinion to the Department of the Army for the use of additional training lands at Fort Irwin. As part of this proposed action, the Army removed approximately 650 desert tortoises from 18,197 acres of the southern area of Fort Irwin, which had been off-limits to training. The Army would also use an additional 48,629 acres that lie east of the former boundaries of Fort Irwin; much of this parcel is either too mountainous or too rocky and low in elevation to support numerous desert tortoises.

As the Service notes in the 5-year review (Service 2010b), “(t)he threats identified in the original listing rule continue to affect the (desert tortoise) today, with invasive species, wildfire, and renewable energy development coming to the forefront as important factors in habitat loss and conversion. The vast majority of threats to the desert tortoise or its habitat are associated with

human land uses.” Oftedal’s work (2002 in Service 2010b) suggests that invasive weeds may adversely affect the physiological health of desert tortoises. Modeling with the spatial decision support system indicates that invasive species likely affect a large portion of the desert tortoise’s range; see Appendix 3. Furthermore, high densities of weedy species increase the likelihood of wildfires; wildfires, in turn, destroy native species and further the spread of invasive weeds.

Global climate change is likely to affect the prospects for the long-term conservation of the desert tortoise. For example, predictions for climate change within the range of the desert tortoise suggest more frequent and/or prolonged droughts with an increase of the annual mean temperature by 3.5 to 4.0 degrees Celsius. The greatest increases will likely occur in summer (June-July-August mean increase of as much as 5 degrees Celsius [Christensen et al. 2007 in Service 2010b]). Precipitation will likely decrease by 5 to 15 percent annually in the region, with winter precipitation decreasing by up to 20 percent and summer precipitation increasing by 5 percent. Because germination of the desert tortoise’s food plants is highly dependent on cool-season rains, the forage base could be reduced due to increasing temperatures and decreasing precipitation in winter. Although drought occurs routinely in the Mojave Desert, extended periods of drought have the potential to affect desert tortoises and their habitats through physiological effects to individuals (i.e., stress) and limited forage availability. To place the consequences of long-term drought in perspective, Longshore et al. (2003) demonstrated that even short-term drought could result in elevated levels of mortality of desert tortoises. Therefore, long-term drought is likely to have even greater effects, particularly given that the current fragmented nature of desert tortoise habitat (e.g., urban and agricultural development, highways, freeways, military training areas, etc.) will make recolonization of extirpated areas difficult, if not impossible.

The Service notes in the 5-year review that the combination of the desert tortoise’s late breeding age and a low reproductive rate challenges our ability to achieve recovery. When determining whether a proposed action is likely to jeopardize the continued existence of a species, we are required to consider whether the action would “reasonably be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species (50 Code of Federal Regulations 402.02). Although the Service does not explicitly address these metrics in the 5-year review, we have used the information in that document to summarize the status of the desert tortoise with respect to its reproduction, numbers, and distribution.

In the 5-year review, the Service notes that desert tortoises increase their reproduction in high rainfall years; more rain provides desert tortoises with more high quality food (i.e., plants that are higher in water and protein), which, in turn, allows them to lay more eggs. Conversely, the physiological stress associated with foraging on food plants with insufficient water and nitrogen

may leave desert tortoises vulnerable to disease (Ofstedal 2002 in Service 2010b), and the reproductive rate of diseased desert tortoises is likely lower than that of healthy animals. Young desert tortoises also rely upon high-quality, low-fiber plants (e.g., native forbs) with nutrient levels not found in the invasive weeds that have increased in abundance across its range (Ofstedal et al. 2002; Tracy et al. 2004). Compromised nutrition of young desert tortoises likely represents an effective reduction in reproduction by reducing the number that reaches adulthood. Consequently, although we do not have quantitative data that show a direct relationship, the abundance of weedy species within the range of the desert tortoise has the potential to negatively affect the reproduction of desert tortoises and recruitment into the adult population.

Data from long-term study plots, which were first established in 1976, cannot be extrapolated to provide an estimate of the number of desert tortoises on a range-wide basis; however, these data indicate, “appreciable declines at the local level in many areas, which coupled with other survey results, suggest that declines may have occurred more broadly” (Service 2010b). Other sources indicate that local declines are continuing to occur. For example, surveyors found “lots of dead [desert tortoises]” in the western expansion area of Fort Irwin (Western Mojave Recovery Unit) in 2008 (Fort Irwin Research Coordination Meeting 2008). After the onset of translocation, coyotes killed 105 desert tortoises in Fort Irwin’s southern translocation area (Western Mojave Recovery Unit); other canids may have been responsible for some of these deaths. Other incidences of predation were recorded throughout the range of the desert tortoise during this time (Esque et al. 2010). Esque et al. (2010) hypothesized that this high rate of predation on desert tortoises was influenced by low population levels of typical prey for coyotes due to drought conditions in previous years. Recent surveys in the Ivanpah Valley (Northeastern Mojave Recovery Unit) for a proposed solar facility detected 31 live desert tortoises and the carcasses of 25 individuals that had been dead less than 4 years (Ironwood 2011); this ratio of carcasses to live individuals over such a short period of time may indicate an abnormally high rate of mortality for a long-lived animal. In summary, the number of desert tortoises range-wide likely decreased substantially from 1976 through 1990 (i.e., when long-term study plots were initiated through the time the desert tortoise was listed as threatened), although we cannot quantify the amount of this decrease. Additionally, more recent data collected from various sources throughout the range of the desert tortoise suggest that local declines continue to occur (e.g., Bureau et al. 2005, Esque et al. 2010).

The distribution of the desert tortoise has not changed substantially since the publication of the original recovery plan in 1994 (Service 2010b) in terms of the overall extent of its range. Prior to 1994, desert tortoises were extirpated from large areas within their distributional limits by urban and agricultural development (e.g., the cities of Barstow, Lancaster, Las Vegas, St. George, etc.; agricultural areas south of Edwards Air Force Base and east of Barstow), military training (e.g., Fort Irwin, Leach Lake Gunnery Range), and off-road vehicle use (e.g., portions of

off-road management areas managed by the Bureau and unauthorized use in areas such as east of California City). Since 1994, urban development around Las Vegas has likely been the largest contributor to habitat loss throughout the range. Desert tortoises have been essentially removed from the 18,197-acre southern expansion area at Fort Irwin (Service 2012c).

The following table depicts acreages of habitat (as modeled by Nussear et al. 2009) within various regions of the desert tortoise’s range and of impervious surfaces as of 2006 (Xian et al. 2009). Impervious surfaces include paved and developed areas and other disturbed areas that have zero probability of supporting desert tortoises.

Regions ¹	Modeled Habitat (acres)	Impervious Surfaces within Modeled Habitat	Percent of Modeled Habitat that is now Impervious
Western Mojave	7,582,092	1,864,214	25
Colorado Desert	4,948,900	494,981	10
Northeast Mojave	7,776,934	1,173,025	15
Upper Virgin River	232,320	80,853	35
Total	20,540,246	3,613,052	18

¹The regions do not correspond to recovery unit boundaries; we used a more general separation of the range for this illustration.

On an annual basis, the Service produces a report that provides an up-to-date summary of the factors that were responsible for the listing of the species, describes other threats of which we are aware, describes the current population trend of the species, and includes comments of the year’s findings. The Service’s (2011d) recovery data call report describes the desert tortoise’s status as ‘declining,’ and notes that “(a)nnual range-wide monitoring continues, but the life history of the desert tortoise makes it impossible to detect annual population increases (continued monitoring will provide estimates of moderate- to long-term population trends). Data from the monitoring program do not indicate that numbers of desert tortoises have increased since 2001. The fact that most threats appear to be continuing at generally the same levels suggests that populations are still in decline. Information remains unavailable on whether mitigation of particular threats has been successful.”

In conclusion, we have used the 5-year review (Service 2010b), revised recovery plan (Service 2011e), and additional information that has become available since these publications to review the reproduction, numbers, and distribution of the desert tortoise. The reproductive capacity of the desert tortoise may be compromised to some degree by the abundance and distribution of invasive weeds across its range; the continued increase in human access across the desert likely continues to facilitate the spread of weeds and further affect the reproductive capacity of the

species. Prior to its listing, the number of desert tortoises likely declined range-wide, although we cannot quantify the extent of the decline; since the time of listing, data suggest that declines have occurred in local areas throughout the range. The continued increase in human access across the desert continues to expose more desert tortoises to the potential of being killed by human activities. The distributional limits of the desert tortoise's range have not changed substantially since the issuance of the original recovery plan in 1994; however, desert tortoises have been extirpated from large areas within their range (e.g., Las Vegas, other desert cities). The species' low reproductive rate, the extended time required for young animals to reach breeding age, and the multitude of threats that continue to confront desert tortoises combine to render its recovery a substantial challenge.

ENVIRONMENTAL BASELINE

Action Area

The implementing regulations for section 7(a)(2) of the Act define the action area to be "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action." We consider the action area to be equivalent to Caltrans' project impact area. In its biological assessment, Caltrans (2012) defines the project impact area as "the area to be directly impacted by construction and the area within the proposed right-of-way. This project impact area is located within the biological study area, which varies in width from approximately 600 to 1,200 feet, where the biological surveys for this project were conducted. The project impact area runs the length of the project (approximately 9 miles) and the width of the project is approximately 350 feet in most areas.

The existing SR-58 lanes will be utilized for continued traffic use while components of the new alignment are constructed. One lane will be closed at a time, and the 0.5 mile at the end of each side of the project would be used for staging. There will be no off-road travel or parking areas.

We also include the area within which Caltrans would move any desert tortoises that are found within the project impact area as part of the action area; because these individuals will be moved within a short distance of the project impact area, the action area is unlikely to be substantially larger than the project impact area defined by Caltrans.

The action area also includes the area that Caltrans will acquire as mitigation pursuant to its compliance with the California Endangered Species Act, (approximately 2,273 acres are slated to be acquired), and lands the Bureau will be retiring from grazing. The locations of these areas are unknown at this time.

Habitat Characteristics of the Action Area

The following description of the action area is summarized from the biological assessment (Caltrans 2012). The 764-acre project area lies between 2,178 to 2,292 feet in elevation. Soils are deep, well drained, typical of terraces and alluvial fan areas, and are principally composed of granitic material. Of the 764 acres, approximately 262 acres within the project area are described as disturbed and developed and not considered as suitable for the desert tortoise.

The remaining acreage (approximately 502 acres) supports two native vegetation communities – creosote bush scrub and saltbush scrub. Approximately 44 percent of the 502 acres consists of saltbush scrub, 37 percent creosote bush scrub, and approximately 19 percent is disturbed saltbush scrub. Desert tortoise have been documented in these habitats.

In summary, land use within the action area is open space with the exception of development and agriculture in the eastern portion (east of Mountain View). The Burlington Northern Santa Fe railroad runs parallel with SR-58 from about one mile west of Lenwood Road east to the end of the project study area. Human disturbance including off highway vehicle use, evidence of livestock grazing, active farms (both dairy and crop) and trash dumping is documented.

Status of the Desert Tortoise in the Action Area

Several biological surveys have been conducted for this project in 2001, 2009, and 2011. Focused surveys for the desert tortoise were conducted between May 4 and 7, 2009 and established protocols were followed in conducting a presence/absence survey within the project impact area. In short, the survey consisted of walking 33 feet (10 meters) transects throughout the potential impact area to provide 100 percent coverage of the area. Additionally, concentric surveys around the perimeter of the impact area were conducted at approximately 100, 300, 600, and 1,200 feet from edge of the proposed project area.

During the protocol surveys, 16 live desert tortoises and 622 pieces of sign (corrected to 240 pieces of sign) were located within the project impact area. The sign included 137 shelter sites, 413 scat, 22 carcasses, and 34 sets of tracks. An additional 10 live tortoises were incidentally encountered during other biological surveys in 2009. It is unknown if these 10 desert tortoises were any of 16 animals previously detected during the focused surveys, or are new individuals.

In general, these numbers appear to represent a high density of desert tortoises within the project impact area given that the proposed action lies south of the Superior-Cronese Desert Wildlife Management Area (DWMA) and a portion of the Fremont-Kramer DWMA which the Service

has designated as critical habitat. However, the project will be situated outside the designated critical habitat for the species.

Based on the surveys, and our general knowledge of the area, we estimate that the action area supports 16 adult and subadult desert tortoises (i.e., any combination of individuals that are greater than 160 millimeters in length). Because of the potential that some desert tortoises may not have been detected during the surveys or may have moved on to the site between the time of the survey and the onset of road realignment and construction, we have used the results of the survey and our professional judgment to estimate that the action area supports 16 adult and subadult desert tortoises (i.e., any combination of individuals that are greater than 160 millimeters in length).

Juvenile desert tortoises (i.e., any desert tortoise less than 160 millimeters in length, including hatchlings) are extremely difficult to detect because of their small size and their cryptic nature. Hatchlings may also have emerged from a nest on the site since the time of the survey. This scenario could also increase the overall number of individuals on the site. Based on a 4-year study of their population ecology, Turner et al. (1987) determined that juveniles accounted for approximately 87 percent of the overall population. Using this number and a maximum of 16 adult and subadult desert tortoises on the proposed site, we estimate that the action area may support up to 108 juveniles (i.e., those animals less than 160 millimeters in size).

To estimate the number of eggs that could be present on the project site, we multiplied the average female annual egg production (i.e., 5.8, see Service 1994) by the number of adult and subadult females within the action area. Based on work performed in Ivanpah Valley and at the Goffs study site where the ratio of males to females was 1:1 (Turner et al. 1984, Turner et al. 1987), we assumed that eight of the 16 adult and subadult desert tortoises are reproductive females. These individuals could produce approximately 46.4 eggs in a given year (i.e., 8 females times 5.8 eggs per female per year); for the purposes of this biological opinion we will use the estimate of 46 eggs. Fewer eggs are likely to be onsite at any given time because the territories of the female desert tortoises likely extend, at least in part, off the project site and individuals may establish nests in these areas.

We emphasize that, although our estimate of the number of adult and subadult desert tortoises, eggs, and juveniles on the project site, translocation area, and action area is based on the best available information, the overall number of animals and eggs on site may be different. We recognize that the survey data used for these estimates represent a single point in time and the number of individuals in these areas may change by the onset of project activities.

The 2,273 acres of land that Caltrans plans on acquiring, and those lands that the Bureau will be retiring from grazing and converting to wildlife forage (to off-set some of the habitat loss from this project) is included in the action area for this consultation. However, because these lands have not been selected, we have no information regarding the status of the desert tortoise on these lands.

EFFECTS OF THE ACTION

Several aspects of the proposed action may affect desert tortoises within the action area. These aspects are the capture and relocation of any desert tortoises that may be inside the exclusion fence, the installation of the fences to exclude desert tortoises from the freeway and construction area, killing or injuring adult or juvenile desert tortoise and crushing tortoise eggs during construction of the expressway, and offsite conservation measures. We will discuss these aspects in the following paragraphs.

Capture and Relocation of Desert Tortoises

Caltrans will install desert tortoise exclusion fencing around all long-term and temporary disturbance areas. An authorized biologist will perform clearance surveys (in accordance with the most recent Service survey protocols) of the enclosed area and translocate desert tortoises found within the enclosure to areas immediately adjacent to and outside of the fence. Desert tortoises moved in this manner may attempt to return to the portions of their territory on the far side of the fence. In past studies, at least a small percentage of translocated desert tortoises tried to return to their capture sites (Corn 2004, Nussear 2004). We expect that these desert tortoises will eventually become acclimated to the new boundaries of their territories and cease attempts to return. In fact, Walde et al. (2008) found that desert tortoises moved from one side of the fence to the other did not move as far as animals that were moved a long distance.

Releasing a desert tortoise outside of its home range, far from known burrows or away from shade, may be detrimental to its health (Stewart 1993 in Boarman 2002). Such a release could be particularly hazardous during hot, dry weather or late in the afternoon when the body temperatures of stressed desert tortoises could reach fatal levels. However, these desert tortoises will be moved short distances and, therefore, are likely to be familiar with the release areas. In addition, Caltrans has proposed protective measures to prevent release of individuals when temperatures are unsafe. Authorized biologists will follow the guidance outlined in chapter 7 of the Desert Tortoise Field Manual (Service 2009) for the capture and relocation of desert tortoises. Consequently, we do not anticipate any substantial effects to desert tortoises following release.

An elevated level of transmission of disease is also unlikely to occur because the translocated animals would likely have previous contact with other individuals in the area. In addition, we expect authorized biologists will move relatively few desert tortoises in this manner, because few adult and subadult desert tortoises occur within the project area. For this reason, these short-distance translocations are unlikely to affect desert tortoises in the action area in a substantial manner.

We estimate the translocation of approximately 16 adult and subadult desert tortoises to the area outside of the barrier fencing. Authorized biologists are more likely to observe adult and subadult desert tortoises during clearance surveys due to their large size. Authorized biologists are less likely to find juvenile desert tortoises or desert tortoise eggs during surveys due to their small size. We have estimated that approximately 108 juvenile desert tortoises and 46 eggs may occur within the project site. We do not anticipate that authorized biologists will find any desert tortoise eggs and we anticipate that they are likely to find and translocate few, if any, juvenile desert tortoises.

Handling may cause several effects to desert tortoises. Handling desert tortoises sometimes causes them to void the contents of their bladder, which may represent loss of important fluids that could be fatal (Averill-Murray 1999 in Boarman 2002). Averill-Murray 1999 (in Boarman 2002) provided some evidence that handling-induced voiding may adversely affect survivability, although the amount of fluid discharged is usually small. In addition, disease transmission could occur if people handle more than one desert tortoise without using appropriate sterile techniques (Roskopf 1991, Berry and Christopher 2001 all in Boarman 2002). However, Caltrans has required numerous protective measures to reduce the potential for injury or mortality associated with handling and translocation of individuals. Authorized biologists will follow the guidance outlined in chapter 7 of the Desert Tortoise Field Manual (Service 2009) for capturing and relocating desert tortoises. We anticipate that the implementation of these measures and the use of experienced biologists, authorized by the Service, will result in little, if any, injury or mortality of individuals due to handling.

Translocation of desert tortoises into areas adjacent to the project area could potentially affect desert tortoises already residing outside of the project area and have home ranges that overlap with the release area. This translocation could slightly increase the density within the release area. However, we do not expect that released animals would be so concentrated that it would substantially alter the density of desert tortoises in the translocation area. Given that Saethre et al. 2003 (in Esque et al. 2005) did not observe possible effects until densities reached 1,295 desert tortoises per square mile and the densities within the project area are already far below this number, we expect that translocation is unlikely to affect resident desert tortoises in a substantial manner as a result of increased densities.

Installation of the Fence to Exclude Desert Tortoises from the Highway

Caltrans has proposed to install fencing to prevent desert tortoises from entering the area considered to be the ultimate right-of-way for SR-58. Desert tortoises could be killed or injured by work vehicles during installation of the fence. Because of the relatively limited amount of activity associated with the installation of the fence and the proposed presence of a qualified biologist to protect desert tortoises during this activity, few individuals are likely to be killed or injured.

The presence of SR-58 has fragmented habitat and probably substantially disrupted the movement of desert tortoises across this portion of the desert; we expect that few desert tortoises are able to cross over the highway, although they may use culverts to pass under it. The presence of the permanent fencing to preclude desert tortoises from entering the roadway will not substantially alter the degree of fragmentation in this region.

Most importantly, the installation of the fence to exclude desert tortoises from 8.9 miles of the freeway would continue to substantially reduce the level of mortality of individuals of this species. Because desert tortoises would no longer be able to gain access to the freeway, they would no longer be subject to being struck by vehicles or collected by passersby. We consider the protection of individual desert tortoises, particularly females of breeding age, from potential ongoing sources of mortality to be a key component of recovering this species; in fact, the fencing of this section of SR-58 is recommended in the recovery plan for the desert tortoise (Service 1994).

Installation of Culverts

Caltrans is proposing to install approximately 29 soft-bottom culverts, ranging in size from 36 to 54 inches in diameter, under SR-58 at this time. The size of these culverts more than adequately allow for large adults desert tortoise to pass through. However, the culverts alone will not substantially increase the chances of desert tortoises crossing the highway successfully. Moreover, if outlets to the culverts are raised too far off the ground where they are not accessible to the desert tortoise, this would not benefit them. Desert tortoises have been known to fall in between large rocks of riprap surrounding outlets of culverts.

Realignment Construction

Caltrans has proposed to install temporary and permanent fencing to prevent desert tortoises from entering areas that would be disturbed during and after construction. After the fence is

installed, qualified biologists will survey the action area to find and remove any desert tortoises. Caltrans would not begin ground-disturbing activities until this survey is completed.

For these reasons, we anticipate that adult and subadult desert tortoises are unlikely to be killed or injured by heavy equipment or workers during construction of the new expressway. Juvenile desert tortoises are difficult to detect during surveys; therefore, the potential exists that they will likely be missed during the surveys and remain in the work areas during construction. Given that desert tortoises inhabit the action area, the likelihood that juveniles and eggs are present is moderate.

Approximately 502 acres of desert tortoise habitat would be permanently disturbed during the construction of the road realignment and widening (Caltrans 2012). (The action area includes desert tortoise habitat and areas that do not support the species; consequently, it covers more than 502 acres.) The habitat loss would occur in a fairly linear pattern adjacent to the existing SR-58. The permanent loss of this habitat and the decreased value of the adjacent habitat will not substantially reduce the amount of habitat that is available within the region for desert tortoises to breed, feed, seek shelter, or conduct other necessary ecological functions. The proposed alignment is surrounded by additional habitat that provides these functions to desert tortoises.

Caltrans' commitment to prevent common ravens from accessing construction-related trash should reduce the likelihood that these birds will gain substantial subsidies during construction. Although common ravens may be attracted to the heightened levels of human activity during construction to some degree, we expect this slight local increase is likely to be minor and temporary because of the lack of substantial subsidies.

The education program that Caltrans will provide should prevent workers from killing, injuring, or otherwise affecting desert tortoises as a result of being uninformed. However, it should be noted that in sections along the new alignment there currently exists housing development that likely already contributes to serving as sources of subsidies for ravens and other predators. The goal would be not to increase additional subsidies and prevent an increase of the number of predators of desert tortoise over the existing baseline condition.

Injury and Mortality of Desert Tortoises

In the previous sections, we discussed how various aspects of the proposed action might kill or injure desert tortoises and concluded that up to 16 adult and subadult desert tortoises, 108 juveniles and 46 eggs may occur in the action area and be affected by the proposed project. We expect that most of the desert tortoises translocated to adjacent habitat will persist in the area

after surface-disturbing activities cease. We anticipate that some subset of the desert tortoises in the action area may die if not detected during surveys.

We anticipate that most of these undetected individuals would be juvenile desert tortoises that have not reached reproductive age. Although we cannot predict the percentage of the juvenile population that would go undetected, some potential exists that surveys could miss all of the estimated 108 juveniles on the project site. Clearance surveys would likely move most, if not all, of the 16 adult or subadult desert tortoises estimated to be in work areas. We anticipate that detection of eggs will not occur and that survival of eggs within the action area is unlikely. Consequently, road construction activities could destroy up to 46 desert tortoise eggs.

We conclude that the number of adults, subadults, juveniles, and eggs that are likely to be lost as a result of surface disturbance comprises a small portion of the overall population in the Western Mojave Recovery Unit and that this loss would not appreciably reduce the number of desert tortoises in the recovery unit.

Offsite Conservation Measures

Caltrans has proposed to acquire approximately 2,273.56 acres of habitat that will be preserved in perpetuity for the recovery of the desert tortoise to offset the adverse effects of the realignment and widening project. This measure would contribute to the recovery of the desert tortoise to some degree, because it has the potential to remove any threats on the acquired land through appropriate management. This acquisition would be most effective if it is implemented as part of a comprehensive strategy to conserve desert tortoises. The exact location of this habitat acquisition is not known at this time.

In addition, we anticipate that the donation and retirement of Bureau grazing allotments and subsequent allocation of forage for wildlife purposes in the West Mojave will benefit the desert tortoise by removing the threat of grazing and providing additional food sources for the tortoise. The donation and retirement land will be in the Western Mojave Recovery Unit and will include the Lava Mountains Allotment; therefore, this action is expected to benefit the desert tortoise.

Miscellaneous Effects

Non-native weed species currently occur on the proposed project site and are likely to occur in other portions of the action area at varying densities. Road construction activities have the potential to increase the distribution and abundance of non-native weed species within the action area due to surface-disturbing activities that favor the establishment of these species. In addition, access to the project site and other project features by personnel is likely to increase the volume

and distribution of non-native seed carried into the action area. The increased abundance in non-native weed species associated with this project may result in an increased fire risk, which may result in future habitat loss. We cannot reasonably predict the increase in non-native weed species abundance that this project will create within the action area and we cannot predict the effects to the desert tortoise from the introduction of non-native weed species.

Summary

Caltrans has proposed numerous measures to avoid, minimize, reduce, and offset the adverse effects on the desert tortoise of the proposed action. Additionally, the action area supports several desert tortoises. Consequently, we expect that few, if any, desert tortoises will be killed or injured by the construction of the new alignment.

The permanent loss of approximately 502 acres of suitable habitat will not substantially reduce the reproduction, numbers, or distribution of the species in the wild, because large amounts of habitat remain available in this general area, the habitat that will be lost or disturbed is adjacent to a heavily used road where the quality of habitat is generally lower, and the area is not located within a region that is considered crucial for the recovery of the species. Additionally, Caltrans' proposal to acquire approximately 2,273 acres of habitat to manage for the conservation of the desert tortoise should contribute to its recovery, to some degree.

CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, tribal, local, or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act. The action area is entirely within the existing Caltrans right-of-way; consequently, we do not anticipate any cumulative effects will occur in this area. In addition, although we do not know the location of the acquired lands, future actions on those lands would be intended to promote the conservation of the desert tortoise. Consequently, we do not anticipate that adverse cumulative effects would occur on the acquired lands.

CONCLUSION

After reviewing its current status, the environmental baseline for the action area, the effects of the proposed action, and the cumulative effects, it is our biological opinion that the proposed road realignment and widening of SR-58 near Hinkley, California (between PM 22.2 and PM 31.1) is not likely to jeopardize the continued existence of the desert tortoise. We have reached this conclusion, in part, because Caltrans has proposed measures (see below) to reduce the

number of desert tortoises that are likely to be injured or killed by its proposed action and will acquire approximately 2,273 acres of habitat to manage for the conservation of the desert tortoise.

1. Road construction activities are likely to kill or injure few adult and subadult desert tortoises because Caltrans will implement numerous measures to protect desert tortoises during construction activities (e.g., clearance surveys, translocation, exclusion fencing, authorized biologists), and an unidentifiable number of juvenile tortoises.
2. Road construction activities would have no measurable effect on the distribution of desert tortoises.
3. Most, if not all, of the reproductive desert tortoise on the project site would be moved to adjacent areas where they would continue to reproduce.
4. Caltrans will implement specific measures to reduce the potential for increased predation by common ravens.
5. This project would not result in loss of habitat in areas designated for intensive management to achieve conservation of desert tortoises.

The analysis we conduct under section 7(a)(2) of the Endangered Species Act must be conducted in relation to the status of the entire listed taxon. We based the analysis in this biological opinion within the context of the Western Mojave Recovery Unit because of the wide range of the desert tortoise. Because we have determined that the effects of this action would not compromise the integrity of the Western Mojave Recovery Unit or impede the survival or recovery of the desert tortoise in an appreciable manner in this portion of its range, we have not extended the analysis of the effects of this proposed action to the remainder of the range of the Mojave population of the desert tortoise.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulations pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harass is defined by the Service as intentional or negligent actions that create the likelihood of injury to

listed species by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this incidental take statement.

The measures described in this incidental take statement are non-discretionary; Caltrans must undertake these measures or make them binding conditions of any authorization provided to contractors. Caltrans has a continuing duty to regulate the activities covered by this incidental take statement. If Caltrans fails to assume and implement the terms and conditions of the incidental take statement or to make them enforceable terms of its contracts, the protective coverage of section 7(o)(2) may lapse. To monitor the impact of incidental take, Caltrans must report the progress of the action and its impact on the species to the Service as specified in the incidental take statement (50 Code of Federal Regulations 402.14(i)(3)).

We anticipate that all desert tortoises within the action area may be taken during construction of the expressway; because 16 tortoises were detected during surveys, we expect that the total number of animals that may be taken during construction will be much higher. We anticipate that most of the adult and subadult individuals will be captured and relocated to nearby suitable habitat.

We cannot quantify the precise numbers of desert tortoises that may be captured, killed, or injured as a result of the actions that Caltrans has proposed because desert tortoises move over time; for example, animals may have entered or departed the action area since the time of the surveys. The protective measures proposed by Caltrans are likely to prevent mortality or injury of most desert tortoises, including young and eggs. The exemption provided by this incidental take statement to the prohibitions against take contained in section 9 of the Act extends only to the action area as described in the Environmental Baseline-Action Area sections of this biological opinion; maps of the construction portion of the action area are available in the biological assessment (Caltrans 2012).

REASONABLE AND PRUDENT MEASURES

The Service believes the following reasonable and prudent measures are necessary and appropriate to minimize take of desert tortoises during the widening and realignment of SR-58:

1. Caltrans must ensure that only authorized biologists conduct surveys for and relocate desert tortoises and eggs during the implementation of the proposed project. This would include activities such as excavating tortoise burrows to remove individuals and constructing new burrows off-site in areas identified as translocation sites.
2. Caltrans must ensure that the level of incidental take that occurs during implementation of the proposed action is commensurate with the analysis contained in this biological opinion.

Our evaluation of the proposed action includes consideration of the protective measures proposed by Caltrans in its biological assessment and reiterated in the Description of the Proposed Action section of this biological opinion. Consequently, any changes in these protective measures may constitute a modification of the proposed action that causes an effect to the desert tortoise that was not considered in the biological opinion and require re-initiation of consultation, pursuant to the implementing regulations of the section 7(a)(2) of the Act (50 Code of Federal Regulations 402.16). The reasonable and prudent measures and terms and conditions are intended to complement and clarify the protective measures proposed by Caltrans.

TERMS AND CONDITIONS

To be exempt from the prohibitions of section 9 of the Act, Caltrans must comply with the following terms and conditions, which implement the reasonable and prudent measures described in the previous section, and the reporting and monitoring requirements. These conditions are non-discretionary.

1. The following term and condition implements reasonable and prudent measure 1:
Caltrans must ensure that only biologists authorized by the Service under the auspices of this biological opinion conduct clearance surveys for and relocate desert tortoises. We request that you provide us with the credentials of authorized biologists who you wish to conduct these duties at least 30 days prior to the time they must be in the field.
2. The following terms and conditions implement reasonable and prudent measure 2:
 - a. To ensure that the measures proposed by Caltrans are effective and are being properly implemented, Caltrans must contact the Service immediately if it becomes aware that a desert tortoise has been killed or injured by project activities. At that time, the Service and Caltrans will review the circumstances surrounding the incident to determine whether additional protective measures are required. Project activities may continue pending the outcome of the review, provided that Caltrans' proposed protective measures and any appropriate terms and conditions of this biological opinion have been and continue to be fully implemented.

- b. If three desert tortoises are killed or injured during construction of the expressway, Caltrans must re-initiate consultation, pursuant to the implementing regulations for section 7(a)(2) of the Endangered Species Act at 50 Code of Federal Regulations 402.16, on the proposed action.

Because we do not expect that the capture and handling of desert tortoises (e.g., to remove them from the project area) is likely to result in injury or mortality, we are not establishing a criterion for re-initiation of formal consultation for this activity.

REPORTING REQUIREMENTS

Within 30 days of completion of the proposed action, Caltrans must provide a report to the Service that provides details on the effects of the action on the desert tortoise. Specifically, the report must include information on any instances when desert tortoises were killed, injured, or handled; the circumstances of such incidents; and any actions undertaken to prevent similar injuries or mortalities from re-occurring. We recommend that Caltrans provide us with any recommendations that would facilitate the implementation of the protective measures while maintaining protection of the desert tortoise.

We also request that Caltrans provide us with the names of any desert tortoise monitors who assisted the authorized biologist and an evaluation of the experience they gained on the project; the qualifications form on our website (http://www.fws.gov/ventura/sppinfo/protocols/deserttortoise_monitor-qualifications-statement.pdf), filled out for this project, along with any appropriate narrative would provide an appropriate level of information. This information would provide us with additional reference material in the event these individuals are submitted as potential authorized biologists for future projects.

DISPOSITION OF DEAD OR INJURED DESERT TORTOISES

Within 3 days of locating any dead or injured desert tortoises, you must notify the Ventura Fish and Wildlife Office by telephone (805) 644-1766 and by facsimile (805) 644-3958 or electronic mail. The report must include the date, time, location of the carcass, a photograph, cause of death, if known, and any other pertinent information.

Injured desert tortoises must be taken to a qualified veterinarian for treatment. If any injured tortoises survive, the Service must be contacted regarding their final disposition.

Care must be taken in handling dead specimens to preserve biological material in the best possible state for later analysis, if such analysis is needed. The Service will make this

determination when Caltrans provides notice that a desert tortoise has been killed by project activities.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to use their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

We encourage Caltrans to work with the Service and other agencies to help implement a comprehensive strategy for the conservation and recovery of the desert tortoise. Given the amount of desert tortoise habitat currently under Federal and state management, including public lands within the Bureau's desert wildlife management areas, the recovery plan for the desert tortoise outlines a comprehensive strategy for recovery that emphasizes partnerships for recovery action prioritization, implementation and tracking within existing conservation areas. The strategy proposes Recovery Implementation Teams, responsible for developing region-specific, step-down recovery-action plans, and implementing those actions on the ground. Recovery actions include restoration of habitat, closure of unauthorized routes, fencing of roads where desert tortoises are frequently killed, management of subsidized predators, law enforcement patrols, research directed at specific recovery needs, and public outreach and education. Such actions reduce or eliminate sources of mortality of desert tortoises and work towards improving habitat quality. Although land acquisition is an important component of an overall conservation and recovery program and should continue to be conducted in a strategic manner, helping to implement actions within conservation areas will likely provide the greatest recovery benefit for the desert tortoise at this time. To this end, we encourage you to participate in the Recovery Implementation Teams that the Service has organized to apply a science-driven, cooperative approach to recovering the desert tortoise.

REINITIATION NOTICE

This concludes formal consultation on the proposed widening and realignment of SR-58 from PM 22.2 to PM 31.1, in San Bernardino County. Reinitiation of formal consultation is required where discretionary Federal involvement or control over the action has been retained or is authorized by law and: (a) if the amount or extent of taking specified in the incidental take statement is exceeded; (b) if new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (c) if the identified action is subsequently modified in a manner that causes an effect to the listed species

or critical habitat that was not considered in the biological opinion; or (d) if a new species is listed or critical habitat designated that may be affected by the identified action (50 Code of Federal Regulations 402.16).

If you have any questions regarding this biological opinion, please contact Ray Vizgirdas of my staff at (909) 383-2959.

Sincerely,



Diane K. Noda
Field Supervisor

Appendices:

1 - Mojave population of the desert tortoise (*Gopherus agassizii*). 5-year review: summary and evaluation. Available on disk or hard copy by request or at

http://ecos.fws.gov/docs/five_year_review/doc3572.DT%20Year%20Review_FINAL.pdf.

2 - Map illustrating the 12 critical habitat units of the desert tortoise and the aggregate stress that multiple threats place on critical habitat.

3 - Map depicting the extent of the threat of invasive plants.

REFERENCES CITED
IN THE STATUS OF THE SPECIES SECTION OF THIS BIOLOGICAL OPINION

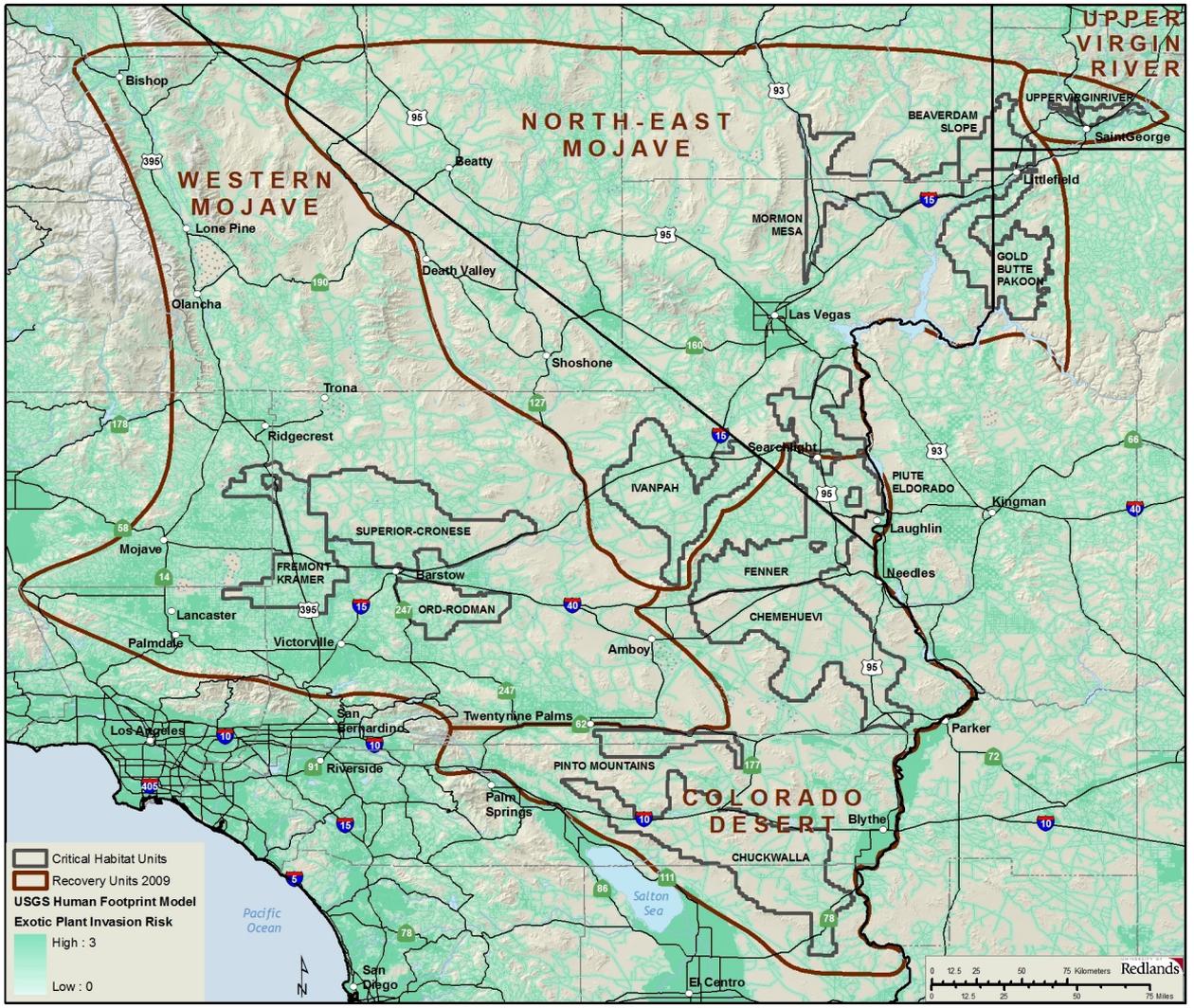
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- Desert Tortoise Council. 1999. Guidelines for handling desert tortoises during construction projects. Wrightwood, California.
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Critical Habitat Units
 Recovery Units 2009
 USGS Human Footprint Model
 Exotic Plant Invasion Risk
 High : 3
 Low : 0

0 12.5 25 50 75 Kilometers
 0 12.5 25 50 75 Miles
 Redlands



DEPARTMENT OF THE ARMY

Los Angeles District Corps of Engineers

P.O. Box 532711

Los Angeles, CA 90017-3401

August 3, 2012

REPLY TO
ATTENTION OF

Regulatory Division

Scott Quinnell
California Department of Transportation, District 8
Senior Environmental Planner
464 West 4th Street Fl 6
San Bernardino, California 92401-1400

SUBJECT: Approved Jurisdictional Determination regarding presence/absence of geographic jurisdiction

Dear Mr. Quinnell:

Reference is made to your request (File No. SPL-2007-01449-VCC), dated June 16, 2011, for an approved Department of the Army jurisdictional determination (JD) for the Caltrans State Route 58 (SR-58) Realignment and Widening Project site 34.92218° N, -117.260294°W), located near the city of Hinkley, San Bernardino County, California.

As you may know, the Corps' evaluation process for determining whether or not a Department of the Army permit is needed involves two tests. If both tests are met, then a permit is required. The first test determines whether or not the proposed project is located in a water of the United States (i.e., it is within the Corps' geographic jurisdiction). The second test determines whether or not the proposed project is a regulated activity under section 10 of the River and Harbor Act or section 404 of the Clean Water Act. As part of the evaluation process, pertaining to the first test only, we have made the jurisdictional determination below.

Based on available information, we have determined there are no waters of the United States on the project site, in the locations depicted on the enclosed drawing. The basis for our determination can be found in the enclosed JD form(s).

The aquatic resources identified as HarperDryLake 1 through 40 on the attached approved jurisdictional determination and map are intrastate isolated waters with no apparent interstate or foreign commerce connection. As such, these waters are not currently regulated by the Corps of Engineers. This disclaimer of jurisdiction is only for section 404 of the Clean Water Act. Other Federal, State, and local laws may apply to your activities. In particular, you may need authorization from the California State Water Resources Control Board and/or the U.S. Fish and Wildlife Service.

This letter contains an approved jurisdictional determination for the Caltrans State Route 58 (SR-58) Realignment and Widening Project site. If you object to this decision, you may request an administrative appeal under Corps regulations at 33 CFR part 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet (Appendix A) and Request for Appeal (RFA) form. If you request to appeal this decision you must submit a completed RFA form to the Corps South Pacific Division Office at the following address:

Tom Cavanaugh
Administrative Appeal Review Officer,
U.S. Army Corps of Engineers
South Pacific Division, CESPDPDS-O, 2042B
1455 Market Street, San Francisco, California 94103-1399

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 C.F.R. section 331.5, and that it has been received by the Division Office within 60 days of the date on the NAP. Should you decide to submit an RFA form, it must be received at the above address by **October 2, 2012**. It is not necessary to submit an RFA form to the Division office if you do not object to the decision in this letter.

This verification is valid for five years from the date of this letter, unless new information warrants revision of the determination before the expiration date. If you wish to submit new information regarding the approved jurisdictional determination for this site, please submit this information to Veronica Chan at the letterhead address by **August 3, 2017**. The Corps will consider any new information so submitted and respond within 60 days by either revising the prior determination, if appropriate, or reissuing the prior determination. A revised or reissued jurisdictional determination can be appealed as described above.

This determination has been conducted to identify the extent of the Corps' Clean Water Act jurisdiction on the particular project site identified in your request. This determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service, prior to starting work.

If you have any questions, please contact Veronica Chan at 213-452-3292 or via e-mail at Veronica.C.Chan@usace.army.mil.

Please be advised that you can now comment on your experience with Regulatory Division by accessing the Corps web-based customer survey form at:
<http://per2.nwp.usace.army.mil/survey.html>.

Sincerely,



Mark D. Cohen
Deputy Chief, Regulatory Division

Enclosures

Lahontan Regional Water Quality Control Board

MEMORANDUM

TO: Scott Quinnell
California Department of Transportation, District 8
464 W. 4th Street, 6th Floor, MS 822
San Bernardino, CA 92401-1400
Email: scott.quinnell@dot.ca.gov

Patty Z. Kouyoumdjian

FROM: PATTY Z. KOUYOUMDJIAN
EXECUTIVE OFFICER

DATE: May 9, 2014

SUBJECT: NOTICE OF APPLICABILITY FOR GENERAL WASTE DISCHARGE REQUIREMENTS FOR SMALL CONSTRUCTION, INCLUDING UTILITY, PUBLIC WORKS, AND MINOR STREAMBED/LAKEBED ALTERATION PROJECTS, BOARD ORDER NO. R6T-2003-0004, STATE ROUTE 58 HINKLEY EXPRESSWAY PROJECT, SAN BERNARDINO COUNTY, WDID 6B361401001

California Regional Water Quality Control Board, Lahontan Region (Water Board) staff received an application for Waste Discharge Requirements (WDRs) for dredge and fill in waters of the State (WOS) for the State Route 58 Hinkley Expressway Project (Project) on January 3, 2014. Supplemental information in support of the application was received by Water Board staff on March 11, 2014 and on May 2, 2014. The U.S. Army Corps of Engineers has determined that the Project is not subject to Clean Water Act (CWA) section 404 due to the waters on the Project site having no hydrological or ecological surface connection to a traditional navigable water and, therefore, does not meet the criteria for jurisdictional waters of the United States. Water Board staff have determined that the proposed Project is not subject to CWA section 401 water quality certification, but meets the requirements to be regulated under General Waste Discharge Requirements for Small Construction, Including Utility, Public Works, and Minor Streambed/Lakebed Alteration Projects, Board Order (General Board Order) No. R6T-2003-0004. The California Department of Transportation (Applicant) is hereby assigned General Board Order No. R6T-2003-0004-211 and Waste Discharge Identification (WDID) No. 6B361401001 for this Project. By this Notice of Applicability (NOA), the fill- and excavation-related discharges to WOS associated with the Project

are authorized and subject to compliance with the General Board Order. A copy of the General Board Order is enclosed. Please use the above-referenced WDID number in future correspondence regarding this Project.

Any person aggrieved by this action of the Water Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with Water Code section 13320 and California Code of Regulations (CCR), title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

PROJECT DESCRIPTION

This NOA is based upon the information you provided. Project details are summarized in the following table.

Table of Project Information:

WDID Number	6B361401001
Applicant	California Department of Transportation, District 8 464 West 4 th Street, 6 th Floor, MS 822 San Bernardino, CA 92401-1400 Contact: Scott Quinnell Email: scott.quinnell@dot.ca.gov
Agent	Kyle Myrick, California Department of Transportation, District 8 Email: kyle.myrick@dot.ca.gov
Project Name	State Route 58 Hinkley Expressway Project
Project Purpose and Description	The Project is to realign and widen an existing 8.9 mile long segment of State Route (SR) 58 near the unincorporated community of Hinkley in San Bernardino County. The purpose of the Project is to maintain route continuity, relieve congestion, meet current engineering standards, and improve public safety. Project implementation will require the following work within surface waters: grading within stream channels; installation of culverts to convey flows beneath the highway; and placement of rock rip-rap at culvert inlets and outlets. Stormwater basins will be constructed to collect runoff from the highway during rain events.
Project Type	Transportation, Roads and Highways
Project Address or other Locating Information	SR 58 from 2.4 miles west of Hidden Road to 0.7 miles east of Lenwood Road near the unincorporated community of Hinkley and approximately 5 miles west of the City of Barstow, San Bernardino County
Latitude/Longitude	Latitude: 35.915 Longitude: -117.187 (center) Latitude: 34.922 Longitude: -117.261 (west end of Project) Latitude: 34.915 Longitude: -117.110 (east end of Project)

Table of Project Information:

Hydrologic Unit(s)	Mojave Hydrologic Unit 628.00, Middle Mojave Hydrologic Area 628.30, Harper Lake Hydrologic Subarea 628.42						
Project Area	850 acres						
Receiving Water(s) Name	Unnamed tributaries to Harper Dry Lake						
Water Body Type(s)	Minor surface waters						
Designated Beneficial Uses	MUN, AGR, GWR, REC-1, REC-2, WARM, COLD, WILD						
Potential Water Quality Impacts to WOS	Hydrogeomorphic changes in the flow regime on the Project site may result in downstream erosion, sedimentation, and/or siltation.						
Project Impacts to WOS	Waterbody Type	Permanent			Temporary		
		Acres	Linear Feet	Cubic Yards	Acres	Linear Feet	Cubic Yards
	Stream – fill and grading	2.207	10,508	12,630	0	0	0
Federal Permit(s)	None required. The U.S. Army Corps of Engineers has determined that the Project site does not contain waters of the United States (August 3, 2012).						
Non-Compensatory Mitigation	During construction, the Applicant will follow Best Management Practices (BMPs) including construction storm water controls designed to minimize the short-term degradation of water quality.						
Compensatory Mitigation	To compensate for permanent impacts to waters of the State, the Applicant has contracted with Richard Lyons to implement the Habitat Mitigation and Monitoring Plan (HMMP) dated May 2014. The HMMP includes the acquisition, preservation, and restoration of land in the greater Cronese Hydrologic Sub Area (628.72) that contains sufficient acreage of surface waters to mitigate at a mitigation ratio of 3.1 to 1. Monitoring reports documenting the success of the mitigation will be submitted to the Water Board by December 15th for a minimum of 5 years or until the success criteria outlined in the HMMP have been met. The first annual report is due on December 15, 2015 . Implementation of the mitigation will be concurrent with construction of the Project.						
Applicable Fees	\$75,071 (\$1,097 base fee + [10,508 linear feet of impact x \$10.97 per linear foot discharger x 2] + \$6,513 ambient surcharge); ¹ fees calculated based on length of discharge to non-Federal waters						
Fees Received	\$75,071						

¹ Discharge fees shall not exceed \$68,558, plus any applicable surcharges; the ambient surcharge is 9.5% of the sum of the base fee plus the discharge fee.

CEQA COMPLIANCE

The Applicant prepared a joint Environmental Impact Report (EIR) and Environmental Impact Statement (EIS) for the Project. The EIR/EIS was prepared pursuant to the California Environmental Quality Act (CEQA Public Resources Code 21000, et seq.) and the National Environmental Policy Act and circulated under State Clearinghouse No. 2007051067. The EIR/EIS was certified on June 27, 2013, following public review.

The Water Board, acting as a CEQA Responsible Agency in compliance with the CCR, title 14, section 15096, has considered the EIR/EIS for the Project and the mitigation measures incorporated into the Project to reduce potential water quality impacts to less than significant with mitigation. As a result of the analysis, the Water Board finds that the conditions required in the General Board Order and the mitigation measures in the EIR/EIS are adequate to reduce potential water quality impacts to less than significant.

AMENDMENT TO MONITORING AND REPORTING PROGRAM R6T-2003-0004

By this NOA, I am amending Monitoring and Reporting Program R6T-2003-0004 of the General Permit to include additional monitoring and reporting requirements pursuant to California Water Code, section 13267. This revised order for technical report submittal is necessary to verify compliance with the proposed compensatory mitigation. The additional requirements are as follows.

1. No later than **September 15, 2014**, the Applicant must submit to the Water Board a copy of the signed and executed agreement between the Applicant and Richard Lyons.
2. By December 15th of each year, beginning **December 15, 2015**, the Applicant must submit to the Water Board an annual report describing and documenting the success of implementing the HMMP and the restoration activities completed during the prior calendar year for a minimum of five years. The report must compare the mitigation measures to the success criteria specified in the HMMP.

GENERAL INFORMATION

1. The Project must be constructed and operated in accordance with the Project description in the information provided to the Water Board. Deviation from the Project's description constitutes a violation of the conditions upon which this NOA was granted.
2. Neither Project construction activities nor operation of the Project may cause a violation of the *Water Quality Control Plan for the Lahontan Region (Basin Plan)*, may cause a condition or threatened condition of pollution or nuisance, or cause any other violation of the Water Code.
3. Any discharge to surface waters within the Project area must be in accordance with the requirements contained in the General Board Order. Failure to abide by the conditions of the General Board Order and this NOA may result in enforcement action as authorized by the provisions of the Water Code.

REVOCAION PROCEDURES

As stated in the General Board Order, coverage shall continue until revoked in writing by the Water Board. The Applicant is responsible for notifying the Water Board in writing that the Project is complete, certifying that the required conditions are met, and requesting revocation of coverage. Coverage for the specific Project will be revoked provided the following conditions are met.

1. The Project is complete, soil stabilization measures and permanent BMPs are in place and functioning, and onsite mitigation and monitoring requirements are completed.
2. Information required in section B of the Monitoring and Reporting Program for the General Board Order has been submitted.
3. Water Board staff have verified that the conditions of the General Board Order have been met, which may also include a field inspection by Water Board staff.

Thank you for your efforts to protect water quality. If you have any questions regarding this letter, please contact Jan Zimmerman, Engineering Geologist, at (760) 241-7376 (jan.zimmerman@waterboards.ca.gov), or Patrice Copeland, Senior Engineering Geologist, at (760) 241-7404 (patrice.copeland@waterboards.ca.gov).

Enclosure: General Order and Monitoring and Reporting Program No. R6T-2003-0004

cc: Kyle Myrick, California Department of Transportation
(via email, kyle.myrick@dot.ca.gov)
Heather Weiche, California Department of Fish and Wildlife
(via email, heather.weiche@wildlife.ca.gov)
Ali Aghili, California Department of Fish and Wildlife
(via email, Ali.Aghili@wildlife.ca.gov)
SWRCB, Division of Water Quality
(via email, stateboard401@waterboards.ca.gov)



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Inland Deserts Region
3602 Inland Empire Blvd Suite 220
Ontario, CA 91764
www.wildlife.ca.gov

EDMUND G. BROWN, Jr., Governor
CHARLTON H. BONHAM, Director



May 9, 2014

Scott Quinnell
Senior Environmental Planner
California Department of Transportation
464 West 4th Street, 6th Floor, MS 822
San Bernardino, CA 92401-1400

Subject: Final Lake or Streambed Alteration Agreement
Notification No. 1600-2014-0001-R6

Dear Mr. Quinnell:

Enclosed is the final Streambed Alteration Agreement (Agreement) for the State Route 58 (SR-58) Hinkley Expressway (Project). Before the California Department of Fish and Wildlife (Department) may issue an Agreement, it must comply with the California Environmental Quality Act (CEQA). In this case, the Department, acting as a responsible agency, filed a notice of determination (NOD) on the same date it signed the Agreement. The NOD was based on information contained in the final Environmental Impact Report the lead agency prepared for the Project.

Under CEQA, filing a NOD starts a 30-day period within which a party may challenge the filing agency's approval of the project. You may begin your project before the 30-day period expires if you have obtained all necessary local, state, and federal permits or other authorizations. However, if you elect to do so, it will be at your own risk.

If you have any questions regarding this matter, please contact Heather Weiche at 909-980-8607 or heather.weiche@wildlife.ca.gov.

Sincerely,

Leslie McNair
Environmental Program Manager

Ali Aghili
for

Cc: Heather Weiche
CHRON

Conserving California's Wildlife Since 1870

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
INLAND DESERTS REGION
INLAND EMPIRE BLVD, SUITE C-220
ONTARIO, CA 91764



STREAMBED ALTERATION AGREEMENT
NOTIFICATION No. 1600-2014-0001-R6

CALIFORNIA DEPARTMENT OF TRANSPORTATION
STATE ROUTE 58 4-LANE EXPRESSWAY HINKLEY PROJECT

This Streambed Alteration Agreement (Agreement) is entered into between the California Department of Fish and Wildlife (CDFW) and California Department of Transportation (Permittee).

RECITALS

WHEREAS, pursuant to Fish and Game Code (FGC) section 1602, Permittee notified CDFW on January 2, 2014, that Permittee intends to complete the project described herein. CDFW sent an incomplete letter on January 21, 2014, the appropriate information was given to CDFW and a complete letter was sent on February 6, 2014.

WHEREAS, pursuant to FGC section 1603, CDFW has determined that the project could substantially adversely affect existing fish or wildlife resources and has included measures in the Agreement necessary to protect those resources.

WHEREAS, Permittee has reviewed the Agreement and accepts its terms and conditions, including the measures to protect fish and wildlife resources.

NOW THEREFORE, Permittee agrees to complete the project in accordance with this Agreement.

PROJECT LOCATION

The project is located on State Route 58 (SR-58), 2.8 miles west of Hidden River Road, and .07 miles east of Lenwood Road between post mile (PM) 22.2 and 31.1. The project is near the community of Hinkley in the county of San Bernardino. The project area lies within a number of Sections of Townships 9 and 10 North, and Ranges 2, 3, 4, and 5 West, as depicted on the "Barstow, California;" "Hinkley, California;" and "Twelve Gauge Lake, California;" 7.5-minute topographic quadrangles (USGS 1993, 1993, 1973, respectively). The Project is within the Mojave and Coyote-cuddeback Lakes Watersheds (HUCs 180902071104, 180902071101, 180902071001, and 180902081102).

PROJECT DESCRIPTION

The project will consist of the realignment and widening of an existing 8.9-mile segment of SR-58 (Project). The Project includes several ephemeral streams and playas, the majority of which are located west of Hinkley road. The Project also, includes facilities for drainages via culverts and detention basins in the western half of the Project. As described in the EIR/EIS, alternative 2 will realign and widen Hwy 58 to a four-line expressway on the southerly alignment. Under this alternative a new alignment would diverge from the existing alignment approximately two miles west of Valley View Road in a southeasterly direction to Valley View Road just south of Frontier Road, continuing along a gentle curve easterly from Valley View Road until it rejoins the existing alignment approximately 0.75 mile east of Lenwood Road. The alignment would run approximately 0.5 mile south of the existing SR-58 alignment.

Drainage facilities will be located on site in the form of two detention/retention basins and approximately 22 box culverts (See figure 1 for location and description of the stream crossing that will be impacted by the Project). The detention basins will have a maximum size of 200-ft by 3,000-ft (61-by 914.4-m), and average depth is six- to seven-ft (1.8- to 2.1-m) with a maximum depth of 10-ft (3.1-m), and the slope ratios vary from 20 to 1 to 4 to 1. Culverts will be attached to each of the basins and they will probably be 36 inches (in) (91.4 centimeters [cm]) minimum, round, and non-corrugated. One basin would be located west of Valley View Road, south of the new SR-58 and the other basin would be located west of Lenwood Road between the existing alignment of SR-58 and the realigned portion.

Access to the project site will be gained from the existing SR-58. No new access roads will be built as part of this project. Staging areas and equipment storage will take place on existing roads or within the proposed right-of-way of the realigned SR- No temporary access roads or staging areas outside the proposed right-of-way would be required for this project. All construction activities would be limited to the Caltrans right-of-way. Vegetation within the project footprint would be mapped prior to project construction and avoided if feasible through the installation of Environmentally Sensitive Area (ESA) fencing and construction monitoring.

The Project is incorporating desert tortoise fencing, and would design stream undercrossing in such a way as to accommodate the desert tortoise movement. Approximately 34 culverts will be designed as box culverts (with minimum dimension of three by five feet) 7 of which would function as wildlife crossings for Desert tortoises. The wildlife crossing drainages will be designed with a flat bottom to allow desert tortoise to use them as a crossing. The culverts will be used to provide/maintain desert tortoise connectivity and will be monitored and maintained by the applicant during the life of this projects and the subsequent maintenance of the culverts. Permanent desert tortoise fencing will be tied into the wildlife crossings; the fencing will be attached to the culverts, which will allow for wildlife to follow the fence line into the culvert for safe crossings.

Permanent desert tortoise fencing will be installed along the right-of-way limits; therefore, this would result in a permanent loss of desert tortoise habitat and will mitigate for during the incidental take permit process. Location of the culverts and Desert Tortoise undercrossing are presented in Table1.

Table 1. Wildlife and Culvert Crossing Locations

Sheet	System	Unit	Description	Soft Bottom	Wildlife Crossing	Easting	Northing
D-1	2	c	5' x 3' RCB	41.2	yes	E 6 784 258.898	N 2 158 774.983
D-2	6	c	6' x 3' RCB	28.8	yes	E 6 785 220.851	N 2 158 676.732
D-3	11	c	Double 5' x 3' RCB	85.4	yes	E 6 786 449.898	N 2 158 330.503
D-5	13	c	Double 5' x 3' RCB	85.0	yes	E 6 786 778.634	N 2 158 191.349
D-5	15	c	Double 5' x 3' RCB	79.4	yes	E 6 787 410.963	N 2 157 859.864
D-5	17	c	Double 5' x 3' RCB	62.2	yes	E 6 788 002.923	N 2 157 486.315
D-10	27	c	5' x 3' RCB	27.8	yes	E 6 792 623.647	N 2 155 856.306
D-14	31	c	Double 42" RCB		no	E 6 796 847.399	N 2 155 814.019
D-14	34	c	Double 42" RCB		no	E 6 797 372.399	N 2 155 814.027
D-14	35	c	Double 42" RCB		no	E 6 797 900.520	N 2 155 814.035
D-15	36	c	Double 42" RCB		no	E 6 799 116.701	N 2 155 814.053
D-16	38	c	Triple 42" RCB		no	E 6 800 726.762	N 2 155 833.540
D-18	40	c	Double 36" RCB		no	E 6 801 371.064	N 2 155 870.142
D-19	42	c	Double 42" RCB		no	E 6 802 664.255	N 2 156 001.150
D-19	44	c	Double 42" RCB		no	E 6 802 996.016	N 2 156 047.267
D-21	48	c	Double 36" RCB		no	E 6 804 158.339	N 2 156 249.840
D-27	62	b	Double 4' x 8' RCB		no	E 6 805 253.774	N 2 156 484.566
D-29	81	c	Double 36" RCB		no	E 6 806 196.750	N 2 156 688.392
D-29	83	c	Triple 24" RCB		no	E 6 806 685.464	N 2 156 794.028
D-30	85	c	Double 36" RCB		no	E 6 808 057.477	N 2 157 071.912
D-31	89	c	Double 42" RCB		no	E 6 810 058.854	N 2 157 325.969
D-32	90	c	Double 42" RCB		no	E 6 810 939.043	N 2 157 379.160
D-33	92	c	Double 42" RCB		no	E 6 812 699.371	N 2 157 391.627
D-33	93	c	Double 42" RCB		no	E 6 813 416.261	N 2 157 382.242
D-34	94	c	Double 42" RCB		no	E 6 813 820.817	N 2 157 367.563
D-34	96	c	Double 42" RCB		no	E 6 814 156.945	N 2 157 349.691
D-35	97	c	Double 42" RCB		no	E 6 815 165.697	N 2 157 264.981
D-35	98	c	Double 42" RCB		no	E 6 815 341.485	N 2 157 245.422
D-35	100	c	Double 42" RCB		no	E 6 816 368.229	N 2 157 102.418
D-36	101	c	Double 42" RCB		no	E 6 817 332.616	N 2 156 929.775
D-36	102	c	Double 42" RCB		no	E 6 817 659.927	N 2 156 872.074
D-37	103	c	Double 42" RCB		no	E 6 818 339.668	N 2 156 775.574
D-38	105	c	36" RCB		no	E 6 820 620.336	N 2 156 674.094
D-41	107	b	36" RCB		no	E 6 825 131.080	E 6 825 131.080

PROJECT IMPACTS

Existing fish or wildlife resources the Project could substantially adversely affect include:

Native plant species: cheesebush (*Hymenoclea salsola*), shadscale (*Atriplex confertifolia*), and goldenbush (*Ericameria* species). Associated understory species included rice grass (*Achnatherum hymenoides*), Mediterranean grass (*Schismus* species), checker fiddleneck (*Amsinckia tessellata*), California dandelion (*Malacothrix californica*), small flowered blazing star (*Mentzelia albicaulis*), yellow pepper-weed (*Lepidium flavum* var. *flavum*), Fremont's pincushion (*Chaenactis fremontii*), tansy mustard (*Descurainia pinnata*), and California mustard (*Guillenia lasiophylla*).

Mammals: Merriam's kangaroo rat (*Dipodomys merriami*), white-tailed antelope ground squirrel (*Ammospermophilus leucurus*), desert wood rat (*Neotoma lepida*), and cactus mouse (*Peromyscus eremicus*), Desert cottontail (*Sylvilagus audubonii*) and black-tailed jackrabbit (*Lepus californicus*), coyote (*Canis latrans*), gray fox (*Urocyon cinereargenteus*), desert kit fox (*Vulpes macrotis*), bobcat (*Felis rufus*), and mountain lion (*Felis concolor*).

Reptiles: side-blotched lizard (*Uta stansburiana*), western whiptail (*Cnemidophorus tigris*), desert iguana (*Dipsosaurus dorsalis*), zebra-tailed lizard (*Urosaurus gratioisus*), and desert horned lizard (*Phrynosoma platyrhinos*), coachwhip (*Masticophis flagellum*), Mojave patchnose snake (*Salvadora hexalepis mojavensis*), Great Basin gopher snake (*Rhinocelillus lecontei lecontei*), Sonoran ground snake (*Sonora semiannulata*), Mojave shovelnose snake (*Chionactis occipitalis occipitalis*), desert night snake (*Hypsiglena torquata deserticola*), Mojave Desert sidewinder (*Crotalus cerastes*), and speckled rattlesnake (*Crotalus mitchelli*).

Birds: common raven (*Corvus corax*), house finch (*Carpodacus mexicanus*), mourning dove (*Zenaida macroura*), horned lark (*Eremophila alpestris*), rock wren (*Salpinctes obsoletus*), black-throated sparrow (*Amphispiza bilineata*), and greater roadrunner (*Geococcyx californianus*), brewer's sparrow (*Spizella brewerii*), sage sparrow (*Amphispiza belli*), yellow-rumped (Audubon's) warbler (*Denroica coronata auduboni*), and American pipit (*Anthis rubescens*), red-tailed hawk (*Buteo jamaicensis*), golden eagle (*Aquila chrysaetos*), barn owl (*Tyto alba*), burrowing owl (*Athene cunicularia*).

Invasive Species Seaside barley (*Hordeum marinum*), Wild oat (*Avena fatua*), Foxtail chess (*Bromus madritensis* ssp. *Rubens*), Cheat grass (*Bromus tectorum*), Seaside barley (*Hordeum marinum*), Tamarisk (*Tamarix parviflora*), Russian thistle (*Salsola tragus*), Black mustard (*Brassica nigra*), Sahara mustard (*Brassica tournefortii*), Oleander (*Nerium oleander*)

Special Status Species

Fish Mohave tui chub (*Gila bicolor mohavensis*) **Birds** Western snowy plover (*Charadrius alexandrinus nivosus*), Western yellow-billed (cuckoo) *Coccyzus americanus occidentalis*, Yuma clapper rail (*Rallus longirostris yumanensis*), **Reptiles**

Desert tortoise (*Gopherus agassizi*), **Mammals** Mohave ground squirrel (*Spermophilus Mohavensis*).

The adverse effects the Project could have on the fish or wildlife resources identified above include: permanent impacts to 2.176 acres of jurisdictional areas (Table 1). The project area supports two vegetation communities' Creosote bush scrub and Atriplex scrub. In addition, the project area supports disturbed and developed areas. A total of 549.75 vegetation acres will be impacted by this project. Of which 265.66 acres will be Atriplex Scrub, 184.98 acres of Creosote Bush Scrub and 99.11 acres of disturbed Atriplex Scrub. The majority of the ephemeral streams are un-vegetated and those with any vegetation contain weedy species that are not indicative of hydrology.

Detailed information of the species impacted and measures to reduce these impacts can be found in the State Route 58 Hinkley Expressway Project's EIR (State Clearing House Number: 2007051067);

MEASURES TO PROTECT FISH AND WILDLIFE RESOURCES

1. Administrative Measures

Permittee shall meet each administrative requirement described below.

- 1.1 Documentation at Project Site. Permittee shall make this Agreement, any extensions and amendments to this Agreement, and all related notification materials and California Environmental Quality Act (CEQA) documents, readily available at the project site at all times and shall be presented to CDFW personnel, or personnel from another state, federal, or local agency upon request.
- 1.2 Providing Agreement to Persons at Project Site. Permittee shall provide copies of this Agreement and any extensions and amendments to the Agreement to a representative of all entities who will be working on the project at the project site on behalf of Permittee, including but not limited to contractors, subcontractors, inspectors, and monitors.
- 1.3 Notification of Conflicting Provisions. Permittee shall notify CDFW if the Permittee determines or learns that a provision in this Agreement might conflict with a provision imposed on the project by another local, state, or federal agency. In that event, CDFW shall contact Permittee to resolve any conflict.
- 1.4 Compliance with other Agencies. This Agreement does not relieve the Permittee of responsibility for compliance with applicable federal, state, or local laws, ordinances or grant conditions. A consummated Agreement does not constitute CDFW endorsement of the proposed operation, or assure CDFW concurrence with permits and/or grant conditions required from other agencies.

- 1.5 Project Site Entry. Permittee agrees that CDFW personnel may enter the project site at any time to verify compliance with this Agreement. CDFW personnel shall notify Permittee in advance as practicable to facilitate site access and shall comply with all site safety procedures.
- 1.6 Personnel Compliance On Site. If the Permittee or any employees, agents, contractors and/or subcontractors violate any of the terms or conditions of this Agreement, all work shall terminate immediately and shall not proceed until CDFW has been contacted and the issue remedied, or CDFW has taken all of its legal actions.
- 1.7 Pre-Project Briefing. A pre-construction meeting/briefing shall be held involving all the contractors and subcontractors, concerning the conditions in this Agreement.
- 1.8 Notification Prior to Work. The Permittee shall notify CDFW, in writing, at least five days prior to the start of any major maintenance activities. Notification shall be either: a) submitted to the CDFW Regional Office, at 3602 Inland Empire Boulevard, Suite C-220, Ontario, CA 91764, Attn: Streambed Alteration Staff; b) sent electronically to the local CDFW staff working on this project. For this notification, please reference, Agreement No. 1600-2014-0001-R6, in the subject line.
- 1.9 Other Project Documents Submitted to CDFW. Any other required reports, survey results, and other project documentation shall be submitted by mail or via e-mail to the current CDFW staff associated with this project. When no immediate CDFW staff is available to receive these documents, then they shall be submitted to the CDFW regional office, at 3602 Inland Empire Boulevard, Suite C-220, Ontario, CA 91764, Attn: Streambed Alteration Staff, or, may be sent electronically to the CDFW inbox via email at: AskRegion6@wildlife.ca.gov. For all documents, please reference, Agreement No. 1600-2014-0001-R6, in the subject line.

2. Avoidance and Minimization Measures

To avoid or minimize adverse impacts to fish and wildlife resources identified above, Permittee shall implement each measure listed below.

Wildlife Protection

- 2.1 On-site Biologist with Stop work Authorization. Permittee shall have a CDFW approved Designated Biologist(s)(DB) on-site during all Project activity to ensure Agreement conditions are being met and impacts to fish and wildlife habitat are minimized. When construction activities have progressed to the point where biological resources are no longer present, as determined by the DB, biological

monitoring in the area may be reduced or discontinued with approval from the County of San Bernardino and CDFW. To protect fish and wildlife resources the DB shall have the authority to immediately stop any project activity. If a State listed Species of Special Concern, or threatened or endangered species are found within the Project work area the DB shall immediately stop work within the Project work area and notify CDFW in writing, via email (heather.weiche@wildlife.ca.gov), and by calling Heather Weiche, Environmental Scientist at (909) 980-8607 and the Regional Office at (909) 484-0167. Consultation with CDFW is required prior to cancellation of a stop work order. No tortoises shall be handled without obtaining a 2081 permit from CDFW.

- 2.2 Worker Environmental Awareness Program. Prior to any construction activities on the project site, the Applicant will implement a Worker Environmental Awareness Program (WEAP) to educate on-site workers about sensitive environmental issues associated with the Project. The program will be administered to all on-site personnel, including the Applicant's personnel, contractors, and all subcontractors, prior to the employee's commencing work on the site. The WEAP will include but not be limited to protected species that have potential to occur within the Project site, including the Mojave desert tortoise, Mohave ground squirrel, burrowing owl, desert kit fox, as well as nesting birds, plants, and other wildlife species.
- 2.3 Best Management Practices. Permittee shall actively implement best management practices (BMPs) to prevent erosion and the discharge of sediment in to streams and lakes during project activities. BMPs shall be monitored daily and repaired if necessary to ensure maximum erosion and sediment control. All fiber rolls, straw waddles, and/or hay bales utilized within and adjacent to the project site shall be free of nonnative plant materials. Fiber rolls or erosion control mesh shall be made of loose-weave mesh that is not fused at the intersections of the weave, such as jute, or coconut (coir) fiber, or other products without welded weaves. Non-welded weaves reduce entanglement risks to wildlife by allowing animals to push through the weave, which expands when spread.
- 2.4 Special Status Species encountered during work. If Permittee encounters special status species during the conduct of Project Activity, work shall be suspended, CDFW notified, and conservation measures shall be developed in agreement with CDFW prior to re-initiating the activity.
- 2.5 Work Period in Dry Weather Only. Work within the desert dry washes shall be restricted to periods of no stream flow and dry weather. Precipitation forecasts and potential increases in stream flow shall be considered when planning construction activities. Construction activities shall cease and all necessary erosion control measures shall be implemented prior to the onset of precipitation. Construction activities halted due to precipitation may resume when precipitation ceases and the National Weather Service 72 hour weather forecast indicates a 20% or less chance of precipitation, provided no work occurs in the stream bed if water is flowing. If a construction phase may cause the introduction of sediments

into the stream: 1) no phase of the project shall be started in May or November of any year, unless all work for that phase and all associated erosion control measures are completed prior to the onset of precipitation; and 2) no phase of the project shall commence unless all equipment and materials are removed from the channel at least 12 hours prior to the onset of precipitation and all associated erosion control measures are in place prior to the onset of precipitation. No work shall occur during a dry-out period of 24 hours after the above referenced wet weather. Weather forecasts shall be documented upon request by CDFW.

- 2.6 Post Storm Event Inspection. After any storm event, Permittee shall inspect all sites scheduled to begin or continue construction within the next 72 hours. Corrective action for erosion and sedimentation shall be taken as needed. National Weather Service 72 hour weather forecasts shall be reviewed prior to the start of any phase of the project that may result in sediment runoff to the stream, and construction plans adjusted to meet this requirement. The National Weather Service forecast can be found at: <http://www.nws.noaa.gov>

Desert Tortoise and Mohave Ground Squirrel

- 2.7 Check for Wildlife in Pipes / Construction Materials. Permittee shall visually check all sections of pipe / construction materials for the presence of wildlife sheltering within them prior to the pipe sections being placed in the trench and attached together, or shall have the ends capped while stored on site so as to prevent wildlife from entering. After attachment of the pipe sections to one another, whether in the trench or not, the exposed end(s) of the pipeline shall be capped at the end of each day during construction to prevent wildlife from entering and being trapped within the pipeline.
- 2.8 Escape Ramp in Trench. At the end of each work day, Permittee shall place an escape ramp at each end of the open trench to allow any animals that may have become entrapped in the trench to climb out overnight. The ramp may be constructed of either dirt fill or wood planking or other suitable material that is placed at an angle no greater than 30 degree.
- 2.9 Wildlife Culverts Crossings Design. Wildlife drainages will be designed with a flat (soft) bottom as well as ripping up a certain distance of the existing SR-58 and allowing it to revert back to its natural state in order to be used as a wildlife crossing for desert tortoise and other small animals. To the extent feasible, all culverts will be constructed with their inverts on natural ground approximating the gradient of the flow line they are to serve, for purposes of helping to prevent bed load deposition in the culvert.
- 2.10 Wildlife Culvert Crossing Maintenance. All wildlife crossings will be inspected, and cleared of sediment and debris after all major storm events. A qualified biologist shall be on site during any maintenance activities. The qualified biologist should inspect the culverts for desert tortoise that may be trapped or crossing the

culverts. A maintenance gate will be placed at each of the wildlife crossing with desert tortoise fencing attached to it.

- 2.11 Desert Tortoise Fencing. Permanent desert tortoise exclusion fencing will be placed along the proposed project length paralleling the Right of Way (ROW) prior to surface disturbance to prevent encounters with desert tortoise during construction activities. The fence will be tied into the wildlife crossings and attached to the culverts and will then parallel the ROW again. The fence will allow for wildlife to follow the fence line into the culvert for safe crossings and eliminates the possibility of desert tortoise entering the culverts that are not designed as wildlife crossings.
- 2.12 Pre-construction sweeps. Within the proposed project site sweeps will be conducted before construction, to ensure that desert tortoises are absent from the project area. Additionally, biological monitors will be on site during construction of the desert tortoise exclusion fencing. Upon completion of construction of the desert tortoise exclusion fencing, an on-call biologist will be available should desert tortoise be encountered during construction activities.

Nesting Birds and Bats

- 2.13 Pre-Construction Nesting Bird Surveys and Avoidance. Within 30 days prior to vegetation clearing or ground disturbance associated with construction or grading that would occur during the nesting/breeding season (February through August, unless determined otherwise by a qualified biologist based on observations in the region), a qualified biologist shall determine if active nests of species protected by the Migratory Bird Treaty Act or the California Fish and Game Code are present within or adjacent to the disturbance zone or within 100 feet (300 feet for raptors) of the disturbance zone. The surveys shall be conducted no more than seven days prior to initiation of disturbance work. If ground disturbance activities are delayed, then additional pre-disturbance surveys shall be conducted such that no more than 30 days will have elapsed between the survey and ground disturbance activities. If active nests are found, clearing and construction within 100 feet of the nest shall be postponed or halted, until the nest is vacated and juveniles have fledged, as determined by the biologist. Avoidance buffers shall be established in the field with highly visible construction fencing or flagging, and construction personnel shall be instructed on the sensitivity of nest areas. A qualified biologist shall serve as a construction monitor during those periods when construction activities will occur near active nests to ensure that no inadvertent impacts on these nests occur. The results of pre-construction nesting bird surveys, including graphics showing the locations of any nests detected, and documentation of any avoidance measures taken, shall be submitted to the County of San Bernardino and CDFW within 14 days of completion of the pre-construction surveys or construction monitoring to document compliance with applicable state and federal laws pertaining to the protection of native birds.

Burrowing Owl

- 2.14 **Burrowing Owl Inspection.** Permittee shall inspect all burrows that exhibit typical characteristics of owl activity such as whitewash, and prey pellets at the entrance of the burrow, no sooner than three days prior to any site preparation activities. If it is evident that the burrows are actively being used, Permittee shall not commence activities until no sign is present that the burrows are being used by adults or juvenile owls.
- 2.15 **Survey for Burrowing Owls Prior to Clearing.** Permittee shall have qualified wildlife biologist pre-approved by CDFW perform a survey for burrowing owls within 60 days and not less than 30 days prior to clearing any area.
- 2.16 **Burrowing Owl Exclusionary Devices.** If evidence exist that burrowing owls are utilizing the Project site, the Permittee shall follow the Burrowing Owl Consortium protocol guidelines (<http://www.dfg.ca.gov/wildlife/nongame/docs/boconsortium.pdf>) Permittee shall erect exclusionary devices to prevent the owls form entering the burrows and shall implement an artificial burrow program near the site in one of the areas considered for restoration/creation or preservation, as part of the mitigation measures for this agreement. The exclusionary or artificial devices shall be placed by a CDFW approved qualified wildlife biologist and shall be pre-approved by CDFW. The approved devices shall be placed at least two months prior to any site related project activities and monitored for one year to ensure they are functioning and being used by owls.
- 2.17 **Burrowing Owl Mitigation and Monitoring Plan.** A Burrowing Owl Mitigation and Monitoring Plan shall be submitted to CDFW for review and approval prior to relocation of owls. The Burrowing Owl Mitigation and Monitoring Plan shall describe proposed relocation and monitoring plans. The plan shall include the number and location of occupied burrow sites and details on adjacent or nearby suitable habitat available to owls for relocation. If no suitable habitat is available nearby for relocation, details regarding the creation of artificial burrows (numbers, location, and type of burrows) shall also be included in the plan. The Plan shall also describe proposed off-site areas to preserve to compensate for impacts to burrowing owls/occupied burrows at the project site.
- 2.18 **Passive Relocation of Burrowing Owls.** Owls shall be passively relocated by a qualified biologist from any occupied burrows that may be impacted by project activities. Passive relocation is used to exclude owls from their burrows by installing one-way doors in burrow entrances. These one-way doors allow the owl to exit the burrow, but not enter it. Suitable habitat must be located adjacent to or near the disturbance site or artificial burrows shall be provided nearby. Once the biologist has confirmed that the owls have left the burrow, burrows should be excavated using hand tools and refilled to prevent reoccupation. All relocation shall be approved by CDFW and shall follow the 2012 Staff Report on Burrowing

Owl Mitigation (<http://www.dfg.ca.gov/wildlife/nongame/docs/BUOWStaffReport.pdf>). The qualified biologist shall monitor the relocated owls a minimum of three days per week for a minimum of three weeks. A report summarizing the results of the relocation and monitoring shall be submitted to CDFW within 30 days following completion of the relocation and monitoring of the owls.

- 2.19 Direct Loss of Owls. As compensation for the direct loss of burrowing owl nesting and foraging habitat, the Applicant shall mitigate by acquiring and permanently protecting six and a half (6.5) acres calculated on a ten (10) meter foraging radius of known burrowing owl nesting and foraging habitat for every pair or unpaired burrowing owl impacted by the project (those owls that required relocation because their burrows were directly impacted). The Applicant shall set-up a non-wasting endowment account for the long-term management of the preservation site for burrowing owls. The site shall be managed for the benefit of burrowing owls. The preservation site, site management, and endowment shall be approved by CDFW.
- 2.20 Pre-Construction Nesting Bird Surveys and Avoidance. Within 30 days prior to vegetation clearing or ground disturbance associated with construction or grading that would occur during the nesting/breeding season (February through August, unless determined otherwise by a qualified biologist based on observations in the region), a qualified biologist shall determine if active nests of species protected by the Migratory Bird Treaty Act or the California Fish and Game Code are present within or adjacent to the disturbance zone or within 100 feet (300 feet for raptors) of the disturbance zone. The surveys shall be conducted no more than seven days prior to initiation of disturbance work. If ground disturbance activities are delayed, then additional pre-disturbance surveys shall be conducted such that no more than 30 days will have elapsed between the survey and ground disturbance activities. If active nests are found, clearing and construction within 100 feet of the nest shall be postponed or halted, until the nest is vacated and juveniles have fledged, as determined by the biologist. Avoidance buffers shall be established in the field with highly visible construction fencing or flagging, and construction personnel shall be instructed on the sensitivity of nest areas. A qualified biologist shall serve as a construction monitor during those periods when construction activities will occur near active nests to ensure that no inadvertent impacts on these nests occur. The results of pre-construction nesting bird surveys, including graphics showing the locations of any nests detected, and documentation of any avoidance measures taken, shall be submitted to the County of San Bernardino and CDFW within 14 days of completion of the pre-construction surveys or construction monitoring to document compliance with applicable state and federal laws pertaining to the protection of native birds.

Vegetation removal and Invasive Species Control

- 2.21 Invasive Species. Permittee shall conduct project activities in a manner that prevents the introduction, transfer, and spread of invasive species, including plants, animals, and microbes (e.g., algae, fungi, parasites, bacteria, etc.), from one project site and/or waterbody to another. Prevention BMPs and guidelines for invasive plants can be found on the California Invasive Plant Council's website at: <http://www.cal-ipc.org/ip/prevention/index.php> and for invasive mussels and aquatic species can be found at the Stop Aquatic Hitchhikers website: <http://www.protectyourwaters.net/>.
- 2.22 Non-native plant removal. The Permittee shall remove any non-native vegetation (Seaside barley (*Hordeum marinum*), Wild oat (*Avena fatu*), Foxtail chess (*Bromus madritensis* ssp. *Rubens*), Cheat grass (*Bromus tectorum*), Seaside barley (*Hordeum marinum*), Tamarisk (*Tamarix parviflora*), Russian thistle (*Salsola tragus*), Black mustard (*Brassica nigra*), Sahara mustard (*Brassica tournefortii*), Oleander (*Nerium oleander*)) from the work area and shall dispose of it in a manner and a location which prevents its reestablishment.
- 2.23 Protection of Native Plants. Permittee shall flag or otherwise mark native plant species within the vicinity of invasive plants scheduled for control or eradication.
- 2.24 Pre-construction surveys for rare plants. Permittee will conduct preconstruction surveys to determine where rare plants and sensitive species that are to be protected in place as determined by the qualified biologist.
- 2.25 Rare Plants. The project design will avoid impacts to rare plants to the maximum extent possible. ESA fencing will be established around the rare plants and sensitive species that are to be protected in place as determined by the qualified biologist.
- 2.26 Access Roads and Temporary Areas. All temporary staging areas, storage areas, and access roads involved with this project will occur within the permanent impact area (future pavement, median, on- and off ramps, interchanges etc.). Access to the project site will be gained from the existing SR-58. No new access roads will be built as part of this project.
- 2.27 Non-Native Species. Measures to minimize the introduction or spread of non-native species will include cleaning all equipment and vehicles with water to remove dirt, seeds, vegetative material, or other debris before entering and upon leaving the project site and the removal and disposal offsite of existing non-native species within the project area. Landscaping and erosion control measures proposed during this Caltrans project would not contain invasive species in the plant selections or seed mixtures.

General Activities

- 2.28 **Location of Spoil Sites.** Spoil sites shall not be located within a stream or locations that may be subjected to high storm flows, where spoil may be washed back into a stream, or where it may impact streambed habitat, aquatic or riparian vegetation.
- 2.29 **No Dumping.** Permittee and all contractors, subcontractors, and employees shall not dump any litter or construction debris within the stream, or where it may pass into the stream.
- 2.30 **Pick Up Debris.** Permittee shall pick up all debris and waste daily and dispose of in a legal manner.
- 2.31 **Removal of Debris, Materials and Rubbish.** Permittee shall remove all Project generated debris, building materials and rubbish from the stream and from areas within one hundred and fifty (150) feet of the high water mark / where such materials could be washed into the stream following completion of Project activities.
- 2.32 **Wash water.** Water containing mud, silt, or other pollutants from equipment washing or other activities, shall not be allowed to enter a lake or flowing stream or placed in locations that may be subjected to high storm flows.
- 2.33 **Disturbed Soils.** Permittee shall stabilize all disturbed soils within the Project site to reduce erosion potential, both during and following construction. Planting, seeding with native species, sterile seed mix, and mulching is acceptable. Where suitable vegetation cannot reasonably be expected to become established, non-erodible materials, such as coconut fiber matting, shall be used for such stabilization.
- 2.34 **Rock Slope Protection.** Un-grouted rock slope protection (RSP) and energy dissipater materials shall consist of clean rock, competent for the application, sized and properly installed to resist washout. RSP slopes shall be supported with competent boulders keyed into a footing trench with a depth sufficient to properly seat the footing course boulders and prevent instability (typically at least 1/3 diameter of footing course boulders). Voids between rocks shall be planted with riparian species native to the area. Rock slope protection slopes and footing trenches shall feature an underlayment of appropriate grade geo-textile fabric, on slopes less than 1:1, or gravel blanket, on slopes greater than 1:1.
- 2.35 **Erosion Control Measures.** Permittee shall utilize erosion control measures throughout all phases of operation where sediment runoff from exposed slopes threatens to enter a river, stream, or lake.
- 2.36 **Erosion Control Monitoring.** Permittee or Designated Representative shall monitor erosion control measures during and after each storm event and repair and/or replace ineffective measures immediately.

- 2.37 Erosion Control Maintenance. Permittee shall make modifications, repairs and improvements to erosion control measures whenever it is needed. Materials used to repair or improved erosion control measures shall not pose a risk to fish or wildlife.
- 2.38 Silt Control. Permittee shall utilize silt control measures throughout all phases of the project where silt and/or earthen fill threaten to enter a river, stream, or lake. Silt control structures shall be monitored for effectiveness and shall be repaired or replaced as needed.
- 2.39 Mud, Silt and Other Pollutants. Permittee shall prevent water containing mud, silt or other pollutants from grading, aggregate washing, equipment washing, or other activities to enter a lake or stream or to be placed in locations that may be subjected to high storm flows.
- 2.40 Moving Equipment Across a Stream. When operations require moving of equipment across a flowing stream, Permittee shall conduct such operations without increasing stream turbidity. For repeated crossings, Permittee shall install a bridge, culvert, or rock fill crossing, approved by CDFW prior to placement.
- 2.41 Clean-up. Upon completion of operations and/or onset of wet weather, Permittee shall remove all construction material and/or debris from the stream channel to an area not subject to inundation.
- 2.42 Moved Channel At Same Grade. If the stream channel is to be moved or displaced from its present course, Permittee shall place the new channel at the same grade and elevation as the present channel. The new channel shall not cause a sluice or flume like condition that increases the speed of water flows above that of the existing channel.

3. Compensatory Measures

Compensatory Measures are needed to compensate for adverse impacts to fish and wildlife resources identified above that cannot be avoided or minimized, including listed species and critical habitats. Permanent Project impacts include 2.176 acres and shall be mitigated for at a ratio of 3:1. Total mitigation required for the Project includes 6.528 acres. Land that will be acquired through the 2081 Incidental Take Permit (ITP) 2081-2013-071-06, may be used for mitigation with written approval from CDFW. However, if the 2081 permit requirements did not adequately cover the mitigation needs of this 1600 agreement, the Permittee will be responsible for acquiring the appropriate mitigation within three years of the start of construction

4. Reporting Measures

- 4.1 Notification to CNDDDB. If any sensitive species are observed on or in proximity to the project site, or during project surveys, Permittee shall submit California Natural Diversity Data Base (CNDDDB) forms and maps to the CNDDDB within five working days of the sightings, and provide the regional CDFW office with copies of the CNDDDB forms and survey maps. The CNDDDB form is available online at: <http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp>. This information shall be mailed within five days to: Department of Fish and Wildlife, California Natural Diversity Data Base, 1807 13th Street, Suite 202, Sacramento, CA 95814, Phone (916) 324-3812. A copy of this information shall also be mailed within five days to Department of Fish and Wildlife, Inland Deserts Region at the address below under Contact Information. **Please reference SAA # 1600-2014-0001-R6.**
- 4.2 Notification of Start of Construction. Permittee shall notify CDFW, in writing, at least five (5) days prior to initiation of project activities in jurisdictional areas, and at least five (5) days prior to completion of project activities in jurisdictional areas. Notification shall be sent to CDFW at 3602 Inland Empire Blvd., Suite-C220, Ontario, CA 91764 Attn: Lake and Streambed Alteration Team. Please reference **SAA # 1600-2014-0001-R6.**
- 4.3 An annual report shall be submitted to the Department by Jan. 1 of each year for 5 years after planting. This report shall include the survival, % cover, and height of shrub species. The number by species of plants replaced, an overview of the revegetation effort, and the method used to assess these parameters shall also be included. Photos from designated photo stations shall be included

CONTACT INFORMATION

Any communication between Permittee and CDFW shall be in writing and any communication or documentation shall be delivered to the address below by U.S. mail, fax, or email, or an alternative if Permittee or CDFW specifies by written notice to the other.

To Permittee:

Scott Quinnell
California Department of Transportation
464 West 4th Street, 6th Floor MS 822
San Bernardino, CA 92401-1400
(909) 383-6936
Scott_quinnell@dot.ca.gov

To CDFW:

Department of Fish and Wildlife
Inland Deserts Region
3602 Inland Empire Blvd, Suite-220
Attn: Heather Weiche
Notification #1600-2014-0001-R6
(909) 484-0459 Fax
Heather.Weiche@wildlife.ca.gov

LIABILITY

Permittee shall be solely liable for any violations of this Agreement, whether committed by Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents or contractors and subcontractors, to complete the project or any activity related to it that this Agreement authorizes.

This Agreement does not constitute CDFW endorsement of, or require Permittee to proceed with the Project. The decision to proceed with the Project is Permittee's alone.

SUSPENSION AND REVOCATION

CDFW may suspend or revoke in its entirety this Agreement if it determines that Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, is not in compliance with this Agreement.

Before CDFW suspends or revokes this Agreement, it shall provide Permittee written notice by certified or registered mail that it intends to suspend or revoke. The notice shall state the reason(s) for the proposed suspension or revocation, provide Permittee an opportunity to correct any deficiency before CDFW suspends or revokes this Agreement, and include instructions to Permittee, if necessary, including but not limited to a directive to immediately cease the specific activity or activities that caused CDFW to issue the notice.

ENFORCEMENT

Nothing in this Agreement precludes CDFW from pursuing an enforcement action against Permittee instead of, or in addition to, suspending or revoking this Agreement.

Nothing in this Agreement limits or otherwise affects CDFW enforcement authority or that of its enforcement personnel.

OTHER LEGAL OBLIGATIONS

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from obtaining any other permits or authorizations that might be required under other federal, state, or local laws or regulations before beginning the project or an activity related to it.

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from complying with other applicable statutes in the FGC including, but not limited to, FGC sections 2050 *et seq.* (threatened and endangered species), 3503 (bird nests and eggs), 3503.5 (birds of prey), 5650 (water pollution), 5652 (refuse disposal into water), 5901 (fish passage), 5937 (sufficient water for fish), and 5948 (obstruction of stream).

Nothing in this Agreement authorizes Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, to trespass.

AMENDMENT

CDFW may amend this Agreement at any time during its term if CDFW determines an amendment is necessary to protect an existing fish or wildlife resource.

The Permittee may amend this Agreement at any time during its term, provided the amendment is mutually agreed to in writing by CDFW and Permittee. To request an amendment, Permittee shall submit to CDFW a completed "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the corresponding amendment fee identified in the current fee schedule (Cal. Code Regs., tit. 14, § 699.5).

TRANSFER AND ASSIGNMENT

This Agreement may not be transferred or assigned to another entity, and any purported transfer or assignment of this Agreement to another entity shall not be valid or effective, unless the transfer or assignment is requested by Permittee in writing, as specified below, and thereafter CDFW approves the transfer or assignment in writing.

The transfer or assignment of this Agreement to another entity shall constitute a minor amendment. To request a transfer or assignment, Permittee shall submit to CDFW a completed "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the minor amendment fee identified in the current fee schedule (Cal. Code Regs., tit. 14, § 699.5).

EXTENSIONS

In accordance with FGC section 1605(b), Permittee may request one extension of this Agreement, provided the request is made prior to the expiration of this Agreement's term. To request an extension, Permittee shall submit to CDFW a completed "Request to Extend Lake or Streambed Alteration" form and include with the completed form payment of the extension fee identified in the current fee schedule (Cal. Code Regs., tit. 14, § 699.5). CDFW shall process the extension request in accordance with FGC 1605(b) through (e).

If Permittee fails to submit a request to extend this Agreement prior to its expiration, Permittee must submit a new notification and notification fee before beginning or continuing the project the Agreement covers (FGC section 1605, subd. (f)).

EFFECTIVE DATE

This Agreement becomes effective on the date of CDFW signature, which shall be: 1) after Permittee's signature; 2) after CDFW complies with all applicable requirements under CEQA; and 3) after payment of the applicable FGC section 711.4 filing fee listed at http://www.DFW.ca.gov/habcon/ceqa/ceqa_changes.html.

TERM

This Agreement shall expire on **January 1, 2019** unless it is terminated or extended before then. All provisions in this Agreement shall remain in force throughout its term. Permittee shall remain responsible for implementing any provisions specified herein to protect fish and wildlife resources after this Agreement expires or is terminated, as required by FGC section 1605(a)(2).

AUTHORITY

If the person signing this Agreement (signatory) is doing so as a representative of Permittee, the signatory hereby acknowledges that he or she is doing so on Permittee's behalf and represents and warrants that he or she has the authority to legally bind Permittee to the provisions herein.

AUTHORIZATION

This Agreement authorizes only the Project described herein. If Permittee begins or completes a Project different from the project this Agreement authorizes, Permittee may be subject to civil or criminal prosecution for failing to notify CDFW in accordance with FGC section 1602.

CONCURRENCE

The undersigned accepts and agrees to comply with all provisions contained herein.

**FOR CALIFORNIA DEPARTMENT OF
TRANSPORTATION**

Scott Quinnell

Mr. Scott Quinnell

5-5-14

Date

FOR DEPARTMENT OF FISH AND WILDLIFE

A. Aghili

Ms. Leslie MacNair

Environmental Program Manager

05, 09, 14

Date

Prepared by: Heather Weiche
Environmental Scientist

*Ali Aghili for
(Supervisor/
Mojave)*

Memorandum

*Flex your power!
Be energy efficient!*

To: MR. FRANK WEI
Branch Chief
Bridge Design Branch 21
Structures Design

Division of Engineering Services

Attention: Mrs. Lorena Guptill

Date: October 15, 2013

File: 08-SBD-58-PM 30.4
08-043511
Proj. ID: 0800000010
Lenwood Rd. OC (New)
Br. #54-1296

From: **DEPARTMENT OF TRANSPORTATION**
DIVISION OF ENGINEERING SERVICES
Geotechnical Services
Office of Geotechnical Design – South 2 MS #5
Design Branch B

Subject: Revised Foundation Report for Lenwood Road OC

This Revised Foundation Report supercedes and supplements the original Foundation Report, dated October 14, 2013, for the Lenwood Road OC (Br. # 54-1296) which was recently sent to your office. This Revised Foundation Report is being provided due to the subexcavation and soil replacement recommendations for Bent 2 were not included in the foundation report. The Construction Considerations section has been modified to include the subexcavation and replacement.

In a memorandum dated July 9, 2013, Structures Design, Office of Bridge Design Branch South 2 requested a Foundation Report (FR) for the proposed Lenwood Road OC (Br. No. 54-1296). This FR supersedes all previously generated Preliminary Foundation Reports for this structure. The following recommendations are based on the 2013 subsurface investigation performed at the site.

With regards to the current foundation recommendations, all elevations referenced within this report and shown on the recent Log of Test Boring sheets are based on the NGVD 1929 vertical datum.

Project Description

The Lenwood Road OC (Br. No. 54-1296) is located near the city of Barstow, in San Bernardino County and is one of the three proposed bridges along the realignment of State Route 58 in the Barstow area. The proposed bridge will consist of a two-span, cast-in-place, prestressed concrete box-girder structure on seat type abutments.

Geology

The “Geologic Map of the San Bernardino Quadrangle, San Bernardino County, California (Revised 1998, Bortugno and Spittler)” indicates that the site is located on Quaternary Alluvium

which consists of dissected and undifferentiated alluvium deposits, colluvium and fan conglomerate.

The 2013 subsurface investigation consisted of 3 mud-rotary soil borings. The soil borings revealed the site is underlain mainly by layers of loose to very dense poorly-graded sands, silty sands and silts, to the maximum explored depth of 82.5 feet. For more detail, please refer to the Log of Test Borings.

Ground Water

Ground water was not encountered to the maximum depth drilled at the site during the 2013 subsurface investigation.

Scour Potential

Scour is not considered to be an issue at this bridge site.

Corrosion

Corrosion test results are shown below in Table 1. The tested soil sample was taken from soil boring RC-13-001. Test results indicate the soil sample is considered non-corrosive by current Caltrans standards.

Table 1 - Corrosion Test Summary

Location	SIC Number	pH	Minimum Resistivity (Ohm-cm)	Sulfate Content (ppm)	Chloride Content (ppm)
RC-13-001, 0'-40'	C637003	8.92	1793	NA	NA

Note: Caltrans currently defines a corrosive environment as an area where the soil has either a chloride concentration of 500 ppm or greater, a sulfate concentration of 2000 ppm or greater, or has a pH of 5.5 or less. With the exception of MSE walls, soil and water are not tested for chlorides and sulfates if the minimum resistivity is greater than 1,000 ohm-cm.

Fault and Seismic Data

The structure site is potentially subject to ground motions from nearby earthquake sources during the design life of the new structure. For the deterministic procedure, the controlling fault for the site is the Lenwood-Lockhart fault zone (Fault ID 237). It is a right-lateral strike-slip (RLSS) fault with a maximum credible earthquake $M_w=7.4$, located approximately 2.2 miles southwest of the bridge site. The corresponding peak ground acceleration (PGA) is estimated to be 0.5g. The office of Geotechnical Design has provided Seismic Design Recommendations in a memorandum dated April 22, 2013. Please refer to that memorandum for more specific seismic recommendations.

Liquefaction

The Seismic Design Recommendations, dated April 22, 2013, state that due to the dense nature of the underlying soils and deep groundwater, the potential for soil to liquefy at the site will be low. The amount of seismic settlement due to strong ground shaking is considered less than one inch.

Surface Rupture Potential

The site does not fall within Fault Rupture Hazard Zones in California (Alquist-Priolo Earthquake Fault Maps). The surface rupture potential at the bridge site is considered low.

Foundation Recommendations

The following recommendations are for the proposed Lenwood Road OC (Br. #54-1296), as shown on the General Plan dated August 30, 2013. Abutments 1 and 3, as well as Bent 2, may be supported on spread footings

Abutment Location

Abutments 1 and 3 can be supported on newly placed engineered fill. The Spread Footing Design Data for Abutments 1 and 3, provided by Structure Design, is presented in Tables 2 and 3 below.

Table 2 - Spread Footing Design Data

Support Location	Design Method	Finished Grade Elevation (ft)	Bottom of Footing Elevation (ft)	Footing Size (ft)		Permissible Settlement under Service Load (in)
				B	L	
Abutment 1	WSD	2198.55	2189.99	12.00	68.50	1
Abutment 3	WSD	2203.61	2194.33	12.00	68.50	1

Table 3 - Spread Footing Design Data – Service I Limit State Loads

Support Location	Total Load			Permanent Load		
	Vertical Load (kips)	Effective Dimensions (ft)		Vertical Load (kips)	Effective Dimensions (ft)	
		B'	L'		B'	L'
Abutment 1	2641	11.71	68.50	2255	11.66	68.50
Abutment 3	2641	11.71	68.50	2255	11.66	68.50

The recommended Permissible Gross Contact Stress, Allowable Gross Bearing Capacities and Bottom of Footing Elevations, for Abutments 1 and 3, are listed in Table 4 below.

Table 4 - Foundation Design Recommendations for Abutments 1 and 3

Support Location	Footing Size (ft)		Bottom of Footing Elevation (ft)	Minimum Footing Embedment Depth (ft)	Total Permissible Support Settlement (in)	WSD (LRFD Service Limit State Load Combination)	
	B	L				Permissible Gross Contact Stress (ksf)	Allowable Gross Bearing Capacity (ksf)
Abut 1	12.00	68.50	2189.99	5.0	1	6.6	4.3
Abut 3	12.00	68.50	2194.33	5.0	1	7.1	4.3

In Table 4 above, the recommended Permissible Gross Contact Stress (q_{pg}) and Allowable Gross Bearing Capacity to be used for design, are based on the following design criteria:

- 1) The final designed spread footing will have an effective width (B') that will produce an equivalent Gross Uniform Bearing Stress (q_o), which does not exceed the Allowable Gross Bearing Capacity (q_{all}).
- 2) The final designed spread footing will have an effective width (B') that will produce an equivalent Gross Uniform Bearing Stress (q_o), which does not exceed the Permissible Gross Contact Stress (q_{pg}).
- 3) The spread footings are to be constructed at or below the recommended elevations shown in Table 4.

Contact the Office of Geotechnical Design-South 2, Branch B for re-evaluation if any of the following change:

- The footing size (B) is reduced.
- The loading conditions change.
- The bottom of footing elevation is raised.
- The minimum vertical footing embedment depths are reduced.

Bent Location

At Bent 2, individual spread footings are recommended for support at each bent column. Bent 2 will consist of three (3) support columns on individual spread footing foundations. Table 5 below, presents the Bent 2 Spread Footing Design Data provided by Structure Design.

Table 5 - Bent 2 Spread Footing Design Data

Support Location	Design Method	Finished Grade Elevation (ft)	Bottom of Footing Elevation (ft)	Footing Size (ft)		Permissible Settlement under Service Load (in)
				B	L	
Bent 2	LRFD	2181.40	2175.90	13.00	13.00	1

Tables 6 and 7 below, present the LRFD Service, Strength, and Extreme Limit State Design Data provided by Structure Design.

Table 6 - LRFD Service Limit State-I Spread Footing Design Data

Support Location	Total Load			Permanent Load		
	Vertical Load (kips)	Effective Dimensions (ft)		Vertical Load (kips)	Effective Dimensions (ft)	
		B'	L'		B'	L'
Bent 2	1722	13.00	13.00	1324	13.00	13.00

Table 7 - LRFD Strength and Extreme Event Limit States

Support Location	Strength Limit State (Controlling Group)			Extreme Event Limit State (Control Group)		
	Vertical Load (kip)	Effective Dimensions (ft)		Vertical Load (kip)	Effective Dimensions (ft)	
		B'	L'		B'	L'
Bent 2 Per column	2749	13.00	13.00	1771	13.00	13.00

Foundation design recommendations for Bent 2, based on the spread footing design loading and approximate footing geometry provided by Structure Design, are presented below in Table 8.

Table 8 - Foundation Design Recommendations for Bent 2

Support Location	Footing Size (ft)		Bottom of Footing Elevation (ft)	Minimum Footing Embedment Depth (ft)	Total Permissible Support Settlement (in)	Service Limit State	Strength Limit State $\phi = 0.45$	Extreme Limit State $\phi = 1.0$
	L	B				Permissible Net Contact Stress (ksf)	Factored Gross Nominal Bearing Resistance (ksf)	Factored Gross Nominal Bearing Resistance (ksf)
Bent 2 per column	13.00	13.00	2175.90	5.0	1	15.0	17.2	38.3

In Table 8 above, the recommended Permissible Net Contact Stress (q_{pn}) and Factored Gross Nominal Bearing Resistances (q_R) to be used for design, are based on the following design criteria:

- 1) The final designed spread footing will have an effective width (B') such that:
 - The equivalent Net Uniform Bearing Stress ($q_{n,u}$), does not exceed Permissible Net Contact Stress (q_{pn}) for Service Limit State.
 - The Gross Uniform Bearing Stress ($q_{g,u}$) does not exceed the recommended design values for the Factored Gross Nominal Bearing Resistances (q_R) for Strength and Extreme Limit States.
- 2) The spread footings are to be constructed at or below the recommended elevations shown in Table 8.

Contact the Office of Geotechnical Design-South 2, Branch B for re-evaluation if any of the following change:

- The Net Uniform Bearing Stress ($q_{n,u}$) for the Service Limit State exceeds the recommended Permissible Net Contact Stress (q_{pn}).
- The Gross Uniform Bearing Stress ($q_{g,u}$) for the Strength and Extreme Limit States exceed the recommended design values for the Factored Gross Nominal Bearing Resistances (q_R).
- The footing size (B) is reduced.
- The loading conditions change.
- The bottom of footing elevation is raised.
- The minimum vertical footing embedment depths are reduced.

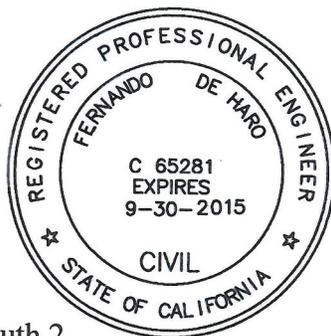
Construction Considerations:

- 1) At abutment support locations, the bottom of footing is to be constructed on newly placed engineered fill compacted at 95% relative compaction. Concrete for the support footings shall be placed neat against the undisturbed material at the bottom of the footing excavation. Should the bottom of the footing excavation be disturbed then the bottom of the footing excavation shall be extended down at 0.5 ft intervals until undisturbed material is observed and approved by the Engineer. The excavated material is to be recompacted or replaced with structural backfill compacted to 95% relative compaction, prior to placement of concrete for the structure support footings.

- 2) At Bent 2 support locations, remove native soil beneath the footing support location. The soil removal shall extend to a depth of 5 feet below the footing elevation and 3 feet horizontally out from each edge of the footing. The removed native soil must be replaced with Class 2 Aggregate Base (AB) or structure backfill (SB) compacted to 95% relative compaction. Concrete for the Bent support footings shall be placed neat against the compacted material. Should the compacted AB or SB material at the bottom of the footing elevation be disturbed, the disturbed material is to be removed in 0.5 ft intervals until undisturbed material is observed and approved by the Engineer. The excavated material is to be replaced and recompact to 95% relative compaction back up to the design bottom of footing elevation.
- 3) At Bent 2 support location, the excavations are to be inspected and approved by a representative of the Office of Geotechnical Design-South 2, Branch B, prior to placing any concrete. The required inspection is to verify that the soil exposed at the bottom of the excavation complies with recommendations included in this report. Once the excavation has been completed to the specified elevations, the contractor is to allow the Office of Geotechnical Design-South 2, Branch B, five (5) working days to perform the inspection. The structures representative is to provide the Office of Geotechnical Design-South 2, Branch B, a one-week notification prior to beginning the five-day contractor waiting period.

This Foundation Report is based on specific project information regarding structure type and location that have been provided by the Office of Bridge Design South 2. Once the project plans are available, the Office of Geotechnical Design-South 2, Design Branch B should review the information to determine if this FR is still applicable. Any questions regarding the above recommendations should be directed to the attention of Fernando De Haro, (916) 227-4556, at the Office of Geotechnical Design-South 2, Branch B.

Prepared by: Date: 10-15-2013



Fernando De Haro, R.C.E., 65281
Transportation Engineer – Civil
Office of Geotechnical Design-South 2
Design Branch B

cc: Jim Robinson – District 8 (Project Manager)
Bruce Kean – District 8 (District Materials Engineer)
Ofelia Alcantara – P. S. & E.
RE Pending File – RE.Pending.File@dot.ca.gov
Abbas Abghari – OGDS-2
Mark DeSalvatore – OGDS-2

Memorandum

*Flex your power!
Be energy efficient!*

To: MR. FRANK WEI
Branch Chief
Bridge Design Branch 21
Structures Design

Division of Engineering Services

Attention: Mr. Cesar Sanchez

Date: October 14, 2013

File: 08-SBD-58-PM 26.4
08-043511
Proj. ID: 0800000010
Hinkley Rd. OC (New)
Br. #54-1295

From: DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Geotechnical Services
Office of Geotechnical Design – South 2 MS #5
Design Branch B

Subject: Foundation Report for Hinkley Road OC

In a memorandum dated July 9, 2013, Structures Design, Office of Bridge Design Branch 21 requested a Foundation Report (FR) for the proposed Hinkley Road OC (Br. No. 54-1295). This FR supersedes all previously generated Preliminary Foundation Reports for this structure. The following recommendations are based on the 2013 subsurface investigation performed at the site.

With regards to the current foundation recommendations, all elevations referenced within this report and shown on the recent Log of Test Boring sheets are based on the NGVD 1929 vertical datum.

Project Description

The Hinkley Road OC (Br. No. 54-1295) is located in the city of Hinkley, in San Bernardino County and is one of the three proposed bridges along the realignment of State Route 58 in the Barstow area. The proposed bridge will consist of a two-span, cast-in-place, prestressed concrete box-girder structure on seat type abutments.

Geology

The “Geologic Map of the San Bernardino Quadrangle, San Bernardino County, California (Revised 1998, Bortugno and Spittler)” indicates that the site is located on Quaternary Alluvium which consists of dissected and undifferentiated alluvium deposits, colluvium and fan conglomerate.

The 2013 subsurface investigation consisted of 3 soil borings. Boring A-13-001 was drilled with 6-inch diameter hollow stem augers. Soil borings RC-13-002 and RC-13-003 were 4.5-inch diameter mud rotary borings. The soil borings revealed the site is underlain mainly by

layers of medium dense to very dense poorly-graded sands, silty sands and silts, to the maximum explored depth of 92.5 feet. For more detail, please refer to the Log of Test Borings.

Ground Water

Ground water was not encountered to the maximum depth drilled at the site during the 2013 subsurface investigation.

Scour Potential

Scour is not considered to be an issue at this bridge site.

Corrosion

Corrosion test results are shown below in Table 1. The tested soil sample was taken from soil boring A-13-001. Test results indicate the soil sample is considered non-corrosive by current Caltrans standards.

Table 1 - Corrosion Test Summary

Location	SIC Number	pH	Minimum Resistivity (Ohm-cm)	Sulfate Content (ppm)	Chloride Content (ppm)
A-13-001, 0'-40' Elev. 2214.8 – Elev. 2174.8	C637002	8.28	734	776	76

Note: Caltrans currently defines a corrosive environment as an area where the soil has either a chloride concentration of 500 ppm or greater, a sulfate concentration of 2000 ppm or greater, or has a pH of 5.5 or less. With the exception of MSE walls, soil and water are not tested for chlorides and sulfates if the minimum resistivity is greater than 1,000 ohm-cm.

Fault and Seismic Data

The structure site is potentially subject to ground motions from nearby earthquake sources during the design life of the new structure. The deterministic procedure controlling fault for the site is the Lenwood-Lockhart fault zone (Fault ID 237, right-lateral strike-slip) with a maximum credible earthquake $M_w=7.4$, located approximately 0.01 miles southwest of the bridge site. The corresponding peak ground acceleration (PGA) is estimated to be 0.6g. The office of Geotechnical Design has provided Revised Seismic Design Recommendations in a memorandum dated September 30, 2013. Please refer to that memorandum for more specific seismic recommendations.

Liquefaction

The Seismic Design Recommendations, dated April 22, 2013, state that due to the dense nature of the underlying soils and deep groundwater, the potential for soil to liquefy at the site will be low. The amount of seismic settlement due to strong ground shaking is considered less than one inch.

Surface Rupture Potential

The site does not fall within Fault Rupture Hazard Zones in California (Alquist-Priolo Earthquake Fault Maps). However, the project site is crossed by the Lenwood-Lockhart fault. Martha Merrian, of the Office of Geotechnical Support, has recommended 12 inches of lateral displacement to be considered in the design of the proposed structure. For details, please see the memo issued by Martha Merriam on December 19, 2012.

Foundation Recommendations

The following recommendations are for the proposed Hinkley Road OC (Br. #54-1295). As shown on the General Plan dated August 30, 2013, Abutments 1 and 3 as well as Bent 2 may be supported on spread footings.

Abutment Location

Abutments 1 and 3 can be supported on newly placed engineered fill. The Spread Footing Design Data for Abutments 1 and 3, provided by Structure Design, is presented in Tables 2 and 3 below.

Table 2 - Spread Footing Design Data

Support Location	Design Method	Finished Grade Elevation (ft)	Bottom of Footing Elevation (ft)	Footing Size (ft)		Permissible Settlement under Service Load (in)
				B	L	
Abutment 1	WSD	2238.01	2229.00	12	70	1
Abutment 3	WSD	2236.84	2227.84	12	70	1

Table 3 - Spread Footing Design Data – Service I Limit State Loads

Support Location	Total Load			Permanent Load		
	Vertical Load (kips)	Effective Dimensions (ft)		Vertical Load (kips)	Effective Dimensions (ft)	
		B'	L'		B'	L'
Abutment 1	2695	11.62	70.00	2311	11.55	70.00
Abutment 3	2695	11.62	70.00	2311	11.55	70.00

The recommended Permissible Gross Contact Stress, Allowable Gross Bearing Capacities and bottom of footing elevations for Abutments 1 and 3 are listed in Table 4 below.

Table 4 - Foundation Design Recommendations for Abutments 1 and 3

Support Location	Footing Size (ft)		Bottom of Footing Elevation (ft)	Minimum Footing Embedment Depth (ft)	Total Permissible Support Settlement (in)	WSD (LRFD Service I Limit State Load Combination)	
	B	L				Permissible Gross Contact Stress (ksf)	Allowable Gross Bearing Capacity (ksf)
Abut 1	12.00	70.00	2229.00	5.0	1	8.3	4.3
Abut 3	12.00	70.00	2227.84	5.0	1	8.1	4.3

In Table 4 above, the recommended Permissible Gross Contact Stress (q_{pg}) and Allowable Gross Bearing Capacity to be used for design, are based on the following design criteria:

- 1) The final designed spread footing will have an effective width (B') that will produce an equivalent Gross Uniform Bearing Stress (q_o), which does not exceed the Allowable Gross Bearing Capacity (q_{all}).
- 2) The final designed spread footing will have an effective width (B') that will produce an equivalent Gross Uniform Bearing Stress (q_o), which does not exceed the Permissible Gross Contact Stress (q_{pg}).
- 3) The spread footings are to be constructed at or below the recommended elevations shown in Table 4.

Contact the Office of Geotechnical Design-South 2, Branch B for re-evaluation if any of the following change:

- The footing size (B) is reduced.
- The loading conditions change.
- The bottom of footing elevation is raised.
- The minimum vertical footing embedment depths are reduced.

Bent Location

Bent 2 can be supported on the dense native alluvial material underlying the site. Bent 2 will consist of three (3) support columns on individual spread footing foundations. Table 5 below, presents the Bent 2 Spread Footing Design Data provided by Structure Design.

Table 5 - Bent 2 Spread Footing Design Data

Support Location	Design Method	Finished Grade Elevation (ft)	Bottom of Footing Elevation (ft)	Footing Size (ft)		Permissible Settlement under Service Load (in)
				B	L	
Bent 2	LRFD	2217.71	2212.21	12.00	12.00	1

Tables 6 and 7 below, present the LRFD Service, Strength, and Extreme Limit State Design Data provided by Structure Design.

Table 6 - LRFD Service Limit State-I Spread Footing Design Data

Support Location	Total Load			Permanent Load		
	Vertical Load (kips)	Effective Dimensions (ft)		Vertical Load (kips)	Effective Dimensions (ft)	
		B'	L'		B'	L'
Bent 2	1539	12.00	12.00	1161	12.00	12.00

Table 7 - LRFD Strength and Extreme Event Limit States

Support Location	Strength Limit State (Controlling Group)			Extreme Event Limit State (Control Group)		
	Vertical Load (kip)	Effective Dimensions (ft)		Vertical Load (kip)	Effective Dimensions (ft)	
		B'	L'		B'	L'
Bent 2 Per column	2596	12.00	12.00	1695	12.00	12.00

Foundation design recommendations for Bent 2, based on the spread footing design loading and approximate footing geometry provided by Structure Design, are presented below in Table 8.

Table 8 - Foundation Design Recommendations for Bent 2

Support Location	Footing Size (ft)		Bottom of Footing Elevation (ft)	Minimum Footing Embedment Depth (ft)	Total Permissible Support Settlement (in)	Service Limit State	Strength Limit State $\phi = 0.45$	Extreme Limit State $\phi = 1.0$
	L	B				Permissible Net Contact Stress (ksf)	Factored Gross Nominal Bearing Resistance (ksf)	Factored Gross Nominal Bearing Resistance (ksf)
Bent 2 per column	12.0	12.0	2212.21	5.0	1	31.0	21.6	47.9

In Table 8 above, the recommended Permissible Net Contact Stress (q_{pn}) and Factored Gross Nominal Bearing Resistances (q_R) to be used for design, are based on the following design criteria:

- 1) The final designed spread footing will have an effective width (B') such that:
 - The equivalent Net Uniform Bearing Stress ($q_{n,u}$), does not exceed Permissible Net Contact Stress (q_{pn}) for Service Limit State.
 - The Gross Uniform Bearing Stress ($q_{g,u}$) does not exceed the recommended design values for the Factored Gross Nominal Bearing Resistances (q_R) for Strength and Extreme Limit States.
- 2) The spread footings are to be constructed at or below the recommended elevations shown in Table 8.

Contact the Office of Geotechnical Design-South 2, Branch B for re-evaluation if any of the following change:

- The Net Uniform Bearing Stress ($q_{n,u}$) for the Service Limit State exceeds the recommended Permissible Net Contact Stress (q_{pn}).
- The Gross Uniform Bearing Stress ($q_{g,u}$) for the Strength and Extreme Limit States exceed the recommended design values for the Factored Gross Nominal Bearing Resistances (q_R).
- The footing size (B) is reduced.
- The loading conditions change.
- The bottom of footing elevation is raised.
- The minimum vertical footing embedment depths are reduced.

Construction Considerations:

- 1) At abutment support locations, the bottom of footing is to be constructed on newly placed engineered fill compacted at 95% relative compaction. Concrete for the support footings shall be placed neat against the undisturbed material at the bottom of the footing excavation. Should the bottom of the footing excavation be disturbed then the bottom of the footing excavation shall be extended down at 0.5 ft intervals until undisturbed material is observed and approved by the Engineer. The excavated material is to be replaced with either engineered fill or structural backfill compacted to 95% relative compaction, prior to placement of concrete for the structure support footings.
- 2) At bent support locations, the bottom of the footings shall be constructed on native soil. Concrete for the support footings shall be placed neat against the undisturbed material at the bottom of the footing excavation. Should the bottom of the footing excavation be disturbed then the bottom of the footing excavation shall be extended down at 0.5 ft

intervals until undisturbed material is observed and approved by the Engineer. The subexcavated material is to be replaced with either structure backfill compacted at 95% relative compaction or lean concrete backfill as defined in Section 19-3.02H of the 2010 Standard Specifications.

- 3) At Bent 2 support location, the excavations are to be inspected and approved by a representative of the Office of Geotechnical Design-South 2, Branch B, prior to placing any concrete. The required inspection is to verify that the soil exposed at the bottom of the excavation complies with recommendations included in this report. Once the excavation has been completed to the specified elevations, the contractor is to allow the Office of Geotechnical Design-South 2, Branch B, five (5) working days to perform the inspection. The structures representative is to provide the Office of Geotechnical Design-South 2, Branch B, a one-week notification prior to beginning the five-day contractor waiting period.

This Foundation Report is based on specific project information regarding structure type and location that have been provided by the Office of Bridge Design South 2. Once the project plans are available, the Office of Geotechnical Design-South 2, Design Branch B should review the information to determine if this FR is still applicable. Any questions regarding the above recommendations should be directed to the attention of Fernando De Haro, (916) 227-4556, at the Office of Geotechnical Design-South 2, Branch B.

Prepared by: Date: 10/14/2013



Fernando De Haro, R.C.E., 65281
Transportation Engineer – Civil
Office of Geotechnical Design-South 2
Design Branch B

cc: Jim Robinson – District 8 (Project Manager)
Bruce Kean – District 8 (District Materials Engineer)
Ofelia Alcantara – P. S. & E.
RE Pending File – RE.Pending.File@dot.ca.gov
Douglas Brittsan – GS Corporate
Abbas Abghari – OGDS-2
Mark DeSalvatore – OGDS-2