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Description:	CRC's responses to the CEC's Data Request, Set 1 items 1-36 (TN# 269272). Includes Attachments 1-4 identified in the document and excludes the 2 cultural resource documents that will be uploaded confidentially (refer to page 2 for attachments list). Partial or deferred responses provided for items: 7 - 11, 14 - 16, 21, 23, 30, 31, 35, & 36.
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Data Responses to CEC Data Request, Set 1 (TN#269272)

CalCapture CCS Project
Petition to Amend
Elk Hills Power Plant
(Docket Number: 99-AFC-01)

Submitted to:
California Energy Commission

Prepared by:
California Resources Corporation

With assistance from:
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July 21, 2026

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Attachments 1- 4

- Attachment 1
 - o Biologist Resumes
- Attachment 2
 - o Copies of the CNDDDB occurrence reports generated from the CNDDDB query for the Project, the USFWS official species list generated by IPaC, and the *CTV-I – Carbon Capture and Sequestration Project Biological Analysis Report* are provided
- Attachment 3
 - o Crotch's Bumble Bee (*Bombus crotchii*) Survey Results Report prepared by Owlet Ecological
- Attachment 4
 - o DOD Correspondence

Separate Attachments

- Confidential Attachment for Item 25: Cultural Resource sites: *CRC Site-AV-1 and CRC Site-AV-2* will be submitted using the CEC's Application for Confidential Designation (e-filing system)
- Confidential Attachment for Item 27: Supplemental CHRIS Database Search that extends not less than 1-mile around the project site and not less than one-quarter mile on each side of the linear facilities.

Acronyms / Abbreviations

Acronym / Abbreviation	Full Name
API	American Petroleum Institute
ATC	Authority to Construct
BNLL	Blunt-nosed Leopard Lizard
BRTR	Biological Resources Technical Report
BSA	Biological Survey Area
BUOW	Burrowing owl
CARB	California Air Resources Board
CBB	Crotch's Bumble Bee
CCH	Consortium of California Herbaria
CCS	Carbon Capture and Sequestration
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CHRIS	California Historic Information System
CNDDDB	California Natural Diversity Database
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
COC	Condition of Certification
CRC	California Resources Corporation
DAS	Distributed Acoustic Sensing
DOD	Department of Defense
DPR	Department of Parks and Recreation
DTS	Distributed Temperature Sensor
EHOF	Elk Hills Oilfield
EHPP	Elk Hills Power Plant
FAA	Federal Aviation Administration
GKR	Giant kangaroo rat
IPaC	Information for Planning and Consultation
ITP	Incidental Take Permit
J-T	Joule-Thomson effect
LCFS	Low Carbon Fuel Standard
MA&IASC	Military Aviation and Installation Assurance Siting Clearinghouse
MMRP	Mitigation Monitoring and Reporting Program
NRHP	National Register of Historic Places
OASD	Office of the Assistant Secretary of Defense
OE/AAA	Obstruction Evaluation/Airport Airspace Analysis
PTA	Petition to Amend
SCADA	Supervisory Control and Data Acquisition
SHPO	State Historic Preservation Office
SJAS	San Joaquin Antelope Squirrel

Acronym / Abbreviation	Full Name
SJKF	San Joaquin Kit Fox
SJVAPCD	San Joaquin Valley Air Pollution Control District
TAC	Toxic air contaminants
TLL	Temblor Legless Lizard
USFWS	United States Fish and Wildlife Service
WSAC	Wet surface air coolers

Introduction

Presented below are California Resources Corporation's (CRC [Applicant]) responses to the California Energy Commission's (CEC) Data Request Set 1 regarding the Petition for Modification: CalCapture CCS Project submitted for the Elk Hills Power Plant (99-AFC-01). This submittal includes a response to the data requested by the CEC on March 20, 2026 (TN # 269272). Note, responses to the following data requests will be provided at a later date: 7 through 11, 14 through 16, 18, 21, 23, 30, 31, 35, and 36.

The responses are grouped by individual discipline or topic area. Within each discipline area, the responses are presented in the same order as presented in Data Request Set 1 and are keyed to the Data Request numbers.

Air Quality, Public Health and Greenhouse Gas Emissions

CEC BACKGROUND

Page 145 of the petition to amend (PTA [TN 266437]) states that the project would be subject to the requirements of the California Air Resources Board (CARB)'s Carbon Capture and Sequestration (CCS) protocol under the Low Carbon Fuel Standard (LCFS), which was issued by CARB on August 13, 2018. These requirements are currently being updated by CARB in response to the passing of Senate Bill 905 (SB 905) (Caballero, Chapter 359, Statutes of 2022).

Though the PTA mentions that the project would be subject to these requirements, it does not elaborate on how the project would meet the requirements of the CCS protocol (either current or updated), nor does it propose any changes to the facility's conditions of certification (COCs) to incorporate these requirements. These requirements include project surface emissions monitoring and the monitoring, measurement, and verification of reservoir containment.

For example, page 44 of the PTA states that the project would implement above ground leak detection using "Ultrasonic Point Detectors, closed circuit television (CCTV) video camera detection, CCTV infrared cameras or alternative CO2 monitor technology" but does not describe how these design features would comply with the "Monitoring of Wellheads and Valves" (page 90, Section 4.3.1.6) or "Surface and Near-Surface Monitoring" (page 94, Section 4.3.2.2.) requirements of the CCS protocol. The PTA also does not propose any changes to the facility's COCs that would incorporate the requirements of Section 4.3.1.6 or Section 4.3.2.2 of the CCS protocol. Staff need clarification on whether or not the project would be subject to CARB's CCS Protocol. If so, staff need to know how the applicant would comply with CARB's CCS protocol and how the applicant plans to amend the facility's COCs to incorporate the requirements of the CCS protocol. Staff also need to know how the applicant plans to comply with the updated CCS protocol that CARB intends to issue as part of a rulemaking package in the second quarter of 2026.

CEC Data Requests:

1. Please clarify whether the proposed project would participate in the LCFS program and whether the proposed project would be subject to the CCS Protocol under the LCFS program.

CRC Response:

The project intends to generate credits under California's LCFS program and would therefore be subject to the LCFS CCS Protocol.

2. If the project is subject to CARB's CCS protocol, please clarify how the applicant plans to implement the updated CCS protocol that CARB intends to issue as part of a rulemaking package in the second quarter of 2026.

CRC Response:

The CalCapture project will transport CO₂ to CRC's already permitted and operational CTV I Class VI storage project. CRC has elected for the CTV I storage project, and its currently operating capture and injection activities at the Elk Hills Oilfield, to participate in the Low Carbon Fuel Standard (LCFS) Program, as evidenced by its Permanence Certificate application submitted to CARB on March 7, 2023, which is currently under CARB review. CRC also plans to submit an LCFS pathway application for the existing capture and injection activities at the Elk Hills Oilfield in order to generate LCFS credits.

CRC will comply with the final CCS Protocol and any other applicable LCFS requirements as ultimately adopted by CARB, as part of the rulemaking package, as legally applicable to the CTV I storage project, the Permanence Certificate, and the CalCapture project.

The CalCapture project and its associated facilities will be designed, constructed, operated, and maintained in accordance with all applicable requirements of CARB's LCFS CCS Protocol and the final terms and conditions of the CTV I Permanence Certificate, once approved. Prior to generating LCFS credits for CalCapture, CRC will obtain all required CARB approvals, including approval of the applicable LCFS pathway and any required amendments to the CTV I pathway, following CARB's completeness and technical review, consideration of public comments, and final agency approval. Following approval, CRC will maintain compliance with all applicable monitoring, reporting, verification, and other requirements necessary to maintain eligibility for LCFS credit generation.

3. If the project is subject to CARB's CCS protocol, please describe how the applicant's proposed monitoring of wellheads and valves would comply with the requirements of Section 4.3.1.6 of CARB's CCS Protocol? Please propose new COCs that would incorporate the monitoring of wellheads and valves requirements of the CCS protocol.

CRC Response:

The CalCapture project will transport CO₂ to the CTV I storage project subject to the CTV I Testing and Monitoring Plan. The CTV I Testing and Monitoring Plan is currently under review by CARB as part of the Permanence Certificate application submitted to CARB on March 7, 2023 for LCFS approval of current CO₂ capture and injection operations at the Elk Hills Oilfield. The Testing and Monitoring Plan covers measures to comply with Section 4.3.1.6 (*Monitoring of Wellheads and Valves*) of CARB's CCS Protocol.

Proposed COC: The CalCapture project and its associated facilities shall be designed, constructed, operated, and maintained in accordance with all applicable requirements of CARB's LCFS CCS Protocol and the final terms and conditions of the CTV I Permanence Certificate, once approved. Prior to generating LCFS credits for CalCapture, CRC shall obtain all required CARB approvals, including approval of the applicable LCFS pathway and any required amendments to the CTV I pathway, following CARB's completeness and technical review, consideration of public comments, and final agency approval. Following approval, CRC shall maintain compliance with all applicable monitoring, reporting, verification, and other requirements necessary to maintain eligibility for LCFS credit generation.

4. If the project is subject to CARB's CCS protocol, please describe how the applicant's proposed surface and near-surface monitoring would comply with the requirements of Section 4.3.2.2 of CARB's CCS

Protocol? Please propose new COCs that would incorporate the surface and near-surface monitoring requirements of the CCS protocol.

CRC Response:

The CalCapture project will transport CO₂ to the CTV I storage project subject to the CTV I Testing and Monitoring Plan. The CTV I Testing and Monitoring Plan is currently under review by CARB as part of the Permanence Certificate application submitted to CARB on March 7, 2023 for LCFS approval of current CO₂ capture and injection operations at the Elk Hills Oilfield. The Testing and Monitoring Plan covers measures to comply with Section 4.3.2.2 (*Surface and Near-Surface Monitoring*) of CARB's CCS Protocol.

Proposed COC: The CalCapture project and its associated facilities shall be designed, constructed, operated, and maintained in accordance with all applicable requirements of CARB's LCFS CCS Protocol and the final terms and conditions of the CTV I Permanence Certificate, once approved. Prior to generating LCFS credits for CalCapture, CRC shall obtain all required CARB approvals, including approval of the applicable LCFS pathway and any required amendments to the CTV I pathway, following CARB's completeness and technical review, consideration of public comments, and final agency approval. Following approval, CRC shall maintain compliance with all applicable monitoring, reporting, verification, and other requirements necessary to maintain eligibility for LCFS credit generation.

CEC BACKGROUND

In Appendix E Air Quality and Greenhouse Gas Technical Study, Table 19 shows that project operational emissions are 0.66 tons per year of reactive organic gases (ROG), 0.09 tons per year of nitrogen oxides (NOx), 0.51 tons per year of carbon monoxide (CO), and 0.18 tons per year of particulate matter (PM10). However, Table 12 shows that the total annual operational emissions are 4.52 tons of ROG, 4.37 tons of NOx, 13.7 tons of CO, and 5.5 tons of PM10, mainly due to net increase in emissions associated with the combustion of natural gas at the EHPP required to meet the energy demand from the proposed modifications. Staff needs to understand whether the permitted emissions at EHPP would increase.

CEC Data Requests:

5. Please clarify why stationary source emissions associated with the project were not included in the basin-wide comparison in Table 19.

CRC Response: Table 19 of the Air Quality and Greenhouse Gas Technical Study has been revised to include project stationary source emissions associated with the supplemental boiler as shown below. As noted in the background for CEC Data Request, Set 1, Items 10 and 11, the capture technology has the potential to emit amines, ammonia, and aldehydes. Those potential emissions are not currently reflected in the Air Quality and Greenhouse Gas Technical Study or the updated Table 19 below. CRC will update all impacted emissions calculations and tables in the future docketed responses to CEC Data Request, Set 1, Items 7 through 11.

Updated Table19 Project Emissions Compared to SJVAB Portion of Kern County (tons/year)

Scenario	ROG	NOx	CO	PM ₁₀
2020 Kern County Portion of SJVAB	32,952	38,610	65,769	35,613
Project Operational Emissions	4.52	4.37	13.7	5.50
Percent	0.014%	0.011%	0.021%	0.015%

Source: Kern County 2004.

6. Please provide the reference source for Table 19 (“Kern County 2004”), as it is not included in the reference list.

CRC Response: The requested reference is as follows:

Kern County. 2024. Revised Update of the Kern County General Plan and Amendment of the Kern County and Incorporated Cities Integrated Waste Management Plan Siting Element Volume I Recirculated Draft Program Environmental Impact Report. Available online at:

https://psbweb.kerncounty.com/planning/pdfs/kcgp/KCGP_RPEIR_vol1.pdf. Accessed May 2026.

The Kern County 2024 reference will be added to the reference section of the Air Quality and Greenhouse Gas Technical Study.

7. Please clarify whether the emission limits for EHPP specified in the San Joaquin Valley Air Pollution Control District (SJVAPCD) permit and CEC conditions of certification would increase.

CRC Response: CRC plans to submit an Authority to Construct (ATC) application to the SJVAPCD. A response to this question will be provided in coordination with the SJVAPCD application submittal.

8. If the emission limits for EHPP would increase, please demonstrate that the modified project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard or expose sensitive receptors to substantial pollutant concentrations or result in other public health impacts. Please demonstrate how the EHPP would comply with SJVAPCD rules and regulations, such as those related to air dispersion modeling and offsets requirements, etc.

CRC Response: CRC plans to submit an ATC application to the SJVAPCD. A response to this question will be provided in coordination with the SJVAPCD application submittal.

9. Please clarify whether daily operational CO emissions would exceed the SJVAPCD screening level.

CRC Response: The daily operational CO emissions from the proposed project would not exceed SJVAPCD screening levels. Section 5.2.7.1 of the Air Quality and Greenhouse Gas Technical Study will be updated accordingly with an addendum uploaded to the Docket in Quarter 3 of 2026.

CEC BACKGROUND

The proposed project will utilize amine based post-combustion CO₂ capture technology, which involves solvent absorption, regeneration, maintenance, and chemical handling. This technology is known to potentially emit process-related constituents such as amines, ammonia and aldehydes. These potential emissions are not identified in the current analysis.

CEC Data Requests:

10. Please identify any potential process-related emissions with the proposed technology. Please evaluate whether any such constituents are toxic air contaminants (TACs) or odorous compounds and whether potential emissions of these constituents would increase the permitted levels of TACs or volatile organic compounds emissions at EHPP.

CRC Response: CRC plans to submit an ATC application to the SJVAPCD. A response to this question will be provided in coordination with the SJVAPCD application submittal.

11. Please provide appropriate screening-level or refined health risk assessment of potential TAC emissions.

CRC Response: CRC plans to submit an ATC application to the SJVAPCD. A response to this question will be provided in coordination with the SJVAPCD application submittal.

Biological Resources

CEC BACKGROUND

The applicant provided Biological Resources information in Section 4.2 of the Corrected Cal Capture Petition to Amend (PTA) (TN 266900), Appendix G Biological Resources Technical Report (BRTR) (TN 266440 Part A), and Appendix C to Appendix G Aquatic Resources Delineation Report (ARDR) (TN 266448 Part B). Section 3.2.1 of the BRTR lists the applicant's biologists and states they are all experienced biologists; however, there is not enough information provided to determine the biologists' qualifications to conduct surveys.

California Code of Regulations, title 20, section 1704 (a) (3) (C) requires that the PTA include a list of all literature relied upon or referenced in the document. Section 3.1 of the BRTR lists sources where data regarding the potential for occurrence of special- status species were gathered from. However, these references and database searches were not provided.

As stated on page 1 of the BRTR, the Biological Study Area (BSA) for the project includes the project footprint and a 500-foot buffer, which includes the area of potential direct and indirect project impacts on plant and wildlife species from the construction activity. However, the BRTR states that a more limited 50-foot buffer was used for assessing the presence of rare plants and potentially jurisdictional waters. If the area of potential project impacts may extend out to 500-feet, the aquatic resources survey and rare plant surveys should include these areas. California Code of Regulations, Appendix B (g) (13) (B) requires a list of species and habitats observed and those with potential to occur within 1 mile of project site and from 1,000 feet from the outer edge of linear facility corridors (including powerlines and pipelines). California Code of Regulations, Appendix B (g) (13) (B) (iii) requires an aerial photograph showing any potential jurisdictional features delineated out to 250 feet from the edge of disturbance.

The PTA does not include a figure identifying the location of temporary and permanent impacts. This data is necessary to determine the type and level of impact the project would have upon biological resources.

Table 9, Known and Potential Occurrences of Special-Status Plant Taxa within the BSA, and Table 10, Known and Potential Occurrences of Special-Status Wildlife within the BSA, provide descriptions of the Potential to Occur for special status species. The Potential to Occur includes the nearest recorded occurrence from the BSA but does not stipulate if they are referring to distances from the EHPP BSA or the temporary parking, office, and staging areas BSA, which are separated by over 6 miles.

Page 97 of the PTA and Table 9 (page 33-35) of the BRTR show four plant species with a high potential to occur (Lost Hills crownscale, Kern mallow, Tejon poppy, and oil neststraw) and determined heartscale to have a moderate potential to occur. Figure 4-1, 2-mile California Natural Diversity Database (CNDDDB) Results – Plants, shows numerous CNDDDB records for oil neststraw in the vicinity of the EHPP, and records overlapping the temporary parking, office, and staging areas BSA. A CNDDDB record for Tejon poppy is adjacent to, and heartscale appears to overlap, the temporary parking, office, and staging areas BSA. Table 9 states the nearest occurrence for heartscale is 6.48 miles from the BSA; Tejon poppy is 0.96 mile from the BSA; and oil neststraw is 0.10 mile from the BSA. This appears to be inconsistent with Figure 4-1. In addition, the BRTR does not state whether reference populations were visited to verify the plant species with potential to occur were blooming during the botanical surveys.

California Code of Regulations, Appendix B (g) (13) (D) requires a description and results of all field studies and specialized surveys (e.g., focused and protocol) used to provide biological baseline information about the project site and associated facilities. Page 95 of the PTA and page 12 of the BRTR states a habitat

assessment for Temblor legless lizard (*Anniella alexanderae*) was conducted by Stantec sub-consultant Dr. Ted Papenfuss on February 28, 2025. Page 98 of the PTA states, "Suitable habitat for TLL

[Temblor legless lizard] was not identified within the Project site during the site assessment conducted by Dr. Ted Papenfuss. While suitable or marginally suitable habitat for TLL may be present in adjacent buffer areas, these areas are not anticipated to be directly affected by the Project (Papenfuss 2025)." Page 58 of the BRTR states that, "There is no suitable habitat anywhere on the California Resources Corporation (CRC) Cal Capture Project site, per Dr. Papenfuss (email dated May 30, 2025)." The citation for Papenfuss 2025 is a personal communication, and simply states "Lack of suitable habitat for TLL in Project are." No habitat assessment is provided in the PTA or BRTR.

Similarly, page 95 of the PTA and page 12 of the BRTR states that a total of three focused surveys for Crotch's bumble bee (*Bombus crotchii*) were conducted by Stantec subconsultant biologist Donna Noce in May and June. Page 25 of the BRTR states that no Crotch's bumble bee were observed during the focused surveys. Page 39 of the BRTR states that the Project area has suitable foraging and nesting habitat, and potential food plants, but the potential of this species to occur is considered "low" because they were not observed during the focused survey. However, the PTA and the BRTR did not provide an assessment of potential habitat, including potential foraging, nesting, and overwintering resources. Survey results for Crotch's bumble bee only last for one year, and suitable habitat could be used by Crotch's bumble bee in the future. The citation for Noce 2025 simply states that Noce is a qualified bee biologist who provided personal communication regarding survey results via email. The citation also states that the survey report is in preparation. However, no habitat assessment or survey report is provided in the PTA or BRTR.

Page 98 of the PTA and page 36 of the BRTR states that low-density small mammal burrows were observed within the BSA, some of which exhibited sign of kangaroo rat (*Dipodomys* spp.) activity. The BRTR further states that burrow size and characteristics (described as size, vertical entrances, haystacking, etc., on page 58 of the BRTR) were not consistent with use by giant kangaroo rat (*D. ingens*). Giant kangaroo rat, short-nosed kangaroo rat, and Tulare grasshopper mouse were determined to have a low to moderate potential to occur, though page 40 of the BRTR states suitable habitat for these species is present. However, details on these small mammal burrows, and why they do not provide habitat for giant kangaroo rat, short-nosed kangaroo rat, and Tulare grasshopper mouse, was not provided.

Page 98 of the PTA and 37 of the BRTR states that the potential for nesting or transient burrowing owl to occur at the site is high; and page 37 of the BRTR states that suitable nesting and foraging habitat is present. The PTA and the BRTR do not provide details on any habitat assessment for burrowing owls or if burrows that could provide habitat for burrowing owls were observed. Similarly, page 98 of the PTA and page 42 of the BRTR states that the potential for blunt-nosed leopard lizard to occur at the project site is moderate; and page 42 of the BRTR states that suitable habitat is present for this species, but the habitat is fragmented and surrounded by disturbance. The PTA and the BRTR do not provide details on areas that could support blunt-nosed leopard lizard and habitat characteristics that are present. Page 10 of the BRTR states that for other species such as blunt-nosed leopard lizard and burrowing owl, additional protocol surveys may be necessary. It is not clear whether the whether protocol level surveys for blunt-nosed leopard lizard and burrow owl surveys are planned, and the schedule for completing those surveys.

The project would connect to the Carbon Terra Vault I (CTVI) project approved by Kern County in 2025. CDFW provided a comment letter on the CTVI Draft EIR, dated March 1, 2024, in which CDFW identified that the CTVI project is known to support high densities of several special-status species. CDFW further commented that there is an abundance of biological survey information and related modeling about the biological resources present throughout the Elk Hills Oil Field (EHOF), due to its history as the Navel Petroleum Reserve 1 (NPR1) which was sold to Occidental Petroleum (OXY), and the subsequent CDFW Memorandum of Understandings and Incidental Take Permits associated with oilfield exploration and operation. Information from these previous surveys and modeling data was not included in the literature review or impact analysis. Instead, the analysis relied on CNDDDB records, reconnaissance surveys, a reduced botanical survey buffer, and focused habitat assessments.

Section 8.1.1 of the BRTR provides General Avoidance and Minimization Measures for the Project. GEN-2: Focused/Protocol Surveys, states that based on information gathered from the biological reconnaissance survey, any required focused/protocol surveys shall be conducted to confirm the presence or absence of any special-status species. The applicant has completed reconnaissance level surveys for wildlife species; however, no recommendations for the additional protocol surveys needed have been made. As part of the CTVI EIR, mitigation measure 4.4-1 also requires focused/protocol surveys to be conducted. However, it is unclear if any focused/protocol surveys have been conducted for CTVI. In order to accurately determine presence or absence of species and habitat, analyze impacts to special-status species, and determine if take authorization is needed, additional information is needed.

CEC Data Requests:

12. Per California Code of Regulations, Appendix B (g) (13) (D), please provide the resumes that include the names and qualifications of the biologists conducting the biological resources, focused, and aquatic resources surveys in support of the application. The resumes should indicate years of experience, education, projects or training performing species-specific surveys or monitoring, representative projects, and any certifications or handling permits.

CRC Response: Resumes for the biologists that conducted the biological resources, focused, and aquatic resources surveys in support of the application are included as Attachment 1.

13. Per California Code of Regulations, section 1704, (a) (3) (C), please provide the following data results and additional data that were cited in the BRTR [Biological Resources Data Report]: the California Natural Diversity Database (CNDDDB) (CDFW, 2025a), Consortium of California Herbaria (CCH, 2025), United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) Resource List (USFWS, 2025a), and Carbon TerraVault I – Carbon Capture and Sequestration Project Biological Analysis Report (QK, 2024).

CRC Response: Copies of the CNDDDB occurrence reports generated from the CNDDDB query for the Project, the USFWS official species list generated by IPaC, and the *Carbon TerraVault I – Carbon Capture and Sequestration Project Biological Analysis Report* are provided as Attachment 2. The reference to the Consortium of California Herbaria (CCH) was an errant carry-over from a separate report unrelated to the proposed Project, and there is no applicable CCH data output/export. The reference to CCH will be removed from the future BRTR revision.

14. Per California Code of Regulations, Appendix B (g) (13) (B), please provide detailed maps and GIS data delineating species and habitats observed and those with potential to occur within 1 mile of the project and 1,000 feet from the outer edge of linear facility corridors (including power lines and pipelines). Please conduct surveys for the presence of rare plants and potentially jurisdictional waters within the area of potential direct and indirect project impacts, identified as a 500-foot buffer around project activities in the BRTR, and provide associated figures and GIS data. Per California Code of Regulations, Appendix B (g) (13) (D) (i), surveys for special-status plants should be conducted during the blooming period. Per California Code of Regulations, Appendix B (g) (13) (B) (iii), please provide an aerial photo depicting state and federal jurisdictional aquatic features delineated out to 250 feet from the edge of disturbance.

CRC Response: Upon review of the submitted maps in the BRTR (Appendix G of the PTA submittal document) and the associated GIS data, CRC determined that the GIS data was incomplete (inadvertently missing some of the biological data presented in the maps). CRC and Stantec are compiling the missing GIS data and will provide the complete GIS files to the CEC in a separate submittal to the Docket. Figures in the BRTR (Figures 4, 4-1, 4-2, 4-3, 5a, and 5b) provide detailed information regarding delineated species and habitats observed within ten miles, two miles, and within the BSA. Detailed maps and GIS data delineating species and habitats observed and those with a potential to occur within one mile of the project and 1,000 feet from the outer edge of linear facility corridors, and *an aerial photo depicting state and federal jurisdictional aquatic features delineated out to 250 feet from the edge of disturbance*, will be uploaded to the Docket once finalized (estimated delivery date, end of August 2026).

Terrestrial and other wildlife species were assigned survey buffers of 500 feet based on the potential for species-specific project impacts to occur within that distance. Figures 7a and 7b identify wildlife reconnaissance (500-foot buffer) and rare plant surveys conducted (50-foot buffer).

A 50-foot buffer for rare plant species was used based on the limited range and nature of potential project-related effects on plant populations. In contrast to wildlife, which may experience visual, noise, and vibration disturbances due to their mobility, plants are stationary and not susceptible to these types of impacts. Instead, potential effects on plants are generally confined to localized factors such as dust deposition, soil disturbance, erosion and runoff associated with construction activities. These effects are not expected to extend beyond 50 feet from the disturbance footprint. Accordingly, the 50-foot buffer is considered appropriate, particularly given that most project activities will occur within existing, previously disturbed areas. CRC also intends to employ water trucks to regularly apply water to active construction sites and unpaved access roads to minimize off-site dust generation. Rare plant surveys will be completed for new laydown areas that were identified following completion of the 2025 survey window for plants. CRC will conduct these surveys in the first and second Quarter of 2027. The information will be provided to the CEC upon completion of the survey work in 2027. 15. *Please provide a map and GIS data showing the maximal extent of both permanent and temporary impacts associated with construction of the project, including but not limited to all project features, electrical lines, pipelines, temporary parking, office, and staging areas.*

15. *Please provide a map and GIS data showing the maximal extent of both permanent and temporary impacts associated with construction of the project, including but not limited to all project features, electrical lines, pipelines, temporary parking, office, and staging areas.*

CRC Response: A map and the GIS data will be submitted to the CEC in a separate Docket submittal.

16. *In Table 9 and Table 10 of the BRTR, please clarify the nearest known records of special status species from both the EHPP BSA and the temporary parking, office, and staging areas BSA.*

CRC Response: Updates to Tables 9 & 10 will be provided to the CEC in a separate Docket submittal.

17. *Please clarify whether reference populations were visited for special-status plant species with moderate or high potential to occur within the BSA, or at known CNDDDB occurrences that are adjacent to or overlap the BSA. Please clarify the distances of the known CNDDDB records to the BSA, including the EHPP and the temporary parking, office, and staging areas. Any CNDDDB record that overlaps the BSA should be discussed in greater detail when determining the potential for these species to be present.*

CRC Response: Reference populations of special-status plant species were visited in the weeks in advance of each of the floristic botanical surveys conducted in the BSA in February, March, and May 2025. The purpose of the reference site visits was to verify that regional conditions were appropriate for the germination, flowering, and identification of target special-status plant species under consideration in the BRTR. Two primary reference sites were visited, including:

- 1) A well-known reference site for the federally endangered Kern mallow (*Eremalche parryi* ssp. *kernensis*) located just south of the intersection of Lokern Road and Highway 33 (CNDDDB EONDX #2734); this site is located approximately 13.3 miles northwest of the EHPP and approximately 19.2 miles northwest of the temporary parking, office, and staging areas.
- 2) A well-known reference site for the federally endangered San Joaquin woollythreads (*Monolopia congdonii*) located just northwest of the intersection of I-5 and Highway 46. This site is located approximately 25.2 miles northwest of the EHPP and approximately 30.1 miles northwest of the temporary parking, office, and staging areas.

Kern mallow and San Joaquin woollythreads were readily observable during the reference site visits. The flowering seasons for these species also overlap with many of the target plant species in BRTR Table 9, and conditions from February to May 2025 are sufficient to determine presence or absence of target special-status plant species within the BSA because the focused rare plant surveys were floristic in nature, timed

to allow for the best possible opportunity to observe rare plants during suitable phenological periods. Special-status plant species are not expected in any of the proposed project areas that were previously disturbed, but as the BRTR states, a final assessment of potential impacts to special-status plant species will be provided in an addendum. These surveys effectively followed the CDFW *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW, 2018) and USFWS *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants* (USFWS, 2000). Rare plant surveys were conducted by teams of qualified biologists walking meandering transects throughout the BSA to identify and document a botanical inventory, as included in BRTR Table 5. Follow-up rare-plant surveys will be completed in the first and second Quarter of 2027 for areas added (new laydown areas) to the proposed project after the initial round of rare plant surveys that occurred in 2025.

There are two CNDDDB records that overlap with certain locations within the BSA. One record (CNDDDB EONDX #23135) from 1986 (updated in 1991) for the California jewelflower (*Caulanthus californicus*) overlaps with the westernmost proposed temporary parking, office, and staging areas. California jewelflower is a federally and state endangered species that occurs in saltbush scrub, pinyon and juniper woodland, and valley and foothill grassland habitats. The CNDDDB record indicates the exact location of the observation is unknown and "...mapped as best guess by CNDDDB 8 miles NE of Taft along Highway 119." The area was searched in 1986 with no California jewelflower observed and habitat mostly modified or eliminated; the CNDDDB states this occurrence is possible extirpated. This area is currently routinely graded/disturbed and supports no suitable habitat for special-status plant species. While there may be marginal habitat for California jewelflower in other areas of the BSA, there are no other nearby CNDDDB records for this species and the species was not observed during appropriately timed floristic botanical surveys in 2025 and is not expected to occur within the BSA.

The other CNDDDB record (CNDDDB EONDX #57607) is from 2013 (updated in 2015) for oil neststraw (*Stylocline citroleum*) and overlaps with the easternmost proposed temporary parking, office (18G office area), and staging areas. Oil neststraw is a CNPS List 1B.1 species that occurs in saltbush scrub, coastal scrub, and valley and foothill grassland habitats. The CNDDDB record indicates the observed location for this species was "south of Tupman, mostly south of Skyline Road & north of Highway 119, Elk Hills Oil Fields." The overall population numbers are for several parts of the overall occurrence record (with many polygons scattered over a large area), where > 130,000 plants were observed in 1997 and 1998, > 3,000 plants observed in 1999, > 500 plants observed in 2000, > 8,500 plants observed in 2001, and an unknown number observed in 2013. These areas proposed for temporary parking, office, and staging locations for the Project are currently hardscaped or graded and used for parking adjacent to the CRC 11G office at Elk Hills. The 11G Office complex is not in use as of 2023; however, the parking lots are used for employees and contractors that carpool to the Elk Hills Oilfield and are also used for temporary parking or storage of oilfield vehicles or equipment and materials. These areas support no suitable habitat for special-status plant species. While there may be marginal habitat for oil neststraw in other areas of the BSA, and there are several other nearby CNDDDB records for this species, oil neststraw was not observed during appropriately timed floristic botanical surveys in 2025 and is not expected to occur within the BSA.

Known CNDDDB occurrences in the vicinity of the BSA have distances updated in the revised BRTR Table 9 in relation to the EHPP and the temporary parking, office, and staging areas (see response to Question 16). The revised Table 9, updated figures and updated GIS files will be uploaded to the Docket as soon as they are finalized in September of 2026.

18. Per California Code of Regulations, Appendix B (g) (13) (D), please provide the habitat assessment prepared by Dr. Papenfuss that was used to evaluate the potential for Temblor legless lizard to occur in the project area and BSA. The assessment should identify the date(s) the survey was completed, methods used to complete the surveys, name(s) and qualifications of the biologists conducting the surveys, and identification of appropriate field survey protocols. The habitat assessment should include a figure depicting habitat types within the project site and BSA and the suitability of such habitat.

CRC Response: Dr. Theodore Papenfuss will provide additional documentation of the TLL habitat assessment completed for the proposed CalCapture project. Dr. Papenfuss estimates that the report would be ready for submittal to the CEC by late July 2026. CRC will upload the report to the Docket as soon as it's provided by Dr. Papenfuss.

19. Per California Code of Regulations, Appendix B (g) (13) (D), please provide the Crotch's bumble bee survey results and habitat assessment results conducted by Donna Noce to evaluate the potential for Crotch's bumble bee to occur in the project area and the BSA. The survey results and habitat assessment should identify the date(s) the surveys were completed, methods used to complete the surveys, name(s) and qualifications of the biologists conducting the surveys, and identification of appropriate field survey protocols. Field protocols should follow CDFW's 2023 Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species. The habitat assessment should quantify which plant species are in bloom and what their percent cover is; general plant diversity; flowering plants (including non-natives and invasives); nesting resources such as bare ground, rodent burrows, and other potential nest sites; available overwintering habitat; and if surveys were conducted during the Colony Active Season. The survey results should describe the methods used to conduct the survey, including the range of dates to account for variability in floral resource phenology within the site, timing of the surveys, temperatures, and methods of species identification (capture, photography, etc.). The report should include a figure depicting habitat types within the project area and BSA and the suitability of such habitat.

CRC Response: Attached please find the CBB report prepared by Owlet Ecological (Attachment 3).

20. Please provide details on the type of suitable habitat present in the project site and BSA for giant kangaroo rat, short-nosed kangaroo rat, and Tulare grasshopper mouse. These details should include habitat and/or life history characteristics that could be used by these species and site characteristics that may preclude them from occurring at the site. The details should include an assessment of potential habitat of the small mammal burrows for the three species, as well as whether there are other small mammal burrows elsewhere in the project site or BSA. Please also provide details on soil and habitat suitability in the BSA where small mammal burrows could become established in the future.

CRC Response: As mentioned in BRTR Section 6.4, small mammal burrows with evidence of kangaroo rat (*Dipodomys* spp.) activity were observed within the BSA. Table 10 of the BRTR summarizes habitat requirements and classifies each species' potential to occur within the BSA. While no small mammal burrow mapping was conducted, observations indicate a low density of small mammal burrows and burrow size and morphology were not consistent with giant kangaroo rat (*Dipodomys ingens*; GKR). No giant kangaroo rats were observed during surveys, and small mammal trapping was not performed due to the limited suitability of habitat. Additional reconnaissance-level surveys are planned for 2026 to cover areas added to the proposed project (such as new proposed laydown areas), and pre-activity surveys will be conducted in all areas of proposed ground disturbance prior to start of work.

The habitat characteristics for giant kangaroo rat, short-nosed kangaroo rat, and Tulare grasshopper mouse were described in BRTR Table 10, and are summarized here with additional detail provided for habitat characteristics observed in the BSA:

- 1) Giant kangaroo rat – This species inhabits annual grasslands on the western side of the San Joaquin Valley, with marginal habitat in alkali scrub. Needs level terrain and sandy loam soils for burrowing. Annual grassland and alkali/saltbush scrub habitats occur within the BSA (BRTR Table 4) and there are sandy loams and other well-drained soils distributed throughout the BSA (BRTR Table 8). Habitat quality for giant kangaroo rat is relatively low in the BSA and the potential for occurrence was assessed as “low to moderate” but there were no giant kangaroo rat vertical burrows or characteristic giant kangaroo rat “precincts” (i.e., noticeable burrow complexes with mounds, grass clipping surrounding burrow entrances, seed caches, etc.) observed in the BSA. Additionally, pre-activity surveys in all areas of proposed ground disturbance will be conducted to assess burrow distribution and density prior to the start of work.

- 2) Short-nosed kangaroo rat – This species occurs in lightly vegetated grasslands in the Central San Joaquin Valley of California, primarily in areas with sandy soils conducive to burrowing, and is found exclusively west of the California Aqueduct. Annual grassland habitat occurs within the BSA (BRTR Table 4), and sandy loams and other well-drained soils are distributed throughout the BSA (BRTR Table 8). Habitat quality within the BSA is classified as *fair to good*, with higher quality areas limited to relatively undisturbed annual grassland or saltbush scrub habitat. Based on these conditions, the potential for occurrence is considered “low to moderate”. Suitable burrows (e.g., tail drags) attributable to kangaroo rats were observed within the proposed Project footprint and elsewhere in the BSA, although at a relatively low density. Pre-activity surveys in all areas of proposed ground disturbance will be conducted to assess burrow distribution and density prior to start of work.
- 3) Tulare grasshopper mouse – This species occurs in grasslands in the Central San Joaquin Valley of California, primarily in areas with sandy soils conducive to burrowing. Annual grassland habitat occurs within the BSA (BRTR Table 4) and there are sandy loams and other well-drained soils distributed throughout the BSA (BRTR Table 8). Habitat quality within the BSA is classified as *fair to good*, with higher quality areas limited to relatively undisturbed annual grassland or saltbush scrub habitat. Based on these conditions, the potential for occurrence is considered “low to moderate”. Suitable burrows were observed within the proposed Project footprint and elsewhere in the BSA, although at a relatively low density. Pre-activity surveys in all areas of proposed ground disturbance will be conducted to assess burrow distribution and density prior to the start of work.

21. Please provide the following information for the western burrowing owl (*Athene cunicularia hypugaea*) in consideration of the current listing status as a candidate species under the CESA and the fact that the site has a high potential for burrowing owl to occur.

- a. Please provide a habitat assessment, survey field notes, breeding surveys, and over-wintering survey results per the Staff Report on Burrowing Owl Mitigation (CDFG 2012) guidance. Please provide a schedule for conducting any additional surveys to meet the CDFW guidance and the results of those surveys once completed.
- b. Please provide a figure showing the location(s) where burrowing owls are observed. In addition, please delineate the buffer surveyed on the figure and identify any areas that were inaccessible during focused surveys.
- c. Please include a list of proposed avoidance and minimization measures for western burrowing owl based on the survey results.
- d. Please provide resumes for staff conducting the protocol level surveys.
- e. If the project area and surrounding lands support suitable nesting or overwintering habitat and burrowing owls are detected within the project area or within 1,600 feet during protocol level surveys, please clarify if the applicant will be requesting take for burrowing owls. If take authorization for western burrowing owl is requested, staff will provide further guidance.

CRC Response: CRC is preparing a detailed response for submittal to the CEC, anticipated no later than the end of the third Quarter of 2026.

22. Please provide details of blunt-nosed leopard lizard habitat suitability in the project site and BSA, including the biological requirements of the species and a description of potential blunt-nosed leopard lizard habitat. Please clarify whether the applicant will be conducting protocol level surveys for blunt-nosed leopard lizard in accordance with the CDFW 2019 (Revised) Approved Survey Methodology for the Blunt-Nosed Leopard Lizard, and the schedule for completion of that survey.

CRC Response: The blunt-nosed leopard lizard (BNLL) inhabits grassland, saltbush scrub, and alkali sink scrub habitats and uses small mammal burrows for shelter. The BRTR provides a list of observed wildlife

species within 10 miles of the proposed project areas, including Figures 4 and 4.1 and wildlife species observed within 2 miles of the proposed project area (Figures 4.2 and 4.3). Suitable habitat for this species is present in the BSA with a scattering of small mammal burrows and an insect prey base (see BRTR Section 5.3.1); however, the habitat is fragmented and surrounded by disturbance associated with oil and gas production. The potential for occurrence of BNLL was assessed as “moderate”; however, CRC will complete protocol level surveys in 2026 to assess if the potential for occurrence is more appropriately characterized as “low” since the majority of the proposed project areas are located within the EHOF High Production Zone for oil and gas operations, and the proposed project areas would be located within existing, previously disturbed areas. CRC has scheduled protocol-level blunt-nosed leopard lizard surveys in accordance with the CDFW 2019 (Revised) *Approved Survey Methodology for the Blunt-Nosed Leopard Lizard* to occur within the proposed power line and pipeline corridors where marginal re-growth of vegetation has occurred, to refine the potential-to-occur determination and confirm whether BNLL is present or absent in suitable habitat areas. Existing, previously disturbed areas such as the EHPP, the proposed CalCapture site, paved roads, the 26R electrical substation, the 35R Cogeneration facility, and other existing, previously disturbed well pads and oilfield access roads will be excluded based on the absence of suitable habitat conditions. BNLL protocol level surveys are being completed by Booher Consulting and were initiated on May 30, 2026. BNLL Protocol level surveys will be completed in September 2026 and following completion of the BNLL report (November 2026), CRC will upload it to the Docket for agency review.

23. Please provide historical information on biological surveys and related monitoring contained within the EHOF in proximity to the project. The survey results and habitat assessment should identify the date(s) the survey was completed, methods used to complete the surveys, name(s) and qualifications of the biologists conducting the surveys, identification of appropriate field survey protocols, and survey results. The information should include negative survey results (e.g., protocol surveys were conducted but the species were not found) to understand the nuances of habitat use in the area. Please include any associated GIS of previous surveys results and modeling data.

CRC Response: CRC is reviewing prior pre-activity biological surveys completed in compliance with the EHOF Incidental Take Permit (ITP) for qualifying activities within the EHOF. CRC will identify surveys that overlap the proposed CalCapture project areas and prepare a summary of the available data, including negative survey results (if available), and upload the information to the Docket.

24. Based on the results of the reconnaissance surveys and CNDDDB records in the area, please provide information on required focused/protocol surveys in accordance with Kern County’s CTV1 EIR mitigation measure 4.4-1 and the recommended GEN-2 mitigation measure in the BRTR, to confirm the presence or absence of special status species within the project area and BSA. The protocol/focused surveys should include, at a minimum, all special-status species with a moderate or higher potential to occur or are known to be present, based on Table 10 in the BRTR, and any species that are federally or state listed or proposed or a candidate for listing. Please provide a schedule for conducting the surveys during appropriate survey windows as outlined in species survey protocols. Upon completion, please provide the survey results that include the date(s) the survey was completed, methods used to complete the surveys, name(s) and qualifications of the biologists conducting the surveys, identification of appropriate field survey protocols, survey results, and associated figures and GIS data. The results should identify appropriate mitigation measures to protect, avoid, or minimize impacts to the species, if additional mitigation is necessary, and a USFWS Biological Opinion or CDFW Incidental Take Permit or Amendment is required. Please note that for CDFW Fully Protected species, including blunt-nosed leopard lizard, full avoidance is required.

CRC Response:

CTV I: As noted in the CalCapture Petition to Amend Application, CTV I is a separate project that was previously approved subject to a separate Kern County Mitigation Monitoring and Reporting Program (CTV-1 MMRP) adopted in October 2024. Compliance with the CTV-I MMRP is overseen by Kern County. On July 8, 2025, Kern County issued a construction clearance letter confirming that all mitigation measures applicable to CTV I Phase 1 had been satisfied (State Clearinghouse #2022030180). With respect to CTVI

Mitigation Measure 4.4-1 (Biological Resources), the pre-disturbance surveys documented that no focused or protocol-level surveys were required.

CalCapture: Regarding the general avoidance and minimization measure GEN-2 (Focused/Protocol Surveys) identified in the BRTR for CalCapture, CRC has prepared preliminary survey assessments and status update on completed surveys for species identified as present or with moderate to high potential to occur, including candidate species, below. CRC will coordinate with the CEC and CDFW to determine whether additional focused or protocol level surveys are warranted for species that may occur within the project area. After submittal of CRC's response document (this document), CRC will reach out to the CEC and request a meeting with the CEC and CDFW.

SJAS | Present

As documented in the BRTR, a single San Joaquin antelope squirrel was observed immediately outside of the BSA (refer to Figure 7a of the BRTR). Considering the location of proposed project activities, existing site conditions, and the low density of small mammal burrows within and adjacent to planned disturbance areas, the available information supports a sound determination that take of this species is not reasonably foreseeable. Accordingly, the current strategy is that the project should be able to proceed under an avoidance-based approach, with implementation of standard pre-construction worker environmental awareness training, biological monitoring during ground-disturbing activities, and clear work-area delineation in lieu of pursuing an Incidental Take Permit. Notably, the adjacent CTV I project components, which are located directly adjacent to and partially overlap the CalCapture proposed project locations, were successfully implemented under an avoidance-based approach with no take of San Joaquin antelope squirrel or any other special-status species documented.

SJKF | Potential to Occur: High

As noted in mitigation measure SJKF-1, Section 8.2.1.12 of the BRTR, "*Any potential SJKF dens (as defined in USFWS, 2011) detected during reconnaissance or focused/protocol surveys shall be evaluated by the qualified biologist for species activity no more than 30 days prior to the commencement of ground disturbance in the required pre-construction survey.*" CRC will coordinate with CEC and CDFW on the need for conducting focused surveys for this species.

BNLL | Potential to Occur: Proposed change from Moderate to Low

Table 10 in the BRTR classified the potential to occur as *moderate* for BNLL; however, as described in the response to Data Response (DR), Item 22, the conditions of the proposed site and lack of observations of the species within the HPA, CRC will complete protocol level surveys in 2026 to assess if the potential for occurrence is more appropriately characterized as "low". Please refer to the full response to DR, Item 22 above.

GKR | Potential to Occur: Low to Moderate

Please refer to the response to DR, Item 20 above.

Candidate Species:

Crotch's Bumble Bee (CBB) | Potential to Occur: Low

Please refer to the response to DR, Item 19 above. A copy of the Crotch's Bumble Bee (*Bombus crotchii*) Survey Results prepared by Owlet Ecological, is included with this response as Attachment 3. Follow-up CBB surveys will be completed in 2027 to cover the new laydown areas not surveyed the initial 2025 survey.

Temblor Legless Lizard (TLL) | Potential to Occur: Low

Please refer to the response to DR, Item 18 above. To summarize, CRC has coordinated with Dr. Ted Papenfuss and we estimate that a letter report can be ready for submittal by late July 2026.

Le Conte's Thrasher | Potential to Occur: Moderate, Nesting/Transient:

As documented in the BRTR, the species was not observed during reconnaissance surveys; however, suitable nesting and foraging habitat occurs within the BSA. Additional reconnaissance surveys will be conducted in 2026 to cover areas added to the proposed project (such as new proposed laydown areas). Given the recent designation of Le Conte's thrasher as a candidate species, CRC will coordinate with the CEC and CDFW to assess whether focused surveys are warranted and to develop and implement appropriate avoidance and minimization measures to ensure protection of Le Conte's thrasher.

Western Burrowing Owl | Potential to Occur: High, Nesting/Transient

Please refer to the response to DR, Item 21 above.

Western Spadefoot | Potential to Occur: Low

As documented in the BRTR, the potential for western spadefoot to occur within the project area is low, and the nearest known occurrence is approximately 5 miles east-northeast of the BSA based on a 2009 record. No breeding habitat or individuals were observed during reconnaissance surveys. However, if suitable aquatic habitat with documented individuals is identified during pre-construction surveys, CRC would restrict construction in areas within 300 feet of breeding habitat during the breeding season (November 1 through March 31, or through April 30 in wet years). If a 300-foot avoidance buffer cannot be maintained, the applicant would consult with CEC staff and CDFW to develop and implement site-specific avoidance measures, in coordination with any applicable protection measures for western spadefoot.

Cultural and Tribal Cultural Resources

CEC BACKGROUND: Appendix H-Cultural Resources Study Appendix B

The cultural resources survey identified two new cultural resources (CRC Site-AV-1 and CRC Site-AV-2), in the text of the report it states that Department of Parks and Recreation (DPR) 523 Forms were filled out for the resources and provided in Appendix B of the report. All DPR Forms were provided except for the two newly recorded sites.

CEC Data Request:

25. Please provide DPR Forms for the two newly recorded sites, CRC Site-AV-1 and CRC Site-AV-2.

CRC Response: The requested DPR forms will be submitted to the CEC as a confidential submittal.

CEC BACKGROUND: Appendix H-Cultural Resources Study

The Cultural Resources Study does not indicate that a historic architecture field survey was conducted inclusive of the project site and the project linear facility routes, extending no less than 0.5 miles out from the proposed plant site and from the routes of all above-ground linear facilities consistent with Cal. Code Regs., tit. 20, Appendix B(g)(2)(C).

CEC Data Request:

26. Please provide the results of a historic architecture field survey. New historic architecture field surveys in urban and suburban areas shall be conducted inclusive of the project site, extending no less than one parcel's distance from all proposed plant site boundaries. New historic architecture field reconnaissance ("windshield survey") in urban and suburban areas shall be conducted along the routes of all linear facilities to identify, inventory, and characterize structures and districts that appear to be older than 45 years or that are exceptionally significant, whatever their age.

CRC Response: The proposed project site is within the EHO, formally known as the Naval Petroleum Resource No. 1 (NPR 1). In 1997, NPR 1 was previously determined ineligible for the National Register of Historic Places (NRHP) as a historic landscape by the California State Historic Preservation Office (SHPO) due to a lack of integrity. The oilfield has been in continuous use since the early twentieth century and most of the buildings, camps, derricks, equipment, and facilities dating from this early period have been demolished. Stantec's Cultural Resources Study report identified historic era refuse scatters which were determined to not be eligible for the California Register of Historical Resources (CRHR). No other potentially historic resources were identified by Stantec during the cultural resources survey. Given that the site has been substantially altered, a previous SHPO determination indicated no NRHP-eligible resources due to lack of integrity, and no potentially significant historical architecture resources were identified by Stantec during their survey in 2025, the proposed project would not impact potentially significant historic architecture resources.

CEC BACKGROUND: Appendix H-Cultural Resources Study

The report indicates that the literature search only extended a 0.5-mile radius around the project area. Consistent with Cal. Code Regs., tit. 20, Appendix B(g)(2)(B) the literature search should be within an area not less than a 1-mile radius around the project site and not less than one-quarter (0.25) mile on each side of the linear facilities.

CEC Data Request:

27. Please submit a supplemental literature search from the California Historical Information System that extends not less than a 1-mile radius around the project site and not less than one-quarter (0.25) mile on each side of the linear facilities.

CRC Response: The extended supplemental CHRIS database search will be submitted to the CEC as a confidential submittal. CRC will coordinate with the CEC if there are file size issues (greater than 30MBs) and for the upload of GIS Shapefiles.

CEC BACKGROUND: Appendix H-Cultural Resources Study

The cultural resources report does not indicate whether there was an archaeological survey buffer no less than 200 feet around the project site, substations and staging areas, and no less than 50 feet to either side of the right-of-way of project linear facilities consistent with Cal. Code Regs., tit. 20, Appendix B(g)(2)(C).

CEC Data Request:

28. Please indicate whether there was an archaeological survey buffer no less than 200 feet around the project site, substations and staging areas and no less than 50 feet to either side of the right-of-way of the project linear facilities. If not, please submit the results of an archaeological survey of the buffer or indicate why surveying the buffer was and is unfeasible.

CRC Response: The archaeological survey was conducted within the area of potential ground disturbance associated with the Project facility footprint with up to a 50-foot buffer depending on site access limitations; however, the Stantec survey did not extend to the additional buffer areas requested in the comment. Linear features were surveyed with a 100-foot buffer on either side of the centerline. The facility areas were selected due to their pre-disturbed nature, and proposed Project development will not extend outside of the defined disturbance area to avoid impacts to vegetated areas. Also note that, as an active oilfield that has been in production for decades, soils in the project area are heavily disturbed. Given these existing conditions, combined with the results of the completed surveys to identify cultural resources within areas of proposed ground disturbance, additional surveys of the requested buffers are unlikely to identify significant, intact archaeological cultural resources. CRC will direct Stantec's archaeologists to complete a 200-foot cultural resource survey buffer around the proposed project area. The updated cultural resource survey report will be uploaded to the Docket as soon as it's completed, with the expected submittal to occur in the 3rd quarter of 2026.

Land Use, Agriculture and Forestry Resources

CEC BACKGROUND

It is noteworthy that the Land Use section of the PTA does not evaluate whether the project would conflict with any applicable plan, policy, or regulation adopted to avoid or mitigate an environmental effect (Land Use criterion “b”).

In the Land Use section, subsection “4.7.1.3 Existing Development Standards,” it states that the project site lies within an area of military airspace use, and that consultation with the U.S. Department of Defense (DOD) is required for any structure taller than 200 feet above ground surface. Section 19.08.160 of the Kern County Zoning Ordinance is referenced, which specifies requirements for ensuring that a proposed structure or building “would create no significant military mission impacts.”

In the Introduction section of the PTA, subsection “2.3.1 Federal Agencies,” heights of some of the proposed structures are listed, including the “absorber” with a height of 271 feet. It is also stated that CRC will consult with the DOD to determine whether the proposed structures would interfere with military airspace operations. Subsection “2.3.5 Agencies Contacted” includes the DOD Military Aviation and Installation Assurance Siting Clearinghouse among those contacted by CRC during preparation of the application with Dan Townes named as the contact person.

CEC Data Request:

29. Please provide information documenting consultation with the DOD, including details on project notification packages that have been or will be submitted to the DOD and the anticipated response date.

CRC Response: In support of CRC’s proposed CalCapture project, CRC emailed the U.S. Department of Defense (DOD) Military Aviation and Installation Assurance Siting Clearinghouse (MA&IASC) on July 16, 2025, to review the proposed project in relation to potential restricted airspace in western Kern County. CRC included the Informal Review Request Form and supporting project documentation for their review. These documents are attached for your review as Attachment 4. CRC copied the CEC on the DOD outreach, which occurred on July 16, 2026.

Mr. Daniel Townes with the Office of the Assistant Secretary of Defense (OASD) emailed CRC on September 9, 2025, with a letter response from Ms. Robbin Beard, Executive Director, MA&IASC, OASD. The response letter requested that CRC contact Ms. Lorena Cordova to review our proposed project for potential impacts to the U.S. Department of the Navy’s low-level flight operations on VR-1262. Ms. Cordova left the program analyst position in late 2025 and on June 5, 2026, Mr. Townes provided CRC with a new point new point of contact (Ms. Anna Shepherd).

The response letter signed by Ms. Beard provided CRC with Project Number (2025-7-PP-DEV-21), for DOD and Federal Aviation Administration (FAA) project correspondence. CRC is working on formal outreach to Ms. Shepherd; we are still compiling additional details on construction equipment or structures greater than 50 feet and the proposed safety controls to allow the U.S. Department of the Navy to evaluate potential impacts to their low-level flight operations on VR-1262. CRC included the CEC in our formal correspondence to Ms. Shepherd on July 16, 2026.

CEC BACKGROUND

In the Introduction section, subsection “2.2.2 Surrounding Land Uses,” it states that the nearest public airports are the Elk Hills-Buttonwillow Airport (5 miles north of the project site) and the Taft-Kern County

Airport (9.6 miles south of the project site). Also in the Introduction, subsection “2.3.1 Federal Agencies,” the Federal Aviation Administration (FAA) is listed, and it is stated that CRC would be required to prepare and submit a Part 77 notice to the FAA, Form 7460-1 Notice of Proposed Construction or Alteration. It is also stated that illumination of the proposed absorber column might be required for aircraft safety, to comply with the FAA’s Obstruction Marking and Lighting standards.

CEC Data Requests:

30. Please provide detailed information documenting consultation with the FAA on required notifications, including completion and submittal of Form 7460-1. Please provide anticipated dates of future submittals or a determination letter from the FAA.

CRC Response: CRC proposes to initiate consultation with the FAA for the proposed CalCapture project through the Obstruction Evaluation Airport Airspace Analysis (OE/AAA) process under Title 14 of the Code of Federal Regulations (14 CFR) Part 77 and will utilize project number (2025-7-PP-DEV-21) for any correspondence with the FAA. CRC proposes to initiate the consultation after we engage Ms. Shepherd identified in response 29 above. Based on the DOD’s input, CRC will consult with the FAA.

31. Please provide detailed information on plans to comply with the FAA’s Obstruction Marking and Lighting standards.

CRC Response: CRC is finalizing proposed marking and lighting plans for submittal to both the DOD and FAA for review. CRC will provide a copy of this information to the CEC and provide the DOD’s and FAA’s response in a separate docket submittal.

CEC BACKGROUND

In the Land Use section, subsection “4.7.1.3 Existing Development Standards,” it states that “Kern County has approved the Kern County Zoning Ordinance for the regulation of oil and gas development within the portions of Kern County within County jurisdiction.”

CEC Data Request:

32. Please explain the zoning ordinance for the regulation of oil and gas development, including a citation and discussion of its applicability to the proposed project. Please describe the project’s consistency with the ordinance.

CRC Response: The Kern County Zoning Ordinance (Title 19, Chapter 19.98 – Oil and Gas Production), as amended by the County’s 2025 Oil and Gas Permitting – Local Permitting ordinance, establishes development standards and procedures for oil and gas exploration, drilling, production, and related facilities in unincorporated Kern County. It does not apply to the activities, uses or structures included within the proposed project. This ordinance is referenced here solely to acknowledge that the proposed project site is located within the Elk Hills Oilfield; however, the ordinance does not directly apply to the proposed CalCapture CCS project.

Visual Resources – Visible Plume

CEC BACKGROUND

The applicant states in Table 63 of Section 4.14 (Visual Resources) of their Petition to Amend (TN 266900) that no visible plume analysis is necessary because the proposed facility modifications would be fully within the boundaries of an existing power plant (page 296). The applicant provided a visual impact analysis in Appendix S (TN 266461), but made no mention of visible plumes.

Appendix B, Section (g)(6)(E) of 20 CCR Div. 2, Ch. 5 (Information Requirements for an Application for Certification [AFC] or Small Power Plant Exemption [SPPE]) specifically calls for an assessment of the visual impacts of a proposed project if it has a wet cooling tower. Staff reviewed Appendix B and did not find language that would exempt proposed projects that would be located within an existing power plant from conducting a visible plume analysis.

CEC Data Requests:

33. Would the proposed amendment change the cooling load requirements for the existing facility and thus change the frequency of generating visible plumes from the existing cooling tower?

CRC Response: The proposed amendment change would not change the cooling load requirements for the existing facility and would not change the frequency of generating visible plumes from the existing cooling tower. However, new potential sources of visible plume associated with the carbon capture equipment include new wet surface air coolers (WSACs) and the carbon capture equipment's new exhaust stack (the absorber stack). These new potential sources of visible plume will be addressed in future responses to data requests #35 & #36.

34. If the amendment request would change the cooling load requirements, please conduct a visible plume analysis to document the difference taking into consideration local ambient meteorology and expected operating conditions, using guidance from Appendix B. Please provide the cooling tower exhaust parameters, including exhaust height, exhaust diameter, exhaust temperature, moisture content, mass flow, and average molecular weight before and after the proposed modifications. The applicant may provide these exhaust parameters, in tabular form (example shown below), for the range of ambient conditions (i.e. ambient temperature [cold, average, and hot] and relative humidity) and operating scenarios that can be reasonably expected to occur at the project site location.

Data Request, Set 1 Exhaust Parameters Table

Parameters	Unit Name		
Stack Height			
Stack Diameter			
Ambient Temperature			
Relative Humidity			
Operating Scenarios			
Full Load Exhaust Temperature (°F)			
Full Load Exhaust Moisture Content (wt %)			
Full Load Exhaust Flow Rate (1000 lbs/hr)			
Full Load Exhaust Average Molecular Weight (lbs/mole)			

CRC Response: The proposed amendment change would not change the cooling load requirements for the existing facility and would not change the frequency of generating visible plumes from the existing cooling tower. However, new potential sources of visible plume associated with the carbon capture

equipment include new wet surface air coolers (WSACs) and the carbon capture equipment's new exhaust stack (the absorber stack). These new potential sources of visible plume will be addressed in future responses to data requests #35 & #36.

35. When Appendix B was written, power plants were not proposed to be built with carbon capture equipment and thus, Appendix B did not include language that would be appropriate to use today, with carbon capture equipment now being considered for power plants. Staff need to understand the degree to which this new equipment may cause visible plume formation. Please provide the expected stack exit height, stack diameter, exhaust temperature, moisture content, mass flow, and average molecular weight of the proposed carbon capture equipment, in tabular form as shown above, for the range of ambient conditions and operating scenarios that can be reasonably expected to occur at the project site location. Please provide a visible plume analysis of the carbon capture equipment or fully justify why such an analysis is not needed.

CRC Response: This information will be provided to the CEC in a future response.

36. The existing heat recovery steam generator stack exit is 120 feet above ground level and 18 feet in diameter. What is the expected stack exit height and diameter of the proposed carbon capture equipment? What is the exit temperature and water content of the current stack, and what would be the exit temperature of the new stack exit and the water content of the revised plume?

CRC Response: This information will be provided to the CEC in a future response.

End of CRC's responses to CEC's Data Requests, Set 1 (TN# 269272).

Attachments 1-4

to

CRC's Data Responses to CEC's Data Requests,
Set 1 (TN# 269272)

CalCapture CCS Project

Attachment 1

Biologists Resumes

Cassandra Cortez QSP

Associate Biologist

10 years of experience · Bakersfield, California

Ms. Cortez has over thirteen years of experience with threatened, endangered, and other protected species while working in various biological settings including zoological, veterinary, and wildlife rehabilitation, with approximately nine of those years gained in consulting. During this time, Ms. Cortez gained hands-on experience working with and handling sensitive and protected species, including burrowing owl, golden eagle, and Swainson's hawk, under appropriate permits and guidance. Ms. Cortez has organized and performed special-status species protocol surveys, reconnaissance, and other pre-activity surveys for a variety of species in varying habitat types. She is also an experienced project manager, field lead, and construction monitor and has provided Threatened and Endangered Species Awareness Training. She has been responsible for implementing minimization and avoidance measures for projects including oil and gas, renewable energy, habitat restoration, water delivery infrastructure, and general construction within the San Joaquin Valley. Ms. Cortez has nine years of experience in environmental compliance and permitting. She has demonstrated her ability to navigate complex regulatory frameworks, ensuring adherence to both state and federal laws such as the Endangered Species Act, California Environmental Quality Act, and National Environmental Policy Act. Her expertise includes implementing permit conditions from various agencies, including the California Department of Fish and Wildlife, US Fish and Wildlife Service, and Regional Water Quality Control Board.

EDUCATION

Bachelor of Science in Biology, California State University, Bakersfield, Bakersfield, California, U.S.A., 2025

Member, California Native Plant Society, 2023 - Present

CERTIFICATIONS & TRAINING

First Aid/CPR/AED, HSI, Bakersfield, California, USA, 2025

Qualified SWPPP Practitioner (QSP), California Stormwater Quality Association, Bakersfield, California, USA, 2025

8 Hour HAZWOPER Refresher Training, Safety Unlimited, Inc., Bakersfield, California, USA, 2025

40-hour HAZWOPER Training, Compliance Solutions, Turlock, California, United States, 2023

Bumble Bee Field Course, Xerces Society; The Wildlife Society, Markleeville, California, United States, 2023

Small Mammal Trapping Workshop, The Wildlife Society - San Joaquin Valley Chapter, Bakersfield, California, U.S.A., 2023

Wetland Delineation Training Program, Wetland Training Institute, San Diego, CA, California, United States, 2022

MEMBERSHIPS

Member, The Western Section of The Wildlife Society, 2020-Present

Member, California Central Coast Chapter of The Wildlife Society, 2019 - Present

Lysa DuCharme



Associate Botanist

10 years of experience · San Diego, California

Lysa is a botanist specializing in floristics and restoration throughout California and the Mountain West. She is experienced with wilderness travel and fieldwork in remote areas, rare plant surveys, floristic studies, restoration, biological surveying and monitoring for utility and construction projects, nesting bird surveys, tree surveys, and report and technical writing. She assists with restoration, wetland delineations, environmental permitting and acts as a lead field botanist. Lysa is interested in botany, forestry, wetland delineation and wildfire rehabilitation.

EDUCATION

Bachelor of Science-Botany, Colorado State University, Fort Collins, Colorado, USA, 2015

Bachelor of Arts-Archaeology, Colorado State University, Fort Collins, Colorado, USA, 2015

CERTIFICATIONS & TRAINING

Certified Arborist, International Society of Arboriculture Certification No. WE-15585A, Long Beach, CA, 2024

California Plant Voucher Collecting Permit No. 2081(a)-24-104-V, CDFW, CA, 2024

40-Hr HAZWOPER, OSHA, Remote, CA, 2024

MEMBERSHIPS

Member, California Native Plant Society

Member, Western Chapter International Society of Arboriculture

PROJECT EXPERIENCE

OIL & GAS

Environmental On-Call Services | Confidential Investor Owned Natural Gas Utility | Southern California, California | Botanist and Arborist

Stantec has an MSA with a confidential gas company providing on-call resources and environmental services with a contract capacity of \$18M over 5 years. Lysa provides support for various projects associated with the client including tree surveys and evaluations, technical writing, permit assistance, restoration monitoring, and habitat and mitigation planning in Ventura, Riverside, and Orange Counties.

CalCapture Project | California

Lysa conducted rare plant and reconnaissance surveys for the project.

Buena Vista Hills Sidetrack Wells | California | Botanist

Lysa conducted rare plant and floristic surveys within the Buena Vista Hills Oilfield and located several locations of federally endangered Kern mallow (*Eremalche kernensis*).

ECOSYSTEM RESTORATION

SR-71/SR-91 Interchange | Riverside County Transportation Commission | California | Ecologist

Lysa monitors and guides crews on invasive plant removal and treatment regarding maintenance of riparian habitat and conducts restoration monitoring.

Mid County Parkway | Riverside County Transportation Commission (RCTC) | California | Ecologist

Lysa monitored and guided crews on invasive plant removal and treatment regarding maintenance of vernal pool habitat. Lysa prepared the Annual Report.

Los Alamos Ranch | Los Alamos, CA | Ecologist

Lysa developed a restoration mitigation plan to guide the management of the project area to reduce erosion, restore native habitat, and help protect water quality, per requirements from the Central Coast Regional Water Quality Control Board to mitigate for sedimentation onto a neighboring property which had occurred during the 2022/2023 winter rainy season.

Habitat Restoration and Monitoring | Confidential | California | Ecologist

Monitor restoration crews during invasive species removal and subsequent hydroseeding and container planting. Determine vegetation transects and collect data on percent cover and survivorship of container plants to evaluate success criteria achievements. Prepare Annual Reports summarizing restoration work and data analysis.

Bouquet Canyon Creek Recovery Project | Santa Clarita, California | Arborist

Lysa led the tree inventory efforts over a two-and-a-half-week period to document all trees within the restoration and roadway improvement areas. Lysa utilized GPS devices to document tree locations in areas of dense shrubs/trees, traveling through thickets and on uneven terrain, as well as along busy roadways. The effort concluded in documenting over two thousand trees on site.

RENEWABLE ENERGY, SOLAR

Buttonbush Solar Project | California | Botanist

Lysa conducted floristic and rare plant surveys along roadsides and in fields within the Project area. Lysa mapped species and completed CNDDDB forms for each rare plant occurrence, as well as mapped vegetation communities. Lysa assisted with phenology tracking and mapping for Crotch's bumblebee (CBB) host plants.

Bonanza Peak Solar Project | 174 Power Global | Charleston View, California | Botanist

Lysa conducted botanical surveys for 2,700-acres of desert landscape within the Pahrump Valley on the border of California and Nevada in Inyo County, CA for a proposed Solar Installation Project. Lysa mapped rare species as well as those protected under the California Desert Native Plants Act.

Overnight Solar Project | California | Restoration Ecologist

Lysa prepared a Revegetation and Rehabilitation Plan as part of the decommissioning phase for a 596-acre solar photovoltaic (PV) electricity generation and battery energy storage system (BESS) facility.

Stonewater Solar and Battery Energy Storage Project | Confidential private developer | California | Lead Botanist

Lysa was the lead botanist for rare species floristic surveys and reconnaissance surveys for a roughly 1,512-acre study area. Lysa prepared the Biological Resources Technical Report (BRTR) for the project.

Sandrift Storage | Desert Center, California | Wetland Delineator

Lysa conducted a jurisdictional waters delineation effort within a 277-acre study area in Riverside County, California. Prepared an Aquatic Resources Delineation Report assessing the potential for federal, state, and California Department of Fish and Wildlife jurisdictional waters.

Vidal Solar Project | Vidal Junction, California | Wetland Delineator

Lysa assisted with a wetland delineation of a 1,100-acre solar photovoltaic (PV) component and associated battery energy component in the Mojave Desert, San Bernardino County, CA.

DISASTER RECOVERY

Camp Hess Kramer | Wilshire Boulevard Temple | Malibu, Ventura County, California | Arborist

Lysa prepared a Tree Protection Plan, following County of Ventura tree ordinances, and assisted with ongoing tree reassessments in response to dynamic construction plans associated with reconstruction after the 2018 Woolsey fire.

East Palestine Train Derailment | East Palestine, Ohio | Environmental Scientist

Lysa worked as a consultant in support of the EPA and carried out daily air sampling and monitoring SOPs for VOCs and acrylates utilizing sorbent tubes, canisters, and badges.

Dixie/Caldor Wildfire Disaster Recovery | Northern California, California | Lead Biologist

Lysa managed a team of field biologists and conducted sensitive species and nesting bird surveys as part of the Dixie and Caldor Fire disaster relief efforts. Lysa monitored biological resources during structural debris and hazard tree removal to ensure construction contractor compliance with environmental regulations under CalOES, CalRecycle, FEMA, California Forest Practice Rules and when applicable, National Marine Fisheries Service (NMFS). Lysa provided recommendations during crew operations to protect watercourses and wildlife habitat and served as a point of contact (POC) for field biologists, lead and senior biologists, division supervisors, contractor crews, CalRecycle State representatives, and other project departments and government agencies. Lysa conducted desktop reviews and biological/waters site assessments and recommended BMPs to reduce any potential construction impacts.

Northern Complex Wildfire Disaster Recovery | Northern California, California | Biologist

Lysa worked as a consultant to support CalFire and FEMA wildlife cleanup of the Northern Complex fires. Lysa ensured crew compliance with the Project's Environmental Protection Plan (EPP) and applicable State and Federal laws/regulations. Lysa provided biological recommendations based on applied hydrological principles to protect water features via Best Management Practices (BMPs) for structural debris and hazard tree removal. Lysa monitored for sensitive species and nesting birds, conducted site assessments, conducted soil sampling, conducted air monitoring, managed data and QA/QC, and prepared technical reports.

TRANSMISSION & DISTRIBUTION

Cross-Tie 500kV Transmission Line Project | TransCanyon | Utah | Botanist

Lysa conducted floristic surveys for the presence/absence of ESA plant species and sensitive plant species defined by the Bureau of Land Management, U.S. Forest Service, and the state of Utah along a 214-mile right-of-way. Lysa identified and mapped occurrences of cacti and rare annual buckwheat within the Project area.

SDG&E Environmental Services | SDG&E | California | Biologist

Stantec holds a Master Services Agreement (MSA) (CW31891) with San Diego Gas and Electric (SDG&E). Lysa has conducted several assessments and surveys at site/pole locations throughout San Diego County for distribution implementing the SDG&E NCCP/HCP. She has conducted pre-activity and sensitive species surveys (including identifying host plants of Quino Checkerspot butterfly and Hermes copper butterfly, and identifying habitat for desert tortoise, burrowing owl, cactus wren, least bell's vireo, and California gnatcatcher), and a job-walk for constraints analyses.

BRIDGE CONSTRUCTION

South Vine Street Realignment and Bridge | Paso Robles, California | Biologist

Assisted in the preparation of Restoration Plans and Jurisdictional Waters Permits for California Department of Fish and Wildlife (CDFW) and Regional Water Quality Control Board (RWQCB) for the proposed realignment of South Vine Street in the City of Paso Robles.

STATE GOVERNMENT

Owens Valley Vegetation Monitoring | Los Angeles Department of Water and Power | Bishop, California | Botanist

Lysa conducted vegetation monitoring supporting four of the Department's Watershed Resources programs. Lysa employed line point and line intercept monitoring methods and utilized GPS devices to locate sites in areas of dense shrubs, traveling through thickets for more than a mile from the road in high temperatures to access sites.

FEDERAL GOVERNMENT

Modoc National Forest Rare Plant Surveys | Alturas, California | Botanist

Lysa worked seasonally at the USFS Alturas office and conducted rare and sensitive plant surveys and assisted with delineating wetlands. Lysa worked in remote areas on uneven terrain on a 4-10 schedule.

Seeds of Success Program | Palm Springs, California | Botanist

Lysa worked seasonally at the BLM Palm Springs field office and led plant identification using the Jepson Manual and other dichotomous keys, and managed seed collection protocols from species of restoration significance.

Seeds of Success Program | Denver, Colorado | Botanist

Lysa worked with the Denver Botanic Garden and Bureau of Land Management (BLM) to support the National Seeds of Success Program and managed all logistics and aspects of fieldwork. Lysa discovered potential plant populations for seed collection throughout the state of Colorado in support of the Project's commitment to providing quality native plant materials in high quantities to support and restore resilient ecosystems.

Dos Palmas Preserve Plant Restoration | Mecca, California | Restoration Ecologist

Lysa worked seasonally with the Palm Springs BLM field office and managed desert riparian/wash restoration plots in the Dos Palmas Preserve. Lysa monitored crews during container planting and watering events. Lysa collected and analyzed field data for use in Annual Reports.

Medicine Bow National Forest Rare Plant Surveys | Laramie, Wyoming | Botanist

Lysa worked seasonally at the U.S. Forest Service (USFS) Laramie office and conducted surveys for hydrophytic/wetland rare plants. Lysa mapped special status plant species coordinates with handheld GPS and ArcGIS Collector, assisted with delineating wet meadows and riparian areas for exclusion from timber felling activities, and characterized vegetation zones via dominant tree species.

RESEARCH

Mojave Plant Community Ecology | California | Restoration Ecologist

Lysa worked at University of California- Riverside (UCR) and designed protocols and implemented techniques for vegetation monitoring, restoration, and data analysis for a study on winter annuals in Joshua Tree National Park. Lysa keyed plants using the Jepson Manual and other dichotomous keys/guides and ran field experiments of plant neighborhoods and shrub facilitation effects for several focal species of winter annuals. Lysa established experimental plots at the Agricultural Operations field site at UCR to determine climatic effects, namely changes in precipitation, on herbaceous native species and their neighboring communities to determine if changes in precipitation timing/amount influence native species' ability to outcompete non-natives, or vice versa.

Vernal Pool Assessments | California | Restoration Ecologist

Lysa monitored vernal pool habitats and vegetative species in Riverside County. Lysa identified and collected seed from vernal pool species for restoration purposes and analyzed data sets on viable seed counts and overall plant biomass.

Mosquito Surveillance | Connecticut Agricultural Research Station | New Haven, Connecticut | Researcher

Lysa worked with the state's Agricultural Research Station and implemented SOPs for assembling and collecting mosquito traps for infectious disease research. Lysa identified mosquito species and characterized their respective wetland habitats to determine ecosystems with higher potential for West Nile Virus.

Bacterial Leaf Streak Identification Diagnostics | Colorado State University | Fort Collins, Colorado | Plant Pathologist

Lysa created a diagnostic tool kit to identify leaf bacterial streak (*Xanthomonas vasicola* pv. *vasculorum*) on corn in the USA using a multi-locus sequence alignment of six housekeeping genes, and the comparison of average nucleotide identity from a draft genome sequence were used to confirm phylogenetic relationships and classification of Xvv relative to other Xv strains.

WASTEWATER PUMP STATIONS

Pump Station D | California | Botanist

Lysa conducted a reconnaissance survey, vegetation mapping, and helped prepare the Biological Resources Technical Report (BRTR).

WATER DAMS & RESERVOIRS

Pacheco Reservoir Expansion Project | San Jose, CA | Botanist, Arborist

Lysa conducted floristic surveys and vegetation mapping which involved surveying buffer zones and areas of potential impact for rare plant species and mapping culturally significant, monarch host plants and sensitive plant communities. Additional tasks include Manual of California Vegetation (MVC) sampling and recording rare species for CNDDB. She also conducted sycamore tree health assessments to assess sensitive sycamore alluvial woodland habitat using an adapted relevé method. She also conducted sycamore tree health assessments to assess sensitive sycamore alluvial woodland habitat using an adapted releve method.

PUBLICATIONS & WHITEPAPERS

Diez, J., J. Schlauch, E. DuCharme, J. Collings, and S. Erskine. Germination Phenology Alters Species Coexistence Outcomes.. *Journal of Ecology*, 2024.

Lang, J. M., A. L. Pérez-Quintero, R. Koebnik, E. DuCharme, S. Sarra, H. Doucoure, I. Keita, J. Ziegler, J. M. Jacobs, R. Oliva, O. Koita, B. Szurek, V. Verdier, and J. E. Leach. 2019. A pathovar of *Xanthomonas oryzae* infecting wild grasses provides insight into the evolution of pathogenicity in rice agroecosystems. A pathovar of *Xanthomonas oryzae* infecting wild grasses provides insight into the evolution of pathogenicity in rice agroecosystems. *Frontiers*.. *Frontiers*, 2019.

Morse, K, T. Chester. 2019. *Malacothamnus enigmaticus* (Malvaceae), a new rare species from the desert edge of the peninsular range in San Diego County, CA. Keir Morse and Tom Chester. Madroño. Issue 3. (Illustrated figure 2, page 106: *M. enigmaticus* bracts and a dissected glomerule.). *Madroño*, 2019.

Lang, J. M., E. DuCharme, J. Ibarra Caballero, E. Luna, T. Hartman, M. Ortiz-Castro, K. Korus, J. Rascoe, T. A. Jackson-Ziems, K. Broders, and J. E. Leach. 2017. Detection and characterization of *Xanthomonas vasicola* pv. *vasculorum* pv. nov. causing bacterial leaf streak of corn in the United States. *Phytopathology*. Issue 11/ 1312-1321.. *Phytopathology*, 2017.

Senior Biologist

16 years of experience · Bakersfield, California

Logan has more than fifteen years of professional biological and environmental consulting experience. This includes experience conducting botanical surveys in multiple California plant communities. He has experience in developing and conducting biological research on a variety of botanical topics including physiology, community structure, and fire ecology. Logan has been recognized as a Certified Ecological Restoration Practitioner by the Society for Ecological Restoration. Logan has participated and lead restoration projects throughout southern and central California, successfully restoring more than 100+ locations across a variety of natural communities, including uplands, riparian, and wetland sites.

He is experienced in California plant identification using the Jepson Manual and other keys, as well as being familiar with botanical communities throughout California. Logan's professional survey experience includes threatened and endangered species surveys (giant kangaroo rat, short-nosed kangaroo rat, blunt-nosed leopard lizard, burrowing owl, kern mallow, slender mariposa lily, coast horned lizard, etc.) in the San Joaquin Valley, Los Angeles County, Orange County coast scrub, San Luis Obispo County, Santa Barbara County (Refugio and El Capitan State Parks) and Angeles National Forest. He is also a Level 2 Blunt nosed leopard lizard researcher.

Logan has experience in the preparation of permits for the U.S. Forest Service, Caltrans, Bureau of Land Management, and California Department of Fish and Wildlife, among other federal, state, and local agencies. He has coordinated and written Incidental Take Permits (2081), BA/BE Biological Resources reports, Biological Re

EDUCATION

BS, Biology, California State University, Bakersfield, California, 2010

38 Hour Army Corps of Engineers Wetland Delineation Training Program, Sacramento, California, 2012

Plant Science Training Program: Rare Plant Survey Protocols, California Native Plant Society, Walnut, California, 2013

Desert Tortoise Council, Introduction to Surveying, Monitoring, and Handling Techniques Workshop, Ridgecrest, California, 2012

The Wildlife Society: San Joaquin Valley Chapter, The Sensitive Small Mammal Species of the San Joaquin Valley Workshop, Bakersfield, California, 2010

CERTIFICATIONS & TRAINING

Certified Ecological Restoration Practitioner, Society for Ecological Restoration, BAKERSFIELD, California, United States, 2023

Temblor Legless Lizard, CDFW MOU (Independent Researcher), Sacramento, CA, 2025

PROJECT EXPERIENCE

OIL AND GAS PIPELINES

Mammoth Wash Pipeline Repair | Kinder Morgan | California | Biologist

Logan oversaw biological surveys, permitting, and environmental compliance activities for this pipeline repair project within an ephemeral desert wash in Imperial County, CA.

Line 2000 2018 ILI Repairs | PAALP | California | Senior Biologist

Logan scoped and developed permits for numerous pipeline Anomaly Repair Projects for a large crude oil pipeline. These projects were located on public and private land, including National Forest and Department of Water Resources Property. Logan led an interdisciplinary team to develop dewatering engineering designs, USACE, CDFW, and SWRCB permitting, and SHPO consultations. Restoration plans and scopes were developed for DWR properties and National Forest Lands. Logan served as technical expert and project manager for the projects, including construction and restoration.

On-going Ecological Restoration Projects | Confidential Large Public Utility | California | Senior Biologist

Logan served as a senior restoration ecologist for more than a dozen restoration projects for a natural gas pipeline operator in the Angeles National Forest. Logan provided senior level technical guidance and project management for numerous HMMP plans associated with pipeline construction and repairs in coastal sage and chaparral habitats.

On-Going Ecological Restoration | Confidential Private Utility | California | Senior Biologist

Logan performed restoration management, planning, and implementation services for a crude oil pipeline operator on more than 80 individual restoration locations covering more than 40 acres in upland sage scrub, chaparral, and riparian habitats within the Angeles National Forest. Logan assisted in the development of the restoration plans, project management and coordination, installation and implementation, as well as subsequent maintenance and monitoring of these locations.

Alameda and Sepulveda Incident Response | PAALP | Long Beach, California | Senior Biologist

Logan was part of a team of biologists and scientists that conducted biological survey and biological monitoring during the Alameda and Sepulveda oil release. Logan conducted numerous hours of biological monitoring and waste management monitoring.

Refugio Incident Response | PAALP | Santa Barbara, California | Biologist

Logan was part of a team of biologists that conducted biological surveys, wetland delineations, and biological monitoring during the Refugio oil release. Logan conducted numerous hours of biological monitoring and served as restoration ecologist for coastal restoration associated with the release.

Line 56 DWR Crossing | PAALP | Kern County, California | Senior Biologist

Logan led a team of biologists to survey and permit project activities associated with a pipeline crossing over the California Aqueduct. Survey included Tipton Kangaroo rat trapping, San Joaquin kit fox and antelope squirrel surveys, burrowing owl, and blunt-nosed leopard lizard surveys. Logan drafted the successful development and submittal of a CDFW Section 2018 ITP for San Joaquin Antelope Squirrel, Tipton Kangaroo Rat, and San Joaquin Antelope squirrel. Logan also drafted and coordinated DWR encroachment permits and implemented applicable USFWS BO coverage for the project.

Pipeline Safety Enhancement Program | Confidential Large Utility Provider | Southern California, California | Senior Biologist - Wetland Resources

Logan has provided senior biological resources support for a large utility provider in southern California. He has conducted site reviews evaluating biological and jurisdictional waters constraints for several project sites in Riverside, Los Angeles, and Orange Counties.

Oil and Gas Pipeline and Development Projects (Multiple) | California

Logan worked and lead teams of biologists to coordinate special status species surveys, monitoring, and jurisdictional waters delineations for numerous projects in western Kern County. Logan conducted biological, botanical, and wetland delineation surveys for multiple project locations. Species of note include San Joaquin Kit Fox, San Joaquin Antelope Squirrel, Blunt-nosed leopard lizard, Tipton, short-nosed, and Giant kangaroo rats, and burrowing owl.

Confidential Carbon Capture Project | California

Logan has fulfilled the role of lead biologist for biological surveys and technical documentation efforts in support of a proposed carbon capture and sequestration (CCS) project within the Elk Hills near Bakersfield in Kern County, CA.

Confidential Carbon Capture and Sequestration Project | Senior Biologist

Logan served as a senior biologist during the project scoping and permitting phase, contributing to the draft BRTR, BA, and applicable CEQA sections. He provided senior level jurisdictional waters permitting, ESA and CESA compliance support, and conducted more than 40 hours of direct TLL survey work under the supervision of Dr. Ted Papenfuss or authorized researchers under a valid Memorandum of Understanding for TLL. In support of these projects Logan also conducted TLL surveys and site visits at reference locations and other presence/absence surveys for mitigation purposes, with more than 8 additional hours of direct field survey experience, again under Dr. Papenfuss. Logan has 6 confirmed observations of the species.

Aera Energy Pipeline and Development Projects (Multiple) | Aera Energy | California | Project Manager/ Senior Biologist

Logan worked and lead teams of biologists to coordinate special status species surveys, monitoring, and jurisdictional waters delineations for numerous projects in western Kern County. Logan conducted biological, botanical, and wetland delineation surveys for multiple project locations. Species of note include San Joaquin Kit Fox, San Joaquin Antelope Squirrel, Blunt-nosed leopard lizard, Tipton, short-nosed, Temblor Legless Lizard, Giant kangaroo rats, and burrowing owl.

**Line 63 3 ORR Repairs | Castaic, California |
Botanist/Biologist**

Logan assisted in the preparation of Categorical Exemption NEPA document in preparation for construction within the Angeles National Forest. Logan worked closely with USFS forest service personnel in the development and implementation of a Habitat Restoration and Revegetation Plan for the three construction sites. He also performed required botanical and wildlife surveys at all project sites and designed survey protocol in compliance with USFS requirements.

OEHI CO2 Enhanced Oil Recovery | Tupman, California | Biologist/Botanist

Logan assisted in the preparation of an Environmental Impact Report as part of California Environmental Quality Act document preparation. Logan conducted a technical study on a proposed CO2 pipeline for which more information was required. Logan co-wrote the biological impacts section of the EIR and also performed technical review of additional impact sections.

**Line 63 Re-Route/Consent Decree | California |
Botanist/Biologist**

Logan worked with a large team of technical experts to scope, develop, and coordinate project permitting requirements for a large multifaceted pipeline repair project spanning more than 30 miles. Logan conducted biological and wetland delineation surveys for multiple project locations. Logan developed the Biological Resources supporting documents and wrote the relevant NEPA and CEQA resource sections. Logan provided technical review and support for the water resources permits as well as the special use application applications for several federal and state agencies. Logan developed and implemented a restoration and revegetation plan for the project and assisted in the development of both project specific and general vegetation/restoration monitoring programs and survey methods.

Line 2000 Pipeline Anomaly Repairs | Castaic, California | Biologist/Botanist

Logan conducted botanical and wildlife surveys for pre-construction habitat assessment and the possible presence of any threatened, endangered, or otherwise protected species for multiple anomaly sites. He also completed 299 special use permits for the U.S. Forest service and provided onsite biological training and monitoring for work crews.

**Santa Margarita Ranch Pipeline Remediation |
Rancho Santa Margarita, California | Associate
Scientist**

Logan coordinated and conducted biological resource surveys and wetland and "other waters" delineations in support of a pipeline remediation project. Logan wrote the Biological Resources Technical Report and Preliminary Jurisdictional Delineation report in advance of potential permitting requirements.

**OEHI Gunslinger Exploration Project, McKittrick |
Kern County, California | Botanist, Field Team Lead**

Logan designed and conducted comprehensive floristic surveys of several sections in preparation for the development of a CEQA Mitigated Negative Declaration and the associated CDFG 2081 Incidental Take Permit. These surveys identified 8 special status plant species including Kern mallow, oil nestrow, and recurved larkspur.

Logan also assisted in the successful live trapping and relocation of 80+ giant kangaroo rats in compliance with the provisions set forth in the CDFG Incidental Take Permit and BLM mitigation requirements. Logan performed field lead duties during project construction to successfully maintain CEQA/NEPA compliance.

Midway-Belridge Pipeline Replacement | Taft, California | Biologist/Botanist

Logan has performed pre-construction surveys for threatened and endangered species (blunt-nosed leopard lizard, san Joaquin kit fox, S.J. antelope squirrel, giant kangaroo rat, etc.) as well as rare plant surveys over the right of way areas scheduled to be disturbed. He has also assisted in the development of a biological assessment/biological evaluation and the preparation of permits for U.S. Fish and Wildlife Service, California Department of Fish and Game, and the Bureau of Land Management. Logan has also assisted in the preparation of California Environmental Quality Act (CEQA) documentation for the project. Specifically, Logan co-wrote the biological impacts section of the mitigated negative declaration. Role: Biologist/Botanist | Cost: unknown | Dates involved: 04/2011-09/2011

Line 31X Pipeline Anomaly Repairs | Buttonwillow, California | Biologist/Botanist

Logan conducted botanical and wildlife surveys for pre-construction habitat assessment and the possible presence of any threatened, endangered, or otherwise protected species for multiple anomaly sites. He provided onsite biological training for all crew present on site. Logan also performed biological monitoring during repair activities to ensure no take of listed or sensitive species and minimal impacts to other species occurred.

**Line 63 Anomaly 89, Sylmar | California | Associate
Scientist**

Logan provided permitting and project development support for a pipeline anomaly repair within a perennial stream bed in southern California. Logan drafted the Biological Resources Technical report, performed a preliminary delineation of wetlands and other waters of the United States and California, drafted the preliminary jurisdictional report, applied for and received RWQCB 401 and CDFW 401 and 1600 permits as well as USACE NWP 404 coverage. Logan assisted in the development of a Project Habitat Mitigation and Monitoring Plan, and coordinated site restoration.

**Line 2000 Anomaly Repairs 8-50 | Castaic, California
| Compliance Specialist**

Logan conducted pre-activity surveys and baseline analysis for 20 anomaly repairs in the Angeles National Forest, Logan lead the team tasked with completing USFWS Section 7 Consultations, BA/BE's, 401 certification, 404 NWP permitting, and CDFG 1600 permitting. Logan conducted wetland and "other waters" delineations for 404 and 401 compliance, and served as technical lead for the protocol level rare plant surveys (ANF) and served as the point of contact for all regulatory concerns. In conjunction with the ANF, Logan developed and implemented a restoration and revegetation plan for the project and assisted in the development of both project specific and general vegetation/restoration monitoring programs and survey methods.

Line 63 and Line 2000 On-going Restoration Angeles National Forest | Arcadia, California | Associate Scientist

Logan performed restoration management, planning, and implementation services for a pipeline operator on more than 15 individual restoration locations in the Angeles National Forest. Logan assisted in the development of the restoration plans, project management and coordination, installation and implementation, as well as subsequent maintenance and monitoring.

OEHI EOR Amendments | California | Associate Scientist

Logan coordinated and conducted biological resource surveys and wetland and "other waters" delineations in support of proposed project scoping changes implemented by the client. Logan wrote the Biological Resources Technical Report and Preliminary Jurisdictional Delineation report in advance of potential permitting requirements. He also wrote amendments for the EA and ISMND compliance documents.

OEHI Non-Unit Exploration Taft | California | Biologist

As a level 2 blunt-nosed leopard lizard researcher Logan led survey teams during adult and hatchling surveys. Logan assisted in the development of the Biological Assessment (BLM) as served as a technical advisor during the project.

Line 2000 Osito Canyon Geotechnical Borings | Plains All American Pipeline LP | Castaic, California | Biologist/Botanist

Logan performed pre-construction biological assessments for geotechnical borings near line 2000 at Osito Canyon in the Angeles National Forest. He performed biological surveys for threatened and endangered plant and animal species as well as nesting bird surveys in preparation for ground disturbance. He also assisted in the development of mitigation measures to inhibit the spread of noxious weeds, using innovative and inexpensive techniques.

Line 2000/Black Plastic Horizontal Drill Project, Site Restoration | Plains All American Pipeline LP | Castaic, California | Biologist/Botanist

Logan has performed biological assessments and has supervised a restoration crew along portions of the right of way disturbed by construction activities in 2008. Additional duties include riparian habitat restoration and monitoring the success criteria for restoration goals. Logan has organized and implemented survey protocol for monitoring activities in accordance with USDA forest service requirements.

Santa Clara River HDD | Santa Clarita, California | Associate Scientist

Logan worked with a large team of technical experts to scope, develop, and coordinate project permitting requirements for a pipeline replacement project crossing the Santa Clara River in the City of Santa Clarita. Logan drafted the Verification Request Letter for submittal to the reviewing agencies as part of the Natural Management River Management Plan requirements. Logan participated in the pre-construction surveys and Habitat Mitigation and Monitoring Plan development for the project, including the replacement of Riparian and in-stream wetland habitats in accordance with NRMP standards and requirements.

Bay Area Production Line (BAPL) Pipeline Repairs | Sacramento, California | Biologist/Botanist

Logan conducted pre-construction botanical and wildlife assessments of several repair locations. He determined areas of concern with regard to listed or sensitive species. Logan performed biological monitoring operations during excavation and repair activities to insure no take of listed species occurred during the project. He also assisted in the development of post-construction client reports and follow-up as required by State and Federal permits.

WATER INFRASTRUCTURE

Friant Kern Canal Middle Reach Subsidence Correction Project | Department Of Interior/Kern-Kings County | California | Senior Biologist

Logan worked with a team of scientists to scope, develop, and coordinate Permit required measures for construction of the Friant – Kern Canal project. Logan worked with a multidisciplinary team of biologists and scientists to develop and implement measures to protect sensitive wildlife species pre- and post-construction. This included developing Buena Vista Lake Ornate Shrew survey protocol, nesting raptor and bird surveys, Burrowing owl, and San Joaquin kit fox Pre-construction survey. Logan lead the biological field team and coordinated directly with client and construction personnel to implement all required avoidance measures. Logan also provided senior technical support for USFWS agency consultations and other regulatory guidance associated with the project.

Arroyo Simi Culvert Replacement Project | Simi Valley, California | Senior Biologist

Logan worked and lead a team of biologists conducting fish relocation efforts for arroyo chub during dewatering activities for required repairs in Arroyo Simi. Logan worked carefully to implement the dewatering plan, serving as field lead and making in-field changes to facilitate maximum efficacy of the relocation and dewatering efforts. Logan and team successfully relocated more than 150 arroyo chub during the course of the project.

COMMUNITY DEVELOPMENT

Camp Hess Kramer | Wilshire Boulevard Temple | Malibu, Ventura County, California | Senior Biologist

Logan is a senior Biologist overseeing tree surveys, plant and wildlife surveys, and an aquatics resources delineation in support of this camp rebuild project; the camp was nearly destroyed in the Woolsey Fire. Logan is also an author for the preparation of the Ventura County Initial Study Biological Assessment for the project.

RENEWABLE ENERGY

Glasspoint Solar Site Assessments | Glasspoint Solar | California | Biologist

Logan assisted in the site assessments an desktop analysis of multiple proposed solar site locations in Bakersfield and Kern County. Logan assessed land ownership, zoning, habitat, endangered species concerns, and potential jurisdictional waters. Logan provided reports documenting findings and provided the client with guidance on path forward and potential permitting issues associated with each site.

Vidal Solar Project | Confidential Solar Client | California | Senior Biologist

Logan led the team that developed restoration plans for county and state permitting requirements. The plans included a temporary impacts restoration plan designed to mitigate for temporary impacts to Waters of the State and CDFW Jurisdictional Waters, as well as a Succulent Salvage (to meet county and state CDNPA requirements) and Decommissioning-phase restoration plan.

Overnight Solar Project | Confidential Solar Client | San Bernardino, California | Senior Biologist

Logan led the team that developed a restoration and salvage plan for county and state permitting requirements. Logan's team developed a Succulent Salvage (to meet county and state CDNPA requirements) and Decommissioning-phase restoration plan to support state and county permitting requirements.

Ariella Solar Project | Confidential Solar Client | California | Senior Biologist

Logan and team conducted wetland delineation assessments for a 1000+ acre proposed solar facility near Alpaugh, California. Logan and team conducted field surveys, desktop analysis, and drafted an Aquatic Resources Delineation Report. The team also coordinated with NRCS, CDFW, and several water districts and landowners to identify and classify certain uncommon aquatic features subject to various state and federal water resources and flood regulations.

Confidential Large Solar Project (Western Kern County) | Confidential Solar Client | California | Senior Biologist

Logan led a team that conducted that coordinated and conducted protocol surveys for a BNLL, SJAS, TKR/GKR, SJKF, and BVLOS for a 10,000 + acre proposed solar facility near Buttonwillow, California. The team identified suitable habitat and conducted protocol-level surveys within those project areas, including pedestrian surveys for BNLL and SJAS, modified camera/scent station arrays for SJKF, camera trapping for BVLOS, and physical trapping for TKR/GKR. The surveys successfully identified TKR/GKR and SJAS.

ROADWAYS

ET Access Road Maintenance Program | Kern and San Luis Obispo Counties, California | Biological Services Manager/Support

Logan provides a variety of services for the ongoing Access Road Maintenance Program, including managing contract biological resources work for the southern work areas. Logan provides both project management and on-the-ground support including surveys, Agency coordination, and preparation of multiple reports and permits for a variety of agencies including BLM, USFS, CDFW, RWQCB, and USACE. Role: Biological Services Manager/Support | Cost: unknown | Dates involved: 03/2017-Present

Calaveras County Road Paving/Sealing Projects | Caltrans, County of Calaveras Roads Department | Valley Springs, California | Biologist/Botanist

Logan conducted botanical and wildlife surveys during pre-construction habitat assessments in preparation for NESMI documents and other permit preparation. In addition to conducting surveys, Logan wrote the NESMI and assisted with addressing all Cal Trans comments. He determined areas of concern with regard to listed or sensitive species and assisted in the development of minimization/mitigation and avoidance measures. Role: Biologist/Botanist | Cost: unknown | Dates involved: 08/2018-08-2010

Mid County Parkway Mitigation Sites | Riverside
County Transportation Commission | California |
Senior Biologist

Logan served as Lead Restoration Ecologist for two habitat restoration projects. The first is for a habitat restoration project near Lake Perris in Riverside County, which includes native grasslands, atriplex scrub, and vernal pools with listed plant species. Stantec oversees all project maintenance and monitoring. The second is a riparian restoration project near Redlands in San Bernardino County, along a section of San Timoteo Creek with a focus on the least Bell's vireo migratory songbird.

SR71/SR91 Interchange Improvement Restoration
Sites | Riverside County Transportation Commission |
California | Senior Biologist

Logan is serving as Lead Restoration Ecologist for riparian and wetland restoration sites associated with the SR71/91 Interchange Improvement Project. Stantec overseas a team of restoration specialists conducting all project installation, maintenance, and monitoring.

PASSENGER RAIL TRANSIT

California High Speed Rail D-B Project Construction
Package 4 | Fresno to Bakersfield, California | Project
Botanist

Logan is the Project Botanist for the Fresno to Bakersfield Construction Package 4 section. He developed the project weed control plan, restoration plans, and coordinates with both agency and California High Speed Rail authority representatives on botanical issues, and leads all botanical work for the CP4 section Design Builder. He is also a General biological monitor for Tipton Kangaroo rat, San Joaquin kit fox, and San Joaquin antelope squirrel for the project. Role: Project Botanist | Cost: | Dates involved: 06/2016-ongoing

Senior Biologist / Project Manager

29 years of experience · Long Beach, California

Stan has worked both in the public sector as a federal biologist and in the private sector as a biological consultant. Stan was a fisheries biologist for the National Marine Fisheries Service Protected Resource Division's Southern California Office, where he conducted Endangered Species Act Section 7 consultations and conservation planning for endangered Southern California steelhead. With 10 years in service as a federal biologist, Stan brings accredited expertise with federally listed fish species in Southern California, as well as native fish species life history, habitat restoration, and regulatory processes.

EDUCATION

Master of Science, Humboldt State University/Natural Resources/Fisheries Biology, Arcata, California, United States, 2003

Bachelor of Arts, University of California Santa Barbara/Aquatic Biology, Santa Barbara, California, United States, 1989

CERTIFICATIONS & TRAINING

Caulerpa taxifolia Identification Certification, National Marine Fisheries Service Caulerpa Control Protocol, Long Beach, California, United States, 2024

Level II California Red-legged Frog Field Workshop; The Wildlife Project, Sacramento, California, United States, 2017

Wetland Delineation Training for U.S. Army Corps of Engineers Methodology; Richard Chinn Environmental Training Program, San Diego, California, United States, 2011

MEMBERSHIPS

Senior Biologist Member, American Fisheries Society

PROJECT EXPERIENCE

BIOLOGICAL MONITORING

Sixth Street Viaduct Project Biological Monitoring | City of Los Angeles | Los Angeles, CA, USA | Project Manager

The City of Los Angeles is replacing the 6th Street Viaduct over the Los Angeles River and U.S. Highway 101. Stan performed nesting bird surveys and bat surveys on the old viaduct and managed the installation of bat exclusion devices on the old viaduct prior to demolition. He also performed biological monitoring during demolition to ensure no bats or nesting birds were harmed. At the request of the California Department of Fish and Wildlife, he managed the installation of alternative bat roosting habitat and monitored bat habitat enclosures placed on adjacent bridges for roosting bats. He drafted reports summarizing bat surveys, bat exclusionary devices, and monitoring results for alternative bat habitat enclosure usage by bats. During the current construction of the new viaduct, he is performing ongoing nesting bird surveys, construction monitoring, permit compliance monitoring, Section 401 permit renewals, and drafting project reports for the Regional Water Quality Control Board and California Department of Fish and Wildlife.

**Riverside Drive Bridge Near Zoo Drive Bridge
Rehabilitation and Widening | City of Los Angeles |
Glendale | Project Manager/Senior Biologist**

The City of Los Angeles widened and rehabilitated the historic Riverside Drive Bridge over the Los Angeles River. Stan conducted the Wetland Delineation, prepared the Wetland Delineation Report, prepared the Natural Environment Study, conducted design plan checks, and coordinated project regulatory permitting. Stan also performed pre-construction biological surveys, including fish surveys, western pond turtle surveys, bat surveys, nesting bird surveys, and wildlife surveys. Stan drafted the Fish and Turtle Relocation Plan and performed rescue and relocation of fish and amphibian species out of the project area during water diversion and construction activities. Stan also performed construction monitoring and permit compliance monitoring during construction. Stan worked with CDFW to amend the Section 1602 Streambed Alteration Agreement to change the mitigation requirements from offsite to onsite mitigation, conducted mitigation monitoring in the construction area and vicinity, and drafted the yearly mitigation monitoring reports for CDFW.

**Bowtie Parcel Restoration | The Nature Conservancy
| Los Angeles County, California | Senior Biologist**

The Nature Conservancy, in partnership with California State Parks, is restoring an 18-acre strip of land located on the east bank of the Los Angeles River in northeast Los Angeles to transform the railroad freight yard brownfield into a natural public green space for outdoor recreation and public access along the Los Angeles River. Stan conducted a habitat assessment and biological resource surveys on the Bowtie Parcel and in the adjacent Los Angeles River. Stan also performed a bat habitat assessment and bat evening emergence surveys. Stan also managed the drafting of the Biological Resources Technical Report for the project.

ENVIRONMENTAL ASSESSMENTS

**Diablo Canyon Power Plant Intake Cove Dredging
Project | Pacific Gas and Electric Company (PG&E) |
California | Senior Biologist**

Pacific Gas and Electric Company (PG&E) proposed to dredge accumulated sediment from the Intake Cove of the Diablo Canyon Power Plant to ensure continued power plant operations (Project). To implement the Project, the Pacific Gas and Electric Company is applying for a federal permit from the U.S. Army Corps of Engineers. Mr. Glowacki drafted the biological sections of the Environmental Assessment for the Stantec Team, and addressed comments received from PG&E. The EA was approved by PG&E for permits required by the U.S. Army Corps of Engineers.

BIOLOGICAL SURVEYS

**County of Santa Barbara Orchard Project | Oak Creek
Company | Goleta, CA, USA | Senior Biologist**

The Project involves rezoning of 65-acres of agricultural land to residential and the construction and operation of approximately 1,150 residential units in an area of Goleta. Stan led the biological surveys on the parcel, catalogued all plant and wildlife species, and completed the jurisdictional assessments on the parcel. Stan also completed the Biological Resources Assessment Report for the project.

WILDLIFE SURVEYS AND STUDIES

**City of Glendale Biogas Renewable Generation
Project | City of Glendale | Glendale, California, USA |
Senior Biologist**

The City of Glendale proposes to utilize landfill methane gas from the Scholl Canyon Landfill to generate renewable energy in the form of electricity. Stan performed a nesting bird survey of the areas near the Proposed Project facilities and drafted the Nesting Bird Survey Memo. Stan also performed a daytime bat habitat assessment and an evening bat emergence survey, which included recording of bat calls, and drafted the Bat Habitat Assessment and Survey Results Memo. Both surveys were required by the Mitigation Monitoring and Reporting Plan and the EIR for the Project.

WETLAND DELINEATION AND PERMITTING

**Hellman Ranch Los Cerritos Wetlands Waterline
Repair Project | City of Seal Beach | Seal Beach,
California | Senior Biologist**

Stan lead the reevaluation and re-surveys of the project site for an expanded project footprint. The Project involved resurveying the Project Area within and adjacent to the Los Cerritos Wetlands, updating the Aquatic Resource Delineation and Jurisdictional Wetland Delineation, and updating the Biological Resource Technical Report which were used for the Project Permitting process.

**Line 2000 Span Maintenance | Confidential Utility
Client | San Bernardino County, California | Senior
Biologist**

In conducting maintenance along its pipeline in Chino Hills State Park in San Bernardino County, Stan performed a jurisdictional delineation and riparian vegetation mapping at several pipeline spans along the pipeline corridor. Stan also drafted the Jurisdictional Delineation Report to support the project permit applications for the Regional WQCB and the CDFW.

**Bolsa Avenue Bridge Preventive Maintenance Project
| City of Huntington Beach | Huntington Beach, CA,
USA | Environmental Surveys and Project Permitting**

The City of Huntington Beach is conducting preventive maintenance on the Bolsa Avenue Bridge over the Westminster Channel in Huntington Beach, California. The maintenance includes replacement of the concrete barriers along the bridge, replacement of the joint seals along the sidewalks, removing and replacing unsound concrete, and restoring the joint seals along the expansion joints. Stantec Biologist Stan Glowacki performed a biological resource survey around and beneath the bridge, and a jurisdictional wetland delineation within the project area and vicinity. Stan also completed a Biological Resources Memo and an Aquatic Resources Survey Report and Preliminary Jurisdictional Delineation Report for the City. Stan also prepared the Waste Discharge Requirements (WDR) Permit Application for the Regional Water Quality Control Board (RWQCB) and coordinated with the RWQCB to attain the WDR Permit for the project.

**WETLAND DETERMINATION AND
DELINEATION**

**State Route 91 Multi-Asset Project, Segment 3. La
Palma Avenue to SR-91/SR-55 Separator | California
Department of Transportation District 12 | Orange
County, California | Senior Biologist/Field Biologist**

Caltrans District 12 proposes to rehabilitate roadway pavement, reconstruct drainages, and implement various highway improvements on State Route 91 (SR-91) between La Palma Avenue overcrossing to the SR-91/State Route 55 separator in Orange County. Stan managed and performed project area biological surveys and performed jurisdictional delineations in the drainages throughout the project area. Stan also managed the drafting of the Jurisdictional Delineation Report.

**Lucerne Valley Solar Site Project | Convergent
Energy | Lucerne Valley, California | Lead Biologist**

Convergent Energy proposes to create a Solar Collector Project in San Bernardino County. Stan managed the aquatic resource surveys and performed project area jurisdictional delineations in the drainages throughout the 150-acre project area. Stan also managed the drafting of the Jurisdictional Delineation Report.

**Shaver Summit Pressure Limiting Station Redesign |
Confidential Utility Client | Riverside County,
California | Senior Biologist**

In rural Riverside County, this project serves to modify the existing Shaver Summit Pressure Limiting Station facility to meet current standards associated with pipeline corrosion and pipeline safety. Stan performed pre-construction aquatic resource surveys, terrestrial habitat surveys for desert tortoise, and nesting bird surveys. He also drafted the Biological Assessment for the Section 7 Consultation and drafted the project permit applications for the Regional WQCB and the CDFW.

**Arroyo Simi Storm Drain Aquatic Surveys | City of
Moorpark | Ventura County, California | Senior
Biologist**

The City of Moorpark is reconfiguring several drainages along Arroyo Drive in eastern Ventura County near Arroyo Simi. Stan performed an aquatic resource survey and wetland delineation within native riparian and wetland habitats adjacent to Arroyo Simi and a residential mobile home park. Stan drafted the Aquatic Resource Delineation Report and the Biological Resources Technical Report for the City to be used by resource agencies for project permitting.

**Santa Clara River Estuary Pre-Construction
Assessment Program for Ventura Water Pure | City of
Ventura | Ventura, California | Senior Biologist**

The City of Ventura is implementing a pre-construction assessment program for the Ventura Water Pure project to conduct baseline studies and collect data to enhance the ecosystem of the Santa Clara River Estuary. Stan is assisting the City with fish surveys and fish population monitoring for endangered Southern California steelhead, threatened tidewater goby, and other native and non-native fish species within the estuary. Stan is also assisting the City with coordination with the CDFW and other resource agencies, and estuary monitoring data analysis.

PRESENTATIONS

Santa Clara River Estuary: Fish Assemblage and Diversity. *American Fisheries Society Cal-Neva Chapter Annual Meeting: Long Beach March 2023*, 2023.

Hannah Hart

Associate Biologist

9 years of experience · Ventura CA, California

Hannah graduated from the University of San Francisco in 2016 with a B.S. in Environmental Science. Hannah has been in environmental consulting since 2017, and her experience includes performing field reconnaissance surveys, wildlife surveys, performing construction and permit compliance monitoring at construction areas, and assisting with jurisdictional wetland delineations. Hannah is also proficient with preparation of biological resource technical reports and aquatic resource delineation reports, and associated tasks including database research, compiling data on species' habitat and potential to occur in project areas, and writing regulatory requirement sections. Hannah is also experienced with preparing regulatory permit applications, including Section 404, Section 401, and Section 1602 permits, and compliance with state and federal environmental regulations for NEPA and CEQA related projects within California.

EDUCATION

Bachelor of Science, University of San Francisco,
San Francisco, California, United States, 2016

CERTIFICATIONS & TRAINING

California Stormwater Quality Association, Qualified
SWPPP Practitioner, Los Angeles, California, 2025

PROJECT EXPERIENCE

WATER MANAGEMENT

Pedley Spreading Grounds Enhancement Project |
Pomona, California | Biologist

Hannah has assisted with the Crotch's Bumble Bee surveys and report and the general plant surveys of the Pedley Spreading Grounds Enhancement Project.

ELECTRICAL

Confidential Utility Environmental Review |
Confidential Utility Provider | Southern California,
California | Subject Matter Expert; Biologist

Hannah conducts biological and waters desktop reviews for utility projects within Southern California. The reviews include research of potential impacts to endangered, threatened, and candidate species, critical habitat, sensitive habitat, and wetlands and waters that could be present in the work area and provides client approved avoidance and minimization measures.

OIL AND GAS PIPELINES

Pipeline Hydrotest | Confidential | Mission Viejo,
California | Associate Biologist

Hannah wrote the Natural Resources section of the Detailed Environmental Report and conducted the associated biological field survey. The Project's main scope is to hydrotest approximately 9.9 miles of 30-inch transmission lines. The Mission Viejo Test pipeline segment will be isolated from Lake Forest to San Juan Capistrano.

Pipeline Hydrotest and Replacement | Confidential |
Moreno Valley, California | Associate Biologist

Hannah assisted with the biological field survey for the Detailed Environmental Report (DER); she also reviewed the DER. The Project scope includes approximately 270 feet of pipe replacement in Corona, approximately 2,291 feet of pipeline hydrotest in Riverside, and approximately 107 feet of pipe replacement in Moreno Valley, California.

Pipeline Hydrotest | Banning, California | Associate
Biologist

Hannah wrote the Natural Resources section of the Detailed Environmental Report and conducted the associated biological field survey. The Project's primary scope is to hydrotest approximately 1.7 miles of transmission lines in Banning, Riverside County.

Pipeline Hydrotest | Confidential | Newport Beach,
California | Associate Biologist

Hannah wrote the Natural Resources section of the Detailed Environmental Report, conducted the pre-construction survey, was the environmental/biological monitor on site during construction, and completed the post-construction survey. A 12" permanent bypass line will be installed for the Project; two (2) new stopples will be installed to tie in the new 12" bypass line. This assembly will be hydro tested in accordance with the applicable gas standards.

Pipeline Hydrotest | Confidential | Associate Biologist;
QSP

Hannah wrote the Natural Resources section of the Detailed Environmental Report, conducted the pre-construction surveys, was the environmental/biological monitor on site during portions of construction, and was the Qualified Stormwater Practitioner for the site. The Project proposes to conduct hydrostatic testing of approximately 2.2 miles of 30-inch transmission line in San Juan Capistrano and Dana Point, California.

Pipeline Hydrotest | Fontana, California | Project Biologist

Hannah conducted the pre-construction site visit and is the onsite construction monitor during construction. The project involves hydrotesting approximately 2,700 ft of existing 8" pipe and approximately 1,500 ft of existing 10" pipe. The 8" and 10" test sections will be connected via a jumper and will be tested together in one hydrotest

Valve Enhancement | Confidential Utility Company | Los Angeles, California | Biological Monitor

Hannah conducted the pre-construction nesting bird survey and was the environmental/biological monitor on site during construction. The Project included installation of line break cabinet, meter panel, SCADA cabinet, antenna/radio pole, sense lines, and conduit/tubing.

Restoration Monitoring within Angeles National Forest | California | Biologist

Hannah assists with the quarterly data collection of restoration sites throughout the Angeles National Forest consisting of vegetative cover estimates and species composition of native and nonnative species.

Mammoth Washout Pipeline Repair Project | SFPP, L.P. | California | Project Biologist

Hannah conducted the Year 1 and Year 2 post-construction monitoring and wrote the Year 1 and Year 2 Post-Construction Monitoring Technical Memorandums. The Project included pipeline repair.

Hydrostatic Testing | Confidential Utility Provider | California | Project Biologist

Hannah has assisted with the burrowing owl general and focused surveys, the Burrowing Owl Survey Memorandum, the Los Angeles Pocket Mouse trapping, the Los Angeles Pocket Mouse Trapping Memorandum, the coastal California gnatcatcher protocol survey, and the Coastal California Gnatcatcher Protocol Survey Memorandum. The project involves hydrostatic testing of six miles of pipeline.

Valve Installation and Automation | Confidential Utility Provider | Covina, California | Biological Monitor

Hannah conducted the pre-construction survey, was the environmental/biological monitor on site during construction, and completed the post-construction survey. The Project includes installation and automation (remote control/automatic shut-off capabilities) of a new 20" valve with an above ground actuator, linebreak cabinet, SCADA cabinet, radio communication, and power.

Carbon Capture and Underground Storage – North and South Belridge Oil Fields | Aera Energy LLC | California | Project Biologist

Hannah helped with the biological surveys and writing Aquatic Resources Delineation Report. The project proposed approximately 13-mile-long linear Project Pipeline.

Oil and Gas Pipeline | Utility Company | Torrance, California | Biological Monitor

Hannah was the environmental/biological monitor on site during construction. The project includes a new 36" MLV with an existing actuator in a vault and a new linebreak panel, SCADA panel, radio antenna, and electrical power meter.

Pipeline Anomaly Repairs | Plains All American Pipeline | California | Biological Monitor

Hannah was the environmental/biological monitor on site during construction. The Project includes pipeline repairs.

Pipeline Replacement - Alhambra | Confidential Utility Company | Alhambra, California | Project Biologist

Hannah wrote the Natural Resources section of the Detailed Environmental Report, conducted the pre-construction surveys, and was the environmental/biological monitor on site during construction. The Project includes replacement of approximately 12 feet of existing piping and a new 4' x 4' vault will be replaced on a 10-inch blowoff valve.

Pipeline Replacement - Northern Bundle | Confidential Utility Company | Project Biologist

Hannah completed the desktop review and wrote the Biological and Waters Resources sections of the High Level Review. The Project includes five small-scale pipeline replacement projects.

Pipeline Hydrotest - Orange County | Confidential Utility Company | California | Project Biologist

Hannah completed the desktop review, preliminary site visits, and wrote the Biological Resources section of a Detailed Environmental Review. The project includes approximately 25 miles of pipeline that is planned for hydrotesting.

Pipeline Replacement - Dana Point | Confidential Utility Company | Dana Point, California | Project Biologist

Hannah assisted with writing the Natural Resources section of the Detailed Environmental Review Checklist and the Biological and Waters Resources sections of the High Level Review. This project includes replacement of various pipelines in Dana Point.

Valve Installation and Automation | Confidential Utility Company | Newport Beach, California | Project Biologist

Hannah wrote the Natural Resources section of the Detailed Environmental Report, conducted the pre-construction survey, was the environmental/biological monitor on site during construction, and completed the post-construction survey. The Project includes a new 12-inch mainline valve will be installed and automated to incorporate automatic shut off and remote control (ASV/RSV) capabilities using a new actuator inside a new vault.

Pipeline Hydrotest - Yorba Linda | Confidential Utility Company | Yorba Linda, California | Project Biologist

Hannah assisted writing the Natural Resources section of the Detailed Environmental Report and assisted with conducting the tree survey, pre-construction nesting bird surveys, pre-construction Crotch Bumble Bee surveys, and assisted with project coordination/management. The Project includes approximately 3 miles of pipeline that is to be hydrotested with approximately 10 test break sites.

Valve Installation and Automation | Confidential Utility Company | Newport Beach, California | Project Biologist

Hannah wrote the Natural Resources section of the Detailed Environmental Report, conducted the pre-construction surveys, was the environmental/biological monitor on site during construction, and completed the post-construction survey. The Project includes a new 16-inch mainline valve will be installed and automated to incorporate automatic shut off and remote control (ASV/RSV) capabilities using a new actuator inside a new vault.

Pipeline Hydrotest - Los Angeles County | Confidential Utility Company | California | Project Biologist

Hannah wrote the Natural Resources sections of three separate Detailed Environmental Reports and assisted with conducting the preliminary site visits. The Project includes approximately 27 miles of pipeline to hydrotested with approximately 10 test break sites.

Pipeline Replacement | Confidential Client | California | Project Biologist

Hannah assisted with the small mammal burrow/den surveys, pre-construction nesting bird survey, active nest monitoring during pothole/soil bore activities, project coordination, and wrote the Nesting Bird Memorandum. The project will replace approximately 12.406 miles of existing 6, 8, and 10-inch Category 4 pipe with 12.565 miles of 10-inch pipe that runs from south to north within Tulare County.

Pipeline Replacement | Confidential Client | Pomona, California | Project Biologist

Hannah completed the pre-construction survey, post-construction survey, was the environmental/biological monitor on site during this project, and assisted with project coordination. This project includes replacement of approximately 0.145 miles of Category 4 pipe.

Confidential Carbon Capture Project | California | Associate Biologist

Ms. Hart was the field lead and conducted the general biological survey, rare plant survey, and the wetland delineation for this project. She also authored the Aquatic Resources Delineation Report. The proposed Project would capture carbon dioxide (CO₂) generated as a by-product of a 550-Megawatt equivalent (MWe) Power Plant in Kern County, California.

CANALS AND HYDRAULIC STRUCTURES

Friant Kern Canal Project | California | Project Biologist

Ms. Hart assisted with burrowing owl surveys for the Friant Kern Canal Project.

RESIDENTIAL / COMMERCIAL DEVELOPMENTS

North Harrison Avenue | KB Home | Oxnard, California | Associate Biologist

Hannah conducted the biological survey and wrote the Biological Resources Survey Memorandum. The project includes a development of approximately 6.5-acres in Oxnard, California into residential homes.

Angel's Landing Mixed-Use Commercial/Residential Development | Biologist

Hannah assisted with the biological survey, database research, and the Biological Resource Assessment Memorandum while employed at GPA Consulting. The project was proposed to develop two towers with residential and commercial space on an approximately 2.24-acre site located in Downtown Los Angeles.

Sportsmen's Lodge Redevelopment Project | Midwood Development | Biologist

Hannah assisted with the pre-construction nesting bird surveys for the project while employed at GPA Consulting. Midwood Development is proposing to demolish and redevelop the existing Sportsmen's Lodge Events Center and former Los Angeles Fire Station in Studio City.

Lancaster Residential Development | Confidential Company | Lancaster, California | Project Biologist

Hannah assisted with the biological survey and wrote the Biological Resources Technical Report. The project includes a development of approximately 18 acres into residential homes.

Faulkner Road | KB Home | Santa Paula, California | Associate Biologist

Hannah conducted the biological survey and wrote the Biological Resources Survey Memorandum. The project includes a development of approximately 9.7-acres in Santa Paula, California into residential homes.

East Santa Paula Street | KB Home | Santa Paula, California | Associate Biologist

Hannah conducted the biological survey and wrote the Biological Resources Survey Memorandum. The project includes a development of approximately 4.6-acres in Santa Paula, California into residential homes.

South Indian Hill Boulevard | KB Home | Claremont, California | Project Biologist

Hannah conducted the biological survey and wrote the Biological Resources Survey Memorandum. The project includes a development of approximately 2.6-acres in Claremont, California into residential homes.

BRIDGES

Arroya Avenue Bridge Replacement over West Delta Canal | Merced County | Biologist

Hannah assisted with database research and the Natural Environment Study while employed at GPA Consulting. The County of Merced proposed to replace the three-span reinforced concrete T-beam structure over West Delta Canal.

Avenue 364 Bridge Over Cottonwood Creek Replacement | Tulare County | Biologist

Hannah assisted with the Natural Environment Study while employed at GPA Consulting. The County of Tulare, in coordination with the California Department of Transportation, proposed to replace the existing Avenue 364 Bridge over Cottonwood Creek.

Leimert Bridge Seismic Retrofit | City of Oakland | Biologist

Hannah assisted with the Natural Environment Study and regulatory permits while employed at GPA Consulting. The City of Oakland proposes to retrofit and rehabilitate the Leimert Street Bridge over Sausal Creek and Diamond Canyon in the City of Oakland. Originally built in 1926, the Leimert Bridge is a Category II concrete arch bridge, meaning that it is eligible for the National Register of Historic Places, and it is a City of Oakland Local Landmark.

Peltier Road Bridge at Mokelumne River | San Joaquin County | Biologist

Hannah assisted with the database research, biological surveys, Wetland Delineation, Jurisdictional Delineation report, and Natural Environment Study while employed at GPA Consulting. San Joaquin County proposed to replace the Peltier Road Bridge over the Mokelumne River and widen the causeway structures at the main span bridge approaches.

Turner Island Road Bridge Replacement Over West Delta Canal | Merced County | Biologist

Hannah assisted assisting with the database research and the Natural Environment Study and Jurisdictional Delineation while employed at GPA Consulting. The County of Merced, in cooperation with the California Department of Transportation, proposed to replace the existing bridge structure with a new structure along the existing horizontal alignment, to minimize right-of-way impacts to adjacent property.

Merced Avenue at Lateral No. 6 Canal Bridge | Merced County | Biologist

Hannah assisted with database research and the Natural Environment Study while employed at GPA Consulting. The County of Merced, in cooperation with the California Department of Transportation, proposed to rehabilitate the Merced Avenue Bridge structure over the Lateral No. 6 Canal, located approximately 1.35 miles south of SR-99 in Merced County, California.

Bridge Road Bridge Replacement | Ventura County | Biologist

Hannah assisted with the California Red Legged Frog Habitat Assessment while employed at GPA Consulting. The County of Ventura proposed a bridge replacement on Bridge Road over Santa Paula Creek just east of SR-150, north of the City of Santa Paula.

Magnolia Street Bridge | City of Huntington Beach | Biologist

Hannah assisted with pre-construction Caulerpa and eelgrass surveys while employed at GPA Consulting. The City of Huntington Beach proposes the repair and rehabilitation of the bridge to enhance public safety and protect the Huntington Beach Channel beneath the bridge by performing maintenance activities.

Atwater Jordan Road at Atwater Canal Bridge | Merced County | Biologist

Hannah assisted with the database research, Wetland Delineation, Natural Environment Study, Jurisdictional Delineation report, and regulatory permitting process while employed at GPA Consulting. The County of Merced, in cooperation with the California Department of Transportation, proposes to rehabilitate and widen the Atwater Jordan Road Bridge to provide two 11-foot lanes, a shoulder on each side of the roadway, and new concrete barrier rails.

Chiles-Pope Road Bridge Replacement over Chiles Creek | Napa County | Biologist

Hannah assisted with database research, the Natural Environment Study, the Initial Study/Mitigated Negative Declaration, and regulatory permits while employed at GPA Consulting. The County of Napa, in cooperation with the California Department of Transportation District 4, proposes to replace the Chiles-Pope Road Bridge over Chiles Creek in rural Napa County.

Riverside Drive Near Zoo Drive Bridge Rehabilitation and Widening | City of Los Angeles | Biologist

Hannah conducted construction monitoring of Arundo removal in the 2018 season and assisted with the Vegetation Cover Analysis while employed at GPA Consulting. The City of Los Angeles rehabilitated and widened the historic Riverside Drive Bridge over the Los Angeles River, which resulted in impacts to wetland and waters of the U.S. and State. To offset these impacts, on-site Arundo removal will take place as part of the requirements of the regulatory permits.

Road D112 Bridge over Bates Slough Replacement | Tulare County | Biologist

Hannah assisted with database research and the Natural Environment Study and regulatory permit applications while employed at GPA Consulting. The County of Tulare proposes to replace the existing Road D112 Bridge over Bates Slough, located at the southwest boundary of the City of Tulare.

Avenue 174 Friant-Kern Canal Bridge Replacement | Tulare County | Biologist

Hannah assisted with the database research, Natural Environment Study (Minimal Impacts), and Biological Assessment while employed at GPA Consulting. The County of Tulare proposes to replace the existing Avenue 174 Friant-Kern Canal Bridge, located north of the City of Porterville.

6th Street Viaduct Replacement | City of Los Angeles | Biologist

Hannah performed nesting bird surveys and bat surveys during construction of the new viaduct while employed at GPA Consulting. The City of Los Angeles is replacing the 6th Street Viaduct over the Los Angeles River and US-101 with a new viaduct.

Bolsa Avenue Bridge | City of Huntington Beach | Huntington Beach, California | Project Biologist

Hannah assisted with the field wetland delineation and the writing of the Aquatic Delineation Report. This project includes work on the Bolsa Avenue Bridge crossing over a water feature.

Modjeska Boxcar Bridge Project | Orange County Public Works | Modjeska Canyon, California | Biologist

Hannah was the biological monitor on site during construction. She was in charge of making sure that the crews were in compliance with the California Department of Fish and Wildlife, Regional Water Quality Control Board, and United States Army Corps of Engineers permits. Orange County Public Works proposed to remove the Modjeska Boxcar Bridge that crosses Santiago Creek, install rock rip-rap upstream of the bridge, downstream of the bridge, and around the bridge abutments, raise the bridge structure by three feet, and re-install the boxcar bridge.

San Timoteo Creek Emergency Repairs | Project Biologist

Ms. Hart monitored construction and permit compliance during the installation of emergency bridge repairs following a storm that caused erosional damage to the structure in least Bells' vireo critical habitat.

SOLAR AND ALTERNATE ENERGY

Confidential Solar Project | Confidential Client | California | Project Biologist

Hannah wrote the Biological Resources and the Waters and Jurisdictional Waters sections of the Critical Issues Analysis, the Aquatic Resources Survey Report and Preliminary Jurisdictional Report, and the Biological Resources Technical Report. The Project is in San Bernardino County, California and the Project would include 24 megawatts (MW) direct current / 20 MW alternating current of solar photovoltaic and 2 MW / 8 megawatt hours of battery energy storage system.

Critical Issues Analysis for Solar and Battery Energy Storage System Project | California | Project Biologist

Hannah wrote the Biological Resources and the Waters and Jurisdictional Waters sections of the Critical Issues Analysis. The project is proposing development of a 125 megawatt solar project and 125 MW and 500-megawatt-hour battery energy storage system located in Riverside County, California.

Critical Issues Analysis for Solar Project | Confidential Client | Nevada | Project Biologist

Hannah wrote the Biological Resources and the Waters and Jurisdictional Waters sections of the Critical Issues Analysis. The project is proposing development of a 600-megawatt (MW) solar project, located on an approximately 2750-acre site in Lander County, Nevada

BATTERY ENERGY STORAGE SYSTEMS

Longroad Demeter BESS Project | Longroad | California | Biologist

Hannah lead the protocol-level burrowing owl surveys and assisted with the Burrowing Owl Report.

Confidential Energy Storage System Project | Confidential Client | Peoria, Arizona | Project Biologist

Hannah is assisting with project management tasks and wrote the Biological Resources and the Waters and Jurisdictional Waters sections of the Critical Issues Analysis, conducting the burrowing owl surveys and completed the Burrowing Owl Survey Memorandum, the Biological Resources Technical Report, and the Aquatic Resources Survey Report and Preliminary Jurisdictional Assessment. The project is proposing the development a 250-megawatt utility-scale battery energy storage system facility, which will interconnect with the adjacent Arizona Public Service Company Raceway 230-kilovolt Substation in support of renewable energy development within the City of Peoria, Maricopa County, Arizona

Confidential Energy Storage Project | Confidential Client | Sun City, Arizona | Project Biologist

Hannah conducted the burrowing owl surveys, wrote the Burrowing Owl Survey Memorandum and assisted in writing the Biological Resources Technical Report and the Aquatic Resources Survey Report and Preliminary Jurisdictional Assessment. The project is proposing the development of a 125-megawatt energy storage facility located in Sun City, Maricopa County, Arizona

Critical Issues Analysis for a Battery Energy Storage System Project | Arizona | Project Biologist

Hannah wrote the Biological Resources and the Waters and Jurisdictional Waters sections of the Critical Issues Analysis. The project is proposing development of a battery energy storage system, located in Mohave County, Arizona.

Critical Issues Analysis for Battery Energy Storage System Project | Nevada | Project Biologist

Hannah wrote the Biological Resources and the Waters and Jurisdictional Waters sections of the Critical Issues Analysis. The project is proposing development of a battery energy storage system, located in Lander County, Nevada.

Critical Issues Analysis for Battery Energy Storage System Project | California | Project Biologist

Hannah wrote the Biological Resources and the Waters and Jurisdictional Waters sections of the Critical Issues Analysis. The project is proposing development of a battery energy storage system located in Imperial County, California.

Critical Issues Analysis for Battery Energy Storage System Project | California | Project Biologist

Hannah wrote the Biological Resources and the Waters and Jurisdictional Waters sections of the Critical Issues Analysis. The project is proposing development of a battery energy storage system, located in Riverside County, California.

Critical Issues Analysis for a Battery Energy Storage System Project | Lathrop, California | Project Biologist

Hannah wrote the Biological Resources and the Waters and Jurisdictional Waters sections of the Critical Issues Analysis. The project is proposing development of a battery energy storage system located in the City of Lathrop, San Joaquin County, California.

AES Fluence Fallbrook Battery Energy Storage Project | Fallbrook, California | Project Biologist

Hannah assisted with the regulatory agency permitting and mitigation coordination. The Project includes construction and operation of a battery energy storage system (BESS) facility with a storage capacity of approximately 40 megawatts. The BESS facility will consist of 16, 63-foot long, 12-foot wide, and 13-foot tall (756 sf each) battery storage containers on individual concrete equipment pads. In addition to the batteries, the system will contain 16 inverters/transformers (130 sf each) on individual concrete equipment pads, mechanical equipment such as electrical controls, and heating, ventilation, and air conditioning units.

Ortega Grid Battery Energy Storage System Project | Hecate Grid, LLC | California | Project Biologist

Project is a development of a 20-megawatt Battery Energy Storage System Project on approximately 3.75-acres located just east of I-15 and southeast of the intersection of Camino Del Norte and O Hana Circle in Lake Elsinore, California. Hannah assisted with the wetland delineation and writing the Biological Technical Memorandum, the Aquatic Resources Delineation Report, and the Mitigation and Monitoring Plan.

San Jacinto Grid Battery Energy Storage System Project | Hecate Grid, LLC | California | Project Biologist

Project involves development of a 65-megawatt Battery Energy Storage System Project on approximately 1.88-acres located within the southern portion of the City of Banning in Riverside County, California. Hannah assisted in writing the Biological Resources Technical Report.

Hecate Scafell Battery Energy Storage System Project | Hecate Grid LLC | Ramona, California | Project Biologist

The Project will be comprised of lithium-ion battery modules housed in cabinets within non-walk-in enclosures on dedicated foundations that will be capable of charging and delivering up to 50MW/100MWH. The Project occurs within an approximately 19-acre area within two privately owned parcels (2841012100 and 2841012000). Hannah has helped with conducting the nesting bird survey and writing the Aquatic Resources Delineation report.

Critical Issues Analysis for Battery Energy Storage System Project | Confidential Client | Vacaville, California | Project Biologist

Hannah assisted with the Biological Resources section of the Critical Issues Analysis. The project is proposing a 700-megawatt BESS, located on a portion of an approximately 52-acre City-owned parcel in the City of Vacaville in Solano County, California.

Confidential Battery Energy Storage System Project | Confidential Client | California

Hannah wrote the Biological Assessment for the project. The project is proposing to interconnect a number of Battery Energy facilities together.

Confidential Solar and Battery Energy Storage Systems Project | California | Project Biologist

Ms. Hart assisted with the wetlands delineation and the Aquatics Resources Report. The proposed Project consists of a 125-megawatt alternating current (MW/AC) solar project, and 125 MW and 500-megawatt-hour (MWh) Battery Energy Storage System (BESS). The proposed Project is located on an approximately 1,109-acre privately owned site in Riverside County, California.

RESTORATION, REMEDIATION AND REDEVELOPMENT

Sweeny and San Timoteo Creek Restoration | Riverside County Transportation Commission (RCTC) | California | Project Biologist

Hannah assisted/monitored crews on invasive plant removal and treatment, emergency road work, and uploaded and reviewed annual monitoring data.

Arroyo Simi SD Repair Upstream of Madera Road Project | Ventura County Public Works | Simi Valley, California | Biologist

Hannah assisted with the installation of the block netting up and downstream of the Project site in the Arroyo Simi and relocated fish to suitable downstream habitats.

Santa Clara River Restoration Project | Plains All American | Santa Clarita, California | Project Biologist

Hannah oversaw weeding events for the riparian restoration activities within and adjacent to the Santa Clara River resulting from repairs to an existing pipeline.

Dust Control Project | Confidential Client | California | Project Biologist

Hannah assisted with the biological survey and the wetlands delineation, and wrote the Biological Resources Technical Report and the Aquatic Delineation Report. The proposed project would reduce dust emissions by installing gravel over the majority of the Project site and by applying chemical stabilizers in select areas.

Restoration Monitoring within Angeles National Forest | Project Biologist

Ms. Hart assists with the quarterly data collection of the restoration sites throughout the Angeles National Forest consisting of vegetative cover estimates and species composition of native and nonnative species.

HIGHWAY AND TRANSPORTATION

State Route 33 Soil Nail Wall | California Department of Transportation | Biologist

Hannah monitored the site to ensure construction compliance with project permits and surveyed for steelhead trout, arroyo chub, and stickleback while employed at GPA Consulting. The California Department of Transportation proposed to remove severely undermined grouted rock slope protection and replace it with an approximately 500-foot-long soil nail wall along SR-33 and North Fork Matilija Creek in Ventura County, within designated critical habitat of Southern steelhead trout and California red-legged frog.

Pacific Coast Highway Signal System Improvements | City of Malibu | Biologist

Hannah assisted with the database research, biological survey, and the Natural Environment Study (Minimal Impacts) while employed at GPA Consulting. The City of Malibu proposed improvements to provide communication, coordination, and controls amongst the traffic signals and with the California Department of Transportation's Management Center, improve the flow of traffic through the Pacific Coast Highway Corridor, reduce the incidents of collisions at signalized intersections and the associated incident delays, regulate travel speeds, reduce overall traffic congestion, and improve safety for all modes of travel.

State Route 91 Auxiliary Lanes from Central and Acacia | Los Angeles County Metropolitan Transportation Authority | Biologist

Hannah assisted with the database research, biological survey, and the preparation of the Natural Environment Study while employed at GPA Consulting. The Los Angeles County Metropolitan Transportation Authority, in cooperation with Gateway Cities Council of Governments and California Department of Transportation District 7, proposes to improve and enhance vehicle safety and reduce congestion along Eastbound and Westbound State Route 91 from Central Avenue to Acacia Court. The project is in the cities of Carson, Compton, and Long Beach.

State Route 57 Safety Improvement Projects | California Department of Transportation | Biologist

Hannah assisted with the database research, biological survey, and the Natural Environmental Study (Minimal Impacts) while employed at GPA Consulting. The California Department of Transportation proposes to improve roadside safety along State Route 57 at the on- and off-ramps at Sunset Crossings Road.

Interstate 605/State Route 60 Corridor Improvements | Los Angeles County Metropolitan Transportation Authority | Biologist

Hannah assisted with vegetation surveys, Natural Environment Study, and Environmental Impact Report while employed at GPA Consulting. The Los Angeles County Metropolitan Transportation Authority, California Department of Transportation, Gateway Cities Council of Governments, and San Gabriel Valley Council of Governments proposed highway improvements along the I-605 Corridor, as well as improvements to SR-60 and I-5 related to the interchanges.

Interstate 5 North High Occupancy Vehicle Lanes and Truck Lanes | Los Angeles County Metropolitan Transportation Authority | Biologist

Hannah assisted with conducting biological surveys, bat emergence surveys, the Natural Environment Study, the Bat Habitat Assessment Memorandum, the Bat Emergence Memorandum, and regulatory permit applications while employed at GPA Consulting. The Los Angeles County Metropolitan Transportation Authority, in cooperation with the California Department of Transportation and the City of Santa Clarita, propose to extend the High Occupancy Vehicle lanes on I-5 from the SR-14 interchange to Pico Canyon Road/Lyons Avenue, and constructing and/or extending auxiliary lanes between intersections at six locations.

Interstate 605/Valley Boulevard Interchange Improvements Project | California Department of Transportation | Biologist

Hannah assisted with database research, the biological survey, the Natural Environment Study (Minimal Impacts), and the Initial Study/Environmental Assessment while employed at GPA Consulting. The California Department of Transportation District 7, in cooperation with Los Angeles County Metropolitan Transportation Authority, San Gabriel Valley Council of Governments, Gateway Cities Council of Governments, Los Angeles County Department of Public Works, and City of Industry propose to improve mobility and relieve congestion, capacity constraints, and other related deficiencies on Interstate 605 at the Valley Boulevard interchange.

State Route 138 Mobility and Safety Enhancement Project | California Department of Transportation | Biologist

Hannah assisted with the database research, the biological surveys, and the Natural Environment Study while employed at GPA Consulting. The California Department of Transportation proposes to upgrade curb ramps, sidewalks, and traffic signals along State Route 138 to meet current Americans with Disabilities Act Standards in the City of Palmdale

State Route 1 Black Abalone Surveys | California Department of Transportation | Biologist

Hannah assisted with black abalone surveys for this project while employed at GPA Consulting. The California Department of Transportation Office of Design initiated an Emergency Permanent Restoration Project to repair and prevent additional erosion to the ocean-side slope adjacent to State Route 1. The project would include construction of a 600-foot-long secant wall at State Route 1, post mile 4.0.

State Route 72 Mobility and Safety Enhancement Project | California Department of Transportation | Biologist

Hannah assisted with database research, the biological survey, and the Natural Environment Study (Minimal Impacts) while employed at GPA Consulting. The California Department of Transportation proposes to construct and upgrade curb ramps, sidewalks, driveways, and pathways along State Route 72 to meet current Americans with Disabilities Act standards in the City of Whittier from Valley Home Avenue to Esperanza Avenue.

State Route 164 Mobility and Safety Enhancement Project | California Department of Transportation | Biologist

Hannah assisted with database research, the biological survey, and the Natural Environment Study (Minimal Impacts) while employed at GPA Consulting. The California Department of Transportation proposes to upgrade curb ramps, sidewalks, and pathways along State Route 164 (SR-164) to meet current Americans with Disabilities Act Standards in the cities of Whittier, South El Monte, and Rosemead from Rush Street to Rudell Underpass.

Soto Street Widening Plan | City of Los Angeles | Biologist

Hannah assisted with the Preliminary Environmental Study, biological surveys, and the Natural Environment Study while employed at GPA Consulting. The City of Los Angeles is proposing to widen Soto Street between Multnomah Street and Mission Road in Los Angeles, California. The project would widen Soto Street from three lanes to four lanes (two lanes in each direction) by adding an additional through lane in the southbound direction.

Hills Ferry Road Emergency Repair | Merced County | Biologist

Hannah assisted with daily construction monitoring, turbidity testing during all in-water work, and drafting the post construction agency documentation while employed at GPA Consulting. The County of Merced performed emergency repairs to Hills Ferry Road because of unexpected high-water flows within the Merced River which washed out the embankment.

Merced Falls Road Shoulder Improvement | Merced County | Biologist

Hannah assisted with the Natural Environment Study, Worker Awareness Training materials, and the Construction Monitoring Results Memorandum while employed at GPA Consulting. The County of Merced proposed to widen the shoulders of an approximately one-mile segment of Merced Falls Road, beginning approximately one mile east of La Grange Road and continuing east in Merced County, California.

Campus Parkway | Merced County | Biologist

Hannah assisted with the database research, Wetland Delineation, Jurisdictional Delineation report, and the Biological Survey Report while employed at GPA Consulting. The County of Merced, in cooperation with the California Department of Transportation and the Federal Highway Administration, proposed a new expressway on the east side of the city of Merced

Avenue S-8 and 40th Street East Roundabout Installation | City of Palmdale | Biologist

Hannah assisted with database research, vegetation survey, and the Natural Environment Study while employed at GPA Consulting. The City of Palmdale, in cooperation with the California Department of Transportation, proposes to construct a roundabout at the intersection of Avenue S-8 and 40th Street in the city of Palmdale.

Blagen Road Culvert Crossing of Big Trees Creek | Calaveras County | Biologist

Hannah assisted with database research, regulatory permitting process, bat survey, and the Bat Survey Memorandum while employed at GPA Consulting. The County of Calaveras is repairing the Blagen Road culvert crossing over Big Trees Creek with federally acquired funds. The culvert was damaged during the winter storms that occurred in January 2017. The culvert sustained structural damage to the extent that Blagen Road was closed for safety and has subsequently been replaced with a temporary one-lane bridge.

BICYCLE AND PEDESTRIAN PATHS

Santa Ana River Trail Project | Riverside County Transportation Commission | California | Project Biologist

Hannah aided in the preparation of the Biological Resources Technical Report and the Aquatic Resources Delineation Report. The project includes a bike trail along the Santa Ana River.

INVASIVE SPECIES MANAGEMENT

Emergency Homeless Encampment Abatement | Merced County | Biologist

Hannah assisted with preparing the Invasive Species Treatment Plan, providing support in the preparation of California Fish and Game Code Section 1610 Emergency Notification, and preparation of post-construction memorandum while employed at GPA Consulting. The County of Merced, in cooperation with the City of Merced, intends to perform emergency homeless encampment abatement, including the removal of the invasive species *Arundo donax*, at locations along Bear Creek.

EMPLOYMENT HISTORY

GPA Consulting

Biologist

2017 - 2021 · 3.5 years

Principal Biologist / Senior Resource Team Lead / Natural Resources
Assessment & Permitting

27 years of experience - Bakersfield, California

Geoff is a Principal Biologist operating out of Stantec's Bakersfield, California office and serves Business Center 1858 as Senior Resource Team Lead for the Natural Resources Assessment & Permitting Group in Southern California. Geoff has over 25 years of professional experience as a consulting biologist in California, and over 20 years of experience as a trained jurisdictional waters delineator. He has extensive experience in project management and technical report preparation, including due diligence/constraints analyses, biological survey reports, Biological Assessments for FESA Section 7 consultations, Caltrans Natural Environment Studies, CEQA/NEPA documents, aquatic resources delineations (Federal, State, and Coastal Zone), restoration plans, mitigation/monitoring plans, and regulatory permit applications. He is proficient in proposal writing, project scoping, and project planning as well as all phases of project delivery, from technical studies to construction and on through to post-construction monitoring/reporting. Geoff has served as the environmental project manager for various projects, and he has conducted compliance monitoring, regulatory agency coordination, and regulatory permitting, including consultations with USFWS and NMFS; USACE Section 404 Permits, RWQCB Section 401 Water Quality Certifications and Waste Discharge Requirements, CDFW Section 1600 Streambed Alteration Agreements, federal and state Incidental Take Permits, and support for Coastal Development Permits. He has extensive experience with general wildlife surveys, protocol surveys, botanical surveys, aquatic species relocation, and small mammals.

EDUCATION

Master of Science, Biological Sciences, California Polytechnic State University-San Luis Obispo, San Luis Obispo, California, United States, 2007

Bachelor of Science, Biology, California State University-Bakersfield, Bakersfield, California, United States, 1997

CERTIFICATIONS & TRAINING

USFWS Section 10(a)(1)(a) Recovery Permit (TE 824123-7) for giant kangaroo rat, Tipton kangaroo rat, Fresno kangaroo rat, and Morro shoulderband snail, Bakersfield, California, 2023

Scientific Collecting Permit SC-20073002 (California), Bakersfield, California, 2025

Memorandum of Understanding (MOU) to conduct research/trapping for giant kangaroo rat, Tipton kangaroo rat, and Fresno kangaroo rat in California, Bakersfield, California, 2025

Approved as Independent Researcher for Temblor legless lizard Research under Theodore J. Papenfuss SCP/MOU ID# SC-220350010, Bakersfield, California, 2024

Plant Voucher Collecting Permit No. 2081(a)-24-004-V, Bakersfield, California, 2024

40-hour HAZWOPER (Cert. #2106071377088), Safety Unlimited, Inc., Simi Valley, California, United States, 2021

8 Hour HAZWOPER Refresher, Safety Unlimited, Inc., Bakersfield, CA, United States, 2024

OSHA 10: Construction Industry Outreach Training Course (UL), Safety Unlimited, Inc., Online, CA, United States, 2024

Adult First Aid/CRP AED, HSI/EMS Safety, Bakersfield, California, USA, 2025

San Joaquin Kit Fox Ecology, Conservation, and Survey Techniques, Western Section of the Wildlife Society - California Central Coast Chapter, Chimineas Ranch, California, USA, 2019

Western Pond Turtle Workshop, Elkhorn Slough Coastal Training Program, Elkhorn, California, USA, 2012

Sensitive Small Mammal Species of the San Joaquin Valley Workshop, Western Section of The Wildlife Society - San Joaquin Valley Chapter, Bakersfield, California, 2010

Bat Ecology and Field Techniques Workshop, Western Section of The Wildlife Society - California Central Coast Chapter, Chimineas Ranch, California, 2008

Arid West Delineation Training, U.S. Army Corps of Engineers, San Luis Obispo, California, 2007

Blunt-nosed Leopard Lizard Workshop, Western Section of The Wildlife Society - San Joaquin Valley Chapter, Bakersfield, California, 2007

Central Coast Salmonid Field School, Salmonid Restoration Federation, Arroyo Grande, California, 2007

Desert Tortoise Workshop, The Desert Tortoise Council, Ridgecrest, California, 2006

Biology and Conservation of the California Tiger Salamander, Alameda County Conservation Partnership, Livermore, California, 2006

California Red-legged Frog Workshop, Alameda County Conservation Partnership, Livermore, California, 2005

40-hour Wetland Delineation Training, Wetland Training Institute, San Diego, California, 2004

Identification and Ecology of Sensitive Amphibians and Reptiles of Southern California, Western Section of The Wildlife Society, Riverside, California, 2003

California Tiger Salamander Workshop: Ecology and Survey Techniques, Western Section of The Wildlife Society, Sonoma, California, 2003

MEMBERSHIPS

Member, The Western Section of The Wildlife Society

AWARDS

2018 Caltrans Excellence in Transportation Award for Stewardship of the Environment, Elkhorn Highlands Reserve/Prunedale Improvement Project

PROJECT EXPERIENCE

BOTANICAL SURVEYS

South Vine Street Realignment and Bridge | City of Paso Robles | Paso Robles, California | Senior Biologist

Prepared Caltrans Natural Environment Study and Jurisdictional Waters Assessment for proposed realignment of South Vine Street in Paso Robles, San Luis Obispo County, California. The project would involve a road realignment and construction of a new bridge across an unnamed drainage west of State Route 101 and north of State Route 46. Led field team that conducted botanical surveys, wildlife surveys, jurisdictional waters delineation, and tree survey. Geoff led the field team; conducted botanical and wildlife surveys, conducted a jurisdictional waters delineation, and prepared a Caltrans Natural Environment Study for the City of Paso Robles South Vine Street Realignment project in Paso Robles, California. The proposed Project is Phase 2 of the US-101/SR-46 West Interchange Modification Project and includes the relocation of South Vine Street and the construction of a new bridge to cross an unnamed drainage.

Wild Cherry Canyon - Proposed Development Project | Confidential | Avila Beach, California | Senior Biologist - SWCA Environmental

Conducted botanical surveys for proposed development in Wild Cherry Canyon in Avila Beach, CA. Sensitive plant species observed included San Luis Obispo owl's-clover.

Bob Jones Bike Path – San Luis Obispo to Ontario Road | County of San Luis Obispo Department of General Services | San Luis Obispo, California | Senior Biologist / Project Manager - SWCA Environmental

Served as Senior Biologist / Project Manager for Phase II of the Bob Jones City to Sea Bike Path in San Luis Obispo City and County, linking the City of San Luis Obispo to Avila Beach, largely following the San Luis Obispo Creek corridor. Prepared Caltrans Natural Environment Study, Biological Assessment, and Wetland Delineation. Conducted botanical and wildlife surveys.

Crystal Oaks Development Constraints Analysis | Mr. Greg Nester | Nipomo, California | Biologist - The Morro Group

Prepared Biological Constraints Analysis to assist planning efforts for building commercial or residential projects on a 288-acre project site located west of Highway 101 and north of Sandydale Drive in Nipomo California. Conducted botanical and wildlife surveys, including observation of large populations of federally endangered and state Rare Pismo clarkia plants as well as the sensitive straight-awned spineflower within the project area.

Caltrans District 5 Staff Augmentation - Various Projects | ICF International - Caltrans District 5 | San Luis Obispo, California | Associate Biologist - SWCA Environmental

Represented Caltrans District 5 while staffed full-time in the Caltrans District 5 Office in San Luis Obispo, CA under staff augmentation contract. Conducted botanical surveys for numerous projects throughout District 5 (Santa Cruz, San Benito, Monterey, San Luis Obispo, and Santa Barbara Counties).

HABITAT CONSERVATION PLANS

Habitat Conservation Plan for LADWP's Operations, Maintenance, and Management Activities on its Land in Mono and Inyo Counties | Los Angeles Department of Water and Power | Owens Valley, California, USA | Principal Biologist

Geoff has assisted Los Angeles Department of Power (LADWP) with drafting an HCP for LADWP's Operations, Maintenance, and Management Activities on LADWP land in Mono and Inyo Counties, CA. Geoff has organized team meetings, coordinated and contributed to document revisions, and coordinated with the Ventura USFWS Office. The HCP, when finalized and approved, will cover seven taxa including Owens pupfish, Owens tui chub, Long Valley speckled dace, Bi-State population of greater sage grouse, yellow-billed cuckoo, southwestern willow flycatcher, and least Bell's vireo.

Habitat Conservation Plan for Legacy Homes Tract
14608 | Confidential Client | Los Alamos, California |
Senior Biologist

Geoff prepared a draft Low-Effect Habitat Conservation Plan (LEHCP) for a residential development project in Los Alamos, California in support of Federal Endangered Species Act Section 10 compliance with a federal incidental take permit for California red-legged frog, California tiger salamander, and western spadefoot. A state 2080.1 Consistency Determination/2081(b) incidental take permit for California tiger salamander was obtained in compliance with the California Endangered Species Act.

Habitat Conservation Plan for Hotel Development |
Confidential Client | Sand City, California | Senior
Biologist / Project Manager - SWCA Environmental

Prepared a draft Habitat Conservation Plan for a hotel development project in Sand City, California in support of a federal incidental take permit for Smith's blue butterfly and western snowy plover.

ENVIRONMENTAL ASSESSMENTS – HIGHWAYS AND INFRASTRUCTURE

Pipeline Safety Enhancement Plan (PSEP) |
Confidential (Large Utility Provider in Southern
California) | Southern California | Subject Matter
Expert - Biological/Wetlands Resources

Geoff serves as a Subject Matter Expert (SME) for a large utility provider in southern California. He has conducted site reviews evaluating biological and jurisdictional waters constraints for several PSEP project sites in Riverside County.

On-call Environmental Services | Confidential (Large
Utility Provider in Southern California) | California |
Senior Biologist

Geoff serves as an on-call Senior Biologist for a large utility provider in southern California. He has conducted site reviews evaluating biological and jurisdictional waters constraints for project sites in San Luis Obispo County and Riverside County and prepares technical memos, other biological resource reports, and jurisdictional delineations.

South Vine Street Realignment and Bridge | City of
Paso Robles | Paso Robles, CA | Senior Biologist

Prepared Caltrans Natural Environment Study and Jurisdictional Waters Assessment for proposed realignment of South Vine Street in Paso Robles, San Luis Obispo County, California. The project would involve a road realignment and construction of a new bridge across an unnamed drainage west of State Route 101 and north of State Route 46. Led field team that conducted botanical surveys, wildlife surveys, jurisdictional waters delineation, and tree survey. Geoff led the field team; conducted botanical and wildlife surveys, conducted a jurisdictional waters delineation, and prepared a Caltrans Natural Environment Study for the City of Paso Robles South Vine Street Realignment project in Paso Robles, California. The proposed Project is Phase 2 of the US-101/SR-46 West Interchange Modification Project and includes the relocation of South Vine Street and the construction of a new bridge to cross an unnamed drainage.

California High Speed Rail Construction Package 4 |
California Rail Builders | Kern County, CA |
Jurisdictional Waters Specialist

Geoff serves as the Jurisdictional Waters Specialist for California High Speed Rail Construction Package 4 in Kern County, California. He reviews regulatory permits, provided interpretation of permit conditions, and consults with California Rail Builders environmental staff on a regular basis.

State Route 1 Auxiliary Lanes (State Park Drive to
Bay Avenue/Porter Street) Natural Environment Study
| Santa Cruz County Regional Transportation
Commission | Santa Cruz County, California | Senior
Biologist - SWCA Environmental

Geoff prepared a Caltrans Natural Environment Study (NES) and Jurisdictional Delineation Report for a proposed widening of auxiliary lanes along State Route (SR) 1 and to accommodate bus on shoulder (BOS) between the State Park Drive and Bay Avenue/Porter Street interchanges in Santa Cruz County. Caltrans, as assigned by the Federal Highway Administration (FHWA), is the lead agency under the National Environmental Policy Act. Caltrans is the lead agency under California Environmental Quality Act.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Utility Project | Confidential Client | Coalinga,
California | Senior Biologist

Geoff prepared the Biological Resources section of a CEQA IS/MND including impact analysis and mitigation measures for an 8-mile confidential utility project in Coalinga, Fresno County, California. Sensitive biological resources considered included special-status plants, blunt-nosed leopard lizard, burrowing owl, giant kangaroo rat, Nelson's antelope squirrel, and San Joaquin kit fox.

Water Storage | Confidential Client | Bakersfield, California | Senior Biologist - SWCA Environmental

Managed subconsultants and prepared Biological Resources Technical Report in support of CEQA IS/MND for confidential water storage project in Bakersfield, California. Sensitive biological resources considered included Kern mallow and other special-status plants, blunt-nosed leopard lizard, burrowing owl, Swainson's hawk, giant kangaroo rat, Tipton kangaroo rat, Nelson's antelope squirrel, and San Joaquin kit fox.

Gilardi Road Bridge Replacement IS/MND | California Polytechnic State University, San Luis Obispo - Facilities Management and Development | California Polytechnic State University, San Luis Obispo, California | Senior Biologist / Project Manager - SWCA Environmental

Geoff managed subconsultants and prepared a CEQA IS/MND for a bridge replacement project along Gilardi Road over Walters Creek on property owned by Cal Poly San Luis Obispo.

Fort Bragg Restoration and Coastal Trail | City of Fort Bragg / Caltrans | Fort Bragg, California | Senior Biologist - SWCA Environmental

Conducted botanical and wildlife surveys and prepared Biological Resources section of Caltrans CEQA/NEPA document for a local assistance partnership between the City of Fort Bragg and Caltrans for a restoration and coastal trail project in Fort Bragg, Mendocino County, California.

Cold Canyon Landfill Expansion EIR | County of San Luis Obispo | San Luis Obispo County, California | Senior Biologist - The Morro Group

Conducted botanical and wildlife surveys, prepared jurisdictional waters delineation, and prepared Biological Resources section of EIR for proposed expansion of the Cold Canyon Landfill in San Luis Obispo County, California.

Farm of the Future MEIR | West Hills Community College District | Coalinga, California | Senior Biologist - The Morro Group

Prepared Biological Resources section for Master EIR (MEIR) for proposed 200+ acre Farm of the Future educational program expansion on West Hills College campus in Coalinga, California.

Coalinga Wastewater Treatment Plant Program EIR | City of Coalinga | Coalinga, California | Senior Biologist - The Morro Group

Conducted botanical and wildlife surveys, jurisdictional waters delineation, and prepared Biological Resources section of EIR for a new wastewater treatment plant to be located on 477 acres east of the City of Coalinga at the intersection of Jayne Avenue and State Highway 33. This EIR covered the annexation of the property, the general plan amendment to designate the annexed property Public Facilities, and the preliminary development plans for the wastewater treatment plant facility, sewage collection trunk lines and the decommissioning of the existing treatment plant.

Four Creeks Rezoning EIR | City of San Luis Obispo Community Development Department | San Luis Obispo, California | Senior Biologist - The Morro Group

Conducted botanical surveys, prepared jurisdictional waters delineation, and drafted Biological Resources section of CEQA EIR or the rezoning of 18-acres to allow for the development of a high-density residential, single family residential, and mixed-use commercial project within the city limits of San Luis Obispo.

ENVIRONMENTAL ASSESSMENTS – OIL AND GAS

Confidential Project | Confidential | Kern County, CA, USA | Principal Biologist

Geoff has fulfilled the role of lead biologist for biological surveys and technical documentation efforts in support of a proposed carbon capture and sequestration (CCS) project north of Bakersfield in Kern County, CA.

Confidential Project | Confidential | Southern California, CA, USA | Lead Biologist

Geoff serves as lead biologist and Subject Matter Expert (SME) in support of a large on-call and pipeline safety program for a major utility provider in southern California.

ENVIRONMENTAL ASSESSMENTS – ELECTRICAL TRANSMISSION

Major Environmental Projects (MEP) | Confidential (Large Utility Provider in Southern California) | Southern California | Subject Matter Expert - Biological/Wetlands Resources

Geoff serves as a Subject Matter Expert (SME) for a large utility provider in southern California. He performs desktop environmental clearance reviews for biological and wetlands resources.

FISH AND WATER QUALITY MONITORING

Arroyo Simi SD Repair U/S of Madera Road | City of Simi Valley | Simi Valley, CA, USA | Senior Biologist

Conducted monitoring of diversion and fish relocation for repair earthen channel with concreted rock riprap bank protection along Arroyo Simi. Numerous fish relocated including several arroyo chub.

Highway 1 Piedras Blancas Realignment | Caltrans | San Luis Obispo County, CA, USA | Senior Biologist

Approved by Caltrans, NMFS, and USFWS to conduct environmental training and fish/California red-legged frog relocation for dewatering associated with dewatering of culvert to be replaced for Highway 1 Piedras Blancas Realignment. Numerous threespine stickleback were relocated as well as three California red-legged frogs.

San Francisco River Natural Gas Line Replacement and Bank Protection | Confidential | Clifton, AZ, USA | Biologist

Pipeline replacement and bank stabilization project in eastern Arizona. Conducted electrofishing and fish relocation. Several dozen fish (mainly red shiner [*Cyprinella lutrensis*]) were captured and relocated by Mr. Hoetker during the project.

Hollister Road Bridge Replacement Project along Chorro Creek | Cuesta College and Caltrans | San Luis Obispo, CA, USA | Biologist

Caltrans-approved fisheries biologist to conduct steelhead monitoring, capture, and relocation for bridge replacement project along Chorro Creek on Cuesta College campus. Role: Caltrans-approved Fisheries Biologist. Conducted pre-activity surveys, fish relocation, worker training sessions, and monitoring. Approximately five juvenile steelhead as well as numerous speckled dace, threespine stickleback, and suckers were captured and relocated by Mr. Hoetker during the project.

Stenner Creek / Foothill Boulevard Bridge Replacement | City of San Luis Obispo and Caltrans | San Luis Obispo, CA, USA | Biologist

Caltrans-approved fisheries biologist to conduct steelhead monitoring, capture, and relocation for bridge replacement project along Stenner Creek. Conducted pre-activity surveys, fish relocation, worker training sessions, and monitoring. Several dozen juvenile steelhead, numerous speckled dace and threespine stickleback, and one Pacific lamprey were captured and relocated by Mr. Hoetker during the project.

Upper San Luis Obispo Creek Dam Removal | City of San Luis Obispo | San Luis Obispo, CA, USA | Biologist

City-approved fisheries biologist to conduct steelhead monitoring, capture, and relocation for dam removal and step pool construction project along Upper San Luis Obispo Creek. Conducted pre-activity surveys, fish relocation, worker training sessions, and monitoring. Over 100 juvenile steelhead were captured and relocated by Mr. Hoetker during the project.

Lopez Dam Seismic Remediation-along Arroyo Grande Creek | County of San Luis Obispo | Arroyo Grande, CA, USA | Biologist

County-approved fisheries biologist to conduct steelhead monitoring, capture, and relocation for dam remediation project at Lopez Dam at Arroyo Grande Creek. Conducted pre-activity surveys, fish relocation, worker training sessions, and monitoring. Approximately 20 adult and juvenile steelhead were captured and relocated by Mr. Hoetker during the project.

MITIGATION BANK FEASIBILITY STUDIES

Preliminary Technical Feasibility, Market Analysis Report, and Interagency Review Team (IRT) Coordination for Proposed Mitigation Bank | Confidential | San Luis Obispo County, California | Senior Biologist - SWCA Environmental

Geoff (employed by SWCA Environmental Consultants) prepared the Preliminary Technical Feasibility and Market Analysis Report and conducted preliminary Interagency Review Team (IRT) coordination for a proposed wetlands mitigation bank in San Luis Obispo County, California. He also contributed significantly to a Draft Bank Prospectus.

PERMITTING AND REGULATORY COMPLIANCE

Aera Carbon Frontier Carbon Capture and Sequestration | Aera Energy LLC | Kern County | Senior Biologist

Conducted jurisdictional waters delineation and prepared Aquatic Resources Delineation Report along an 11-mile project alignment in the North and South Belridge oil fields in western Kern County. Conducted reconnaissance biological surveys and jurisdictional waters delineation; prepared Biological Resources Technical Report (BRTR) for CEQA support and Biological Assessment for Federal Endangered Species Act (FESA) Section 7 formal consultation; designed studies and coordinated efforts for negotiations with CDFW for a California Fish and Game Code Section 2081(b) Incidental Take Permit (ITP) in compliance with the California Endangered Species Act (CESA).

California High Speed Rail Construction Package 4 | Central Valley, CA | Senior Biologist / Jurisdictional Waters SME

Served as Jurisdictional Waters Subject Matter Expert (SME); reviewed regulatory permits, interpreted permit conditions, and advised California Rail Builders environmental staff; prepared annual monitoring reports submitted to State Water Resources Control Board and California Department of Fish and Wildlife.

Los Alamos Tract Development Project | Confidential Client | Los Alamos, California | Senior Biologist

Geoff prepared regulatory permit application packages for a Clean Water Act Section 404 Nationwide Permit, a Clean Water Act (CWA) Section 401 Water Quality Certification, and a Section 1600 Streambed Alteration Agreement for a storm drain outfall and drainage ditch improvements associated with a tract development project in Los Alamos, California. Through continued coordination, U.S. Army Corps of Engineers determined a CWA Section 404 permit would not be required, and the Regional Water Quality Control Board determined the project would qualify for a Notice of Intent/Waste Discharge Requirement.

San Luis Obispo Bridges Preventive Maintenance Program | County of San Luis Obispo Department of Public Works | San Luis Obispo County, California | Senior Biologist - SWCA Environmental

Geoff prepared regulatory permit application packages for a Clean Water Act Section 404 Nationwide Permit, a Clean Water Act Section 401 Water Quality Certification, and a Section 1600 Streambed Alteration Agreement for the Villa Creek Road bridge along Villa Creek north of Cayucos, the Picachio Road Bridge along an unnamed tributary to Cayucos Creek north of Cayucos, the Toro Creek Road Bridge along Toro Creek south of Cayucos, and the Pippin Lane Bridge along an unnamed tributary to San Luis Obispo Creek north of Avila Beach.

Kern River Bikepath Western Extension | Kern County Public Works Department | Kern County, California | Senior Biologist - SWCA Environmental

Geoff prepared regulatory permit application packages for a Clean Water Act Section 404 Nationwide Permit, a Clean Water Act Section 401 Water Quality Certification, and a Section 1600 Streambed Alteration Agreement for a section of a 7-mile Class I bike path southwest of Bakersfield in Kern County, California. The path included two undercrossings in the vicinity of jurisdictional waters along the Kern River at bridges at SR-43 and I-5.

State Route 101/Prunedale Improvement | Caltrans District 5 | Prunedale, CA | Biologist / Permit Coordinator - SWCA Environmental

Geoff served as a member of the mitigation team tasked with facilitating a land transfer from Caltrans District 5 to the Elkhorn Slough Foundation (ESF) to comply with CEQA and Clean Water Act Section 404 permit requirements for the State Route 101/Prunedale Improvement Project in Monterey County. PIP was designed to address safety and operational concerns along the Highway 101 corridor between North Salinas and Echo Valley Road. As part of the mitigation team, Geoff prepared a revised Mitigation and Monitoring Plan, a Long-term Management Plan, a Property Analysis Record estimating management costs, and negotiated with the Elkhorn Slough Foundation and USACE the terms of the land transfer. Caltrans transferred ownership of a 167-acre mitigation property with wetlands, oak woodlands, and rare maritime chaparral habitat to ESF along with a \$2.1 million endowment to manage the property in perpetuity. As a result of the successful establishment of what is now known as the Elkhorn Highlands Reserve, the mitigation team received the Caltrans 2018 Excellence in Transportation Award for Stewardship of the Environment.

State Route 101/Salinas River Bridge Seismic Retrofit | Caltrans District 5 | King City, California | Biologist / Permit Coordinator - SWCA Environmental

Geoff prepared regulatory permit application packages for a Clean Water Act Section 404 Nationwide Permit, a Clean Water Act Section 401 Water Quality Certification, and a Section 1600 Streambed Alteration Agreement for a Caltrans District 5 retrofit of bridges along State Route 101 over the Salinas River in King City (Monterey County, California).

State Route 25 Curve Correction Project | Caltrans District 5 | San Benito County, California | Biologist / Permit Coordinator - SWCA Environmental

Geoff served as the Lead Project Biologist for a road realignment project along SR-25 approximately 2 miles south of the east entrance to Pinnacles National Park. Geoff facilitated the permit application process and mitigation purchase (mitigation bank credits) for a Section 2081(b) Incidental Take Permit for California tiger salamander.

Lewis Avenue Bridge Project | City of Atascadero | Atascadero, California | Senior Biologist / Permit Coordinator - SWCA Environmental

Geoff prepared regulatory permit application packages for a Clean Water Act Section 404 Nationwide Permit, a Clean Water Act Section 401 Water Quality Certification, and a Section 1600 Streambed Alteration Agreement with a new bridge construction for an extension of Lewis Avenue over Atascadero Creek in Atascadero, California.

Caltrans District 5 Staff Augmentation | ICF International / Caltrans District 5 | San Luis Obispo, California | Associate Biologist / Permit Coordinator - SWCA Environmental

Represented Caltrans District 5 while staffed full-time in the Caltrans District 5 Office in San Luis Obispo, CA under staff augmentation contract. Wide range of responsibilities included field surveys and habitat assessments for numerous projects throughout District 5 (Santa Cruz, San Benito, Monterey, San Luis Obispo, and Santa Barbara Counties), including preparation of Natural Environment Studies, Biological Assessments, FESA Section 7 consultations, Section 2081(b) CESA compliance, aquatic resources delineations, restoration plans, regulatory permitting, contributing to NEPA/CEQA environmental documents, and miscellaneous other tasks.

RENEWABLE ENERGY

Gwent Battery Energy Storage System Project | Hecate | Moorpark, CA, USA | Principal Biologist

Geoff has conducted QAQC for technical documentation and has been leading the coordination effort to prepare a Habitat Conservation Plan (HCP) and obtain a federal Incidental Take Permit (ITP) for the federally threatened coastal California gnatcatcher (CAGN).

WETLAND DETERMINATION AND DELINEATION

Aera Project Emerson | Aera Energy LLC | Coalinga, CA, USA | Senior Biologist

Co-leader of jurisdictional waters delineation effort within a 4,751-acre study area in the Coalinga oil field in Fresno County, California. Prepared Aquatic Resources Delineation Report assessing the potential for federal, state, and California Department of Fish and Wildlife jurisdictional waters.

Aera Carbon Frontier Carbon Capture and Sequestration | Aera Energy LLC | Kern County, CA , USA | Senior Biologist

Conducted jurisdictional waters delineation and prepared Aquatic Resources Delineation Report along an 11-mile project alignment in the North and South Belridge oil fields in western Kern County. Conducted reconnaissance biological surveys and jurisdictional waters delineation; prepared Biological Resources Technical Report (BRTR) for CEQA support and Biological Assessment for Federal Endangered Species Act (FESA) Section 7 formal consultation; designed studies and coordinated efforts for negotiations with CDFW for a California Fish and Game Code Section 2081(b) Incidental Take Permit (ITP) in compliance with the California Endangered Species Act (CESA).

Linden Avenue-Casitas Pass Road Interchanges - Jurisdictional Waters Delineation and Natural Environment Study | Caltrans District 5 | Carpinteria, California | Biologist / Permit Coordinator - SWCA Environmental

Geoff conducted a jurisdictional delineation, prepared an amended Natural Environment Study, prepared regulatory permit application packages for a Clean Water Act Section 404 Individual Permit, a Clean Water Act Section 401 Water Quality Certification, and a Section 1600 Streambed Alteration Agreement for a Caltrans District 5 project involving reconstruction of SR-101 freeway bridges and widening of State Route 101 to three lanes. Project permits covered the widening of the State Route 101 bridge over Carpinteria Creek to accommodate a future highway widening project along with a new all-weather Class I bike path along Carpinteria Creek under the freeway.

State Route 1/Old Creek Bridge Replacement - Jurisdictional Waters Delineation and Natural Environment Study | Caltrans District 5 | Cayucos, California | Biologist - SWCA Environmental

Geoff prepared a jurisdictional waters delineation and Caltrans Natural Environment Study for the replacement of the existing northbound Old Creek Bridge (#49-0070R) crossing Old Creek along SR-1 near Cayucos in San Luis Obispo County.

State Route 1/Trout Creek Bridge Replacement - Jurisdictional Waters Delineation and Natural Environment Study | Caltrans District 5 | Santa Margarita, California | Biologist - SWCA Environmental Consultants

Geoff prepared a jurisdictional waters delineation and Caltrans Natural Environment Study for the replacement of the existing Trout Creek Bridge (Br. No. 49-0091) on SR-58, two miles east of Santa Margarita near West Pozo Rd in San Luis Obispo County. The project will construct a new two-lane bridge with standard-width shoulders that would allow use of a Class III bicycle lane in each direction.

State Route 225/Las Positas Road Retaining Wall - Jurisdictional Waters Delineation and Natural Environment Study | Caltrans District 5 | Santa Barbara County | Biologist - SWCA Environmental

Geoff prepared a jurisdictional waters delineation and Caltrans Natural Environment Study for the construction of a retaining wall between Las Positas RD (formerly SR-225) and Arroyo Burro Creek. The project is necessary to provide bank stabilization and to prevent erosion along Arroyo Burro Creek of undermining Las Positas Rd.

Replacement of Seven Culverts along State Route 1 in Big Sur Project - Jurisdictional Waters Delineation and Natural Environment Study | Caltrans District 5 | Big Sur, Monterey County, California | Biologist - SWCA Environmental

Geoff prepared a jurisdictional waters delineation and Caltrans Natural Environment Study for the replacement of seven drainage culverts along State Route 1 in Big Sur, Monterey County at various locations between 2.5 miles north of the Monterey/San Luis Obispo county line and 0.6 mile south of Malpaso Creek Bridge.

Gilardi Road Bridge Replacement - Jurisdictional Waters Delineation and Natural Environment Study | California Polytechnic State University, San Luis Obispo - Facilities Management and Development | California Polytechnic State University, San Luis Obispo, California | Senior Biologist / Project Manager - SWCA Environmental

Geoff conducted a jurisdictional waters delineation, prepared a Caltrans Natural Environment Study, and prepared regulatory permit application packages for a Clean Water Act Section 404 Nationwide Permit, a Clean Water Act Section 401 Water Quality Certification, a Section 1600 Streambed Alteration Agreement, and a Coastal Development Permit (Waiver) for a bridge replacement project along Gilardi Road over Walters Creek on property owned by Cal Poly San Luis Obispo.

WILDLIFE SURVEYS AND STUDIES

Staff Augmentation | Caltrans District 5 | San Luis Obispo, California | Associate Biologist - SWCA Environmental

Represented Caltrans District 5 while staffed full-time in the Caltrans District 5 Office in San Luis Obispo under staff augmentation contract. Wide range of responsibilities included field surveys and habitat assessments for numerous projects throughout District 5 (Santa Cruz, San Benito, Monterey, San Luis Obispo, and Santa Barbara Counties), including preparation of Natural Environment Studies, Biological Assessments, FESA Section 7 consultations, Section 2081(b) CESA compliance, aquatic resources delineations, restoration plans, regulatory permitting, contributing to NEPA/CEQA environmental documents, and miscellaneous other tasks.

Aera Energy CarbonFrontier Project | Aera Energy LLC | Kern County, CA, USA | Principal Biologist

As a member of the joint Aera Energy-Stantec environmental team for the Aera Energy CarbonFrontier carbon capture and sequestration (CCS) project, Geoff has been instrumental in negotiating with California Department of Fish and Wildlife (CDFW) the terms of a survey effort for the Temblor legless lizard (TLL) (*Anniella alexanderae*), which is a candidate for listing under the California Endangered Species Act (CESA). Because of this current regulatory status, Aera decided to pursue a survey effort for TLL in support of the CEQA EIR for the proposed Project and to determine if a California Fish and Game Code (FGC) Section 2081(b) Incidental Take Permit (ITP) will be required. In collaboration with Dr. Theodore J. Papenfuss of UC Berkeley, Geoff developed a presence/absence survey protocol for TLL that was reviewed and approved by CDFW in December 2023. This project-specific protocol was implemented in January 2024 under Dr. Papenfuss's Memorandum of Understanding (MOU) with CDFW for the installation of survey cover boards within suitable habitat on Aera property. Cover board checks for TLL were initiated in February 2024 and will continue during the months of February and April for up to three years to confirm presence/absence of TLL and to determine if ITP coverage for TLL will be required.

Baldy Mesa Mitigation Lands/Baldy Mesa Solar Project, | AES Clean Energy | Mojave Desert, California, USA | Lead Biologist

Geoff led a field team in remote areas of the Mojave Desert to evaluate parcels as potential mitigation lands for desert tortoise (*Gopherus agassizii*) and Mohave ground squirrel (*Xerospemophilus mohavensis*) for the proposed Baldy Mesa Solar Project, a utility-scale solar generating facility that would be developed on approximately 1,197 acres within the City of Adelanto in San Bernardino County.

EMPLOYMENT HISTORY

Stantec

Principal Biologist / Senior Resource Team Lead
Since 2024 · 2 years

Stantec

Senior Biologist / Project Manager
2021 - 2023 · 2 years

Botanical and wildlife surveys; jurisdictional determinations/delineations; technical documentation; NEPA/CEQA support; regulatory permitting and coordination; restoration plans.

SWCA Environmental Consultants

Senior Biologist / Project Manager
2008 - 2021 · 13 years

Project management; botanical and wildlife surveys; jurisdictional determinations/delineations; technical documentation; NEPA/CEQA support; regulatory permitting and coordination; restoration plans; construction monitoring/inspections; post-construction monitoring/reporting.

The Morro Group

Senior Biologist / Project Manager

2004 - 2008 · 3 years

Project management; botanical and wildlife surveys; jurisdictional determinations/delineations; technical documentation; NEPA/CEQA support; regulatory permitting and coordination; restoration plans; construction monitoring/inspections; post-construction monitoring/reporting.

Essex Environmental/TRC Solutions

Associate Biologist

2001 - 2004 · 3 years

Botanical and wildlife surveys; technical documentation; regulatory permitting and coordination; construction monitoring/inspections; post-construction monitoring/reporting.

California Polytechnic State University San Luis Obispo (Foundation)

Wildlife Technician / Graduate Student

2000 - 2001 · 1 year(s)

Performed environmental preactivity surveys, environmental clearances, den excavations, telemetry and scent-station monitoring, spotlighting surveys, small mammal trapping, data entry and analysis, and GIS analysis of kit fox telemetry data.

Malamma and Associates

Associate Biologist

2000 - 2001 · 1 year(s)

Conducted preactivity surveys for sensitive plant and wildlife species, small mammal trapping and relocation, den and burrow excavations, and artificial kit fox den construction and burrowing owl burrow construction for power generation project in McKittrick, California.

Jones and Stokes Associates

Wildlife Biologist

1999 - 1999 · 1 year(s)

Conducted preactivity surveys for special-status wildlife species and performed construction compliance monitoring for fiber optic installation project along State Route 58 through the Carrizo Plain between Kern County and San Luis Obispo County, California.

U.S. Forest Service

Wildlife Technician

1998 - 1998 · 1 year(s)

Assisted with forest carnivore study in Tule River Ranger District; established and monitored tracking plates and remote cameras in the field; conducted vegetation sampling.

Kern County Superintendent of Schools

Naturalist

1997 - 1999 · 3 years

Naturalist for the Kern Environmental Education Program (KEEP) Sierra Campus in Posey, Tulare County, CA.

PUBLICATIONS & WHITEPAPERS

Hoetker, G. The Elkhorn Highlands Reserve: A Collaboration in Conservation. The Wire Volume 19, No. 1. *The Wire (SWCA Environmental Publication)*, 2019.

Hoetker, G.M., and K.W. Gobalet. Predation on Mexican free-tailed bats by burrowing owls in California. *Journal of Raptor Research* 33(4). *Journal of Raptor Research*, 1999, pp. 333-335.

Hoetker, G.M., and K.W. Gobalet. Fossil razorback sucker (Pisces: Catostomidae, *Xyrauchen texanus*) from southeastern California. *Copeia* 99(3). *Copeia*, 1999, pp. 755-759.

PRESENTATIONS

A Project-specific Survey Protocol for Presence of or Negative Finding of the Temblor Legless Lizard (*Anniella alexanderae*). *San Joaquin Valley Natural Communities Conference*, 2024.

NEPA, CEQA, and Permitting Lecture / Lab. *Civil Engineering 466 & 467 - Senior Design, Cal Poly San Luis Obispo*, 2017.

NEPA, CEQA, and Permitting Lecture / Lab. *Civil Engineering 466 & 467 - Senior Design, Cal Poly San Luis Obispo*, 2014.

NEPA, CEQA, and Permitting Lecture / Lab. *Civil Engineering 466 & 467 - Senior Design, Cal Poly San Luis Obispo*, 2013.

Tori Prado

Biological Consultant

8 years of experience · Ventura CA, California

Victoria Prado is an environmental scientist and biologist with a background in habitat restoration, biological surveys, and compliance monitoring. She has been working as a consulting biologist in California for 6 years. Ms. Prado has worked on various task orders for the Navy, Air Force, and utility service companies over the last 5 years. She has conducted biological surveys on Vandenberg Space Force Base (SFB), Travis Air Force Base (AFB), Marine Corps Base Camp Pendleton (MCBCP), Fort Irwin National Training Base, Point Mugu Naval Base (Point Mugu), Naval Base Fallon, Nevada, and F.E. Warren AFB, Wyoming. She has conducted surveys, monitoring, and prepared deliverables for Chevron, SoCal Edison, and large-scale solar projects.

Ms. Prado has also experience as a field biologist and has performed wetland delineations, rare plant surveys and census, vegetation mapping, non-native species removal monitoring, habitat restoration and monitoring, preconstruction surveys, construction monitoring, and eDNA collection and analysis. She has conducted surveys for listed and sensitive plant species and other sensitive wildlife species such as the western pond turtle, larval California tiger salamander, foothill yellow-legged frog, desert tortoise, burrowing owl (BUOW), desert kit fox, Nelson's antelope squirrel, Swainson's hawk, western snowy plover, California least tern, nesting birds, and listed plant species. She has been authorized within a Biological Opinion (BO) to survey for, capture, and relocate vernal pool branchiopods across California.

Ms. Prado has conducted focused surveys for wetlands, vegetation mapping, and rare plants in varied habitats of the United States. Ms. Prado has conducted wetland delineations and assessments per U.S. Army Corps of Engineers protocols in the Pacific Northwest and Arid West ecoregions. Completing vegetation mapping and rare plant surveys and censuses in valley grassland, coastal dune, scale-shrub, arid coastal scrub, marsh, riparian woodland, vernal pool, and disturbed habitats demonstrates that Ms. Prado can recognize a broad range of plant groups and soil characteristics.

EDUCATION

BS, University of California Santa Barbara, Santa Barbara, California, United States, 2016

CERTIFICATIONS & TRAINING

Arid West Wetland Delineation Course , Wetland Training Institute , San Diego, California, United States, 2023

10(a)(1)(A) Recovery Permit for vernal pool branchiopods, United States Fish and Wildlife Service , Sacramento, California, United States, 2020

CRLF Larval and Handling Surveys Workshop, Wildlife Project , Sonoma, California, United States, 2022

ArcGIS Map Courses I and II, GIS, Santa Barbara City College, California, United States, 2017

California Environmental Quality Act (CEQA) Essentials Workshop , Association of Environmental Professionals, Sacramento, California, United States, 2021

Problematic Hydric Soils Course, Wetland Training Institute, CA, United States, 2024

Desert Gopher Tortoise Workshop, Desert Tortoise Group, CA, USA, 2022

Amphibian Telemetry, The Wildlife Project, CA, USA, 2023

SGCN California Bumble Bee Workshop, Xerces Society, Clearlake, California, United States, 2024

Ventura County Approved Qualified Biologist, Ventura County, California, 2025

MEMBERSHIPS

Member, Southern California Chapter of The Wildlife Society

PROJECT EXPERIENCE

ENVIRONMENTAL PLANNING AND MANAGEMENT

Estero Marine Terminal Bulkhead Removal Project | Chevron | Morro Bay, California

Ms. Prado drafted and submitted a coastal dunes habitat restoration and soil stabilization plan that was required to obtain county and coastal commission permits.

ENVIRONMENTAL ASSESSMENT

Proposed Ammonia Production Plant Biological Site Assessment | Kern Country, CA | Biologist

A general biological survey and wetland delineation, per U.S. Army Corps of Engineers (USACE) protocols, were conducted to assess the site for the potential to support special-status species and jurisdictional features. This included vegetation community mapping and habitat assessments for BUOW, raptor nests, San Joaquin kit fox, San Joaquin coachwhip, and Nelson's antelope squirrel. At this site, Ms. Prado identified populations of Nelson's antelope squirrel. Based on this assessment, recommendations for additional biological surveys were developed. Ms. Prado led the biological surveys for this project by coordinating with the field staff and client.

Biological Construction Monitoring in Support of the Decommissioning and Re-construction of Energy Facilities | San Bernardino County, CA | Biological Monitor

Conducted biological project site checks and desert kit fox construction monitoring for the Environmental Compliance team. Site-wide checks are conducted weekly to ensure that work activities comply with the Biological Resource Mitigation Implementation and Monitoring Plan and the Desert Kit Fox and American Badger Management Plan. This involves checking the site for new occurrences of special-status species via wildlife sign or wildlife cameras, surveys for nesting birds, ensuring that physical buffers protecting sensitive species are present and enforced, and site checks of other general permitting and compliance measures to avoid potential impacts to biological resources on the project site. In addition, Ms. Prado has received desert kit fox monitoring training from the designated biologist. While monitoring, Ms. Prado discovered that juvenile desert kit fox had re-colonized a previously in-active natal den and brought this to the attention of the designated biologist. Ms. Prado also performed construction monitoring. This task involved identifying possible non-compliance issues, making recommendations for remedying such issues, and working with the client and project management to fix and document these issues. Past incidents include removing stray animals from the site, encroachment of wildlife-exclusion buffers, and potential wildlife-entrapment risks. Ms. Prado communicated each issue to the designated biologist, the site project manager, and crew foremen. She has documented work activities, site visit summaries, and issues of non-compliance for monitoring

Jet Propulsion Laboratory (JPL) Goldstone Fence Project | Biological Surveyor and Construction Monitor

Ms. Prado mapped vegetation communities and identified sprouting Joshua trees in order to re-design fence alignment so that sensitive communities were not impacted. She also identified potential burrows for American badger, desert kit fox, Mojave ground squirrel, and desert tortoise, and monitored work activity within a recorded population of Lane Mountain milkvetch. During this task she led safety meetings and trained subcontractors on sensitive biological resources.

Proposed Solar Project | Kern County, CA

General biological surveys and wetland assessments, per U.S. Army Corps of Engineers (USACE) protocols, were conducted to assess sites for the potential to support special-status species and jurisdictional features. This included vegetation community mapping and habitat assessments for Swainson's hawk, burrowing owl, San Joaquin kit fox, and Nelson's antelope squirrel. Based on this assessment, recommendations for additional biological surveys were developed

Proposed Battery Storage System Project | San Joaquin County, CA, USA | Biologist

Ms. Prado performed biological surveys for a project involving installation of battery storage systems. General biological surveys and wetland delineations, per USACE protocols, were conducted to assess sites for the potential to support special-status species and jurisdictional features. This included vegetation community mapping and habitat assessments for CRLF, California tiger salamander, Swainson's hawk, BUOW, San Joaquin kit fox, and Nelson's antelope squirrel.

Proposed Solar Energy and Storage Project | Fresno County, CA, USA | Biologist

A solar and storage facility is proposed on approximately 700 acres of private land in Fresno County. Ms. Prado conducted biological surveys for the California Environmental Quality Act (CEQA) and County permitting process. Ms. Prado conducted general site biological surveys and jurisdictional wetland assessments and delineations. Ms. Prado conducted focused burrow surveys at this site for BUOW and San Joaquin kit fox.

Proposed Battery Storage System Project | Kings County, CA, USA | Biologist

Ms. Prado performed biological surveys for a proposed solar project that included a battery storage system and generation-tie line installation. A general biological survey was conducted to assess the site for the potential to support special-status species. This included vegetation community mapping and habitat assessments for typical San Joaquin valley special-status species, including the San Joaquin pocket mouse, Nelson's antelope squirrel, San Joaquin kit fox, and BUOW. Based on this assessment, recommendations for additional biological surveys were developed. Ms. Prado led the biological surveys for this project.

Capacity Power Project | Los Angeles County, CA, USA | Biologist

Ms. Prado conducted biological reconnaissance surveys as part of the CEQA process. A general biological survey was conducted to assess the site for the potential to support special-status species. This included vegetation community mapping and habitat assessments for BUOW, nesting birds, bats, Coast horned lizard, and southern California legless lizard. Based on this assessment, recommendations for additional biological surveys were developed. Ms. Prado led the biological surveys for this project.

San Bernardino Valley College Bird Nesting Surveys | San Bernardino County, CA, USA | Biologist

Ms. Prado conducted pre-construction nest checks for the addition of new facilities at San Bernardino Valley College. Nest checks required using a manlift to examine fan palms for acorn woodpecker nests and potential resident bats. While onsite, Ms. Prado observed an active rufous hummingbird nest and several inactive nests of native and invasive species. Ms. Prado prepared a monitoring report with disturbance-avoidance recommendations and a protection buffers map which she created using ArcGIS Pro.

California Least Tern and Western Snowy Plover Nest Monitoring | Ventura County, CA, USA | Snowy Plover Biologist

Ms. Prado conducted USFWS protocol nesting surveys for the federally endangered California least tern and western snowy plover at Point Mugu. Surveys are conducted in a range of habitat types including foredunes, back dunes, and salt marsh. Ms. Prado performed USFWS protocol nesting season surveys for both species on this project. Overlap in nesting habitat has also provided Ms. Prado experience with detecting Belding's savannah sparrow nests.

Proposed Battery Storage System Project | Shasta County, CA, USA | Wetland Scientist

Ms. Prado conducted a wetlands delineation per USACE protocols for a project involving installation of battery storage systems. This survey involved assessing 10 acres of wetlands of various types. Meadows, swales, and ponds were sampled for dominant vegetation, hydric soils, hydrology, and sensitive species habitat. Ms. Prado performed the wetlands delineation, contributed to the report for this project, and worked with the GIS team to develop jurisdictional boundaries.

El Dorado Water Treatment Project | Los Angeles, CA, USA | Biologist

Ms. Prado conducted rare plant surveys at El Dorado Park for southern tarplant, Horn's milk-vetch, Parish's brittlescale, and San Bernardino aster. This survey involved assessing 14 acres of various shrub and willow habitats for these rare plants. Species were identified and counted in their different life-stages to produce a full population inventory. Ms. Prado contributed to the biological report that was prepared in support of the CEQA process.

Renewable Energies Project | Kern County, CA, USA | Wetland Scientist

Ms. Prado conducted a wetlands delineation per USACE protocols for a project involving the installation of solar panels in western Mojave. This survey involved assessing 5,500 acres of arid west habitat for wetland features. Ephemeral creeks and swales were sampled for dominant vegetation, hydric soils, hydrology, and sensitive species habitat. Ms. Prado performed the literature review prior to onsite assessments, performed the wetlands delineation, mapped jurisdictional boundaries for CDFW and RWQCB (Regional Water Quality Control Board), and contributed to the report for this project.

Ground Based Strategic Deterrent Project | F.E. Warren AFB, Laramie County, Wyoming | Biological Monitor

Ms. Prado conducted biological monitoring for the civil engineering work done in utility corridors near Warren AFB. Ms. Prado monitored a survey team daily to ensure that any sensitive species encountered were not affected by project work. Part of Ms. Prado's monitoring role included identifying potential habitat for hibernating Preble's meadow jumping mouse and ute ladies'-tresses orchid, two federally protected species. Additionally, the project required vegetation mapping, noxious weed, potential wetland, and wildlife resource data. Using ArcGIS Field Maps, Ms. Prado recorded spatial and tabular information on potential wetlands, noxious weeds, and sensitive-species habitat. During her time as team lead on this project, Ms. Prado gave onsite training to team biologists, held safety meetings, and organized logistical work and travel information for team members.

Stormwater Infrastructure Replacement Project | Vandenberg Air Force Base, CA, USA | California Red-Legged Frog Biologist

Ms. Prado conducted biological monitoring for the pipe-clearing work done in stormwater drains on south base. Ms. Prado monitored a survey team daily to ensure that any sensitive species encountered were not affected by project work. Ms. Prado's role involved providing new staff with environmental awareness training, bird-nesting surveys, clearing work areas for vegetation removal, and monitoring pipes for CRLF as sediment was expelled from the pipes.

Communication Line Project | Sonoma County, CA, USA | Wetland Scientist

Ms. Prado conducted sensitive-species habitat and wetland assessments in utility corridors in a discontinuous stretch from Petaluma to Manchester, CA. Ms. Prado outlined areas that would require RWQCB or Lake and Streambed Alteration (LSA) permits. The assessment required identifying potential habitat for sensitive aquatic species, arboreal species, and rare plants. Additionally, the project required vegetation mapping using ArcGIS Field Maps.

Water Treatment Plant Project | Los Angeles, CA, USA | Biologist

A water treatment unit will be installed as part of Long Beach City's water treatment system. Ms. Prado is conducting biological surveys for the California Environmental Quality Act (CEQA) and County permitting process. Ms. Prado conducted focused tree surveys, monarch butterfly roosting surveys, and a wetland delineation at this site. For the tree survey, Ms. Prado recorded the species, tree diameters at breast height, and general health of each tree. With this information, Mr. Prado made recommendations on tree replacement ratios for Los Angeles County.

Proposed Solar Energy and Storage Project | Biologist

A solar and storage facility is proposed on approximately 500 acres of private land in Fresno County. Tetra Tech is conducting biological surveys for the California Environmental Quality Act (CEQA) and County permitting process. Ms. Prado conducted general site biological surveys, Swainson's hawk nesting surveys, and focused burrow surveys at this site for BUOW and San Joaquin kit fox. On this project, Ms. Prado identified an active Swainson's hawk nest.

Proposed Solar Project | Kern County, CA, USA

Ms. Prado performed specialized ecological surveys for a proposed solar project that included a battery storage system and generation-tie line installation. The entire project encompassed approximately 10,000 acres. During these surveys, Ms. Prado mapped sensitive habitat for desert tortoise, BUOW, desert kit fox, Joshua trees and native desert cactus, jurisdictional wetlands, and alkali mariposa-lily.

Salton Sea Restoration Project | California Department of Water Resources | Imperial County, CA, USA | Vernal Pool Branchiopod Biologist

Tetra Tech was facilitating ecological restoration of several wetlands associated with the Salton Sea. As the permitted biologist, Ms. Prado conducted dip-net surveys to confirm the presence of fairy shrimp at these pools. Ms. Prado submitted the request to survey and the 90-day survey report to the USFWS. The request and report required coordination with USFWS, drafting map layouts, working with a team of biologists, and creating survey methodology.

Landslide Restoration Project | Mendocino County, CA, USA | Biological Monitor

Ms. Prado was the biological monitor for construction activities performed for a slope re-construction project. This project required that any possible take of California giant salamander be avoided. Close coordination with the construction crew and CDFW was required to relocate 3 California giant salamanders during work activities. Ms. Prado performed daily compliance monitoring tasks such as training site personnel in the avoidance of sensitive species, equipment clearances, and site checks. Ms. Prado also led implementation of Stormwater Pollution Prevention Plan (SWPPP) best management practices from engineering plans.

Oak Knoll Golf Links Riparian Reconstruction and Landscaping | Oakland, CA, USA | Biological Monitor

Construction monitoring activities were performed for a site at Oak Knoll Golf Course. This project required that sensitive habitats for Alameda whipsnake and Waters of the U.S. be monitored during construction. Close coordination with the construction crew and the on-site landscaping group was required. Ms. Prado performed daily equipment clearances and site checks. She also trained site personnel in the avoidance of sensitive species and habitats.

Guadalupe Restoration Project | Chevron | Guadalupe, CA, USA | Restoration Monitor

Conditions of a Clean-up and Abatement Order and BO were implemented that were obtained from the California Coastal Commission and U.S. Fish and Wildlife Service (USFWS) for the Unocal, now Chevron, 2,800-acre Guadalupe Restoration Project. Ms. Prado performed construction monitoring to ensure that minimization measures to protect special-status species, such as CRLF, nesting birds, rare plants (la Graciosa, beach spectacle-pod, and surf thistle), were implemented. Monitoring was also performed to avoid disturbance of state special-status species such as silvery legless-lizard, burrowing owl, and coast-horned lizard. Minimization measures required the collection of all sensitive soils during the initial topsoil disturbance and its replacement post-construction to preserve species seeds. In addition, Ms. Prado performed pre-construction surveys to mark sensitive-species habitat for avoidance and monitored the assembly of silt fence and off-road vehicle use in biologically sensitive areas. During the nesting season, Ms. Prado also conducted daily site checks for nesting birds. Ms. Prado also surveyed for western snowy plover nests and implemented nest-predator management strategies as part of the monitoring program at Guadalupe Beach. In addition, Ms. Prado drafted a site-specific relocation protocol for coast-horned lizard upon discovering over 100 neonates in a proposed work area.

Guadalupe Restoration Project | Chevron | Wetland Scientist

In order to meet restoration success criteria, project-site restored wetlands were monitored annually. Dominant plant species and habitats were identified and recorded. A wetlands delineation was performed, following USACE protocols. Three wetlands criteria, including hydrophytic vegetation, soil, and hydrology, were analyzed and recorded. Federal and state jurisdictions were delineated concurrently.

San Luis Obispo Tank Farm Remediation Project | Chevron | Biological Monitor

Since several special-status species occurred in the range of the project site, pre-construction surveys were completed prior to disturbance. Ms. Prado assisted in surveys documenting the cover of Cogdon's tarplant, Cambria morning-glory, San Luis Obispo owl's Clover, and purple needle grass. In addition to botanical surveys, she conducted CRLF eye-shines, burrowing owl surveys, and nesting-bird surveys prior to remediation activities.

Extension of Naval Air Force Base Fallon | Lyon County, NV, USA | Biologist

Biological surveys were conducted to document the biological resources in the land acquired by the Naval Air Force. The surveys which Ms. Prado assisted included: wetland delineation per USACE protocols, small mammal trapping, reptile point-count surveys, nesting raptor surveys, and invertebrate collection. In addition to the surveys, Ms. Prado keyed over 1,000 invertebrate specimens to family, tribe, or genus, and performed quality control of GIS data collected throughout the project.

13th Street Bridge Construction | Vandenberg Air Force Base, CA, USA | Biologist

Post-construction, protocol-level surveys were completed to monitor the status of two federally protected species: tidewater goby and CRLF. Ms. Prado assisted in net-seining surveys for larval CRLF and tidewater goby and quarterly eye-shines for CRLF.

Marine Mammal Surveys in Support of SpaceX Launches | Vandenberg Air Force Base, CA, USA | Biologist

Ms. Prado performed various field efforts at Vandenberg SFB. Her responsibilities included monitoring the activity, counts, and births of marine mammals pre- and post-launch, setting up a camera to collect video footage during launch, and contacting the base biologist regarding observations.

eDNA Collection in Support of the USFWS Assessment of California-Native, Freshwater Mussels | USFWS | Ventura County, CA, USA | eDNA Scientist

The UCSB Marine Science Institute obtained grants to assess the distribution of freshwater mussels in the naturally occurring watershed of Los Padres National Forest. As part of this project, Ms. Prado prepared eDNA equipment for field work, tested water for nitrogen and phosphate levels using Hanna Instruments, filtered water for eDNA analysis, extracted DNA from filters, and conducted snorkel surveys for freshwater mussels and invasive snails.

California Tiger Salamander Drift Fence Installation | Travis Air Force Base, Fairfield, CA, USA | Biologist

Under the direction of the base biologist, Ms. Prado contributed to installing three lines of drift fence and 30 pitfall traps for California tiger salamanders along the perimeter of heavily trafficked roads and landing strips during the dry season.

Site Wide Exotic Species Management and Eradication Program (SWEEP), Guadalupe Restoration Project | Chevron | Guadalupe, CA, USA | Restoration Biologist

The SWEEP was a site-specific, veldt grass eradication program based on species-specific herbicide that was applied by helicopter. Ms. Prado contributed to the SWEEP by providing restoration monitoring and GIS support. She and a group of restoration biologists assessed the cover of veldt grass across the 2,800-acre project site on an annual basis. Ms. Prado would take aerial mark-ups of the assessments and map the cover of veldt grass. In order to measure the success of the program, Ms. Prado monitored weed abatement success by conducting botanical transects in treated and untreated habitats.

San Luis Obispo Tank Farm Remediation Project | Chevron | San Luis Obispo, CA, USA | Vernal Pool Branchiopod Biologist

The BO for this project required the restoration of over 10 acres of vernal pool habitat. Restoration success criteria was monitored by the population density of vernal pool fairy shrimp and cover of site-specific vernal pool endemic species. Ms. Prado conducted wet-season sampling of vernal pool branchiopods and annual vernal pool endemic species surveys in constructed vernal pools. She recorded pool conditions, percent cover of non-native and native plant species within each pool, and weather conditions. Ms. Prado was responsible for drafting the vernal pool fairy shrimp monitoring report presented to USFWS and CDFW and developing adaptive management plans based on the success of vernal pool restoration (i.e., weed management, cyst topsoil management). During the dry season, she supervised and led vernal pool construction activities by implementing the plans laid out by the landscaping plans, conducted rare plant surveys for Hoover's button celery and San Luis Obispo's owl clover, and collected seed for Cogdon's tarplant.

Guadalupe Restoration Project | Chevron | Guadalupe, CA, USA | Habitat Restoration Biologist

Habitat restoration was completed and monitored after soil decontamination activities as part of the site-wide coastal dune-scrub habitat restoration plan. The purpose of the project was to restore coastal dune-scrub in areas disturbed by soil removal activities and follow the monitoring and maintenance program for successful site restoration. The objective was to achieve 45% native perennial cover. Habitat restoration activities included overseeing hydroseeding efforts, planting native perennials, relocating native perennials, mapping exotic plant cover for removal, implementing an irrigation program, and implementing erosion control measures. Restoration monitoring activities included quantitative and qualitative assessment of plant community cover in disturbed areas. Ms. Prado assessed the restoration success of sites ranging from 0-10 years in restoration. In addition to general dune-scrub habitat restoration, Ms. Prado also reared two reproducing populations of beach spectacle-pod.

Vernal Pool Monitoring | San Diego Gas and Electric | San Diego, CA | Biological Monitor

Access road maintenance was conducted during the dry season. To ensure that the client met environmental compliance requirements, Ms. Prado served as a monitor for the numerous, mesa vernal pools found along the access roads. Ms. Prado briefed crews on sensitive resources, demarcated sensitive resources in the field to avoid potential impacts, and directed the crews on best management practices (BMPs) for working adjacent to vernal pool resources. At the end of the monitoring event, Ms. Prado submitted a monitoring report to the client.

Proposed Renewable Energy Project | Avantus | Buttonwillow, CA | Biologist

Ms. Prado conducted a habitat assessment for a project involving installation of solar panel arrays, battery storage systems, and generation-tie line installation in the Great Valley Ecoregion. These surveys and written assessments were executed in support of the California Environmental Quality Act (CEQA) and state and local permitting processes. During site visits, Ms. Prado conducted vegetation mapping and habitat mapping for special-status species to assess sites for the potential to support sensitive resources. Based on the results, Ms. Prado drafted a matrix for the client which would help them determine which parcels to avoid developing and which parcels would or would not require additional special-status species surveys. General habitat assessment surveys were conducted for species including: candidate bumble bee species, endemic vernal pool branchiopods, blunt-nosed leopard lizard, California legless-lizards, Tipton kangaroo rat, Swainson's hawk, raptor nests, burrowing owl (BUOW), San Joaquin Kit Fox (SJKF), Nelson's antelope squirrel, and San Joaquin pocket mouse. While onsite, Ms. Prado observed Kangaroo rat tracks, Swainson's hawk first year adults, and Nelson's antelope squirrels.

Central Coast Water Authority Lagoon Restoration | CCWA | San Luis Obispo County | California Red- Legged Frog Monitor

Ms. Prado was approved by USFWS to monitor for and relocate any CRLF found within the work area. As a CRLF monitor, Ms. Prado provided WEAP training, ensured that permit and HCCP conditions were followed, reported on relocation efforts and avoidance of take, and installed ERTEC exclusion fencing around work areas. Working with construction, Ms. Prado suggested adaptive management of work activities to minimize the potential for take of CRLF. Ms. Prado is the primary author on the annual reports for this project.

Carbon Recapture Project | CRC | Kern County, CA, USA | Biologist

Ms. Prado conducted coverboard surveys for the temblor-range legless lizard and rare plant surveys on lands historically used for oil and gas operations and maintenance. Ms. Prado incidentally surveyed for California Glossy Snake.

Botanical Surveys in Support of City Development | Botanist

In support of city expansion and development, Ms. Prado conducted vegetation mapping and focused rare plant surveys in Ventura County, Imperial County, and Kern County.

Santiago Estates Development | San Fernando, CA | Arborist Support

Ms. Prado assisted an ISA-certified arborist in collecting tree data on over 100 trees in a 15-acre area for a housing development project.

Thousand Oaks Mall Extension | City of Thousand Oaks | Thousand Oaks, CA | Arborist Support

Ms. Prado collected data on over 50 trees in a six-acre area in support of a city development project.

WETLAND DELINEATION AND PERMITTING

CRC Buena Vista Hills | California Resources Corporation | Kern County | Wetland Delineator

Ms. Prado assisted in a site-wide delineation for an oil and gas development client. Ms. Prado mapped the jurisdictional boundaries of CDFW- and RWQCB-jurisdictional waters in Atriplex scrub habitat highly disturbed by historic and active oil development activities. Ms. Prado prepared the technical JD report meant to supplement the CEQA process.

SoCal Edison Waters Permitting Support | SoCal Edison | Ventura County | Planning and Permitting Support

As planning support for the waters permitting team, Ms. Prado prepares preliminary findings, habitat assessments, and JD reports to support the permit applications prepared for SCE. Following the completion of technical reports, Ms. Prado prepares Water Quality Certifications for State Waterboards, including Notice of Intent (NOI), Nationwide Permit (NWP), and Pre-Construction Notifications (PCN) applications. Ms. Prado also completes permit forms for EPMIS Standard Notifications and Routine Maintenance Agreements. As permit compliance support, Ms. Prado coordinates construction schedule with permit-required surveys and monitoring and seasonal, biological restrictions. She is a go-to contact for SCE when they have questions pertaining to permitted work. Additionally, she drafts construction notifications to each agency, pre-construction survey reports, and project close out reports as required by RWQCB, SWRCB, and CDFW.

SoCal Edison Distribution and Vegetation Management Wetland Delineation Program | Southern California Edison | California | Wetland Delineator

In order to support the client through the waters/wetlands permitting process, Ms. Prado conducts desktop wetland analysis and onsite wetland delineations per USACE procedures. Through this program, Ms. Prado performed wetland assessments and delineations in Santa Barbara, Ventura, San Bernardino, Kern, Tulare, Fresno, Kings, and Los Angeles Counties. Within the Arid West and Mountains and Valleys Regions, she has delineated spring seeps, wet meadows, roadside channels, ephemeral drainages, agricultural channels, and riparian woodland. She collects data on ordinary high-water mark (OHWM), Waters of the U.S. (WoUS), and CDFW- jurisdictional wetlands using ArcGIS Field Maps and Survey123. After each survey effort, Ms. Prado drafts a technical report and updates these documents based on client comments.

Wetland Delineation in Support of Emergency Work
Activities | Pacific Gas and Electric | Coalinga, CA |
Wetland Delineator

Ms. Prado mapped areas of disturbance related to a large erosion event. As part of the wetland delineation, Ms. Prado mapped out areas of jurisdictional waters and wetlands including the boundaries of the creek, flood zone, and top-of-bank. In addition, she conducted vegetation mapping to determine impacts to natural resources onsite.

SoCal Edison Distribution and Vegetation
Management Construction Monitoring Program |
SoCal Edison | Permitted Projects Construction
Monitor

Ms. Prado conducted waters and protected species construction monitoring for USACE, RWQCB, and CDFW - permitted distribution and vegetation management projects in Santa Barbara and Ventura counties. Responsibilities involved pre-construction surveys, client interfacing, drafting monitoring reports, conducting WEAP trainings, and reporting non-compliance events.

EMPLOYMENT HISTORY

Stantec

Wetland Scientist
Since 2023 · 1 year(s)

TetraTech

Biologist
2021 - 2023 · 2 years

Wetland Restoration Association

Biological Monitor
2021 - 2021 · 1 year(s)

Trihydro

Restoration Biologist
2019 - 2021 · 2 years

ManTech SRS

Biologist
2018 - 2019 · 1 year(s)

University of California Santa Barbara

eDNA Scientist
2017 - 2017 · 1 year(s)

PUBLICATIONS & WHITEPAPERS

Victoria Prado. *Predation on Anniella pulchra by Paruroctonus silvestrii*, 2020, pp. 51.

PRESENTATIONS

Natural History and Current Taxonomy of the Genus *Anniella* in the Central Valley. *The Wildlife Society Annual Conference*, 2025.

Donna Noce
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Dmnoce@gmail.com

Education

B.S. Biology, California State University – Bakersfield (CSUB), Bakersfield, CA, 2011

Graduate studies in Biology, CSUB, Bakersfield; coursework completed: Entomology, vertebrate morphology, phylogenetics, advanced ecology, advanced research design and analysis, advanced population genetics.

Certifications/Permits

Federal 10(a)1(A) Recovery Permit TE-66265D-0 for conducting presence absence surveys and census for Tipton kangaroo rat, giant kangaroo rat, Fresno kangaroo rat, Morro Bay kangaroo rat and the six listed Branchiopods. Currently expired, but operating under PER-1628413-0.1.

California Scientific Collecting Permit (SCP) - SC-201140013 - MOU's for Tipton kangaroo rat, giant kangaroo rat, Fresno kangaroo rat. SCP authorizes capture/release/mark/salvage/relocation (including presence/absence trapping surveys and census) of Tehachapi pocket mouse, Dulzura pocket mouse, short-nosed kangaroo rat, Tulare grasshopper mouse, Salinas pocket mouse, big-eared kangaroo rat, Marysville kangaroo rat, southern grasshopper mouse, and San Bernardino Mountains white-eared pocket mouse. Capture/release/sacrifice of the six federally listed vernal pool fairy/tadpole shrimp species for the purpose of conducting presence/absence surveys and census

SCP is currently being amended/renewed to include capture of bumble bees for photography and identification, and an MOU for Candidate bees is being requested.

Bumble Bees

Project: Aratina 2 Solar Project

Location: Mojave Desert, Kern County, CA

Duration: February 2025 - ongoing

Permit #: Incidental Take Permit No. 2081-2024-038-04

Lead Biologist:

Work Description: As an agency approved Designated Biologist for CBB, Ms. Noce conducted CBB-focused surveys across the site with a team of CBB Designated Monitors, following the Project's Crotch's Bumble Bee Survey and Mortality Reduction and Relocation Plan.

CBB Observed: 1

Other Bumble Bees Observed: 0

Project: CRC CalCapture

Location: Western Kern County, CA

Duration: 2025

Permit #: N/A

Lead Biologist: Logan Elms; Logan.Elms@stantec.com, 661-754-0385

Work Description: Ms. Noce conducted surveys and a habitat assessment following the CDFW Survey Considerations for California Endangered Species Act Candidate Bumble Bees.

Assessment included a summary of features that may make the habitat suitable for CBB, and a list of blooming plants and their estimated percent cover.

CBB Observed: 0

Other Bumble Bees Observed: 0

Project: TD1963193 and TD2080534 Mill Creek Powerhouse Road Grid Resiliency Project

Location: Mono County, CA Unnamed Wetlands Tributary to Wilson Creek

Duration: December 2025

Permit #: Streambed Alteration Agreement EPIMS-MOO-53926-R6

Lead Biologist: Steven Chen; stvnator@gmail.com, 650-224-9375

Work Description: Ms. Noce conducted a habitat assessment to determine the likelihood of CBB to occur within the work area and potential for impact. Assessment included a summary of features that may make the habitat suitable for overwintering and nesting CBB, including a map of small mammal burrows present within the work area and 100ft buffer, and a brief database search of CNDDDB, iNaturalist and Bumble Bee Atlas to establish whether CBB had been observed in the area previously.

CBB Observed: 0

Other Bumble Bees Observed: 0

Project: Ballona Wetlands Ecological Reserve Well Abandonment

Location: Ballona Wetlands Ecological Reserve, Los Angeles County, CA

Duration: 2025

Permit #: N/A

Lead Biologist: Oliver Miano 707-601-7636; tortoiseandhareES@gmail.com

Work Description: Ms. Noce conducted a habitat assessment and single day survey on the site following the observation of a possible Crotch's bumble bee by the lead biologist on site. Worker CBB were observed and photographed. Flowering plant species were noted, as well as other features that may make the habitat suitable for overwintering and nesting bees.

CBB Observed: 5 worker CBB

Other Bumble Bees Observed: *Bombus fervidus*

Project: Burnt Peak Remote Grid

Location: Angeles National Forest, Los Angeles County, CA

Duration: 2025

Permit #: N/A

Lead Biologist: Steven Chen; stvnator@gmail.com, 650-224-9375

Work Description: Ms. Noce observed a worker and queen CBB foraging on site incidentally while providing construction monitoring for other species, and later provided a habitat assessment for the Project to address the risk of take during Project completion. Flowering plant species were noted, as well as other features that may make the habitat suitable for overwintering and nesting bees.

CBB Observed: 1 queen/gyn CBB, 1 worker CBB

Other Bumble Bees Observed: *Bombus vosnesenskii*

Project: Aera CarbonFrontier

Location: West Kern County

Duration: 2024

Permit #: N/A

Lead Biologist: Geoff Hoetker; Geoff.Hoetker@stantec.com; (805)-235-7028;

Work Description: Ms. Noce lead visual detection surveys for Crotch's bumble bee following the CDFW Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species recommendations. Flowering plant species were noted, as well as other features that may make the habitat suitable for overwintering and nesting bees. CBB were photographed and confirmed by taxonomists at the Xerces society.

CBB Observed: 1 worker CBB; 1 male CBB

Project: California High Speed Rail Construction Package 2/3

Location: South of Fresno to the Kern County Line spanning Fresno, Kings and Tulare Counties

Project Description: Construction of high speed rail transportation infrastructure

Duration: 2021-Present

Permit #: ITP No. 2081-2015-024-04 BO No. 08ESMF00-2012- F-0247

Lead Biologist: Pedro Garcia; ximalli08@gmail.com; (805)-286-1574

Work Description: As an agency-approved biologist for Crotch's bumble bee (CBB), Ms. Noce conducted surveys for the species within state jurisdiction waterways throughout the high speed rail project as a requirement of the project's Master Streambed Alteration Agreement. Initially, capture of bees with a net and chilling them on ice for photography was permitted, however when the species became a Candidate, the surveys became visual detection surveys only. CBB were photographed and confirmed by taxonomists at the Xerces Society.

CBB Survey Hours: 100

CBB Observed: 15 worker CBB; 2 gyn CBB

Other Species Observed: 1 worker *Bombus melanopygus*; 1 queen *Bombus vandykei* (observed and photographed by a biological monitor - photographs sent to approved CBB biologists for identification)

Project: California Bumble Bee Atlas

Location: Various locations

Duration: 2023-present

Permit #: S-210530001-21053-001

Lead Biologist: Leif Richardson; leif.richardson@xerces.org

Work Description: Ms. Noce conducted surveys for Crotch's bumble bee following Bumble Bee Atlas protocols and the project's SCP and MOU's. Survey results are currently pending submission except for 1 observation.

CBB Handled: 10 worker CBB

Other Individuals Observed: *Bombus vosnesenskii* (worker & queen); *B. melanopygus* (worker); *B. fervidus* (male)

Project: Glendale Biogas

Location: Los Angeles County, CA

Duration: 2023

Permit #: N/A

Lead Biologist: Jennifer Campbell; jennifer.cambell2@stantec.com; (626)-827-2073

Work Description: Ms. Noce conducted pre-construction surveys for Crotch's bumble bee following the CDFW Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species recommendations. Flowering plant species were noted as well as other features that may make the habitat suitable for overwintering and nesting bees. Ms. Noce also served as one of the on-site biological monitors during vegetation clearance and initial ground disturbance. A survey was done for bees prior to work each day and work was monitored to avoid take of CBB. CBB was photographed and confirmed by a taxonomist at the Xerces Society.

CBB Handled: 0

CBB Observed: 1 male CBB (during pre-construction surveys)

Other Individuals Observed: Worker *Bombus vosnesenskii/caliginosus* (during pre-construction surveys)

Project: California Rare Bumblebee Workshop

Location: N/A

Duration: 2021

Permit #: N/A

Lead Biologist: Ivan Parr 510-589-8649, workshops@twc-west.org

Work Description: This virtual workshop was hosted by The Western Section of The Wildlife Society and featured speakers from CDFW and The Xerces Society. It went over the ecology of bumble bees, including their conservation status and threats they face, with a focus on four rare species in California that currently face extinction: Crotch's bumble bee, Western bumble bee, Franklin's bumble bee and the Suckley cuckoo bumble bee. Participants learned identification of these four bumble bees, survey methods for detection, and best management practices. In addition to this workshop, Ms. Noce has taken university level entomology classes. In the class, we discussed the life cycle and social structure of different hymenopterans, including bumblebees, and the class practiced identifying insects to family using a dichotomous key.

CBB Handled: 0

CBB Observed: 0

Attachment 2

Copies of the CNDDDB occurrence reports generated
from the CNDDDB query for the Project

Copies of the USFWS official species list generated by
IPaC

Copy of the *CTV-I – Carbon Capture and Sequestration
Project Biological Analysis Report*



Multiple Occurrences per Page
California Department of Fish and Wildlife
California Natural Diversity Database



Query Criteria: Imported file selection

<i>Spea hammondii</i>				Element Code: AAABF02020	
western spadefoot					
Listing Status:	Federal:	Proposed Threatened	CNDDB Element Ranks:	Global:	G2G3
	State:	None		State:	S3S4
	Other:	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_NT-Near Threatened			
Habitat:	General:	OCCURS PRIMARILY IN GRASSLAND HABITATS, BUT CAN BE FOUND IN VALLEY-FOOTHILL HARDWOOD WOODLANDS.			
	Micro:	VERNAL POOLS ARE ESSENTIAL FOR BREEDING AND EGG-LAYING.			
Occurrence No.	918	Map Index: B2767	EO Index:	114700	Element Last Seen: 2006-05-10
Occ. Rank:	Unknown		Presence:	Presumed Extant	Site Last Seen: 2006-05-10
Occ. Type:	Natural/Native occurrence		Trend:	Unknown	Record Last Updated: 2019-12-18
Quad Summary:	Tupman (3511933)				
County Summary:	Kern				
Lat/Long:	35.31122 / -119.36033			Accuracy:	non-specific area
UTM:	Zone-11 N3910113 E285414			Elevation (ft):	297
PLSS:	T30S, R24E, Sec. 23, SE (M)			Acres:	63.0
Location:	1.1 MI NW OF INTERSECTION OF TUPMAN ROAD AT GRACE AVENUE, TULE ELK STATE RESERVE, NEAR COMMUNITY OF TUPMAN.				
Detailed Location:	MAPPED TO THE PROVIDED SHAPEFILE OF TRANSECT.				
Ecological:	SPADEFoot HEARD CALLING FROM WETLANDS BETWEEN OUTLET CANAL AND MAIN CANAL. BULLFROGS DETECTED IN THE RESERVE.				
General:	1 SPADEFoot HEARD CALLING ON 10 MAY 2006 DURING TRANSECT SURVEYS.				
Owner/Manager:	DPR-TULE ELK SNR				
Occurrence No.	1211	Map Index: B4542	EO Index:	117478	Element Last Seen: 2017-04-27
Occ. Rank:	Unknown		Presence:	Presumed Extant	Site Last Seen: 2017-04-27
Occ. Type:	Natural/Native occurrence		Trend:	Unknown	Record Last Updated: 2019-12-16
Quad Summary:	Tupman (3511933)				
County Summary:	Kern				
Lat/Long:	35.34904 / -119.32689			Accuracy:	80 meters
UTM:	Zone-11 N3914236 E288554			Elevation (ft):	306
PLSS:	T30S, R25E, Sec. 6, NE (M)			Acres:	5.0
Location:	PIONEER CANAL, ON EAST SIDE OF INTERSTATE 5, 0.7 MILES SE OF STOCKDALE HIGHWAY, WEST OF BAKERSFIELD.				
Detailed Location:					
Ecological:	FARM CANAL SURROUNDED BY GRASSLAND.				
General:	OVER 50 LARVAE FOUND ON 8 APR 2017. 1 JUVENILE OBSERVED ON 27 APR 2017.				
Owner/Manager:	UNKNOWN				



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Occurrence No.	1212	Map Index:	B4544	EO Index:	117480	Element Last Seen:	1977-05-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1977-05-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2019-12-16
Quad Summary:	Stevens (3511932), Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.35427 / -119.26656				Accuracy:	1 mile	
UTM:	Zone-11 N3914689 E294050				Elevation (ft):	321	
PLSS:	T30S, R25E, Sec. 2 (M)				Acres:	1987.0	
Location:	10 MILES WEST OF CALIFORNIA STATE UNIVERSITY, BAKERSFIELD.						
Detailed Location:							
Ecological:	SURROUNDING LAND USED FOR AGRICULTURE.						
General:	COLLECTED IN MAY 1977.						
Owner/Manager:	UNKNOWN						

Occurrence No.	1214	Map Index:	B4546	EO Index:	117482	Element Last Seen:	2017-05-14
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2017-05-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2019-12-16
Quad Summary:	Stevens (3511932), Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.30041 / -119.2564				Accuracy:	non-specific area	
UTM:	Zone-11 N3908693 E294837				Elevation (ft):	318	
PLSS:	T30S, R25E, Sec. 23, SE (M)				Acres:	116.0	
Location:	NEAR INTERSTATE 5 AT THE KERN RIVER, NORTH OF KERN COUNTY RACEWAY PARK, SW OF BAKERSFIELD.						
Detailed Location:							
Ecological:	2017 SURVEY OCCURRED ALONG PROPOSED BIKE PATH. HABITAT CONSISTS OF GRASSLAND AND RIPARIAN.						
General:	COLLECTED FROM VICINITY ON 18 APR 1978. ADULTS AND METAMORPHS INCIDENTALLY OBSERVED DURING SMALL MAMMAL TRAPPING SURVEYS BETWEEN 2 MAY AND 14 MAY 2017.						
Owner/Manager:	UNKNOWN						

Occurrence No.	1215	Map Index:	B4547	EO Index:	117484	Element Last Seen:	2017-06-09
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2017-06-09
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2019-12-16
Quad Summary:	Stevens (3511932), Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.3252 / -119.25243				Accuracy:	1/5 mile	
UTM:	Zone-11 N3911435 E295260				Elevation (ft):	324	
PLSS:	T30S, R25E, Sec. 11 (M)				Acres:	70.0	
Location:	HWY 43 (ENOS LN), IN VICINITY OF ITS INTERSECTION WITH MUNZER RD, WEST OF BAKERSFIELD.						
Detailed Location:	MAPPED TO GIVEN LOCATION: 2 MILES SOUTH OF STOCKDALE HWY ALONG SR 43 (EAST SIDE) IN CALTRANS RIGHT OF WAY AND ADJACENT PROPERTY.						
Ecological:	NONNATIVE ANNUAL GRASSLAND ON PRIVATE LAND, SOIL WAS FRIABLE, AND SOME RUDERAL HABITAT IN CALTRANS RIGHT-OF-WAY BUT LOOKED LIKE IT WAS PREVIOUSLY DISTURBED.						
General:	1 OR 2 ADULTS OBSERVED ON 9 JUN 2017.						
Owner/Manager:	CALTRANS, UNK						



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Occurrence No.	1216	Map Index:	B4548	EO Index:	117485	Element Last Seen:	2017-06-09
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2017-06-09
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2019-12-17
Quad Summary:	Stevens (3511932), Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.27717 / -119.25266				Accuracy:	1/5 mile	
UTM:	Zone-11 N3906108 E295118				Elevation (ft):	312	
PLSS:	T30S, R25E, Sec. 35, NE (M)				Acres:	70.0	
Location:	HIGHWAY 43 (ENOS LANE), 0.5 MILE NORTH OF HIGHWAY 119, WEST OF BAKERSFIELD.						
Detailed Location:	MAPPED TO 2017 RECORD'S GIVEN LOCATION: 0.5 MI N OF SR 119 ALONG SR 43. ATTRIBUTED 1963 SPECIMEN COLLECTED FROM "14 MI NE TAFT," EXACT LOCATION UNKNOWN.						
Ecological:	NONNATIVE ANNUAL GRASSLAND ON PRIVATE LAND, SOIL WAS FRIABLE, AND SOME RUDERAL HABITAT IN CALTRANS RIGHT-OF-WAY BUT LOOKED LIKE IT WAS PREVIOUSLY DISTURBED.						
General:	COLLECTED FROM VICINITY ON 8 APR 1963. 1 OR 2 ADULTS OBSERVED ON 9 JUN 2017.						
Owner/Manager:	CALTRANS, UNK						

Occurrence No.	1218	Map Index:	B4551	EO Index:	117487	Element Last Seen:	1936-04-10
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1936-04-10
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2019-12-20
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.26709 / -119.19745				Accuracy:	1 mile	
UTM:	Zone-11 N3904877 E300116				Elevation (ft):	323	
PLSS:	T31S, R26E, Sec. 4 (M)				Acres:	1987.0	
Location:	5 MILES WEST OF OLD RIVER, SW OF BAKERSFIELD.						
Detailed Location:	COLLECTION LOCALITY DESCRIBED AS 5 MILES WEST OF OLD RIVER. MAPPED 5 MILES WEST OF THE COMMUNITY OF OLD RIVER.						
Ecological:	AERIAL IMAGERY SHOWS SURROUNDING LAND IS COMPOSED OF OPEN SPACE AND AGRICULTURAL FIELDS.						
General:	LARVA COLLECTED ON 10 APR 1936.						
Owner/Manager:	UNKNOWN						

Occurrence No.	1227	Map Index:	B4562	EO Index:	117500	Element Last Seen:	1998-05-02
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	1998-05-02
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2019-12-18
Quad Summary:	Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.38189 / -119.51576				Accuracy:	80 meters	
UTM:	Zone-11 N3918300 E271480				Elevation (ft):	259	
PLSS:	T29S, R23E, Sec. 28, NW (M)				Acres:	5.0	
Location:	KERN RIVER FLOOD CANAL, 0.85 AIR MILE WEST OF ELK GROVE RD AND BUERKLE RD INTERSECTION, SW OF BUTTONWILLOW.						
Detailed Location:	MAPPED ACCORDING TO PROVIDED MAP. SITE NAME: LPP-137.						
Ecological:	SURROUNDING LAND USE: GRAZING AND AGRICULTURE.						
General:	1 HEARD CALLING FROM SLOUGH ON 2 MAY 1998.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	1229	Map Index:	B4569	EO Index:	117507	Element Last Seen:	2022-04-25
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2022-04-25
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2023-06-14
Quad Summary:	Buttonwillow (3511944)						
County Summary:	Kern						
Lat/Long:	35.40486 / -119.40061			Accuracy:	80 meters		
UTM:	Zone-11 N3920589 E282004			Elevation (ft):	293		
PLSS:	T29S, R24E, Sec. 16, SE (M)			Acres:	5.0		
Location:	0.3 MILES NORTH OF INTERSTATE 5 AT HWY 58, I-5 BUTTONWILLOW WAYSIDE, ABOUT 4 MILES EAST OF THE TOWN OF BUTTONWILLOW.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES. AREA IS AT THE NORTH END OF WILLOW DRIVE.						
Ecological:	VERNAL POOL/ALKALI FLAT AREA. IN 2022 TADPOLES & ADULT WERE OBSERVED IN A COUPLE OF SHALLOW DRAINAGE DITCHES ASSOCIATED WITH WHAT APPEARS TO BE A SPRING AT THE N END OF WILLOW DR AND A MOTEL PROPERTY; LINEAR CHANNELS VISIBLE IN AERIALS.						
General:	COLLECTED ON 19 APR 1992 AND LATER USED FOR GENETIC ANALYSIS. TADPOLES FOUND IN THE EVENING ON 24 APR AND AN ADULT FOUND IN THE EVENING ON 25 APR 2022.						
Owner/Manager:	UNKNOWN						
Occurrence No.	1231	Map Index:	B4578	EO Index:	117515	Element Last Seen:	2009-04-XX
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	2009-04-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2019-12-27
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.31414 / -119.38086			Accuracy:	80 meters		
UTM:	Zone-11 N3910481 E283555			Elevation (ft):	303		
PLSS:	T30S, R24E, Sec. 15, SE (M)			Acres:	5.0		
Location:	BETWEEN CALIFORNIA AQUEDUCT AND OUTLET CANAL, 2 MILES NW OF TUPMAN, WEST OF TULE ELK STATE RESERVE.						
Detailed Location:	MAPPED ACCORDING TO MAP PROVIDED.						
Ecological:	FOUND IN TWO SMALL SHALLOW DEPRESSIONS IN THE SOIL. ASSOCIATED PLANT COMMUNITY WAS DEGRADED ALLSCALE SCRUB. AERIAL IMAGERY SHOWS SITE IS BORDERED BY AGRICULTURAL FIELDS TO THE NORTH AND AQUEDUCT TO THE SOUTH.						
General:	ABOUT 200 LARVAE OBSERVED ON 23 MAR 2009. DESICCATED LARVAE FOUND DURING SITE REVISIT IN APRIL 2009; POOL DRIED BEFORE LARVAE COULD METAMORPHOSE.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	1232	Map Index:	B4587	EO Index:	117522	Element Last Seen:	1998-04-26
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-26
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2019-12-18
Quad Summary:	West Elk Hills (3511935), Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.37556 / -119.53003				Accuracy:	80 meters	
UTM:	Zone-11 N3917631 E270166				Elevation (ft):	306	
PLSS:	T29S, R23E, Sec. 29, SW (M)				Acres:	5.0	
Location:	ALONG THE CALIFORNIA AQUEDUCT, 1.4 MILES SE OF THE CROSSING OF HIGHWAY 58, SW OF BUTTONWILLOW.						
Detailed Location:	MAPPED ACCORDING TO PROVIDED MAP. SITE LPP-224.						
Ecological:	SPADEFoot OBSERVED IN PUDDLE. SURROUNDING LAND COMPOSED OF OPEN SPACE.						
General:	MORE THAN 5 TADPOLES OBSERVED ON 26 APR 1998.						
Owner/Manager:	UNKNOWN						
Occurrence No.	1346	Map Index:	B5138	EO Index:	118075	Element Last Seen:	2019-04-26
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2019-04-26
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2020-02-21
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.31446 / -119.21987				Accuracy:	80 meters	
UTM:	Zone-11 N3910177 E298194				Elevation (ft):	332	
PLSS:	T30S, R26E, Sec. 18, SE (M)				Acres:	5.0	
Location:	2.2 MILES NE OF THE INTERSECTION OF PANAMA LANE AND HIGHWAY 43, SOUTH OF KERN RIVER, WEST OF BAKERSFIELD.						
Detailed Location:	SITE NAME: 2800 ACRE POOL #2. MAPPED TO COORDINATES PROVIDED.						
Ecological:	SITE USED AS A GROUNDWATER RECHARGE FACILITY WITH RETENTION PONDS.						
General:	METAMORPHS OBSERVED ON 26 APR 2019.						
Owner/Manager:	CITY OF BAKERSFIELD						



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Plegadis chihi

white-faced ibis

Element Code: ABNGE02020

Listing Status: **Federal:** None **CNDDB Element Ranks:** **Global:** G5
State: None **State:** S3S4
Other: CDFW_WL-Watch List, IUCN_LC-Least Concern
Habitat: **General:** SHALLOW FRESHWATER MARSH.
Micro: DENSE TULE THICKETS FOR NESTING, INTERSPERSED WITH AREAS OF SHALLOW WATER FOR FORAGING.

Occurrence No. 20 **Map Index:** 25591 **EO Index:** 49014 **Element Last Seen:** 1922-XX-XX
Occ. Rank: None **Presence:** Extirpated **Site Last Seen:** 1922-XX-XX
Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 2002-10-14

Quad Summary: Millux (3511922), Mouth of Kern (3511923)

County Summary: Kern

Lat/Long: 35.19175 / -119.29602 **Accuracy:** non-specific area
UTM: Zone-11 N3896722 E290955 **Elevation (ft):** 290
PLSS: T31S, R25E (M) **Acres:** 24258.9

Location: BUENA VISTA LAKE, SAN JOAQUIN VALLEY.

Detailed Location:

Ecological:

General: NESTING DOCUMENTED IN THE EARLY 1900'S. LAST NESTING IN KERN COUNTY IN 1922.

Owner/Manager: PVT

Dendrocygna bicolor

fulvous whistling-duck

Element Code: ABNJB01010

Listing Status: **Federal:** None **CNDDB Element Ranks:** **Global:** G5
State: None **State:** S1
Other: CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern
Habitat: **General:** FRESH-WATER MARSH.
Micro: TULE/CATTAIL MARSH.

Occurrence No. 3 **Map Index:** 25591 **EO Index:** 56767 **Element Last Seen:** 1922-07-02
Occ. Rank: Unknown **Presence:** Presumed Extant **Site Last Seen:** 1922-07-02
Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 2004-09-13

Quad Summary: Millux (3511922), Mouth of Kern (3511923)

County Summary: Kern

Lat/Long: 35.19175 / -119.29602 **Accuracy:** non-specific area
UTM: Zone-11 N3896722 E290955 **Elevation (ft):** 290
PLSS: T31S, R25E (M) **Acres:** 24258.9

Location: BUENA VISTA LAKE, SAN JOAQUIN VALLEY.

Detailed Location:

Ecological:

General: 2 MVZ EGG SETS (#3636 & 3637) COLLECTED 2 JUL 1922 & 12 AUG 1922 BY ALDEN H. MILLER.

Owner/Manager: PVT

Element Code: ABNKC19070



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Buteo swainsoni

Swainson's hawk

Listing Status:	Federal:	None	CNDDDB Element Ranks:	Global:	G5
	State:	Threatened		State:	S4
	Other:	BLM_S-Sensitive, IUCN_LC-Least Concern			
Habitat:	General:	BREEDS IN GRASSLANDS WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, AND AGRICULTURAL OR RANCH LANDS WITH GROVES OR LINES OF TREES.			
	Micro:	REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.			

Occurrence No.	2523	Map Index:	90322	EO Index:	91375	Element Last Seen:	2017-05-03
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2017-05-03
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2020-06-29

Quad Summary: Lokern (3511945)

County Summary: Kern

Lat/Long:	35.39807 / -119.53695	Accuracy:	80 meters
UTM:	Zone-11 N3920145 E269600	Elevation (ft):	270
PLSS:	T29S, R23E, Sec. 18, SE (M)	Acres:	0.0

Location: JUST WEST OF THE LOKERN ROAD/MCKITTRICK HIGHWAY (HWY 58) JUNCTION, ABOUT 3.75 MILES WEST OF BUTTOWILLOW.

Detailed Location: MAPPED TO PROVIDED COORDINATES.

Ecological: NEST IN LARGE TAMARISK SURROUNDED BY SALTBUSH SCRUB AND ALKALI FLATS; ONLY TREE FOR MILES AROUND. SURVEYORS NOTED DISTURBANCE FROM OIL DEVELOPMENT AND TRAFFIC. SURROUNDING LAND PROTECTED IN LOKERN ECOLOGICAL RESERVE AND LOKERN PRESERVE.

General: TERRITORIAL DEFENSE OBSERVED 5 APR, NEST-BUILDING 9 APR, COPULATION 27 APR, & 3 CHICKS OBSERVED ON SUBSEQUENT VISITS IN 2012. NESTING PAIR OBSERVED 1 JUL 2015. PAIR OBSERVED DEFENDING TERRITORY ON 1 APR 2016. SEEN ON NEST 3 MAY 2017.

Owner/Manager: PVT, DFG

Occurrence No.	2530	Map Index:	90333	EO Index:	91392	Element Last Seen:	2001-07-25
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-07-25
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2013-09-16

Quad Summary: Tupman (3511933)

County Summary: Kern

Lat/Long:	35.30717 / -119.26555	Accuracy:	1/5 mile
UTM:	Zone-11 N3909462 E294022	Elevation (ft):	310
PLSS:	T30S, R25E, Sec. 23, NW (M)	Acres:	0.0

Location: NORTHEAST SIDE OF I-5, ABOUT 1 MILE NW OF ENOS LN AT PANAMA LN AND 5 MILES ENE OF TUPMAN.

Detailed Location: MAPPED TO VICINITY OF COORDINATES PROVIDED ON FIELD SURVEY FORM.

Ecological: NESTING HABITAT WAS VALLEY FOOTHILL RIPARIAN SURROUNDED BY ANNUAL RASSLAND AND ATRIPLEX SCRUB.

General: 1 NESTING ADULT AND 1 JUVENILE OBSERVED ON 25 JUL 2001. ANOTHER 2 HAWKS OBSERVED ABOUT 0.25 MILE NORTH ON SAME DATE, AGE AND BEHAVIOR NOT SPECIFIED.

Owner/Manager: KERN WATER BANK AUTHORITY



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Occurrence No.	2531	Map Index:	90334	EO Index:	91398	Element Last Seen:	2016-04-07
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2016-04-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2019-07-01
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.33139 / -119.36439				Accuracy:	80 meters	
UTM:	Zone-11 N3912359 E285098				Elevation (ft):	290	
PLSS:	T30S, R24E, Sec. 11, SE (M)				Acres:	0.0	
Location:	NORTH END OF TULE ELK STATE RESERVE, ON S SIDE OF STATION RD ABOUT 0.6 MI E OF THE TUPMAN RD JCT & 2.5 MI N OF TUPMAN.						
Detailed Location:	1978 SIGHTING WAS FIRST RECORDED DETECTION ON RESERVE, EXACT LOCATION UNKNOWN. MAPPED TO COORDINATES GIVEN FOR 2006/2007 NEST (SITE TE-1 IN DPR SHAPEFILE). 2016 COORDINATES APPEAR TO BE INACCURATE.						
Ecological:	2006-07 NEST IN COTTONWOOD ON EDGE OF NORTH POND NEAR PARK HQ, IN SMALL RIPARIAN GROVE SURROUNDED BY ANNUAL GRASSLAND; SURVEYORS FOUND HABITAT CONDITIONS ON RESERVE TO BE IN A "HIGHLY DEGRADED STATE." 2016 NEST IN COTTONWOOD AT MAIN POND.						
General:	1 FORAGING SWAINSON'S HAWK OBSERVED ON 30 SEP 1978. NEST-BUILDING OBSERVED IN MAR 2006. INCUBATION OBSERVED BETWEEN 30 APR AND 3 MAY 2007, OUTCOME UNKNOWN. NESTING PAIR WITH 2 YOUNG OBSERVED IN 2016.						
Owner/Manager:	DPR-TULE ELK SNR						

Occurrence No.	2532	Map Index:	25591	EO Index:	91405	Element Last Seen:	1936-05-03
Occ. Rank:	None			Presence:	Possibly Extirpated	Site Last Seen:	1936-05-03
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2013-09-23
Quad Summary:	Millux (3511922), Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.19175 / -119.29602				Accuracy:	non-specific area	
UTM:	Zone-11 N3896722 E290955				Elevation (ft):	290	
PLSS:	T31S, R25E (M)				Acres:	24258.9	
Location:	BUENA VISTA LAKE, SAN JOAQUIN VALLEY.						
Detailed Location:	MAPPED GENERALLY TO SPECIMEN LOCALITY, "BUENA VISTA LAKE;" EXACT COLLECTION LOCATIONS UNKNOWN.						
Ecological:	BUENA VISTA LK WAS A LARGE FRESHWATER LAKE SURROUNDED BY MARSHLANDS; DRY BY THE1950S DUE TO IMPOUNDMENT & DIVERSION OF ITS TRIBUTARIES. 1919: STICK NEST 10' UP IN MESQUITE, LINED W/FOXTAILS. 1936 NEST 20' UP IN LARGE, OLD WILLOW IN PASTURE.						
General:	E. WHITE COLLECTED 2 EGGS ON 4 MAY 1919; FEMALE BIRD PRESENT. M. BADGER COLLECTED 3 EGGS ON 3 MAY 1936; BIRD ON NEST, THEN "SAT VERY CLOSE."						
Owner/Manager:	UNKNOWN						



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Occurrence No.	2776	Map Index:	B3342	EO Index:	115258	Element Last Seen:	2016-05-31
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2016-05-31
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2019-07-10
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.34457 / -119.27471				Accuracy:	1/10 mile	
UTM:	Zone-11 N3913630 E293285				Elevation (ft):	322	
PLSS:	T30S, R25E, Sec. 3, SE (M)				Acres:	18.0	
Location:	S SIDE PIONEER CANAL, ABOUT 1.4 MI SE OF PLUMWOOD ST AT STOCKDALE HWY & 3.75 MI NNW OF I-5 AT CA-43.						
Detailed Location:	MAPPED TO CORRECTED COORDINATES PROVIDED BY SURVEYOR. KERN WATER BANK AUTHORITY PROPERTY.						
Ecological:	NATURAL AREA.						
General:	NESTING PAIR REPORTEDLY OBSERVED ON 31 MAY 2016.						
Owner/Manager:	KERN WATER BANK AUTHORITY						

Occurrence No.	2777	Map Index:	B3343	EO Index:	115259	Element Last Seen:	2016-05-31
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2016-05-31
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2019-09-27
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.31985 / -119.22099				Accuracy:	1/10 mile	
UTM:	Zone-11 N3910777 E298106				Elevation (ft):	333	
PLSS:	T30S, R26E, Sec. 18, NE (M)				Acres:	18.0	
Location:	2800 ACRE WATER BANK (=KERN WATER BANK), VICINITY OF THE KERN RIVER EAST OF ENOS LANE, SW OF BAKERSFIELD.						
Detailed Location:	MAPPED TO COORDINATES SUPPLIED ON FIELD SURVEY FORM FOR 2016 DETECTION.						
Ecological:	NATURAL AND AGRICULTURAL LAND USE.						
General:	NESTING PAIR REPORTEDLY OBSERVED ON 31 MAY 2016.						
Owner/Manager:	KERN WATER BANK AUTHORITY						



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Occurrence No.	2787	Map Index:	B3384	EO Index:	115300	Element Last Seen:	2018-06-26
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2018-06-26
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2019-07-08
Quad Summary:	Buttonwillow (3511944)						
County Summary:	Kern						
Lat/Long:	35.41905 / -119.42581				Accuracy:	80 meters	
UTM:	Zone-11 N3922219 E279753				Elevation (ft):	298	
PLSS:	T29S, R24E, Sec. 8, SW (M)				Acres:	5.0	
Location:	BUTTONWILLOW REST STOP ON W SIDE I-5, ABOUT 0.8 MI NW OF SULLIVAN RD AT TRACY RD & 2.4 MI SE OF I-5 AT 7TH STANDARD WAY.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	NEST IN ORNAMENTAL EUCALYPTUS TREE IN REST STOP ALONG I-5. SURROUNDING AREA AGRICULTURAL (ORCHARDS, ALFALFA). DISTURBANCE FROM VEGETATION MANAGEMENT CREWS. THE PAIR DEMONSTRATED SITE FIDELITY 2016-2018.						
General:	NESTING PAIR WITH 1 YOUNG OBSERVED 1 JUN 2016. NESTING REPORTEDLY OCCURRED IN 2017. NESTING PAIR WITH 2 DOWNY CHICKS IN NEST OBSERVED ON 26 JUN 2018.						
Owner/Manager:	CALTRANS						

Occurrence No.	2789	Map Index:	B3392	EO Index:	115305	Element Last Seen:	2017-04-18
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2017-04-18
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2019-07-08
Quad Summary:	Buttonwillow (3511944)						
County Summary:	Kern						
Lat/Long:	35.39897 / -119.39463				Accuracy:	80 meters	
UTM:	Zone-11 N3919922 E282531				Elevation (ft):	294	
PLSS:	T29S, R24E, Sec. 16, SE (M)				Acres:	5.0	
Location:	N SIDE OF CA-58 JUST E OF THE TRACY AVE INTERSECTION, ON THE E SIDE OF I-5 NEAR BUTTONWILLOW.						
Detailed Location:	NEST TREE IN PARKING LOT OF CALIFORNIA INN & SUITES (HOTEL). MAPPED TO PROVIDED COORDINATES.						
Ecological:	NEST IN ORNAMENTAL PINE TREE IN HOTEL PARKING LOT.						
General:	NEST-BUILDING ACTIVITY OBSERVED, PAIR SEEN FLYING IN & OUT OF NEST TREE THROUGHOUT SEASON IN 2017; HOWEVER, THE NEST WAS DIFFICULT TO SEE AND NEST SUCCESS WAS NOT DETERMINED.						
Owner/Manager:	PVT						



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Occurrence No.	2807	Map Index:	B4079	EO Index:	116997	Element Last Seen:	2019-04-28
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		2019-04-28	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2019-09-27	
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.31354 / -119.31395			Accuracy:	1/10 mile		
UTM:	Zone-11 N3910271 E289638			Elevation (ft):	307		
PLSS:	T30S, R25E, Sec. 17, SE (M)			Acres:	18.0		
Location:	ABOUT 2.0 MI SE OF ELIC VALLEY RD AT STATION RD & 3.75 MI NW OF I-5 AT S ENOS LN (CA-43), W OF TULE ELK STATE RESERVE.						
Detailed Location:	MAPPED TO COORDINATES FOR NEST SITE, WHICH WERE PROVIDED ON REQUEST. LOCATION GIVEN IN EBIRD AS KERN WATER BANK, 50 MILE DRIVING TOUR.						
Ecological:							
General:	OCCUPIED NEST OBSERVED ON 28 APR 2019. A TOTAL OF 6 INDIVIDUALS WERE OBSERVED THROUGHOUT THE DRIVING SURVEY, WHICH COVERED 50 MILES.						
Owner/Manager:	UNKNOWN						

Falco mexicanus

Element Code: ABNKD06090

prairie falcon

Listing Status:	Federal:	None	CNDDDB Element Ranks:	Global:	G5
	State:	None		State:	S4
	Other:	CDFW_WL-Watch List, IUCN_LC-Least Concern			
Habitat:	General:	INHABITS DRY, OPEN TERRAIN, EITHER LEVEL OR HILLY.			
	Micro:	BREEDING SITES LOCATED ON CLIFFS. FORAGES FAR AFIELD, EVEN TO MARSHLANDS AND OCEAN SHORES.			

*** SENSITIVE ***

Occurrence No.	451	Map Index:	33366	EO Index:	18211	Element Last Seen:	1989-06-06
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	1989-06-06
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-02
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:					Accuracy:	80 meters	
UTM:					Elevation (ft):	1075	
PLSS:					Acres:	0.0	
Location:	*SENSITIVE* LOCATION INFORMATION SUPPRESSED.						
Detailed Location:	PLEASE CONTACT THE CALIFORNIA NATURAL DIVERSITY DATABASE, CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE, FOR MORE INFORMATION: (916) 322-2493						
Ecological:	HABITAT SURROUNDING THE EYRIE CONSISTS OF VALLEY SALTBUSH SCRUB, WITH GRASSLAND INCLUSIONS TRAVERSED BY EPHEMERAL CREEKS. GOOD FORAGING HABITAT LOCATED NEARBY.						
General:							
Owner/Manager:							



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Anarhynchus nivosus nivosus

Element Code: ABNNB03031

western snowy plover

Listing Status: **Federal:** Threatened

CNDDDB Element Ranks: **Global:** G3T3

State: None

State: S3

Other: CDFW_SSC-Species of Special Concern

Habitat: **General:** SANDY BEACHES, SALT POND LEVEES AND SHORES OF LARGE ALKALI LAKES.

Micro: NEEDS SANDY, GRAVELLY OR FRIABLE SOILS FOR NESTING.

Occurrence No. 96 **Map Index:** 25591 **EO Index:** 5475 **Element Last Seen:** 1912-XX-XX

Occ. Rank: None **Presence:** Extirpated **Site Last Seen:** 1978-XX-XX

Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 1994-06-01

Quad Summary: Millux (3511922), Mouth of Kern (3511923)

County Summary: Kern

Lat/Long: 35.19175 / -119.29602 **Accuracy:** non-specific area

UTM: Zone-11 N3896722 E290955 **Elevation (ft):** 290

PLSS: T31S, R25E (M) **Acres:** 24258.9

Location: BUENA VISTA LAKE BED, SAN JOAQUIN VALLEY.

Detailed Location:

Ecological:

General: ONE NEST FOUND IN 1907; UNKNOWN NUMBER OF PAIRS FOUND MAY-JUNE 1912.

Owner/Manager: PVT



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Anarhynchus montanus

Element Code: ABNNB03100

mountain plover

Listing Status: **Federal:** None **CNDDB Element Ranks:** **Global:** G3
State: None **State:** S2
Other: BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_NT-Near Threatened, USFWS_BCC-Birds of Conservation Concern
Habitat: **General:** SHORT GRASSLANDS, FRESHLY PLOWED FIELDS, NEWLY SPROUTING GRAIN FIELDS, AND SOMETIMES SOD FARMS.
Micro: SHORT VEGETATION, BARE GROUND, AND FLAT TOPOGRAPHY. PREFERS GRAZED AREAS AND AREAS WITH BURROWING RODENTS.

Occurrence No. 1 **Map Index:** 40902 **EO Index:** 40902 **Element Last Seen:** 1990-01-16
Occ. Rank: Good **Presence:** Presumed Extant **Site Last Seen:** 1990-01-16
Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 1999-03-10

Quad Summary: Tupman (3511933)

County Summary: Kern

Lat/Long: 35.32267 / -119.36051 **Accuracy:** non-specific area
UTM: Zone-11 N3911383 E285428 **Elevation (ft):** 290
PLSS: T30S, R24E, Sec. 14, NE (M) **Acres:** 33.3

Location: TULE ELK STATE RESERVE, 2 MILES NNW OF TUPMAN.

Detailed Location: SITE IS LOCATED NORTH OF THE MID PONDS.

Ecological: HABITAT CONSISTS OF ANNUAL GRASSLAND FLAT AREAS AND SHALLOW BASINS OF OLD BUENA VISTA SLOUGH VEGETATED BY BROMUS, HORDEUM, AND DISTICHLIS, WITH SISYMBRIUM AND ERODIUM ON DRAINED LOKERN CLAY.

General: 22 OBSERVED ON 3 JAN 1990 AND 21 OBSERVED ON 16 JAN 1990.

Owner/Manager: DPR-TULE ELK SNR



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Coccyzus americanus occidentalis

Element Code: ABNRB02022

western yellow-billed cuckoo

Listing Status: **Federal:** Threatened

CNDDB Element Ranks: **Global:** G5T2T3

State: Endangered

State: S1

Other: BLM_S-Sensitive, USFS_S-Sensitive

Habitat: **General:** RIPARIAN FOREST NESTER, ALONG THE BROAD, LOWER FLOOD-BOTTOMS OF LARGER RIVER SYSTEMS.

Micro: NESTS IN RIPARIAN JUNGLES OF WILLOW, OFTEN MIXED WITH COTTONWOODS, WITH LOWER STORY OF BLACKBERRY, NETTLES, OR WILD GRAPE.

Occurrence No.	82	Map Index:	25591	EO Index:	5476	Element Last Seen:	1922-07-22
Occ. Rank:	None	Presence:	Extirpated	Site Last Seen:		1922-07-22	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2015-04-06	

Quad Summary: Millux (3511922), Mouth of Kern (3511923)

County Summary: Kern

Lat/Long:	35.19175 / -119.29602	Accuracy:	non-specific area
UTM:	Zone-11 N3896722 E290955	Elevation (ft):	290
PLSS:	T31S, R25E (M)	Acres:	24258.9

Location: BUENA VISTA LAKE BED, SAN JOAQUIN VALLEY.

Detailed Location:

Ecological: 1908: IN WILLOW THICKETS FROM SUMMIT LAKE TO BUENA VISTA LAKE.

General: "FAIRLY COMMON, BREEDING" IN 1907. "RATHER COMMON" IN 1908, 1 COLLECTED. 10 ADULTS COLLECTED IN 1921 & 8 IN 1922 (HOUSED AT UCLA). 1 IN SDNHM. NEST WITH EGG AND 2 NESTLINGS COLLECTED IN 1921 (WFVZ #63846).

Owner/Manager: PVT

Athene cunicularia

Element Code: ABNSB10010

burrowing owl

Listing Status: **Federal:** None

CNDDB Element Ranks: **Global:** G4

State: Candidate Endangered

State: S2

Other: BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern

Habitat: **General:** OPEN, DRY ANNUAL OR PERENNIAL GRASSLANDS, DESERTS, AND SCRUBLANDS CHARACTERIZED BY LOW-GROWING VEGETATION.

Micro: SUBTERRANEAN NESTER, DEPENDENT UPON BURROWING MAMMALS, MOST NOTABLY, THE CALIFORNIA GROUND SQUIRREL.



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Occurrence No.	75	Map Index:	15622	EO Index:	25448	Element Last Seen:	1988-09-21
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1988-09-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2000-05-03
Quad Summary:	Millux (3511922)						
County Summary:	Kern						
Lat/Long:	35.23888 / -119.23875				Accuracy:	1/5 mile	
UTM:	Zone-11 N3901831 E296288				Elevation (ft):	300	
PLSS:	T31S, R25E, Sec. 12, SE (M)				Acres:	0.0	
Location:	NE OF BUENA VISTA LAKE BED, 2.5 MILES WEST OF I-5, JUST NORTH OF UNION ROAD.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF VALLEY SINK SCRUB, DOMINATED BY SPOROBOLUS AIROIDES AND SUAEDA FRUTICOSA; MANY PLAYAS, HUMMOCKS, AND SMALL DRAINAGES; GRADES TO HIGHER TOPOGRAPHY WITH ATRIPLEX SPINIFERA DOMINATING.						
General:	ON 21 SEP 1988, 3 OWLS WERE OBSERVED, ONE FLYING FROM THE BURROW.						
Owner/Manager:	PVT-TENNECO/OCEANIC INC						

Occurrence No.	245	Map Index:	33632	EO Index:	29580	Element Last Seen:	1994-10-03
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1994-10-03
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1997-01-15
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.30539 / -119.36842				Accuracy:	80 meters	
UTM:	Zone-11 N3909483 E284662				Elevation (ft):	300	
PLSS:	T30S, R24E, Sec. 23, NW (M)				Acres:	0.0	
Location:	ON THE SECONDARY SIDE OF THE CALIFORNIA AQUEDUCT, JUST DOWNSTREAM OF THE TUPMAN ROAD OVERCROSSING, AT MILEPOST 236.47.						
Detailed Location:	OWLS HAVE USED A CLUSTER OF BURROWS ON THE EMBANKMENT FOR AN EXTENDED PERIOD OF TIME.						
Ecological:	HABITAT CONSISTS OF VALLEY SALT BUSH SCRUB, DOMINATED BY SALT BUSH, NON-NATIVE GRASSES, FIDDLENECK, AND FILAREE. OTHER RARE TAXA FOUND IN THE VICINITY INCLUDE SAN JOAQUIN KIT FOX AND SAN JOAQUIN ANTELOPE SQUIRREL.						
General:	2 ADULTS OBSERVED AT THE BURROW ON 3 OCTOBER 1994; DWR HAS SET A 50-FT EXCLUSION ZONE AROUND THE DEN TO AVOID IMPACTS.						
Owner/Manager:	DWR						



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Occurrence No.	298	Map Index:	40075	EO Index:	35077	Element Last Seen:	1990-06-21
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1990-06-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-11-03
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.33466 / -119.36539				Accuracy:	80 meters	
UTM:	Zone-11 N3912724 E285016				Elevation (ft):	290	
PLSS:	T30S, R24E, Sec. 11, NE (M)				Acres:	0.0	
Location:	TEXACO WELL, ON THE NORTH SIDE OF STATION ROAD, ON THE EAST SIDE OF MESQUITE HUNTING CLUB, 2.5 MILES NNE OF TUPMAN.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF ANNUAL GRASSLAND, DOMINATED BY WEEDY NON-NATIVES SUCH AS BROMUS, HORDEUM, SYSIMBRIUM, AND ERODIUM ON DRAINED LOKERN CLAY. AREA FLAT, INTERTWINED WITH OLD BEDS OF BUENA VISTA SLOUGH.						
General:	SITE CURRENTLY MANAGED AS A TULE ELK RESERVE. 3 OWLS OBSERVED AT THE BURROW ON 14 JUN 1989. 2 ADULTS AND 2 JUVENILES OBSERVED AT THE BURROW ON 21 JUN 1990.						
Owner/Manager:	PVT-TEXACO						

Occurrence No.	299	Map Index:	40076	EO Index:	35078	Element Last Seen:	1990-06-23
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1990-06-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-11-03
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.33238 / -119.35967				Accuracy:	80 meters	
UTM:	Zone-11 N3912458 E285530				Elevation (ft):	290	
PLSS:	T30S, R24E, Sec. 11, SE (M)				Acres:	0.0	
Location:	NE CORNER OF TULE ELK STATE RESERVE, JUST SW OF THE INTERSECTION OF STATION ROAD & MORRIS ROAD, 2 MILES NORTH OF TUPMAN.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF ANNUAL GRASSLAND, DOMINATED BY WEEDY NON-NATIVES SUCH AS BROMUS, HORDEUM, SYSIMBRIUM, AND ERODIUM ON DRAINED LOKERN CLAY. AREA FLAT, INTERTWINED WITH OLD BEDS OF BUENA VISTA SLOUGH.						
General:	SITE CURRENTLY MANAGED AS A TULE ELK RESERVE. 3 ADULTS AND 4 JUVENILES OBSERVED AT THE BURROW ON 11 JUN 1989 (BY 14 JUN 1989, BURROW HAD BEEN RUN OVER). 2 ADULTS AND 6 JUVENILES OBSERVED ON/AROUND THE BURROW ON 23 JUN 1990.						
Owner/Manager:	DPR-TULE ELK SNR						



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Occurrence No.	300	Map Index:	40077	EO Index:	35079	Element Last Seen:	2008-06-10
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2008-06-10
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-09-09
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.33008 / -119.36776				Accuracy:	80 meters	
UTM:	Zone-11 N3912220 E284788				Elevation (ft):	290	
PLSS:	T30S, R24E, Sec. 11, SW (M)				Acres:	0.0	
Location:	NW CORNER OF TULE ELK STATE RESERVE, 0.5 MILE WSW OF THE INTERSECTION OF STATION RD & MORRIS RD, 2.3 MI NNW OF TUPMAN.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF ANNUAL GRASSLAND, DOMINATED BY WEEDY NON-NATIVES SUCH AS BROMUS, HORDEUM, SYSIMBRIUM, AND ERODIUM ON DRAINED LOKERN CLAY. AREA FLAT, INTERTWINED WITH OLD BEDS OF BUENA VISTA SLOUGH.						
General:	SITE CURRENTLY MANAGED AS A TULE ELK RESERVE. 3 ADULTS AND 3 JUVENILES OBSERVED DURING JUNE 1990. 8 ADULTS & 12 JUVENILES OBSERVED AT 7 TERRITORIES (6 WITH JUVENILES) ON 10 JUN 2008 (EOS 300-303).						
Owner/Manager:	DPR-TULE ELK SNR						

Occurrence No.	301	Map Index:	40078	EO Index:	35080	Element Last Seen:	2008-03-10
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2008-03-10
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-09-09
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.32500 / -119.36016				Accuracy:	80 meters	
UTM:	Zone-11 N3911641 E285466				Elevation (ft):	290	
PLSS:	T30S, R24E, Sec. 14, NE (M)				Acres:	0.0	
Location:	JUST WEST OF THE TULE ELK RESERVE BOUNDARY, 0.6 MILE SOUTH OF STATION ROAD, 2 MILES NORTH OF TUPMAN.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF ANNUAL GRASSLAND, DOMINATED BY WEEDY NON-NATIVES SUCH AS BROMUS, HORDEUM, SYSIMBRIUM, AND ERODIUM ON DRAINED LOKERN CLAY. AREA FLAT, INTERTWINED WITH OLD BEDS OF BUENA VISTA SLOUGH.						
General:	SITE CURRENTLY MANAGED AS A TULE ELK RESERVE. 3 ADULTS AND 3 JUVENILES OBSERVED AT THE BURROW DURING JUNE 1990. 8 ADULTS & 12 JUVENILES OBSERVED AT 7 TERRITORIES (6 WITH JUVENILES) ON 10 JUN 2008. (EOS 300-303).						
Owner/Manager:	DPR-TULE ELK SNR						



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Occurrence No.	302	Map Index:	40079	EO Index:	35081	Element Last Seen:	2008-06-10
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2008-06-10
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-09-09
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.32265 / -119.36560				Accuracy:	80 meters	
UTM:	Zone-11 N3911392 E284965				Elevation (ft):	290	
PLSS:	T30S, R24E, Sec. 14, NE (M)				Acres:	0.0	
Location:	TULE ELK STATE RESERVE, 0.8 MILE SSW OF THE INTERSECTION OF STATION ROAD AND MORRIS ROAD, 1.8 MILES NORTH OF TUPMAN.						
Detailed Location:	BURROW IS LOCATED JUST WEST OF THE ROAD WHICH BISECTS THE RESERVE.						
Ecological:	HABITAT CONSISTS OF ANNUAL GRASSLAND, DOMINATED BY WEEDY NON-NATIVES SUCH AS BROMUS, HORDEUM, SYSIMBRIUM, AND ERODIUM ON DRAINED LOKERN CLAY. AREA FLAT, INTERTWINED WITH OLD BEDS OF BUENA VISTA SLOUGH.						
General:	SITE CURRENTLY MANAGED AS A TULE ELK RESERVE. 2 ADULTS AND 3 JUVENILES OBSERVED AT THE BURROW DURING JUNE 1990. 8 ADULTS & 12 JUVENILES OBSERVED AT 7 TERRITORIES (6 WITH JUVENILES) ON 10 JUN 2008. (EOS 300-303).						
Owner/Manager:	DPR-TULE ELK SNR						

Occurrence No.	303	Map Index:	40080	EO Index:	35082	Element Last Seen:	2008-06-10
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2008-06-10
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-09-09
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.31429 / -119.35881				Accuracy:	80 meters	
UTM:	Zone-11 N3910450 E285560				Elevation (ft):	290	
PLSS:	T30S, R24E, Sec. 13, SW (M)				Acres:	0.0	
Location:	1.3 MILES SOUTH OF THE INTERSECTION OF STATION ROAD AND MORRIS ROAD, 1 MILE NW OF TUPMAN.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF ANNUAL GRASSLAND, DOMINATED BY WEEDY NON-NATIVES SUCH AS BROMUS, HORDEUM, SYSIMBRIUM, AND ERODIUM ON DRAINED LOKERN CLAY. AREA FLAT, INTERTWINED WITH OLD BEDS OF BUENA VISTA SLOUGH.						
General:	SITE CURRENTLY MANAGED AS A TULE ELK RESERVE. 3 ADULTS AND 2 JUVENILES OBSERVED AT THE BURROW DURING JUNE 1990. 8 ADULTS & 12 JUVENILES OBSERVED AT 7 TERRITORIES (6 WITH JUVENILES) ON 10 JUN 2008. (EOS 300-303).						
Owner/Manager:	DPR-TULE ELK SNR						



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Occurrence No.	331	Map Index:	41597	EO Index:	41597	Element Last Seen:	1999-04-21
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-04-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1999-09-13
Quad Summary:	Fellows (3511925), Panorama Hills (3511926)						
County Summary:	Kern						
Lat/Long:	35.22132 / -119.62656				Accuracy:	80 meters	
UTM:	Zone-11 N3900748 E260941				Elevation (ft):	1750	
PLSS:	T31S, R22E, Sec. 20, NE (M)				Acres:	0.0	
Location:	0.3 MILE SOUTH OF CROCKER CANYON ROAD, 6.5 MILES WEST OF FELLOWS.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF FOOTHILL GRASSLAND. SITE IS SURROUNDED BY OIL DEVELOPMENT.						
General:	1 ADULT OBSERVED AT THE BURROW ON 21 APR 1999.						
Owner/Manager:	PVT						

Occurrence No.	332	Map Index:	C3973	EO Index:	41604	Element Last Seen:	2012-06-14
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2012-06-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2026-05-19
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.19764 / -119.56343				Accuracy:	specific area	
UTM:	Zone-11 N3897972 E266620				Elevation (ft):	1299	
PLSS:	T31S, R22E, Sec. 25, SE (M)				Acres:	19.0	
Location:	ABOUT 1.5 MI SSE OF HWY 33 AT SHALE RD & 1.6 MI NW OF FELLOWS, ON THE WESTERN EDGE OF MIDWAY VALLEY.						
Detailed Location:	MAPPED TO LOCATIONS GIVEN FOR 1999 AND 2012 DETECTIONS. 1996 DETECTION AT NEARBY "PIPE YARD" (LIKELY BAKERSFIELD PIPE & SUPPLY AT 25883 HWY 33).						
Ecological:	BREEDING LIKELY & WINTERING OR RESIDENT. 1996: OWL OBSERVED ROOSTING IN "A FIVE INCH CARDBOARD TUBE." 1999: HABITAT CONSISTED OF SALTBUSH SCRUB ON AN OLD OIL SUMP; SURROUNDED BY LOW-DENSITY OIL DEVELOPMENT.						
General:	1 OBSERVED IN TEMPORARY SHELTER ON 1 FEB 1996. 2 ADULTS OBSERVED AT A BURROW ON 17 MAR 1999. UP TO 3 ACTIVE BURROWS DOCUMENTED, 11-14 JUN 2012.						
Owner/Manager:	PVT						

Occurrence No.	333	Map Index:	41607	EO Index:	41607	Element Last Seen:	1999-03-24
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-03-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1999-09-13
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.37231 / -119.53261				Accuracy:	specific area	
UTM:	Zone-11 N3917277 E269922				Elevation (ft):	325	
PLSS:	T29S, R23E, Sec. 29, SW (M)				Acres:	12.8	
Location:	SW OF THE CALIFORNIA AQUEDUCT, 6 MILES NE OF MCKITTRICK.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF SALTBUSH SCRUB (BURNED IN 1997). SURROUNDED BY LAND GRAZED BY SHEEP.						
General:	2 INDIVIDUALS OBSERVED ON 24 MAR 1999 AT THE BURROW(S).						
Owner/Manager:	PVT						



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Occurrence No.	334	Map Index:	41611	EO Index:	41611	Element Last Seen:	1999-04-15
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-04-15
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1999-09-13
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.37317 / -119.52565				Accuracy:	80 meters	
UTM:	Zone-11 N3917356 E270556				Elevation (ft):	275	
PLSS:	T29S, R23E, Sec. 29, SE (M)				Acres:	0.0	
Location:	NE SIDE OF THE CALIFORNIA AQUEDUCT, 1.8 MILES SOUTH OF THE INTERSECTION OF LOKERN ROAD AND HWY 58, WEST OF BUTTONWILLOW.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF GRAZED (BY SHEEP) SALTBUSH/VALLEY SINK SCRUB.						
General:	3 INDIVIDUALS OBSERVED ON 15 APR 1999 AT THE BURROW SITE.						
Owner/Manager:	PVT						

Occurrence No.	356	Map Index:	42868	EO Index:	42868	Element Last Seen:	2000-04-06
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2000-04-06
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2000-05-03
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.16113 / -119.34273				Accuracy:	1/5 mile	
UTM:	Zone-11 N3893425 E286621				Elevation (ft):	250	
PLSS:	T32S, R24E, Sec. 12, NE (M)				Acres:	0.0	
Location:	ALONG THE ENTRANCE ROAD TO THE RICHFIELD OIL PUMPING STATION, ON THE SW SIDE OF BUENA VISTA LAKE BED.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF SALTBUSH SCRUB, DOMINATED BY ATRIPLEX SP. AND NON-NATIVE GRASSES.						
General:	1 ADULT OBSERVED AT THE BURROW ON 8 FEB 2000. 2 ADULTS OBSERVED AT THE BURROW ON 6 APR 2000.						
Owner/Manager:	DWR-CALIFORNIA AQUEDUCT						

Occurrence No.	357	Map Index:	42871	EO Index:	42871	Element Last Seen:	2000-02-08
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2000-02-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2000-05-03
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.21186 / -119.35639				Accuracy:	1/5 mile	
UTM:	Zone-11 N3899082 E285510				Elevation (ft):	250	
PLSS:	T31S, R24E, Sec. 24, SW (M)				Acres:	0.0	
Location:	ALONG THE CALIFORNIA AQUEDUCT, ON THE WEST SIDE OF BUENA VISTA LAKE BED.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF DEGRADED ALKALI SINK SCRUB.						
General:	1 ADULT OBSERVED AT THE BURROW ON 8 FEB 2000.						
Owner/Manager:	DWR-CALIFORNIA AQUEDUCT						



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Occurrence No.	398	Map Index:	45077	EO Index:	45077	Element Last Seen:	2000-03-22
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2000-03-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2001-03-12
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.26266 / -119.41828				Accuracy:	non-specific area	
UTM:	Zone-11 N3904853 E280013				Elevation (ft):	1175	
PLSS:	T31S, R24E, Sec. 05, NE (M)				Acres:	40.5	
Location:	3 MILES ESE OF THE INTERSECTION OF SKYLINE ROAD AND ELK HILLS ROAD, 8 MILES NORTH OF MCKITTRICK.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF DISTURBED AREAS IN VALLEY SALTBUSH SCRUB AND VALLEY/FOOTHILL GRASSLAND, ON SANDY OR CLAY SOILS. PLANT DOMINANTS INCLUDE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	1 ADULT OBSERVED AT A BURROW SITE ON 22 MAR 2000.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	405	Map Index:	45558	EO Index:	45558	Element Last Seen:	2012-06-30
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2012-06-30
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2026-05-15
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.20583 / -119.56768				Accuracy:	specific area	
UTM:	Zone-11 N3898890 E266256				Elevation (ft):	1281	
PLSS:	T31S, R22E, Sec. 25, NE (M)				Acres:	51.0	
Location:	ABOUT 2.5 MILES NW OF FELLOWS; 0.9 MILE SOUTH ON SHALE ROAD FROM STATE ROUTE 33.						
Detailed Location:	1998: APPROX 0.4 MI W OF SHALE RD ALONG "SUNRISE COGEN RD," 400 FT S OF ROAD, ON N SIDE OF STREAM. 2001: BURROWS LOCATED ON E SIDE OF SHALE RD & TO W OF UNIMPROVED ROAD, ALONG SUNRISE WATERLINE CORRIDOR.						
Ecological:	BREEDING OR RESIDENT. 1998, 2001: BURROW(S) IN VALLEY SALTBUSH SCRUB; OTHER SPECIES PRESENT INCLUDED SAN JOAQUIN KIT FOX, LOGGERHEAD SHRIKE, BADGER.						
General:	A TOTAL OF 2 BURROWS WITH SIGN, & UP TO 2 OWLS SEEN BETWEEN THIS LOCATION & OCCURRENCE #406 ON 28 APR 1998. 4 BURROWS & 3 INDIVIDUALS OBSERVED ON 20 FEB 2001. 7 ACTIVE BURROWS DOCUMENTED, 11-30 JUN 2012 (NO FURTHER DETAILS IN DATASET).						
Owner/Manager:	PVT, BLM						



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Occurrence No.	406	Map Index:	45559	EO Index:	45559	Element Last Seen:	2000-10-01
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2000-10-01
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-10-09
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.21128 / -119.58714				Accuracy:	specific area	
UTM:	Zone-11 N3899540 E264500				Elevation (ft):	1400	
PLSS:	T31S, R22E, Sec. 23, SW (M)				Acres:	8.0	
Location:	3.4 AIR MILES NW OF FELLOWS.						
Detailed Location:	1.5 AIR MILES NORTH INTERSECTION OF SHALE ROAD AND MOCAL ROAD. SITE IS 1 MILE WEST OF THIS POINT, NORTH SIDE OF CREEK.						
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSSH SCRUB. SAN JOAQUIN KIT FOX AND LOGGERHEAD SHRIKE ALSO IN VICINITY.						
General:	28 APR 1998: A TOTAL OF 2 BURROWS AND 2 INDIVIDUALS SEEN BETWEEN THIS LOCATION AND THE LOCATION OF OCCURRENCE 405. 2 BURROWS WITH SIGN OBSERVED ON 1 OCT 2000.						
Owner/Manager:	PVT						

Occurrence No.	407	Map Index:	45560	EO Index:	45560	Element Last Seen:	1996-06-05
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1996-06-05
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2001-08-13
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.32196 / -119.40231				Accuracy:	80 meters	
UTM:	Zone-11 N3911396 E281625				Elevation (ft):		
PLSS:	T30S, R24E, Sec. 16, NE (M)				Acres:	0.0	
Location:	ALONG THE CALIFORNIA AQUEDUCT AT MILE POST 234.09. 3.2 AIR MILES NW OF TUPMAN.						
Detailed Location:	1.7 AIR MILES WEST ALONG THE CALIFORNIA AQUEDUCT, BETWEEN TUPMAN ROAD AND FARM ACCESS BRIDGE. SITE LOCATED ON SW SIDE OF THE AQUEDUCT.						
Ecological:	VALLEY SALTBUSSH SCRUB. BURROWS USUALLY LOCATED IN AQUEDUCT PROTECTIVE EMBANKMENTS. OTHER SPECIES INCLUDE SAN JOAQUIN KIT FOX, SAN JOAQUIN ANTELOPE SQUIRREL AND RECURVED LARKSPUR.						
General:	A TOTAL OF 5 ADULTS FOUND AT THIS SITE AND AT SITES FOR OCCURRENCES 408 AND 409.						
Owner/Manager:	DWR-CALIFORNIA AQUEDUCT						



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Occurrence No.	408	Map Index:	45561	EO Index:	45561	Element Last Seen:	1997-04-11
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1997-04-11
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2003-05-13
Quad Summary:	Tupman (3511933), East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.30857 / -119.37621				Accuracy:	specific area	
UTM:	Zone-11 N3909853 E283963				Elevation (ft):	290	
PLSS:	T30S, R24E, Sec. 23, NW (M)				Acres:	13.1	
Location:	ALONG THE CALIFORNIA AQUEDUCT AT MILES POST 235.95 & 236.05. 1.6 AIR MILES NW OF TUPMAN.						
Detailed Location:	SITE LOCATED 0.4 AIR MILES WEST ALONG CALIFORNIA AQUEDUCT FROM INTERSECTION OF THE AQUEDUCT AND TUPMAN ROAD, BETWEEN TUPMAN ROAD AND FARM ACCESS BRIDGE. OWLS OBSERVED ON BOTH SIDES OF AQUEDUCT.						
Ecological:	VALLEY SALTBUSSH SCRUB. BURROWS USUALLY IN AQUEDUCT PROTECTIVE EMBANKMENTS. OTHER SPECIES INCLUDE SAN JOAQUIN KIT FOX, SAN JOAQUIN ANTELOPE SQUIRREL AND RECURVED LARKSPUR.						
General:	5 JUN 1996: BURROW SITES AND A TOTAL OF 5 ADULTS FOUND AMONG THIS SITE AND THE SITES OF OCCURRENCES 407 AND 409. 11 APR 1997: 1 OBSERVED AT BURROW.						
Owner/Manager:	DWR-CALIFORNIA AQUEDUCT						

Occurrence No.	409	Map Index:	40383	EO Index:	45562	Element Last Seen:	1996-06-05
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1996-06-05
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2001-08-13
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.32860 / -119.42067				Accuracy:	80 meters	
UTM:	Zone-11 N3912173 E279974				Elevation (ft):		
PLSS:	T30S, R24E, Sec. 08, NE (M)				Acres:	0.0	
Location:	ALONG THE CALIFORNIA AQUEDUCT AT MILE POST 232.96. 4.4 AIR MILES NW OF TUPMAN.						
Detailed Location:	0.7 AIR MILES SE OF MILE POST 232.23 ALONG CALIFORNIA AQUEDUCT, BETWEEN TUPMAN ROAD AND FARM ACCESS BRIDGE. SW SIDE OF AQUEDUCT.						
Ecological:	VALLEY SALTBUSSH SCRUB. BURROWS USUALLY IN AQUEDUCT PROTECTIVE EMBANKMENT. OTHER SPECIES INCLUDE SAN JOAQUIN KIT FOX, SAN JOAQUIN ANTELOPE SQUIRREL AND RECURVED LARKSPUR.						
General:	BURROW SITES AND A TOTAL OF 5 ADULTS FOUND AT THIS SITE AND THE SITES FOR OCCURRENCES 407 AND 408.						
Owner/Manager:	DWR-CALIFORNIA AQUEDUCT						



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Occurrence No.	498	Map Index:	48957	EO Index:	48957	Element Last Seen:	2007-05-30
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2007-05-30
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2011-03-10
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.23056 / -119.35415				Accuracy:	specific area	
UTM:	Zone-11 N3901152 E285763				Elevation (ft):	340	
PLSS:	T31S, R24E, Sec. 13, SW (M)				Acres:	47.0	
Location:	1 MI E OF TAFT HWY (119) AT GOLF COURSE RD, BUENA VISTA VALLEY, NW OF BUENA VISTA LAKE BED, 4.6 MILES SOUTH OF TUPMAN.						
Detailed Location:	2001 DATA MAPPED TO PROVIDED MAPS (SW POLYGON AND THE 3 WESTERN CIRCLES). BLOCK CODE 3900-285 - LOCATION CODE A (SE CIRCLE). MAPPED TO PROVIDED COORDINATES.						
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB. LOWLAND ELEVATION SUBREGION. GROUND SQUIRRELS DETECTED WITHIN 100 M OF LOCATION A. AMERICAN BADGER AND SAN JOAQUIN KIT FOX ALSO OBSERVED IN AREA.						
General:	A TOTAL OF 8 BURROWS WITH SIGN AND 1+ INDIVIDUALS OBSERVED ON 10 FEB 2001. 1 ADULT OBSERVED AND 1 BREEDING PAIR ESTIMATED TO OCCUR IN AREA ON 30 MAY 2007.						
Owner/Manager:	PVT						

Occurrence No.	501	Map Index:	48979	EO Index:	48979	Element Last Seen:	2001-01-29
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-01-29
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-10-09
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.19375 / -119.52502				Accuracy:	80 meters	
UTM:	Zone-11 N3897450 E270107				Elevation (ft):	1100	
PLSS:	T31S, R23E, Sec. 32, NE (M)				Acres:	0.0	
Location:	1.4 MILES NE OF FELLOWS; 1 MILE EAST ON MIDWAY ROAD FROM STATE ROUTE 33.						
Detailed Location:	APPROXIMATELY 300 FEET SOUTH OF MIDWAY ROAD. ALONG SUNRISE WATERLINE CORRIDOR.						
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB. SAN JOAQUIN KIT FOX DEN, SAN JOAQUIN ANTELOPE SQUIRREL AND ABANDONED GIANT KANGAROO RAT COLONY IN VICINITY.						
General:	1 BURROW WITH SIGN AND 2 ADULTS OBSERVED ON 29 JAN 2001.						
Owner/Manager:	BLM						



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Occurrence No.	502	Map Index:	48981	EO Index:	48981	Element Last Seen:	2001-02-01
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-02-01
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-10-09
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.20430 / -119.55479			Accuracy:	80 meters		
UTM:	Zone-11 N3898690 E267426			Elevation (ft):	1200		
PLSS:	T31S, R22E, Sec. 25, NE (M)			Acres:	0.0		
Location:	1.8 MILES NNW OF FELLOWS; 1.2 MILES NW ON STATE ROUTE 33 FROM RANDALL ROAD.						
Detailed Location:	APPROXIMATELY 450 FT WEST OF STATE ROUTE 33. ALONG SUNRISE WATERLINE CORRIDOR.						
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB. SAN JOAQUIN ANTELOPE SQUIRREL AND LOGGERHEAD SHRIKE IN VICINITY.						
General:	1 BURROW WITH SIGN AND 1 ADULT OBSERVED ON 1 FEB 2001.						
Owner/Manager:	PVT						
Occurrence No.	504	Map Index:	48983	EO Index:	48983	Element Last Seen:	2001-05-01
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-05-01
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-10-10
Quad Summary:	Fellows (3511925)						
County Summary:	San Luis Obispo						
Lat/Long:	35.16803 / -119.56150			Accuracy:	non-specific area		
UTM:	Zone-11 N3894682 E266711			Elevation (ft):	1650		
PLSS:	T32S, R22E, Sec. 01, SE (M)			Acres:	41.7		
Location:	1 TO 1.2 MILES SW OF FELLOWS ALONG A LIGHT DUTY ROAD.						
Detailed Location:	ALONG TRANSMISSION LINE CORRIDOR.						
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB. SAN JOAQUIN KIT FOX DEN AND AMERICAN BADGER SIGN IN VICINITY.						
General:	3 BURROWS AND 2 ADULTS OBSERVED ON 1 MAY 2001.						
Owner/Manager:	PVT						
Occurrence No.	512	Map Index:	49078	EO Index:	49078	Element Last Seen:	2001-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2001-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-10-17
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.19044 / -119.51388			Accuracy:	80 meters		
UTM:	Zone-11 N3897057 E271112			Elevation (ft):	1000		
PLSS:	T31S, R23E, Sec. 33, NW (M)			Acres:	0.0		
Location:	1.8 MILES NE OF FELLOWS AND 0.7 MILE NORTH OF MIDWAY ROAD.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB. SAN JOAQUIN KIT FOX & SAN JOAQUIN ANTELOPE GROUND SQUIRREL ALSO FOUND IN THE VICINITY.						
General:	BURROW SITE OBSERVED IN 2001.						
Owner/Manager:	PVT						



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Occurrence No.	514	Map Index:	49081	EO Index:	49081	Element Last Seen:	2013-09-19
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2026-05-28
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.1787 / -119.42906				Accuracy:	specific area	
UTM:	Zone-11 N3895563 E278805				Elevation (ft):	651	
PLSS:	T32S, R24E, Sec. 5, NE (M)				Acres:	15.0	
Location:	2 MILES NE OF FORD CITY; ALONG AIRPORT ROAD, 1 MILE SOUTH OF STATE ROUTE 119.						
Detailed Location:	MAPPED TO LOCATIONS GIVEN FOR OCCUPIED BURROWS, FOUND ALONG THE SUNRISE WATERLINE CORRIDOR IN 1998 AND DURING BNLL SURVEYS IN 2013.						
Ecological:	UNDETERMINED BREEDING STATUS. 1998: HABITAT CONSISTED OF VALLEY SALTBUSH SCRUB; SAN JOAQUIN KIT FOX DENS, SAN JOAQUIN ANTELOPE SQUIRRELS, GIANT K-RATS & SHORT-NOSED K-RATS ALSO FOUND IN THE VICINITY.						
General:	UNKNOWN NUMBER OBSERVED ON 9 APR, 1 ADULT OBSERVED AT BURROW SITE ON 23 APR 1998. 2 OCCUPIED BURROWS DOCUMENTED ON 19 SEP 2013.						
Owner/Manager:	DOE						

Occurrence No.	515	Map Index:	49079	EO Index:	49079	Element Last Seen:	2001-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2001-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-10-17
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.17098 / -119.49463				Accuracy:	80 meters	
UTM:	Zone-11 N3894854 E272811				Elevation (ft):	1000	
PLSS:	T32S, R23E, Sec. 03, SW (M)				Acres:	0.0	
Location:	MIDWAY VALLEY; 2 MILES NW OF FORD CITY AND 0.65 MILE SOUTH OF MIDWAY ROAD.						
Detailed Location:	ALONG FUEL LINE CORRIDOR.						
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB. SAN JOAQUIN KIT FOX DENS & SAN JOAQUIN ANTELOPE GROUND SQUIRRELS, ALSO FOUND IN THE VICINITY.						
General:	1 INDIVIDUAL OBSERVED AT THE BURROW DURING 2001.						
Owner/Manager:	PVT						



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Occurrence No.	524	Map Index:	49109	EO Index:	49109	Element Last Seen:	1992-05-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1992-05-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-10-23
Quad Summary:	Buttonwillow (3511944)						
County Summary:	Kern						
Lat/Long:	35.41259 / -119.46744				Accuracy:	80 meters	
UTM:	Zone-11 N3921595 E275955				Elevation (ft):	270	
PLSS:	T29S, R23E, Sec. 14, NE (M)				Acres:	0.0	
Location:	SOUTH SIDE OF SULLIVAN ROAD, 0.15 MILE WEST OF MILLER AVENUE, NORTH OF BUTTONWILLOW.						
Detailed Location:							
Ecological:	MODERATE AMOUNTS OF DISTURBANCE ALONG SIDE SLOPES OFFER EXCELLENT OPPORTUNITIES FOR BURROW ESTABLISHMENT. INSECT POPULATIONS IN ADJACENT PLANTED ROW CROPS PROVIDE A PREY BASE FOR THE OWLS.						
General:	6 BURROWING OWLS UTILIZING BURROWS EXCAVATED BY CALIFORNIA GROUND SQUIRRELS OBSERVED DURING SURVEYS CONDUCTED IN JUL 1990, JUN 1991, AND MAY 1992.						
Owner/Manager:	KRN COUNTY						

Occurrence No.	527	Map Index:	49118	EO Index:	49118	Element Last Seen:	2002-02-27
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2002-02-27
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-10-23
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.13280 / -119.35706				Accuracy:	80 meters	
UTM:	Zone-11 N3890313 E285241				Elevation (ft):	450	
PLSS:	T32S, R24E, Sec. 24, NW (M)				Acres:	0.0	
Location:	OFF OF LAKE STATION ROAD, NORTH OF GARDNER FIELD ROAD AND EAST OF THE CALIFORNIA AQUEDUCT.						
Detailed Location:	BURROW IS LOCATED NEAR THE FENCELINE.						
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB, DOMINATED BY MATCHWEED, ISOMERIS, AND ISOCOMA; SANDY SOILS ON A GENTLE SLOPE. SITE IS SURROUNDED BY SWP FACILITIES AND OIL DEVELOPMENT.						
General:	2 ADULTS AND ACTIVE BURROW SITE OBSERVED ON 27 MAR 2002; 1 ADULT RETREATED INTO THE BURROW WHEN APPROACHED.						
Owner/Manager:	DWR						



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Occurrence No.	580	Map Index:	51272	EO Index:	51272	Element Last Seen:	2004-05-30
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2004-05-30
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-06-10
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.21809 / -119.35570				Accuracy:	specific area	
UTM:	Zone-11 N3899771 E285589				Elevation (ft):	290	
PLSS:	T31S, R24E, Sec. 24 (M)				Acres:	14.4	
Location:	FROM MILE POST 246.50-246.52 ALONG THE LEFT SIDE OF THE CALIFORNIA AQUEDUCT, ON THE WEST SIDE OF BUENA VISTA LAKE BED.						
Detailed Location:	SWP OVERFLOW BASIN ADJACENT TO FARMLAND.						
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB BETWEEN THE AQUEDUCT AND THE RIGHT-OF-WAY FENCE. SURROUNDING AREA IS OPEN SPACE WITH SOME INTENSIVE AGRICULTURE.						
General:	1 OWL OBSERVED AT THE BURROW ON THE OPERATING ROAD SHOULDER. 2 ADULTS AND 3 DEAD JUVENILES (COYOTE PREDATION) OBSERVED ON 30 MAY 2004 AT MP 246.50 BURROW; 2 ADULTS/4 JUVENILES OBSERVED ON 30 MAY 2004 AT MP 246.52 BURROW.						
Owner/Manager:	DWR-CALIFORNIA AQUEDUCT						

Occurrence No.	581	Map Index:	51273	EO Index:	51273	Element Last Seen:	1997-05-01
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1997-05-01
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2003-05-13
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.32228 / -119.39738				Accuracy:	specific area	
UTM:	Zone-11 N3911420 E282075				Elevation (ft):		
PLSS:	T30S, R24E, Sec. 16 (M)				Acres:	9.6	
Location:	ALONG THE CALIFORNIA AQUEDUCT, AT MILE POST 234.40 & 234.50. BETWEEN THE AQUEDUCT & THE WEST SIDE CANAL.						
Detailed Location:							
Ecological:	VALLEY SALTBUSH SCRUB BETWEEN THE AQUEDUCT AND THE RIGHT-OF-WAY FENCE. SURROUNDING AREA IS OPEN SPACE WITH SOME INTENSIVE AGRICULTURE.						
General:	1 OWL OBSERVED AT BURROW 11 APR 1997. 3 OWLS OBSERVED AT BURROWS ON THE OPERATING ROAD SHOULDER 1 MAY 1997.						
Owner/Manager:	DWR-CALIFORNIA AQUEDUCT						



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Occurrence No.	582	Map Index:	51274	EO Index:	51274	Element Last Seen:	1997-05-01
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1997-05-01
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2003-05-13
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.31395 / -119.38117				Accuracy:	80 meters	
UTM:	Zone-11 N3910461 E283526				Elevation (ft):	300	
PLSS:	T30S, R24E, Sec. 15 (M)				Acres:	0.0	
Location:	ALONG CALIFORNIA AQUEDUCT, AT MILE POST 235.6 & 235.65. BETWEEN AQUEDUCT & THE WEST SIDE CANAL, WEST OF TUPMAN ROAD.						
Detailed Location:							
Ecological:	VALLEY SALTBUSH SCRUB BETWEEN THE AQUEDUCT AND THE RIGHT-OF-WAY FENCE. SURROUNDING AREA IS OPEN SPACE WITH SOME INTENSIVE AGRICULTURE.						
General:	1 OWL OBSERVED AT BURROW ON THE OPERATING ROAD SHOULDER ON BOTH 11 APR & 1 MAY 1997.						
Owner/Manager:	DWR-CALIFORNIA AQUEDUCT						

Occurrence No.	677	Map Index:	55377	EO Index:	55377	Element Last Seen:	2004-04-05
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2004-04-05
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-05-06
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.34612 / -119.46755				Accuracy:	80 meters	
UTM:	Zone-11 N3914222 E275760				Elevation (ft):	310	
PLSS:	T30S, R23E, Sec. 02, SE (M)				Acres:	0.0	
Location:	WEST BANK OF CALIFORNIA AQUEDUCT, JUST DOWNSTREAM (SE) OF ELK HILLS ROAD, 3.7 MILES SOUTH OF BUTTONWILLOW.						
Detailed Location:	BURROW LOCATED ON THE WEST SIDE OF THE SECONDARY EMBANKMENT.						
Ecological:	HABITAT CONSISTS OF SPARSE NON-NATIVE GRASSLAND WITH SCATTERED ATRIPLEX POLYCARPA ON THE DWR ROW AND ON ADJACENT AREAS.						
General:	1 ADULT AND 1 ACTIVE BURROW OBSERVED ON 5 APR 2004.						
Owner/Manager:	DWR						



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Occurrence No.	689	Map Index:	55695	EO Index:	55711	Element Last Seen:	2002-09-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2002-09-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2026-05-26
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.21316 / -119.40829				Accuracy:	non-specific area	
UTM:	Zone-11 N3899340 E280788				Elevation (ft):	430	
PLSS:	T31S, R24E, Sec. 21 (M)				Acres:	108.3	
Location:	3 MILES WEST OF BUENA VISTA LAKE (BED), 4.5 MILES NORTH OF FORD CITY.						
Detailed Location:	MAPPED TO LOCATIONS OF OWLS, BURROWS AND OWLS AT BURROWS FROM MAP ASSOCIATED WITH ANTELOPE SQUIRREL SURVEYS IN 2002. 1988-89 DETECTIONS IN VICINITY, EBIRD LOCATION DESCRIBED AS "US-CA-KERN--VALLEY ACRES," EXACT LOCATIONS UNKNOWN.						
Ecological:	BREEDING, LIKELY RESIDENT. 2002: HABITAT CONSISTED OF VALLEY SALTBUSH SCRUB, DOMINATED BY BUSH SEEPWEED (SUAEDA) AND IODINE BUSH.						
General:	UP TO 8 BURROWING OWLS (INCLUDING RECENTLY-FLEDGED JUVENILES) OBSERVED IN VICINITY ON 18 OCCASIONS IN JUN, JUL, & AUG 1988 AND JAN, JUN, JUL, AUG, OCT & DEC 1989. 7 ADULTS AND ASSOCIATED BURROWS OBSERVED DURING APR-SEP 2002.						
Owner/Manager:	UNKNOWN						

Occurrence No.	690	Map Index:	55707	EO Index:	55723	Element Last Seen:	2002-09-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2002-09-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-06-02
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.22796 / -119.38104				Accuracy:	non-specific area	
UTM:	Zone-11 N3900921 E283308				Elevation (ft):	430	
PLSS:	T31S, R24E, Sec. 15 (M)				Acres:	62.7	
Location:	2 MILES NW OF BUENA VISTA LAKE (BED), 6 MILES NE OF FORD CITY.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB, DOMINATED BY BUSH SEEPWEED (SUAEDA) AND IODINE BUSH.						
General:	2 ADULTS AND ASSOCIATED BURROWS OBSERVED DURING APR-SEP 2002.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	691	Map Index:	55781	EO Index:	55797	Element Last Seen:	2002-09-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2002-09-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-06-09
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.22969 / -119.37097				Accuracy:	1/5 mile	
UTM:	Zone-11 N3901092 E284229				Elevation (ft):	375	
PLSS:	T31S, R24E, Sec. 14, SW (M)				Acres:	0.0	
Location:	1 MILE NW OF BUENA VISTA LAKE (BED), 7 MILES NE OF FORD CITY.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB, DOMINATED BY BUSH SEEPWEED (SUAEDA) AND IODINE BUSH.						
General:	2 ADULTS AND ASSOCIATED BURROWS OBSERVED DURING APR-SEP 2002.						
Owner/Manager:	UNKNOWN						

Occurrence No.	692	Map Index:	55782	EO Index:	55798	Element Last Seen:	2002-09-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2002-09-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-06-09
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.22263 / -119.37245				Accuracy:	1/10 mile	
UTM:	Zone-11 N3900312 E284076				Elevation (ft):	340	
PLSS:	T31S, R24E, Sec. 23, NW (M)				Acres:	0.0	
Location:	1 MILE WEST OF BUENA VISTA LAKE (BED), 6 MILES NE OF FORD CITY.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB, DOMINATED BY BUSH SEEPWEED (SUAEDA) AND IODINE BUSH.						
General:	2 ADULTS AND ASSOCIATED BURROWS OBSERVED DURING APR-SEP 2002.						
Owner/Manager:	UNKNOWN						

Occurrence No.	693	Map Index:	55791	EO Index:	55807	Element Last Seen:	2004-05-30
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2004-05-30
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-06-10
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.20905 / -119.35626				Accuracy:	80 meters	
UTM:	Zone-11 N3898770 E285515				Elevation (ft):	300	
PLSS:	T31S, R24E, Sec. 25, NW (M)				Acres:	0.0	
Location:	BETWEEN MP 245 & 250 ALONG THE LEFT SIDE OF THE CALIFORNIA AQUEDUCT, WEST SIDE OF BUENA VISTA LAKE BED.						
Detailed Location:	SWP OVERFLOW BASIN ADJACENT TO FARMLAND. SITE INCLUDES 3 BURROWS: 2 AT MP 247.7 AND 1 AT MP 246.8.						
Ecological:	HABITAT SURROUNDING BURROWS CONSISTS OF FARMLAND AND WATER DELIVERY FACILITIES.						
General:	2 ADULTS/5 JUVENILES OBSERVED ON 30 MAY 2004 AT MP 246.8 BURROW; 2 ADULTS/10 JUVENILES OBSERVED ON 30 MAY 2004 AT MP 247.7 BURROWS.						
Owner/Manager:	DWR						



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Occurrence No.	694	Map Index:	55793	EO Index:	55809	Element Last Seen:	2004-05-30
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2004-05-30
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-06-10
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.17989 / -119.34884				Accuracy:	80 meters	
UTM:	Zone-11 N3895519 E286113				Elevation (ft):	310	
PLSS:	T32S, R24E, Sec. 01 (M)				Acres:	0.0	
Location:	VICINITY OF MP 249 ALONG THE LEFT SIDE OF THE CALIFORNIA AQUEDUCT, WEST SIDE OF BUENA VISTA LAKE BED.						
Detailed Location:	BURROW IS LOCATED ABOUT 10 FEET AWAY FROM THE AQUEDUCT PRIMARY SIDE OPERATION ROAD TO THE BUENA PUMPING PLANT, ON THE WEST-FACING SLOPE OF THE SPOIL BANK.						
Ecological:	HABITAT SURROUNDING BURROW CONSISTS OF FARMLAND AND WATER DELIVERY FACILITIES.						
General:	1 ADULTS/8 JUVENILES OBSERVED ON 30 MAY 2004; ONE CHICK FOUND DEAD (REASON NOT APPARENT) ON 3 JUN 2004.						
Owner/Manager:	DWR						

Occurrence No.	815	Map Index:	65393	EO Index:	65472	Element Last Seen:	2002-XX-XX
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2002-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-26
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.21039 / -119.37887				Accuracy:	specific area	
UTM:	Zone-11 N3898968 E283459				Elevation (ft):		
PLSS:	T31S, R24E, Sec. 22 (M)				Acres:	17.1	
Location:	BUENA VISTA VALLEY, 0.9 MILE SE OF DUSTIN ACRES, 1.6 MILES ENE OF VALLEY ACRES.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF DISTURBED SALTBUSSH SCRUB.						
General:	10 INDIVIDUALS AND 18 BURROW SITES OBSERVED IN SEVERAL DIFFERENT LOCATIONS WITHIN THIS GENERAL AREA. NOT KNOWN HOW MANY AT THIS PARTICULAR LOCATION.						
Owner/Manager:	PVT-CHEVRON						



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Occurrence No.	839	Map Index:	66010	EO Index:	66089	Element Last Seen:	2005-10-05
Occ. Rank:	None			Presence:	Possibly Extirpated	Site Last Seen:	2005-10-05
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2026-03-27
Quad Summary:	Conner SW (3511912), Pentland (3511913), Millux (3511922), Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.12654 / -119.24772				Accuracy:	non-specific area	
UTM:	Zone-11 N3889388 E295189				Elevation (ft):	325	
PLSS:	T32S, R25E, Sec. 24, SW (M)				Acres:	170.5	
Location:	SE OF SOUTH LAKE ROAD, 12 MILES EAST OF TAFT.						
Detailed Location:	MAPPED IN SW1/4 SEC 24 PER 2005 FIELD SURVEY FORM. 1991 DETECTIONS FROM EBIRD CHECKLISTS FROM 10-MILE SPOTLIGHT SURVEYS ALONG "SOUTH LAKE RD EAST OF SUNSET RR."						
Ecological:	UNDETERMINED SITE USE. THE MAJORITY OF THIS SITE WAS DISKED SOON AFTER THE 2005 DETECTION, AROUND 2006; LESS THAN 1% OF THE FORMER SALTBUSH SCRUB HABITAT REMAINED. SINCE, THE SITE WAS CONVERTED TO SOLAR. POTENTIAL HABITAT REMAINS TO W & S.						
General:	AT LEAST 3 OWLS OBSERVED IN VICINITY DURING SPOTLIGHT SURVEYS IN AUG 1991. BURROWS WITH 4 ADULTS OBSERVED ON 5 OCT 2005.						
Owner/Manager:	PVT						

Occurrence No.	866	Map Index:	66687	EO Index:	66835	Element Last Seen:	2004-06-01
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2004-06-01
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2011-08-18
Quad Summary:	Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.40423 / -119.54951				Accuracy:	80 meters	
UTM:	Zone-11 N3920858 E268477				Elevation (ft):	270	
PLSS:	T29S, R23E, Sec. 18, SW (M)				Acres:	0.0	
Location:	BETWEEN THE CALIFORNIA AQUEDUCT AND THE WEST SIDE CANAL. ABOUT 0.9 MI NW OF INTERSECTION OF LOKERN RD & MCKITTRICK HWY.						
Detailed Location:	IN NW1/4 OF SW1/4 SEC 18.						
Ecological:	IODINE BUSH SERIES. ALLONROLFEA OCCIDENTALIS IS DOMINANT WITH ASSOCIATE ATRIPLEX SPINIFERA. ALKALINE CLAY SOILS.						
General:	KNOWN DEN OR SIGHTING IN MAY 1988 (SOURCE? CEC88M01 OR ASSOCIATED FSFS?). 3 ADULTS OBSERVED AT BURROW SITE ON 1 JUN 2004.						
Owner/Manager:	DFG-LOKERN ER						



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Occurrence No.	889	Map Index:	68675	EO Index:	69099	Element Last Seen:	2006-12-10
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2006-12-10
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-03-22
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.16297 / -119.39366				Accuracy:	80 meters	
UTM:	Zone-11 N3893740 E281986				Elevation (ft):		
PLSS:	T32S, R24E, Sec. 10 (M)				Acres:	0.0	
Location:	0.25 MILE SOUTH OF HONOLULU ROAD, IN THE VISTA HILLS, 3.5 MILES NNE OF TAFT.						
Detailed Location:	SITE IS LOCATED ON THE WESTERN EDGE OF THE HONOLULU HILLS RACEWAY.						
Ecological:	HABITAT SURROUNDING BURROW CONSISTS OF VALLEY SALT BUSH SCRUB.						
General:	1 ADULT OBSERVED AT A BURROW ON 10 DEC 2006.						
Owner/Manager:	PVT						

Occurrence No.	907	Map Index:	69162	EO Index:	69942	Element Last Seen:	2006-XX-XX
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2006-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-05-03
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.29149 / -119.19899				Accuracy:	specific area	
UTM:	Zone-11 N3907586 E300035				Elevation (ft):	330	
PLSS:	T30S, R26E, Sec. 29, E (M)				Acres:	25.0	
Location:	EAST OF TEN SECTION OIL FIELD, ABOUT 2 MILES WNW OF CANFIELD RANCH.						
Detailed Location:	MAPPED ACCORDING TO UTM COORDINATES PROVIDED BY SOURCE. IN E1/4 SEC 29 AND W1/4 SEC 28.						
Ecological:	NON-NATIVE GRASSLAND.						
General:	BURROW SITE. INDIVIDUAL(S) OBSERVED IN 2006. 5 ADULTS AND 3 JUVENILES WERE OBSERVED BETWEEN THIS OCCURRENCE AND OCCURRENCE #906.						
Owner/Manager:	PVT						

Occurrence No.	909	Map Index:	69176	EO Index:	69954	Element Last Seen:	2006-XX-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2006-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-05-07
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.25934 / -119.20432				Accuracy:	specific area	
UTM:	Zone-11 N3904031 E299471				Elevation (ft):	300	
PLSS:	T31S, R26E, Sec. 05 (M)				Acres:	263.0	
Location:	SOUTH OF TEN SECTION OIL FIELD, JUST SE OF TAFT HIGHWAY (HIGHWAY 119) AND I-5 JUNCTION.						
Detailed Location:	OCCURRENCE COVERS MUCH OF SEC 5 AND W1/2 ADJACENT SEC 4.						
Ecological:	VALLEY SINK SCRUB (ATRIPLEX SPINIFERA, SUAEDA MOQUINII), GREAT VALLEY MESQUITE SCRUB (PROSOPIS GLANDULOSA, ATRIPLEX POLYCARPA), VALLEY SALT BUSH SCRUB (A. POLYCARPA, A. SPINIFERA).						
General:	58 BURROW SITES WITH OWLS OBSERVED DURING BNLL SURVEY IN 2006. AT LEAST 20 ADULT OWLS PRESENT DURING SURVEYS AND POPULATION MAY HAVE PEAKED TO 50 INDIVIDUALS WHEN YOUNG WERE PRESENT.						
Owner/Manager:	PVT						



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Occurrence No.	972	Map Index:	69488	EO Index:	70267	Element Last Seen:	2007-03-09
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	2007-03-09
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-06-06
Quad Summary:	Buttonwillow (3511944)						
County Summary:	Kern						
Lat/Long:	35.40354 / -119.45866				Accuracy:	80 meters	
UTM:	Zone-11 N3920572 E276726				Elevation (ft):	275	
PLSS:	T29S, R23E, Sec. 13, SW (M)				Acres:	0.0	
Location:	EAST SIDE CANAL LEVEE, 0.3 MILE NORTH OF HIGHWAY 58, BUTTONWILLOW.						
Detailed Location:	BURROW COMPLEX IS LOCATED NEAR THE EDGE OF THE CANAL, WEST OF PG&E MIDWAY STATION.						
Ecological:	HABITAT SURROUNDING BURROW CONSISTS OF A FALLOW AGRICULTURAL FIELD WITH WEEDY SPECIES GROWING THROUGHOUT THE AREA (NO NATIVE VEGETATION). BARE SOILS SURROUND THIS SITE.						
General:	2 OWLS OBSERVED OCCUPYING A BURROW COMPLEX ON 9 MAR 2007.						
Owner/Manager:	PVT-PGE						

Occurrence No.	1826	Map Index:	81969	EO Index:	82947	Element Last Seen:	2007-05-26
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2007-05-26
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2011-03-04
Quad Summary:	Pentland (3511913)						
County Summary:	Kern						
Lat/Long:	35.12287 / -119.34962				Accuracy:	80 meters	
UTM:	Zone-11 N3889196 E285893				Elevation (ft):	470	
PLSS:	T32S, R24E, Sec. 25, NE (M)				Acres:	0.0	
Location:	ALONG S LAKE RD, 0.6 MI E OF GARDNER FIELD RD, 5 MI NE MARICOPA PO.						
Detailed Location:	BLOCK CODE 3885-285 - LOCATION CODE A. MAPPED TO PROVIDED COORDINATES.						
Ecological:	HABITAT DESCRIBED AS IDLE OR FALLOW FIELD. LOWLAND ELEVATION SUBREGION. GROUND SQUIRRELS DETECTED WITHIN 100 M OF BREEDING LOCATION.						
General:	1 ADULT OBSERVED AND 1 BREEDING PAIR ESTIMATED TO OCCUR IN AREA ON 26 MAY 2007.						
Owner/Manager:	PVT						



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Occurrence No.	1827	Map Index:	81970	EO Index:	82949	Element Last Seen:	2023-11-09
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2023-11-09
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2026-03-27
Quad Summary:	Pentland (3511913)						
County Summary:	Kern						
Lat/Long:	35.12282 / -119.28668			Accuracy:	80 meters		
UTM:	Zone-11 N3889056 E291629			Elevation (ft):	360		
PLSS:	T32S, R25E, Sec. 27, NW (M)			Acres:	0.0		
Location:	ALONG S LAKE RD ABOUT 4.2 MI E OF GARDNER FIELD RD, ABOUT 7.8 MI NE OF MARICOPA, AND ABOUT 9.6 MI ESE OF TAFT.						
Detailed Location:	MAPPED TO COORDINATES PROVIDED FOR 2007 DETECTION AT BLOCK CODE 3885-290 - LOCATION CODE A. EBIRD DETECTIONS WERE IN THE GENERAL AREA AND ACCURACY AND EXACT LOCATIONS OF DETECTION ARE UNKNOWN.						
Ecological:	BREEDING & WINTERING OR RESIDENT. 2007: HABITAT DESCRIBED AS A NATURAL GRASSLAND AND EMPTY LOT; LOWLAND ELEVATION SUBREGION; GROUND SQUIRRELS DETECTED WITHIN 100 M OF BREEDING LOCATION. 2023: BURROW IN GRASSLAND.						
General:	2 ADULTS OBSERVED AND 1 BREEDING PAIR ESTIMATED TO OCCUR IN AREA ON 26 MAY 2007. 1 ADULT PERCHED, 2 OTHER OWLS OBS FLYING CLOSE TO THE GROUND ON 25 MAY 2020. 2 AT BURROW OBSERVED IN VICINITY ON 10 JAN & 9 NOV 2023.						
Owner/Manager:	PVT						

Occurrence No.	1828	Map Index:	81971	EO Index:	82950	Element Last Seen:	2007-05-26
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2007-05-26
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2011-03-04
Quad Summary:	Pentland (3511913)						
County Summary:	Kern						
Lat/Long:	35.12397 / -119.29265			Accuracy:	80 meters		
UTM:	Zone-11 N3889197 E291088			Elevation (ft):	360		
PLSS:	T32S, R25E, Sec. 21, SE (M)			Acres:	0.0		
Location:	N SIDE OF S LAKE RD, 3.9 MI E OF GARDNER FIELD RD, ABOUT 2 MI NNE SAN EMIDIO.						
Detailed Location:	BLOCK CODE 3885-290 - LOCATION CODE B. MAPPED TO PROVIDED COORDINATES.						
Ecological:	HABITAT DESCRIBED AS A NATURAL GRASSLAND. LOWLAND ELEVATION SUBREGION. GROUND SQUIRRELS DETECTED WITHIN 100 M OF BREEDING LOCATION.						
General:	1 ADULT OBSERVED AND 1 BREEDING PAIR ESTIMATED TO OCCUR IN AREA ON 26 MAY 2007.						
Owner/Manager:	PVT						



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Occurrence No.	1829	Map Index:	81973	EO Index:	82951	Element Last Seen:	2007-05-26
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2007-05-26
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2011-03-11
Quad Summary:	Pentland (3511913)						
County Summary:	Kern						
Lat/Long:	35.12279 / -119.26923				Accuracy:	80 meters	
UTM:	Zone-11 N3889017 E293219				Elevation (ft):	340	
PLSS:	T32S, R25E, Sec. 26, NW (M)				Acres:	0.0	
Location:	ALONG S LAKE RD, 5.2 MI E OF GARDNER FIELD RD, ABOUT 2.8 MI NE SAN EMIDIO.						
Detailed Location:	BLOCK CODE 3885-290 - LOCATION CODE E. MAPPED TO PROVIDED COORDINATES.						
Ecological:	HABITAT DESCRIBED AS A NATURAL GRASSLAND. LOWLAND ELEVATION SUBREGION. GROUND SQUIRRELS DETECTED WITHIN 100 M OF BREEDING LOCATION.						
General:	1 ADULT OBSERVED AND 1 BREEDING PAIR ESTIMATED TO OCCUR IN AREA ON 26 MAY 2007.						
Owner/Manager:	PVT						

Occurrence No.	1833	Map Index:	81981	EO Index:	82956	Element Last Seen:	2007-05-26
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2007-05-26
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2011-03-07
Quad Summary:	Millux (3511922)						
County Summary:	Kern						
Lat/Long:	35.16225 / -119.21672				Accuracy:	80 meters	
UTM:	Zone-11 N3893286 E298103				Elevation (ft):	290	
PLSS:	T32S, R26E, Sec. 08, NW (M)				Acres:	0.0	
Location:	ABOUT 1 MI ENE OF LEVEE SPUR (LOCALE) & IN THE VICINITY OF CONNECTING SLOUGH, 1.6 MI SW HILL RD AT MILLUX RD, SW MILLUX.						
Detailed Location:	BLOCK CODE 3890-295 - LOCATION CODE B. MAPPED TO PROVIDED COORDINATES.						
Ecological:	HABITAT DESCRIBED AS NATURAL GRASSLAND AND DESERT. LOWLAND ELEVATION SUBREGION. GROUND SQUIRRELS DETECTED WITHIN 100 M OF BREEDING LOCATION.						
General:	2 ADULTS AND 3 JUVENILES OBSERVED; 1 BREEDING PAIR ESTIMATED TO OCCUR IN AREA ON 26 MAY 2007.						
Owner/Manager:	PVT						

Occurrence No.	1834	Map Index:	82007	EO Index:	82984	Element Last Seen:	2007-05-26
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2007-05-26
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2011-03-10
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.12823 / -119.28752				Accuracy:	specific area	
UTM:	Zone-11 N3889658 E291566				Elevation (ft):	340	
PLSS:	T32S, R25E, Sec. 21, SE (M)				Acres:	9.0	
Location:	ABOUT 1/3 MILE NORTH OF S LAKE RD AND 4.2 MI E OF GARDNER FIELD RD, 2.5 MI NNE SAN EMIDIO.						
Detailed Location:	BLOCK CODE 3885-290 - LOCATION CODES C AND D. MAPPED TO PROVIDED COORDINATES.						
Ecological:	HABITAT DESCRIBED AS NATURAL GRASSLAND. LOWLAND ELEVATION SUBREGION. GROUND SQUIRRELS DETECTED WITHIN 100 M OF BREEDING LOCATIONS.						
General:	1 ADULT OBSERVED AND 1 BREEDING PAIR ESTIMATED TO OCCUR AT EACH LOCATION ON 26 MAY 2007.						
Owner/Manager:	PVT						



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Occurrence No.	1835	Map Index:	82008	EO Index:	82985	Element Last Seen:	2007-05-25
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2007-05-25
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2011-03-10
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.14688 / -119.33910			Accuracy:	80 meters		
UTM:	Zone-11 N3891836 E286914			Elevation (ft):	360		
PLSS:	T32S, R25E, Sec. 18, NW (M)			Acres:	0.0		
Location:	ALONG LAKE STATION RD, 2 AIR MI NE GARDNER FIELD RD, 4 MI NNW SAN EMIDIO.						
Detailed Location:	BLOCK CODE 3890-285 - LOCATION CODE A. MAPPED TO PROVIDED COORDINATES.						
Ecological:	HABITAT DESCRIBED AS NATURAL GRASSLAND. LOWLAND ELEVATION SUBREGION. GROUND SQUIRRELS DETECTED WITHIN 100 M OF BREEDING LOCATION.						
General:	2 ADULTS OBSERVED AND 1 BREEDING PAIR ESTIMATED TO OCCUR IN AREA ON 25 MAY 2007.						
Owner/Manager:	PVT						
Occurrence No.	1836	Map Index:	82009	EO Index:	82986	Element Last Seen:	2007-05-25
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2007-05-25
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2011-03-10
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.13403 / -119.34480			Accuracy:	specific area		
UTM:	Zone-11 N3890423 E286362			Elevation (ft):	380		
PLSS:	T32S, R24E, Sec. 24, NE (M)			Acres:	10.0		
Location:	ALONG LAKE STATION RD AND SANDY CREEK, 1.4 MI ENE GARDNER FIELD RD, 3.5 MI NW SAN EMIDIO.						
Detailed Location:	BLOCK CODE 3890-285 - LOCATION CODES B (NORTH) AND C (SOUTH). MAPPED TO PROVIDED COORDINATES.						
Ecological:	HABITAT DESCRIBED AS NATURAL GRASSLAND. LOWLAND ELEVATION SUBREGION. GROUND SQUIRRELS DETECTED WITHIN 100 M OF BREEDING LOCATION B, BUT NOT AT C.						
General:	1 ADULT OBSERVED AND 1 BREEDING PAIR ESTIMATED TO OCCUR AT EACH LOCATION ON 25 MAY 2007.						
Owner/Manager:	PVT						
Occurrence No.	1837	Map Index:	82010	EO Index:	82987	Element Last Seen:	2007-05-28
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2007-05-28
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2011-03-11
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.17542 / -119.54249			Accuracy:	80 meters		
UTM:	Zone-11 N3895457 E268463			Elevation (ft):	1360		
PLSS:	T32S, R23E, Sec. 06, NE (M)			Acres:	0.0		
Location:	2ND PLACE AT E STREET, FELLOWS.						
Detailed Location:	BLOCK CODE 3895-265 - LOCATION CODE A. MAPPED TO PROVIDED COORDINATES.						
Ecological:	HABITAT DESCRIBED AS BRUSHLAND. UPLAND ELEVATION SUBREGION. GROUND SQUIRRELS DETECTED WITHIN 100 M OF BREEDING LOCATION.						
General:	1 ADULT AND 1 JUVENILE OBSERVED; 1 BREEDING PAIR ESTIMATED TO OCCUR IN AREA ON 28 MAY 2007.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	2609	Map Index:	C3731	EO Index:	140034	Element Last Seen:	2024-10-03
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2024-10-03
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2026-03-24
Quad Summary:	Pentland (3511913)						
County Summary:	Kern						
Lat/Long:	35.09723 / -119.36408				Accuracy:	specific area	
UTM:	Zone-11 N3886382 E284508				Elevation (ft):	504	
PLSS:	T32S, R24E, Sec. 35, SE (M)				Acres:	6.0	
Location:	E SIDE OF CALIFORNIA AQUEDUCT ABOUT 0.7 MI SE OF CADET RD AT N DUVAL RD, AMD 2.8 MI NNW OF CA-166 AT PENTLAND RD.						
Detailed Location:	MAPPED TO COORDINATES GIVEN FOR PAIRS OR FAMILY GROUPS OF OWLS. OTHER DETECTIONS ATTRIBUTED TO THIS OCCURRENCE, BUT NOT USED TO MAP FEATURES OF OCCURRENCE.						
Ecological:	BREEDING, PROBABLY WINTERING OR RESIDENT.						
General:	2 ADULTS OBSERVED ON 30 SEP 2019. AT LEAST 1 PAIR WITH A MAX OF 2 JUVENILES OBSERVED OVER SEVERAL DAYS IN JUL 2018. 3 ADULTS OBSERVED ON 3 OCT 2024.						
Owner/Manager:	PVT						

Occurrence No.	2622	Map Index:	C3748	EO Index:	140051	Element Last Seen:	2011-01-23
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2011-01-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2026-03-27
Quad Summary:	Pentland (3511913)						
County Summary:	Kern						
Lat/Long:	35.12333 / -119.33405				Accuracy:	1/10 mile	
UTM:	Zone-11 N3889214 E287314				Elevation (ft):	370	
PLSS:	T32S, R25E, Sec. 19, SW (M)				Acres:	18.0	
Location:	S LAKE RD, ABOUT 1.5 MI E OF GARDNER FIELD RD, AND 2.3 MI NW OF BASIC SCHOOL RD AT COPUS RD, 7 MI ESE OF TAFT.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	WINTERING OR RESIDENT. PHOTOGRAPH SHOWS OWLS AT LIKELY BURROW IN GRAZED OR MOWED GRASSLAND.						
General:	2 OWLS OBSERVED AND PHOTOGRAPHED AT LIKELY BURROW ON 23 JAN 2011.						
Owner/Manager:	PVT						



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Occurrence No.	2625	Map Index:	C3761	EO Index:	140066	Element Last Seen:	1981-06-05
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1981-06-05
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2026-04-01
Quad Summary:	Pentland (3511913)						
County Summary:	Kern						
Lat/Long:	35.1055 / -119.37191				Accuracy:	1/10 mile	
UTM:	Zone-11 N3887317 E283816				Elevation (ft):	510	
PLSS:	T32S, R24E, Sec. 35, NW (M)				Acres:	18.0	
Location:	ALONG CALIFORNIA AQUEDUCT ABOUT 0.3 MI N OF CADET RD, AND 1.3 MI SW OF S LAKE RD AT GARDNER FIELD RD, 5.4 MI SE OF TAFT.						
Detailed Location:	LOCATION GIVEN AS CALIFORNIA AQUEDUCT MILE POST 255.76, L (EAST) SIDE.						
Ecological:	UNDETERMINED SITE USE. OBSERVED DURING SPECIAL-STATUS SPECIES SURVEYS.						
General:	ACTIVE BURROW OBSERVED ON 5 JUN 1981 (DATE INFERRED, FROM WHEN SAN JOAQUIN ANTELOPE SQUIRREL WAS DOCUMENTED AT MP 255.70).						
Owner/Manager:	DWR, PVT						

Occurrence No.	2627	Map Index:	C3777	EO Index:	140082	Element Last Seen:	2017-02-28
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2017-02-28
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2026-04-02
Quad Summary:	Maricopa (3511914)						
County Summary:	Kern						
Lat/Long:	35.12278 / -119.40031				Accuracy:	80 meters	
UTM:	Zone-11 N3889296 E281274				Elevation (ft):	645	
PLSS:	T32S, R24E, Sec. 21, SE (M)				Acres:	5.0	
Location:	ABOUT 1.1 MI SE OF GARDNER FIELD RD AT 7 SISTERS RD, AND 1.9 MI NE OF CA-33 AT CADET RD, 3.4 MI ESE OF TAFT.						
Detailed Location:	MAPPED TO LOCATION OF OCCUPIED BURROW COMPLEX DOCUMENTED IN 2011. 2015-2017 DETECTIONS IN VICINITY (AT "US-CA-MARICOPA - PETROLEUM RD," "KERN_SJV34," "GARDNER FIELD RD") SUGGEST CONTINUED OCCUPANCY, THOUGH BURROW LOCATIONS ARE UNKNOWN.						
Ecological:	WINTERING. UNDETERMINED BREEDING STATUS. 2011: BURROW COMPLEX IN VALLEY SALTBUSH SCRUB/ANNUAL BROME GRASSLAND. SOME OIL/NATURAL GAS PRODUCTION NEARBY, DISTURBANCE FROM OHV USE AND DUMPING.						
General:	1 ADULT OBSERVED IN BURROW ON 14 DEC 2011. OWLS OBSERVED IN VICINITY ON 29 APR 2015, 2 MAR 2016, & 28 FEB 2017 SUGGESTING TRANSIENT OR OVER-WINTERING.						
Owner/Manager:	UNKNOWN, BLM						

Toxostoma lecontei					Element Code: ABPBK06100		
Le Conte's thrasher							
Listing Status:	Federal:	None			CNDDB Element Ranks:	Global:	G4
	State:	Candidate Threatened				State:	S3
	Other:	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern					
Habitat:	General:	DESERT RESIDENT; PRIMARILY OF OPEN DESERT WASH, DESERT SCRUB, ALKALI DESERT SCRUB, AND DESERT SUCCULENT SCRUB HABITATS.					
	Micro:	COMMONLY NESTS IN A DENSE, SPINY SHRUB OR DENSELY BRANCHED CACTUS IN DESERT WASH HABITAT, USUALLY 2-8 FEET ABOVE GROUND.					



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Occurrence No.	45	Map Index:	14965	EO Index:	24522	Element Last Seen:	1950-04-01
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	1950-04-01		
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:	1991-04-11		
Quad Summary:	West Elk Hills (3511935), Reward (3511936), Lokern (3511945), Belridge (3511946)						
County Summary:	Kern						
Lat/Long:	35.36388 / -119.62116	Accuracy:	1 mile				
UTM:	Zone-11 N3916551 E261850	Elevation (ft):	675				
PLSS:	T29S, R22E, Sec. 33, W (M)	Acres:	0.0				
Location:	4 MI AND 4.5 MILES NORTH OF MCKITTRICK.						
Detailed Location:							
Ecological:							
General:	2 EGG SETS FROM NESTS IN ATRIPLEX, ONE FROM 3-15-1949 AND ONE FROM 1950.						
Owner/Manager:	UNKNOWN						
Occurrence No.	47	Map Index:	15325	EO Index:	22300	Element Last Seen:	1967-02-28
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	1967-02-28		
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:	1989-08-10		
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.14218 / -119.45262	Accuracy:	1 mile				
UTM:	Zone-11 N3891564 E276558	Elevation (ft):	925				
PLSS:	T32S, R23E, Sec. 13, SE (M)	Acres:	0.0				
Location:	TAFT.						
Detailed Location:							
Ecological:							
General:	EGG SETS. 2 NESTS IN SALTBUCH SAGE. OPEN SAGE DESERT.						
Owner/Manager:	UNKNOWN						
Occurrence No.	56	Map Index:	14957	EO Index:	15231	Element Last Seen:	1958-02-21
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	1958-02-21		
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:	1989-08-10		
Quad Summary:	West Elk Hills (3511935), Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.30495 / -119.62429	Accuracy:	1 mile				
UTM:	Zone-11 N3910021 E261393	Elevation (ft):	175				
PLSS:	T30S, R22E, Sec. 21, NW (M)	Acres:	0.0				
Location:	MCKITTRICK.						
Detailed Location:							
Ecological:							
General:	EGG SET FROM NEST IN ATRIPLEX.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	160	Map Index:	24415	EO Index:	6941	Element Last Seen:	2006-XX-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2006-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-05-10
Quad Summary:	Maricopa (3511914)						
County Summary:	Kern						
Lat/Long:	35.09972 / -119.42165			Accuracy:	2/5 mile		
UTM:	Zone-11 N3886785 E279266			Elevation (ft):	900		
PLSS:	T32S, R24E, Sec. 32 (M)			Acres:	0.0		
Location:	WEST OF HWY 33, 3 MILES NNW OF MARICOPA.						
Detailed Location:	BIRDS ARE FOUND IN THE VICINITY OF OILFIELDS WEST OF HWY 33. 2006 OBSERVATION INCLUDES UTM COORDINATES 279041E, 3886772, NAD 27.						
Ecological:	HABITAT CONSISTS OF SALTBUSSH SCRUB, DOMINATED BY ATRIPLEX, SURROUNDED BY ROLLING HILLS WITH NON-NATIVE GRASSLAND.						
General:	2 ADULTS OBSERVED IN 1991, IN AN AREA OF MODERATE-HEAVY PETROLEUM DEVELOPMENT. TOTAL OF 10 INDIVIDUALS OBSERVED BETWEEN 2006 UTM LOCATION AND OCC #212 TO THE SE DURING SURVEY FOR BNLL; AS MANY AS 4 INDIVIDUALS SEEN AT ONE LOCATION IN 2006.						
Owner/Manager:	UNKNOWN, PVT						
Occurrence No.	178	Map Index:	41609	EO Index:	41609	Element Last Seen:	1999-04-09
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-04-09
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1999-09-13
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.31112 / -119.60247			Accuracy:	80 meters		
UTM:	Zone-11 N3910653 E263395			Elevation (ft):	950		
PLSS:	T30S, R22E, Sec. 15, SW (M)			Acres:	0.0		
Location:	1.25 MILES ENE OF MCKITTRICK, ON THE EDGE OF THE ELK HILLS.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF SALTBUSSH SCRUB; SURROUNDED BY OIL DEVELOPMENT.						
General:	2 ADULTS OBSERVED ON 9 APR 1999.						
Owner/Manager:	PVT						
Occurrence No.	179	Map Index:	41610	EO Index:	41610	Element Last Seen:	1999-03-31
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-03-31
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1999-09-13
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.29553 / -119.61472			Accuracy:	80 meters		
UTM:	Zone-11 N3908952 E262235			Elevation (ft):	1150		
PLSS:	T30S, R22E, Sec. 28, NE (M)			Acres:	0.0		
Location:	0.8 MILE SE OF MCKITTRICK, ON THE EDGE OF THE ELK HILLS SOUTH OF MCKITTRICK VALLEY.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF SALTBUSSH SCRUB; SURROUNDED BY OIL DEVELOPMENT.						
General:	1 ADULT OBSERVED ON 31 MAR 1999.						
Owner/Manager:	PVT						



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Occurrence No.	205	Map Index:	65690	EO Index:	65769	Element Last Seen:	2001-04-26
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-04-26
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-08-08
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.15379 / -119.51263				Accuracy:	80 meters	
UTM:	Zone-11 N3892989 E271122				Elevation (ft):	1280	
PLSS:	T32S, R23E, Sec. 09, SW (M)				Acres:	0.0	
Location:	SEVENTEEN CANYON, ABOUT 0.6 MI SE OF MIDOIL AND 0.1 MI SE OF OIL TANKS.						
Detailed Location:							
Ecological:	HABITAT IS SALTBUSH SCRUB.						
General:	1 FORAGING ADULT OBSERVED.						
Owner/Manager:	PVT						

Occurrence No.	206	Map Index:	65692	EO Index:	65771	Element Last Seen:	1998-04-23
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-08-08
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.18225 / -119.44688				Accuracy:	80 meters	
UTM:	Zone-11 N3895997 E277191				Elevation (ft):	500	
PLSS:	T31S, R24E, Sec. 31, SW (M)				Acres:	0.0	
Location:	BUENA VISTA HILLS, SOUTH OF BROAD CREEK, ABOUT 1.4 AIR MILES NORTHEAST OF WALLACE CENTER.						
Detailed Location:							
Ecological:	HABITAT IS VALLEY SALTBUSH SCRUB.						
General:	TWO INDIVIDUALS SEEN FORAGING, ONE ON 09 APR AND ONE ON 23 APR 1998.						
Owner/Manager:	PVT						

Occurrence No.	207	Map Index:	65694	EO Index:	65773	Element Last Seen:	1998-04-08
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-08-08
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.18146 / -119.42845				Accuracy:	80 meters	
UTM:	Zone-11 N3895868 E278867				Elevation (ft):	600	
PLSS:	T31S, R24E, Sec. 32, SW (M)				Acres:	0.0	
Location:	BUENA VISTA HILLS. ABOUT 2.5 AIR MILES NORTHEAST OF THE CENTER OF FORD CITY.						
Detailed Location:	JUST EAST OF AIRPORT ROAD.						
Ecological:	VALLEY SALTBUSH SCRUB.						
General:	2 INDIVIDUALS SEEN FORAGING.						
Owner/Manager:	DOE						



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Occurrence No.	208	Map Index:	65695	EO Index:	65774	Element Last Seen:	1989-06-16
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1989-06-16
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-08-08
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.30893 / -119.35899				Accuracy:	non-specific area	
UTM:	Zone-11 N3909856 E285529				Elevation (ft):	290	
PLSS:	T30S, R24E, Sec. 24 (M)				Acres:	125.3	
Location:	ABOUT 1 MILE NORTHWEST OF TUPMAN, IN TULE ELK STATE RESERVE.						
Detailed Location:	MAPPED IN NW 1/4 OF NW 1/4 OF SEC. 24 AND NE 1/4 OF NE 1/4 OF SEC 23.						
Ecological:	WATER INTERMITTENT IN SWAMP AREA. A RIPARIAN FOREST OF SALIX WITH CEPHALANTHUS, ARTEMISIA, BACCHARIS, AND SCIRPUS OCCURRING IN OLD BUENA VISTA SLOUGH BASINS OF EXCELSIOR SANDY LOAM. ALKALI SINK HABITAT DIRECTLY SOUTH.						
General:	ONE INDIVIDUAL OBSERVED FEEDING IN DRY SWAMP AREA.						
Owner/Manager:	DPR-TULE ELK SNR						

Occurrence No.	213	Map Index:	69223	EO Index:	70003	Element Last Seen:	2006-05-24
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2006-05-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-05-10
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.15260 / -119.38559				Accuracy:	80 meters	
UTM:	Zone-11 N3892572 E282694				Elevation (ft):	900	
PLSS:	T32S, R24E, Sec. 10, S (M)				Acres:	0.0	
Location:	NAVAL PETROLEUM RESERVE NO. 2, ABOUT 0.7 MILE SOUTH OF HONOLULU OIL MAIN CAMP.						
Detailed Location:	MAPPED ACCORDING TO UTM COORDINATES PROVIDED BY SOURCE.						
Ecological:	VALLEY SALTBUSH SCRUB.						
General:	1 ADULT OBSERVED FORAGING; MAY ALSO NEST ON SITE, 24 MAY 2006.						
Owner/Manager:	PVT						

Occurrence No.	214	Map Index:	69224	EO Index:	70004	Element Last Seen:	2006-05-24
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2006-05-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-05-10
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.16587 / -119.38434				Accuracy:	80 meters	
UTM:	Zone-11 N3894041 E282843				Elevation (ft):	900	
PLSS:	T32S, R24E, Sec. 10, S (M)				Acres:	0.0	
Location:	NAVAL PETROLEUM RESERVE NO. 2, JUST NORTH OF HONOLULU OIL MAIN CAMP.						
Detailed Location:	MAPPED ACCORDING TO UTM COORDINATES PROVIDED BY SOURCE.						
Ecological:	VALLEY SALTBUSH SCRUB.						
General:	1 ADULT OBSERVED FORAGING; MAY ALSO NEST ON SITE, 24 MAY 2006.						
Owner/Manager:	PVT						



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Occurrence No.	253	Map Index:	A2368	EO Index:	103979	Element Last Seen:	2016-06-02
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2016-06-02
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2016-10-27
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.24054 / -119.35879				Accuracy:	80 meters	
UTM:	Zone-11 N3902269 E285368				Elevation (ft):	452	
PLSS:	T31S, R24E, Sec. 11, SE (M)				Acres:	5.0	
Location:	E SIDE OF ELK HILLS N ACCESS RD, ABOUT 0.1 MI N OF THE HWY 119 JCT, 1.7 MI NW OF SUNRIDGE AVE AT TURBO RD, DUSTIN ACRES.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	CALTRANS RIGHT-OF-WAY IN VALLEY SALTBUSH SCRUB DOMINATED BY ATRIPLEX POLYCARPA AND NON-NATIVE GRASSES. DETECTED DURING CONSTRUCTION MONITORING. SR-119 TO SOUTH, OIL AND GAS ACTIVITIES TO NORTH.						
General:	1 ADULT OBSERVED FORAGING ON 2 JUN 2016.						
Owner/Manager:	CALTRANS						
Occurrence No.	255	Map Index:	A3605	EO Index:	105242	Element Last Seen:	2016-03-23
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2016-03-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2017-02-06
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.16237 / -119.51572				Accuracy:	80 meters	
UTM:	Zone-11 N3893948 E270865				Elevation (ft):	1229	
PLSS:	T32S, R23E, Sec. 9, NW (M)				Acres:	5.0	
Location:	ABOUT 0.5 MILES NE OF MIDOIL [GNIS] AND 0.75 MILES SSE OF HWY 33 AT HENRY RD, SE OF FELLOWS.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	SALTBUSH SCRUB AND ANNUAL GRASSLAND ON OIL FIELD.						
General:	1 ADULT SEEN AND HEARD CALLING ON 23 MAR 2016.						
Owner/Manager:	UNKNOWN						



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Lanius ludovicianus

Element Code: ABPBR01030

loggerhead shrike

Listing Status: **Federal:** None

CNDDB Element Ranks: **Global:** G4

State: None

State: S4

Other: CDFW_SSC-Species of Special Concern, IUCN_NT-Near Threatened

Habitat: **General:** BROKEN WOODLANDS, SAVANNAH, PINYON-JUNIPER, JOSHUA TREE, AND RIPARIAN WOODLANDS, DESERT OASES, SCRUB AND WASHES.

Micro: PREFERS OPEN COUNTRY FOR HUNTING, WITH PERCHES FOR SCANNING, AND FAIRLY DENSE SHRUBS AND BRUSH FOR NESTING.

Occurrence No.	7	Map Index:	66719	EO Index:	66869	Element Last Seen:	1999-03-31
Occ. Rank:	Good	Presence:	Presumed Extant	Site Last Seen:		1999-03-31	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2006-10-12	

Quad Summary: West Elk Hills (3511935)

County Summary: Kern

Lat/Long:	35.29539 / -119.61305	Accuracy:	non-specific area
UTM:	Zone-11 N3908934 E262386	Elevation (ft):	1150
PLSS:	T30S, R22E, Sec. 28, NE (M)	Acres:	41.0

Location: ABOUT 0.9 MILE SE OF MCKITTRICK.

Detailed Location:

Ecological: SALTBUSH SCRUB HABITAT.

General: 6 ADULTS AND 2 JUVENILES OBSERVED AT 5 LOCATIONS WITHIN AREA ON 31 MAR 1999.

Owner/Manager: PVT



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Vireo bellii pusillus

Element Code: ABPBW01114

least Bell's vireo

Listing Status: **Federal:** Endangered

CNDDDB Element Ranks: **Global:** G5T2

State: Endangered

State: S3

Other:

Habitat: **General:** SUMMER RESIDENT OF SOUTHERN CALIFORNIA IN LOW RIPARIAN IN VICINITY OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT.

Micro: NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE.

Occurrence No.	542	Map Index:	92148	EO Index:	93240	Element Last Seen:	1907-06-16
Occ. Rank:	None	Presence:	Possibly Extirpated	Site Last Seen:		1907-06-16	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2014-04-25	

Quad Summary: Mouth of Kern (3511923), Tupman (3511933)

County Summary: Kern

Lat/Long:	35.25580 / -119.29751	Accuracy:	1 mile
UTM:	Zone-11 N3903831 E290984	Elevation (ft):	300
PLSS:	T31S, R25E, Sec. 04 (M)	Acres:	0.0

Location: MOUTH OF KERN RIVER (1929 HISTORIC MAPS), AT N END OF BUENA VISTA LAKEBED, ABOUT 4 MI SE OF TUPMAN, WSW OF BAKERSFIELD.

Detailed Location: MAPPED GENERALLY TO LOCATION DESCRIPTION OF "WHERE KERN RIVER EMPTIES INTO THE LAKE." AREA FROM MOUTH OF THE KERN RIVER TO SEVERAL MILES UPSTREAM DESCRIBED AS BEING BORDERED BY WILLOWS & LIKELY SERVED AS NESTING HABITAT FOR VIREOS.

Ecological: HISTORICALLY WILLOWS BORDERED THE KERN RIVER IN DENSE THICKETS & GROVES FOR MILES; LBVI WERE "COMMON" UPSTREAM TO SUMMIT LAKE. 1994-2013 AERIALS SHOW A HIGHLY CHANNELIZED RIVER WITH MUCH OF THE AREA CONVERTED INTO AGRICULTURAL.

General: UNKNOWN NUMBER OF BREEDING LEAST BELL'S VIREOS DETECTED BETWEEN 20 MAY-16 JUN 1907 IN WILLOW THICKETS; "FRESH SETS & YOUNG BIRDS FOUND 1 JUN." C.B. LINTON SURVEYED THIS AREA INCLUDING THE REST OF HISTORIC BUENA VISTA LAKE DURING THIS TIME.

Owner/Manager: UNKNOWN, PVT

Agelaius tricolor

Element Code: ABPBXB0020

tricolored blackbird

Listing Status: **Federal:** None

CNDDDB Element Ranks: **Global:** G3

State: Threatened

State: S2

Other: BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_EN-Endangered, USFWS_BCC-Birds of Conservation Concern

Habitat: **General:** HIGHLY COLONIAL SPECIES, MOST NUMEROUS IN CENTRAL VALLEY AND VICINITY. LARGELY ENDEMIC TO CALIFORNIA.

Micro: REQUIRES OPEN WATER, PROTECTED NESTING SUBSTRATE, AND FORAGING AREA WITH INSECT PREY WITHIN A FEW KM OF THE COLONY.



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Occurrence No.	127	Map Index:	15610	EO Index:	24703	Element Last Seen:	1971-05-04
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1971-05-04
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1991-07-25
Quad Summary:	Stevens (3511932), Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.35487 / -119.25242				Accuracy:	1 mile	
UTM:	Zone-11 N3914726 E295336				Elevation (ft):	320	
PLSS:	T29S, R25E, Sec. 35 (M)				Acres:	0.0	
Location:	JUNCT OF HWY 43 AND STOCKDALE HWY, APPROX 12 MI W OF BAKERSFIELD.						
Detailed Location:	FLOCK OF APPROX 2000 OBS BY DE HAVEN NESTING IN TULE; NESTS WITH NESTLINGS. SIZE OF COLONY APROX 1.25 ACRES.						
Ecological:							
General:							
Owner/Manager:	PVT						

Occurrence No.	209	Map Index:	21590	EO Index:	21317	Element Last Seen:	2013-03-21
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2014-04-19
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2016-03-10
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.14060 / -119.30720				Accuracy:	2/5 mile	
UTM:	Zone-11 N3891072 E289805				Elevation (ft):	310	
PLSS:	T32S, R25E, Sec. 17, SE (M)				Acres:	0.0	
Location:	3.3 MI ENE OF LAKE RD & GARDNER FIELD RD INTERSECTION, 6.6 MI WSW OF HILL RD & MILLUX RD INTXN, BUENA VISTA LAKE BED.						
Detailed Location:	MAPPED ACCORDING TO PROVIDED MAP AND LOCATION DESCRIPTION. BIRDS FOUND NESTING IN THE VICINITY OF 3 IRRIGATION SUMPS; BIRDS FORAGE IN THE NEARBY SALTBUSH/GRASSLANDS/FALLOW FIELDS. COLONY FORAGED BETWEEN 0.5-4 MI FROM THE COLONY.						
Ecological:	SURROUNDING LAND USE CONSISTED OF FARMING. PLOWING FARM EQUIPMENT DISTURBED SOIL, FALLOW WEEDY FIELDS, AND SEED ALFALFA. 2013 COLONY RECENTLY ESTABLISHED BUT BEING CUT DURING SURVEY. SITE DRY & SUBSTRATE INADEQUATE FOR NESTING IN 2014.						
General:	A NESTING COLONY COMPOSED OF ABOUT 6,000 BIRDS OBSERVED ON 30 MAY 1992; YOUNG PRODUCED IN TWO WAVES. FIRST FLEDGLINGS OBSERVED PRIOR TO 6 MAY; FORAGING/BEGGING. ABOUT 14,000 BIRDS OBS ON 21 MAR 2013. 0 OBS ON 19 APR 2014.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	431	Map Index:	61652	EO Index:	61688	Element Last Seen:	2005-06-15
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2005-06-15
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2005-06-20
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.29099 / -119.33024			Accuracy:	non-specific area		
UTM:	Zone-11 N3907803 E288097			Elevation (ft):	290		
PLSS:	T30S, R25E, Sec. 30, NE (M)			Acres:	45.4		
Location:	COLES LEVEE ECOSYSTEM PRESERVE, WITHIN THE COLES LEVEE OILFIELD, ABOUT 1 MILE SE OF TUPMAN.						
Detailed Location:	SITE IS PROTECTED AND FENCED AS PART OF THE COLES LEVEE ECOSYSTEM PRESERVE.						
Ecological:	HABITAT CONSISTS OF AN ARTIFICIALLY-CREATED POND, VEGETATED BY CATTAIL, MUGWORT, STINGING NETTLE, AND RUSHES.						
General:	TRICOLORED'S HAVE NESTED AT THIS SITE PERIODICALLY SINCE 1996. 2005 COLONY WAS THE LARGEST WITH ~500 ADULTS OBSERVED NESTING ON 15 JUN 2005, WITH MANY YOUNG SUCCESSFULLY FLEDGED.						
Owner/Manager:	PVT-AERA ENERGY						

Occurrence No.	709	Map Index:	97767	EO Index:	99152	Element Last Seen:	2011-04-16
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2013-04-15
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-12-14
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.33150 / -119.36320			Accuracy:	1/10 mile		
UTM:	Zone-11 N3912368 E285206			Elevation (ft):	290		
PLSS:	T30S, R24E, Sec. 11, SE (M)			Acres:	0.0		
Location:	ABOUT 0.2 MI WSW OF MORRIS RD & STATION RD INTERSECTION, 0.8 MI ESE OF TUPMAN RD & STATION RD INTERSECTION, N OF TUPMAN.						
Detailed Location:	COLONY DATA STORED IN UC DAVIS TRICOLORED BLACKBIRD PORTAL; SITE NAME "TULE ELK PRESERVE HQ POND." POND LOCATED ABOUT 100 METERS SE OF THE PARK OFFICE, ALONG N END OF RESERVE. MAPPED ACCORDING TO PROVIDED LOCATION IN PORTAL.						
Ecological:	STINGING NETTLE.						
General:	ABOUT 90 BIRDS OBSERVED ON 16 APR 2011; ADULTS CARRYING FOOD, FLEDGLINGS OUT OF NEST. ABOUT 150 BIRDS OBSERVED ON 15 APR 2013; NO NOTES ON NESTING STATUS OR BEHAVIOR PROVIDED. FURTHER RESEARCH NEEDED TO DETERMINE NESTING STATUS OF COLONY.						
Owner/Manager:	DPR-TULE ELK SNR						



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Occurrence No.	710	Map Index:	97770	EO Index:	99155	Element Last Seen:	2011-04-16
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2011-04-16
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-10-12
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.31920 / -119.35970				Accuracy:	80 meters	
UTM:	Zone-11 N3910996 E285492				Elevation (ft):	295	
PLSS:	T30S, R24E, Sec. 14, NE (M)				Acres:	0.0	
Location:	~0.9 MI S OF STATION RD & MORRIS RD INTERSECTION, 1.3 MI SE OF STATION RD & TUPMAN RD INTERSECTION, 1.5 MI N OF TUPMAN.						
Detailed Location:	COLONY DATA STORED IN UC DAVIS TRICOLORED BLACKBIRD PORTAL; SITE NAME "TULE ELK PRESERVE MIDDLE POND."						
Ecological:	CATTAILS AND STINGING NETTLE.						
General:	ABOUT 20 BIRDS OBSERVED ON 16 APR 2011; COLONY QUIET, INCUBATION INFERRED AND ADULTS CARRYING FOOD.						
Owner/Manager:	DPR-TULE ELK SNR						

Occurrence No.	711	Map Index:	97775	EO Index:	99159	Element Last Seen:	1936-05-06
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1936-05-06
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2016-01-11
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.30020 / -119.34921				Accuracy:	1 mile	
UTM:	Zone-11 N3908866 E286396				Elevation (ft):	340	
PLSS:	T30S, R24E, Sec. 24 (M)				Acres:	0.0	
Location:	VICINITY OF TUPMAN.						
Detailed Location:	COLONY DATA STORED IN UC DAVIS TRICOLORED BLACKBIRD PORTA; SITE NAME "TUPMAN." EXACT LOCATION OF 1936 COLONY UNKNOWN; LOCATION DESCRIPTION GIVEN ONLY AS "NEAR TUPMAN." MAPPED AS BEST GUESS BY CNDDB TO SLOUGHS NEAR TUPMAN.						
Ecological:	CATTAILS/TULES ALONG SLOUGH. COLONY PRESUMED EXTIRPATED BY BEEDY (1991). BUENA VISTA SLOUGH NOTED IN TUPMAN 1933 USGS TOPO MAP. SLOUGH ON NE SIDE OF TUPMAN, WHAT APPEARS TO BE PRESENT DAY OUTLET CANAL.						
General:	A NESTING COLONY COMPOSED OF ABOUT 500 NESTS OBSERVED ON 6 MAY 1936 (NEFF 1937). 0 OBSERVED DURING A 2 MINUTE SURVEY ON 18 APR 2014; UNCLEAR IF REPORTER SURVEYED THE SAME AREA AS IN 1936, LOCATION IS VERY VAGUE.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	712	Map Index:	97778	EO Index:	99161	Element Last Seen:	2011-04-17
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2014-04-18
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2016-06-17
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.3008 / -119.285				Accuracy:	1 mile	
UTM:	Zone-11 N3908796 E292237				Elevation (ft):	311	
PLSS:	T30S, R25E, Sec. 22 (M)				Acres:	1987.0	
Location:	AREA W OF I-5 AND MAIN LEVEE CANAL INTERSECTION, 2 MI NW OF I-5 AND HWY 43 INTERSECTION, 3.8 MI ENE OF TUPMAN.						
Detailed Location:	COLONY DATA STORED IN UC DAVIS TRBL PORTAL; SITE NAMES KERN WATER BANK M7-1, KERN RIVER BRIDGE/I-5, KERN WATER BANK NETTLES, WEST KERN WD NO. 2, & KERN COUNTY WATER AGENECY WELL 6-03. MULTIPLE SUBCOLONIES, MOST NESTING, EXACT LOCATION UNK.						
Ecological:	LOCATION WAS "UNIT M-7, APPROX. 0.075 MILES WEST OF I-5 & 100M S OF THE MAIN CANAL." MAPPED ACCORDING TO KERN WATER BANK PROJECT FACILITIES MAP. NEST SUBSTRATE WAS NETTLES & MESQUITE IN 2005. NESTING SITE DRY, NO WATER NEAR BY IN 2008.						
General:	COLONIES OF 2.5K & 4K OBSERVED ON 22 APR 2005; PRESUMED NESTING. 0 BIRDS OBSERVED ON 24 APR 2008. 200 OBS ON 16 APR 2011; NESTING UNK. 35 OBS ON 17 APR 2011; COLONY QUIET, INCUBATION INFERRED, & ADULTS CARRYING FOOD. 0 OBS ON 18 APR 2014.						
Owner/Manager:	KERN WATER BANK AUTHORITY						

Occurrence No.	714	Map Index:	97791	EO Index:	99181	Element Last Seen:	2011-04-15
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2014-04-18
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-12-16
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.30750 / -119.24430				Accuracy:	2/5 mile	
UTM:	Zone-11 N3909455 E295954				Elevation (ft):	325	
PLSS:	T30S, R25E, Sec. 24, N (M)				Acres:	0.0	
Location:	ALONG KERN RIVER, ABOUT 1.1 MI NNE OF I-5 AND HWY 43 INTERSECTION, 3 MI NNW OF I-5 & HWY 119, W OF BAKERSFIELD.						
Detailed Location:	COLONY DATA STORED IN UC DAVIS TRICOLOR BLACKBIRD PORTAL; SITE NAMES "KERN RIVER NO. 1" & "KERN RIVER NO. 2." TWO NESTING COLONIES ARE INCLUDED IN THE FEATURE.						
Ecological:	STINGING NETTLE AND MESQUITE. LOCATIONS DESCRIBED AS "0.4 MI E OF ENOS LANE" AND "N SIDE OF KERN RIVER CHANNEL 0.25 MI E OF ENOS LANE." IT WAS UNCLEAR IF THE SAME COLONY WAS REPORTED TWICE TO THE PORTAL OR IF THEY ARE DISTINCT COLONIES.						
General:	TWO POSSIBLE COLONIES COMPOSED OF ABOUT 200 AND 250 BIRDS OBSERVED ON 15 APR 2011; BOTH SITES CONTAINED COMPLETED NESTS WITHOUT EGGS, BIRDS WERE SINGING. NO BIRDS WERE OBSERVED AT EITHER LOCATION ON 18 APR 2014.						
Owner/Manager:	CITY OF BAKERSFIELD						



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Occurrence No.	1001	Map Index:	A2502	EO Index:	104090	Element Last Seen:	1907-06-16
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1907-06-16
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2016-11-08
Quad Summary:	Mouth of Kern (3511923), Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.23597 / -119.29527				Accuracy:	1 mile	
UTM:	Zone-11 N3901626 E291137				Elevation (ft):	298	
PLSS:	T31S, R25E, Sec. 16 (M)				Acres:	1987.0	
Location:	MOUTH OF KERN RIVER.						
Detailed Location:	GENERAL LOCATION DESCRIBED AS "THE NORTHEAST CORNER WHERE THE KERN RIVER EMPTIES INTO THE LAKE (AND WHERE IS ALSO THE OUTLET, THE MOUTH OF THE KERN RIVER AND THE LAKE OUTLET BEING SEPARATED ONLY BY A NARROW LEVEE)."						
Ecological:	ABUNDANT GROWTH OF TULE AND WILLOWS, THE LATTER BORDERING THE KERN RIVER IN DENSE THICKETS AND GROVES FOR MILES. HISTORIC TOPOGRAPHIC MAPS SHOW APPARENT MARSH ON N SIDE OF THE LAKE, NOW CONVERTED TO AGRICULTURAL LANDS.						
General:	A BREEDING COLONY OBSERVED SOMETIME BETWEEN 20 MAY-16 JUN 1907 BY C. B. LINTON. MINIMAL INFORMATION PROVIDED. LOCATION COULD POSSIBLY BE NEAR BUENA VISTA AQUATIC RECREATION AREA.						
Owner/Manager:	DFG-BUENA VISTA LAGOON ER, UNK						

Xanthocephalus xanthocephalus

Element Code: ABPBXB3010

yellow-headed blackbird

Listing Status:	Federal:	None	CNDDDB Element Ranks:	Global:	G5
	State:	None		State:	S3
	Other:	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern			
Habitat:	General:	NESTS IN FRESHWATER EMERGENT WETLANDS WITH DENSE VEGETATION AND DEEP WATER. OFTEN ALONG BORDERS OF LAKES OR PONDS.			
	Micro:	NESTS ONLY WHERE LARGE INSECTS SUCH AS ODONATA ARE ABUNDANT, NESTING TIMED WITH MAXIMUM EMERGENCE OF AQUATIC INSECTS.			

Occurrence No.	3	Map Index:	25591	EO Index:	53631	Element Last Seen:	1923-06-10
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	1923-06-10		
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:	2003-12-18		
Quad Summary:	Millux (3511922), Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.19175 / -119.29602				Accuracy:	non-specific area	
UTM:	Zone-11 N3896722 E290955				Elevation (ft):	290	
PLSS:	T31S, R25E (M)				Acres:	24258.9	
Location:	BUENA VISTA LAKE, SAN JOAQUIN VALLEY.						
Detailed Location:							
Ecological:							
General:	2 MVZ EGG SETS (#4109 & 4110) COLLECTED 10 JUN 1923 BY ALDEN H. MILLER.						
Owner/Manager:	PVT						

Sorex ornatus relictus

Element Code: AMABA01102

Buena Vista Lake ornate shrew

Listing Status:	Federal:	Endangered	CNDDDB Element Ranks:	Global:	G5T1
	State:	None		State:	S1
	Other:	CDFW_SSC-Species of Special Concern			



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Habitat:	General: MARSHLANDS AND RIPARIAN AREAS IN THE TULARE BASIN.			
	Micro: PREFERS MOIST SOIL. USES STUMPS, LOGS AND LITTER FOR COVER.			
Occurrence No.	1	Map Index: 43156	EO Index: 43156	Element Last Seen: 1932-02-27
Occ. Rank:	Unknown		Presence: Presumed Extant	Site Last Seen: 1932-02-27
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2000-06-28
Quad Summary:	Millux (3511922)			
County Summary:	Kern			
Lat/Long:	35.18027 / -119.22714		Accuracy:	non-specific area
UTM:	Zone-11 N3895306 E297199		Elevation (ft):	290
PLSS:	T32S, R26E, Sec. 06 (M)		Acres:	2495.9
Location:	EXCAVATED SLOUGH IMMEDIATELY OUTSIDE OF EAST SIDE LEVEE, BUENA VISTA LAKE BED.			
Detailed Location:				
Ecological:				
General:	TYPE LOCALITY. ADULT FEMALE SKIN & SKULL COLLECTED 26 FEB 1932 (MVZ #51414). ANOTHER FEMALE & A MALE COLLECTED 27 FEB 1932 (MVZ 51415-16).			
Owner/Manager:	PVT			
Occurrence No.	2	Map Index: 43157	EO Index: 43157	Element Last Seen: 1907-07-12
Occ. Rank:	None		Presence: Possibly Extirpated	Site Last Seen: 1999-04-20
Occ. Type:	Natural/Native occurrence		Trend: Unknown	Record Last Updated: 2010-03-04
Quad Summary:	Millux (3511922), Mouth of Kern (3511923)			
County Summary:	Kern			
Lat/Long:	35.23340 / -119.29037		Accuracy:	non-specific area
UTM:	Zone-11 N3901330 E291576		Elevation (ft):	290
PLSS:	T31S, R25E, Sec. 16 (M)		Acres:	2175.9
Location:	NORTH SIDE OF BUENA VISTA LAKE.			
Detailed Location:	THE NORTH SHORE WAS MAPPED TO INCLUDE THE AQUEDUCT, LAKE WEBB AND LAKE EVANS IN THE BUENA VISTA LAKE AQUATIC RECREATION AREA.			
Ecological:				
General:	A COLLECTION WAS MADE IN THIS VICINITY ON 12 JUL 1907. 50 TRAPS SET IN BUENA VISTA LAKE RECREATION AREA 19-20 APR 1999 BUT NO SHREWS CAPTURED.			
Owner/Manager:	PVT			



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Occurrence No.	3	Map Index:	43158	EO Index:	43158	Element Last Seen:	1909-10-21
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1909-10-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-10-25
Quad Summary:	Buttonwillow (3511944)						
County Summary:	Kern						
Lat/Long:	35.39940 / -119.47328				Accuracy:	1 mile	
UTM:	Zone-11 N3920145 E275387				Elevation (ft):	265	
PLSS:	T29S, R23E, Sec. 14 (M)				Acres:	0.0	
Location:	BUTTONWILLOW.						
Detailed Location:	LOCATION GIVEN ONLY AS "BUTTONWILLOW"						
Ecological:							
General:	ONE FEMALE (CAS #69) COLLECTED 21 OCT 1909.						
Owner/Manager:	UNKNOWN						

Occurrence No.	5	Map Index:	43160	EO Index:	43160	Element Last Seen:	1999-03-18
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	1999-03-18
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2000-08-23
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.28592 / -119.32635				Accuracy:	80 meters	
UTM:	Zone-11 N3907233 E288438				Elevation (ft):	295	
PLSS:	T30S, R25E, Sec. 30, SE (M)				Acres:	0.0	
Location:	ARTIFICIAL POND ADJACENT TO COLES LEVEE NATURE CENTER. JUST EAST OF THE CALIFORNIA AQUEDUCT, ~1.3 MILES SOUTH OF TUPMAN.						
Detailed Location:							
Ecological:	HABITAT IS ARTIFICIAL POND. VEGETATION INCLUDES RUSH, BULRUSH, POISON HEMLOCK & STINGING NETTLE. SURROUNDING LAND USE IS OIL DEVELOPMENT & CALIFORNIA AQUEDUCT.						
General:	NINE CAPTURED DURING STUDY PERFORMED BY THE ENDANGERED SPECIES RECOVERY PROGRAM, FRESNO CA.						
Owner/Manager:	PVT-AERA ENERGY						

<i>Eumops perotis californicus</i>				Element Code: AMACD02011			
western mastiff bat							
Listing Status:	Federal:	None			CNDDB Element Ranks:	Global:	G4G5T4
	State:	None				State:	S3S4
	Other:	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern					
Habitat:	General:	MANY OPEN, SEMI-ARID TO ARID HABITATS, INCLUDING CONIFER AND DECIDUOUS WOODLANDS, COASTAL SCRUB, GRASSLANDS, CHAPARRAL, ETC.					
	Micro:	ROOSTS IN CREVICES IN CLIFF FACES, HIGH BUILDINGS, TREES AND TUNNELS.					



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Occurrence No.	51	Map Index:	43158	EO Index:	66378	Element Last Seen:	XXXX-XX-XX
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		XXXX-XX-XX	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2006-09-26	

Quad Summary: Buttonwillow (3511944)

County Summary: Kern

Lat/Long:	35.39940 / -119.47328	Accuracy:	1 mile
UTM:	Zone-11 N3920145 E275387	Elevation (ft):	
PLSS:	T29S, R23E, Sec. 14 (M)	Acres:	0.0

Location: BUTTONWILLOW.

Detailed Location: EXACT LOCATION UNKNOWN. MAPPED IN THE GENERAL VICINITY OF BUTTONWILLOW.

Ecological:

General: 1 SPECIMEN COLLECTED, CAS #75.

Owner/Manager: UNKNOWN

Occurrence No.	55	Map Index:	66297	EO Index:	66382	Element Last Seen:	1959-11-28
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		1959-11-28	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2006-09-20	

Quad Summary: Fellows (3511925)

County Summary: Kern

Lat/Long:	35.23837 / -119.58617	Accuracy:	non-specific area
UTM:	Zone-11 N3902544 E264666	Elevation (ft):	
PLSS:	T31S, R22E, Sec. 11 (M)	Acres:	74.0

Location: 10 MILES NW OF TAFT.

Detailed Location: EXACT LOCATION UNKNOWN. MAPPED ALONG HWY 33 ABOUT 10 MI NW OF TAFT.

Ecological:

General: SPECIMEN COLLECTED 22 DEC 1958 AND DEPOSITED AT CSULB. 2 FEMALE SPECIMENS COLLECTED BY R.E. SOMERBY AND VAN HOOSE ON 28 NOV 1959, TTU #240 AND ROM #37193, RESPECTIVELY.

Owner/Manager: UNKNOWN

Occurrence No.	165	Map Index:	66423	EO Index:	66521	Element Last Seen:	1959-11-28
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		1959-11-28	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2006-09-26	

Quad Summary: Mouth of Kern (3511923)

County Summary: Kern

Lat/Long:	35.19496 / -119.29738	Accuracy:	1 mile
UTM:	Zone-11 N3897082 E290839	Elevation (ft):	
PLSS:	T31S, R25E, Sec. 28 (M)	Acres:	0.0

Location: BUENA VISTA DRY LAKE.

Detailed Location: EXACT LOCATION UNKNOWN. MAPPED ACCORDING TO LAT/LONG COORDINATES GIVEN IN PIERSON AND RAINEY WHICH PUTS THE SITE IN THE APPROXIMATE MIDDLE OF THE BUENA VISTA LAKE BED.

Ecological:

General: SPECIMEN COLLECTED 28 NOV 1959 AND DEPOSITED AT CSULB.

Owner/Manager: UNKNOWN



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Ammospermophilus nelsoni

Element Code: AMAFB04040

Nelson's (=San Joaquin) antelope squirrel

Listing Status: **Federal:** None

CNDDB Element Ranks: **Global:** G2G3

State: Threatened

State: S3

Other: BLM_S-Sensitive, IUCN_EN-Endangered

Habitat: **General:** WESTERN SAN JOAQUIN VALLEY FROM 200-1200 FT ELEV. ON DRY, SPARSELY VEGETATED LOAM SOILS.

Micro: DIG BURROWS OR USE K-RAT BURROWS. NEED WIDELY SCATTERED SHRUBS, FORBS AND GRASSES IN BROKEN TERRAIN WITH GULLIES AND WASHES.

Occurrence No. 8 **Map Index:** 14926 **EO Index:** 24194 **Element Last Seen:** 19XX-XX-XX

Occ. Rank: Unknown **Presence:** Presumed Extant **Site Last Seen:** 19XX-XX-XX

Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 2006-07-26

Quad Summary: Reward (3511936)

County Summary: Kern

Lat/Long: 35.30417 / -119.64014 **Accuracy:** 2/5 mile

UTM: Zone-11 N3909973 E259949 **Elevation (ft):** 1200

PLSS: T30S, R22E, Sec. 20, NW (M) **Acres:** 0.0

Location: 1 MI W OF MCKITTRICK.

Detailed Location:

Ecological:

General: OBS BY D.C. HOLLAND. FROM DRAFT REPORT SUBMITTED TO CDFG IN 1980. FOUR MVZ SPECIMENS ALSO COLLECTED IN AREA [MVZ-13850, 13851 & 13852 (COLLECTED IN 1911) AND 103265 (COLLECTED IN 1945)].

Owner/Manager: UNKNOWN

Occurrence No. 12 **Map Index:** 15156 **EO Index:** 24193 **Element Last Seen:** 1993-09-27

Occ. Rank: Unknown **Presence:** Presumed Extant **Site Last Seen:** 1993-09-27

Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 2006-07-13

Quad Summary: Taft (3511924), Fellows (3511925), East Elk Hills (3511934), West Elk Hills (3511935)

County Summary: Kern

Lat/Long: 35.26685 / -119.49733 **Accuracy:** non-specific area

UTM: Zone-11 N3905496 E272832 **Elevation (ft):** 1000

PLSS: T31S, R23E, Sec. 03 (M) **Acres:** 20177.1

Location: ABOUT 5 MILES EAST OF DERBY ACRES, BUENA VISTA CREEK RUNS THROUGH SECTIONS SURVEYED.

Detailed Location: MULTIPLE SECTIONS SURVEYED AND SQUIRRELS FOUND. NEED MAP TO APPRECIATE EXTENT OF THIS OCCURRENCE.

Ecological: DENSE GROUND COVER OF RED BROME & RED-STEMMED FILAREE. DESERT SALTBUSH IS THE DOMINANT SHRUB. CHEESEBUSH IS INTERSPERSED THROUGHOUT SECTIONS 11 & 14.

General: BURROW, BREEDING, FORAGING, WINTERING, & DENNING SITES. 1 INDIV & DEN OBS 2-4 APR 1991. 1 CSCS SPECIMEN COLL. IN AREA. 4 INDIV TRAPPED 10 TO 13 JUL 1990. NUMEROUS INDIV TRAPPED 24 MAR 1992 TO 24 SEPT 1993 IN VARIOUS SECTIONS.

Owner/Manager: DOE



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Occurrence No.	13	Map Index:	33882	EO Index:	24191	Element Last Seen:	19XX-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	19XX-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-25
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.26443 / -119.59910				Accuracy:	2/5 mile	
UTM:	Zone-11 N3905465 E263565				Elevation (ft):	1350	
PLSS:	T31S, R22E, Sec. 03, NE (M)				Acres:	0.0	
Location:	1 MI N OF DERBY ACRES.						
Detailed Location:	MAPPED ABOUT 1 MI N OF DERBY ACRES; NEED MORE INFORMATION TO MAP MORE SPECIFICALLY.						
Ecological:							
General:	CSCS RECORDS. FROM DRAFT REPORT SUBMITTED TO DFG IN 1980.						
Owner/Manager:	PVT, UNKNOWN, BLM						

Occurrence No.	14	Map Index:	15010	EO Index:	24192	Element Last Seen:	19XX-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	19XX-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-25
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.27586 / -119.59559				Accuracy:	2/5 mile	
UTM:	Zone-11 N3906725 E263917				Elevation (ft):	1350	
PLSS:	T30S, R22E, Sec. 34, NE (M)				Acres:	0.0	
Location:	1.8 MI N DERBY ACRES.						
Detailed Location:							
Ecological:							
General:	CSCS RECORDS. FROM DRAFT REPORT SUBMITTED TO DFG IN 1980.						
Owner/Manager:	UNKNOWN						

Occurrence No.	15	Map Index:	15316	EO Index:	24197	Element Last Seen:	19XX-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	19XX-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1989-08-10
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.24496 / -119.45790				Accuracy:	1/5 mile	
UTM:	Zone-11 N3902978 E276359				Elevation (ft):	800	
PLSS:	T31S, R23E, Sec. 12, SW (M)				Acres:	0.0	
Location:	ELK HILLS, 2.5 MI S OF GAS PLANT ON ELK HILLS RD.						
Detailed Location:							
Ecological:							
General:	CSCS RECORDS. FROM DRAFT REPORT SUBMITTED TO DFG IN 1980.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	20	Map Index:	15631	EO Index:	24190	Element Last Seen:	19XX-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	19XX-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1989-08-10
Quad Summary:	Millux (3511922)						
County Summary:	Kern						
Lat/Long:	35.20912 / -119.23206				Accuracy:	1 mile	
UTM:	Zone-11 N3898516 E296822				Elevation (ft):	296	
PLSS:	T31S, R26E, Sec. 19 (M)				Acres:	0.0	
Location:	COLES LEVEE RD. (ALSO INCLUDES SEC. 30.)						
Detailed Location:							
Ecological:							
General:	OBS BY D.C. HOLLAND. FROM DRAFT REPORT SUBMITTED TO DFG IN 1980.						
Owner/Manager:	UNKNOWN						

Occurrence No.	21	Map Index:	15666	EO Index:	24189	Element Last Seen:	19XX-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	19XX-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1989-08-10
Quad Summary:	Millux (3511922)						
County Summary:	Kern						
Lat/Long:	35.19413 / -119.20594				Accuracy:	1/5 mile	
UTM:	Zone-11 N3896800 E299164				Elevation (ft):	290	
PLSS:	T31S, R26E, Sec. 29, SE (M)				Acres:	0.0	
Location:	PIERI RD, 1.5 MI E COLES LEVEE RD.						
Detailed Location:							
Ecological:							
General:	OBS BY D.C. HOLLAND. FROM DRAFT REPORT SUBMITTED TO DFG IN 1980.						
Owner/Manager:	UNKNOWN						

Occurrence No.	22	Map Index:	14961	EO Index:	24186	Element Last Seen:	1999-04-09
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-04-09
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-09-29
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.29658 / -119.60984				Accuracy:	specific area	
UTM:	Zone-11 N3909058 E262682				Elevation (ft):	1000	
PLSS:	T30S, R22E, Sec. 21 (M)				Acres:	74.4	
Location:	ABOUT 1 MILE SOUTHEAST OF MCKITTRICK ALONG MCKITTRICK VALLEY ROAD.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF HILLY SALTBUSSH SCRUB WITH LOW DENSITY OIL DEVELOPMENT.						
General:	1 INDIVIDUAL SEEN FORAGING ON 9 APR 1999. 1 INDIVIDUAL SEEN FORAGING ON 31 MAR 1999. NUMEROUS OBS MADE DURING SURVEY OF TRANSMISSION LINE RTE IN 1986. NUMEROUS MUSEUM SPECIMENS FROM VARIOUS COLLECTIONS DATED 1911-1931 ALSO IN VICINITY.						
Owner/Manager:	PVT						



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Occurrence No.	23	Map Index:	16040	EO Index:	24184	Element Last Seen:	2007-05-01
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2007-05-01
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-08-14
Quad Summary:	West Elk Hills (3511935), Reward (3511936), Lokern (3511945), Belridge (3511946)						
County Summary:	Kern						
Lat/Long:	35.39521 / -119.58073			Accuracy:	non-specific area		
UTM:	Zone-11 N3919931 E265615			Elevation (ft):	600		
PLSS:	T29S, R22E, Sec. 23 (M)			Acres:	14650.0		
Location:	PRIMARILY WEST OF THE WEST SIDE CANAL, IN & AROUND LOKERN, CALIFORNIA AQUEDUCT, HIGHWAY 58 & LOKERN ROAD.						
Detailed Location:	SQUIRRELS OBS THROUGHOUT AREA. POP MAY BE INCREASING IN SEC 21, 27-29, & 33. STATUS IN REST OF AREA UNK, BUT DETECTED IN S24 & 31, 2007. INCLUDES SPECIFIC POINT LOCATIONS FROM 2006-07 TRAP GRIDES.						
Ecological:	SALTBUSH SCRUB DOM. BY ATRIPLEX POLYCARPA & BROMUS SP. PART OF AREA BURNED JUL 1997. SALTBUSH DISTRIBUTION SPARSE/PATCHY. TRANSITION ZONE OF IODINE BUSH/SPINESCALE SERIES. ALLENROLFEA OCCIDENTALIS, ATRIPLEX SPINIGERA. ALKALINE CLAY SOILS.						
General:	SPECIMENS: SDSNH COLL 1932, HSU COLL 1973, MVZ #152135 COLL 12 OCT 1975. OBS IN 1968, 1976, 1981 & 1986-2004. 33 ADULTS CAPTURED MAY-AUG 2006. 3 CAPTURED MAY 2007.						
Owner/Manager:	PVT, DWR, BLM, DFG						

Occurrence No.	25	Map Index:	59953	EO Index:	24183	Element Last Seen:	1976-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1976-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-25
Quad Summary:	West Elk Hills (3511935), Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.30576 / -119.62332			Accuracy:	2/5 mile		
UTM:	Zone-11 N3910108 E261483			Elevation (ft):	1025		
PLSS:	T30S, R22E, Sec. 21, NW (M)			Acres:	0.0		
Location:	VICINITY OF MCKITTRICK.						
Detailed Location:	BASED UPON CSPU SPECIMEN FROM 0.25 MI E OF MCKITTRICK AND ON 1931 WILLETT SPECIMEN FROM "MCKITTRICK."						
Ecological:							
General:	CSPU SPECIMEN FROM DRAFT REPORT SUBMITTED TO CDFG IN 1980. 6 M, 4 F, LACM #2926-2934 COLL. 8, 11 NOV 1931 BY G. WILLETT; LACM #92636 COLL. 1 JAN 1948 BY J.A. MUNRO. 3 M, MVZ #13850-13852, COLL. 18, 19, 20 MAY 1911 BY SWARTH & CHANDLER.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	27	Map Index:	14992	EO Index:	24182	Element Last Seen:	1986-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1986-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-09-29
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.31485 / -119.60678				Accuracy:	non-specific area	
UTM:	Zone-11 N3911077 E263014				Elevation (ft):	950	
PLSS:	T30S, R22E, Sec. 16 (M)				Acres:	194.8	
Location:	ABOUT 0.8 MILE EAST OF CALIFORNIA STATE HIGHWAY 33 AND 1.25 MILES NORTHEAST OF MCKITTRICK.						
Detailed Location:							
Ecological:	HABITAT IS DOMINATED BY GRASSLAND/SCRUB THAT DOES NOT APPEAR TO BE RECENTLY GRAZED.						
General:	1 OR MORE INDIVIDUALS OBSERVED AT 12 POINTS ALONG A LINEAR TRANSECT DURING SURVEY OF PROPOSED TRANSMISSION LINE RTE. TWO MUSEUM SPECIMENS ALSO COLLECTED IN VICINITY, 1 AT CPSU (DATED 1976) & MVZ #51420 COLLECTED 23 FEB 1932 BY GRINNELL.						
Owner/Manager:	BLM, PVT						

Occurrence No.	29	Map Index:	15121	EO Index:	24185	Element Last Seen:	1976-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1976-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-13
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.30108 / -119.55688				Accuracy:	2/5 mile	
UTM:	Zone-11 N3909432 E267511				Elevation (ft):	1200	
PLSS:	T30S, R22E, Sec. 24, SE (M)				Acres:	0.0	
Location:	4 MI E MCKITTRICK.						
Detailed Location:	VAGUE LOCATION; MAPPED ALONG SKYLINE ROAD, 4 MI E OF MCKITTRICK.						
Ecological:							
General:	CSPU SPECIMEN. FROM DRAFT REPORT SUBMITTED TO DFG IN 1980.						
Owner/Manager:	UNKNOWN						

Occurrence No.	30	Map Index:	14951	EO Index:	24181	Element Last Seen:	1999-04-16
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-04-16
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-09-30
Quad Summary:	Fellows (3511925), Panorama Hills (3511926), West Elk Hills (3511935), Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.25159 / -119.62475				Accuracy:	2/5 mile	
UTM:	Zone-11 N3904102 E261194				Elevation (ft):	1750	
PLSS:	T31S, R22E, Sec. 09 (M)				Acres:	0.0	
Location:	TELEPHONE HILLS, APPROXIMATELY 1.5 MILES WEST OF DERBY ACRES.						
Detailed Location:	HSU SPECIMEN LOCATIONS GIVEN ONLY AS "4 MI SOUTH OF MCKITTRICK"						
Ecological:	HABITAT CONSISTS OF FOOTHILL GRASSLAND AND SALTBUSH SCRUB AS THE DOMINANT VEGETATION TYPES WITH SURROUNDING LAND USED FOR OIL DEVELOPMENT.						
General:	ONE INDIVIDUAL OBSERVED WHILE SURVEYING ON 16 APR 1999. IN 1986, 1 OR MORE INDIVS OBS AT 1 POINT ALONG PROPOSED TRANSMISSION LINE SURVEY RTE. ALSO 2 HSU SPECIMENS DATED 1973 FROM VICINITY.						
Owner/Manager:	PVT, BLM						



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Occurrence No.	41	Map Index:	15520	EO Index:	24177	Element Last Seen:	2016-03-21
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2016-03-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2016-09-20
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.26159 / -119.31951				Accuracy:	1/5 mile	
UTM:	Zone-11 N3904519 E288997				Elevation (ft):	450	
PLSS:	T31S, R25E, Sec. 05, NW (M)				Acres:	0.0	
Location:	ALONG HWY 119, ABOUT 0.5 ROAD MILES SW OF THE TUPMAN ROAD INTERSECTION, S OF TUPMAN.						
Detailed Location:	MAPPED TO LOCALITY LISTED IN 1980 DRAFT REPORT: "HWY 119 0.5 MI W TUPMAN ROAD." 2016 DETECTIONS WITHIN SURVEY AREA ON N SIDE OF HWY 119 BETWEEN TUPMAN ROAD AND UNNAMED ROAD ABOUT 1.3 ROAD MILES TO THE SOUTHWEST; EXACT LOCATIONS UNKNOWN.						
Ecological:	2016: NON-NATIVE ANNUAL GRASSLAND WITH SPARSE SHRUBS INCLUDING ATRIPLEX, IN CALTRANS RIGHT-OF-WAY; DISTURBANCE NOTED FROM ADJACENT STATE HIGHWAY.						
General:	DETECTED/COLLECTED ON UNKNOWN DATE IN OR BEFORE 1980. 1 ADULT AND 2 JUVENILES CAUGHT AND RELEASED; AN ADDITIONAL 2 ADULTS AND 4 JUVENILES OBSERVED DURING SURVEYS 14 - 21 MAR 2016.						
Owner/Manager:	UNKNOWN, CALTRANS						

Occurrence No.	42	Map Index:	15301	EO Index:	24176	Element Last Seen:	1981-06-04
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1981-06-04
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-07-28
Quad Summary:	East Elk Hills (3511934), Buttonwillow (3511944)						
County Summary:	Kern						
Lat/Long:	35.35932 / -119.46680				Accuracy:	non-specific area	
UTM:	Zone-11 N3915685 E275865				Elevation (ft):	275	
PLSS:	T29S, R23E, Sec. 35, SE (M)				Acres:	2032.0	
Location:	3 MI SOUTH OF BUTTONWILLOW.						
Detailed Location:	1970'S COLLECTION OCCURED "3 MILES SOUTH OF BUTTONWILLOW." 1981OBSERVATIONS ALONG CALIFORNIA AQUEDUCT AT MILE POST 230.3, APPROX. 6 MILES SE OF HIGHWAY 58.						
Ecological:	FLAT DESERT SHRUB HABITAT WITH SANDY SOIL, MODERATE ATRIPLEX (ATRIPLEX POLYCARPA). HABITAT QUALITY ALONG C.A. LISTED AS GOOD BASED ON VEG. TYPE & DENSITY.						
General:	1970'S, 4 FEMALES & 2 MALES COLLECTED FOR THERMOREGULATION LABORATORY EXPERIMENT. 2 SQUIRRELS PER 20 FT OF RIGHT OF WAY OBSERVED 4 JUN 1981.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	43	Map Index:	15477	EO Index:	24174	Element Last Seen:	1977-12-04
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	1977-12-04	Record Last Updated:	2006-07-21
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.34041 / -119.35008			Accuracy:	2/5 mile		
UTM:	Zone-11 N3913329 E286422			Elevation (ft):	295		
PLSS:	T30S, R24E, Sec. 01, NW (M)			Acres:	0.0		
Location:	3.5 MI N TUPMAN.						
Detailed Location:	VAGUE LOCALITY; NEEDS FIELDWORK.						
Ecological:							
General:	6 SPECIMENS COLLECTED 10 NOV 1973 AND 3 SPECIMENS COLLECTED 30-31 MAR 1974 BY K.B. BEZY, LACM #44592-44600; FROM DRAFT REPORT SUBMITTED TO CDFG IN 1980 AND MANIS DATABASE. 9 SPECIMENS COLLECTED 3-4 DEC 1977 BY K. BOLLES, LACM #74454-74462.						
Owner/Manager:	UNKNOWN						

Occurrence No.	44	Map Index:	15419	EO Index:	24175	Element Last Seen:	2002-04-XX
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	2002-04-XX	Record Last Updated:	2004-10-01
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.20381 / -119.38958			Accuracy:	1/5 mile		
UTM:	Zone-11 N3898261 E282467			Elevation (ft):	350		
PLSS:	T31S, R24E, Sec. 27, NE (M)			Acres:	0.0		
Location:	ABOUT 1 MILE SOUTH OF DUSTIN ACRES AND 0.7 MILE SOUTHEAST OF VALLEY ACRES.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUCH SCRUB AND BUSH SEEPWEED-IODINE BUSH SCRUB.						
General:	ONE INDIVIDUAL OBSERVED WHILE SURVEYING FOR CHERRY AVENUE FOUR-LANE PROJECT IN APR 2002. SPECIMEN COLLECTED IN 1958 FROM THIS VICINITY FOR CSULB (FROM PRELIMINARY DRAFT REPORT SUBMITTED TO CDFG IN 1980).						
Owner/Manager:	UNKNOWN						



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Occurrence No.	45	Map Index:	15404	EO Index:	24171	Element Last Seen:	2002-04-XX
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	2002-04-XX		
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:	2006-07-21		
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.20120 / -119.41099			Accuracy:	non-specific area		
UTM:	Zone-11 N3898019 E280510			Elevation (ft):	400		
PLSS:	T31S, R24E, Sec. 28, SE (M)			Acres:	215.5		
Location:	WEST, SOUTH & SOUTHEAST OF VALLEY ACRES.						
Detailed Location:	MVZ RECORD ATTRIBUTED TO THIS OCCURRENCE GIVES LOCATION GIVEN AS "5 MILES NE TAFT".						
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB AND BUSH SEEPWEED-IODINE BUSH SCRUB.						
General:	15 INDIVIDUALS OBSERVED IN APR 2002 WHILE SURVEYING FOR THE CHERRY AVENUE FOUR-LANE PROJECT. ALSO MVZ #37432 COLLECTED 15 JAN 1927 BY E. RAYMOND HALL. (FROM DRAFT REPORT SUBMITTED TO CDFG IN 1980).						
Owner/Manager:	UNKNOWN						

Occurrence No.	46	Map Index:	15369	EO Index:	24172	Element Last Seen:	1998-04-08
Occ. Rank:	Good	Presence:	Presumed Extant	Site Last Seen:	1998-04-08		
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:	2004-09-30		
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.17969 / -119.41079			Accuracy:	80 meters		
UTM:	Zone-11 N3895632 E280471			Elevation (ft):	600		
PLSS:	T32S, R24E, Sec. 04, NW (M)			Acres:	0.0		
Location:	ABOUT 0.7 MILE E OF STANDARD OIL CAMP 5-D AND 1.3 MILES SE OF INTERSECTION OF CA STATE HIGHWAY 119 AND AIRPORT ROAD.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB WITH LOW DENSITY OIL DEVELOPMENT.						
General:	2 INDIVIDUALS SEEN AND HEARD WHILE SURVEYING ALONG THE SUNRISE VALLEY ACRES TRANSMISSION LINE CORRIDOR ON 8 APR 1998. 2 CSULB SPECIMENS ALSO COLLECTED IN VICINITY IN 1958 (FROM DRAFT REPORT SUBMITTED TO CDFG IN 1980).						
Owner/Manager:	PVT						



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Occurrence No.	47	Map Index:	15368	EO Index:	24170	Element Last Seen:	2001-02-06
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-02-06
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-09-29
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.18032 / -119.42551			Accuracy:	specific area		
UTM:	Zone-11 N3895735 E279132			Elevation (ft):	575		
PLSS:	T32S, R24E, Sec. 05 (M)			Acres:	141.4		
Location:	ABOUT 2 MI SW OF VALLEY ACRES, AIRPORT RD RUNS THROUGH OCCURANCE AND STANDARD OIL CAMP 5-C IS WITHIN OCCURENCE BOUNDRY.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF GRASSLAND AND SALTBUSH SCRUB WITH LOW DENSITY OIL DEVELOPMENT.						
General:	5 INDIVIDUALS SEEN ON 6 FEB 2001, 9 INDIVIDUALS SEEN FORAGING ON 8 APR 1998, 3 INDIVIDUALS SEEN FORAGING ON 9 APR 1998, 4 INDIVIDUALS SEEN FORAGING ON 23 APR 1998 AND UNKNOWN NUMBER OBS IN 1987. 2 MVZ SPECIMENS FROM 1976 COLLECTED IN AREA.						
Owner/Manager:	DOE, PVT						

Occurrence No.	57	Map Index:	15440	EO Index:	24166	Element Last Seen:	2002-04-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2002-04-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2005-01-26
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.22597 / -119.36773			Accuracy:	non-specific area		
UTM:	Zone-11 N3900672 E284515			Elevation (ft):	325		
PLSS:	T31S, R24E, Sec. 14, N (M)			Acres:	78.9		
Location:	LOCATED IN BUENA VISTA VALLEY, ABOUT 2 MILES WEST OF BUENA VISTA LAKE BED AND 1 MILE EAST OF DUSTIN ACRES.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB AND BUSH SEEPWEED-IODINE BUSH SCRUB.						
General:	3 INDIVIDUALS OBSERVED WHILE SURVEYING FOR THE CHERRY AVENUE FOUR-LANE PROJECT IN APR 2002. ALSO IN VICINITY: 2 SPECIMENS COLLECTED IN 1979 FOR CSCS (FROM DRAFT REPORT SUBMITTED TO CDFG IN 1980).						
Owner/Manager:	UNKNOWN						



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Occurrence No.	114	Map Index:	15460	EO Index:	24128	Element Last Seen:	1990-09-16
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1990-09-16
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-14
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.31483 / -119.36228				Accuracy:	specific area	
UTM:	Zone-11 N3910517 E285246				Elevation (ft):	290	
PLSS:	T30S, R24E, Sec. 23 (M)				Acres:	938.8	
Location:	TULE ELK RESERVE, NORTH OF TUPMAN. ONE AREA LOCATED IN OLD BUENO VISTA SLOUGH BED.						
Detailed Location:							
Ecological:	CONRAD, 1990: ANNUAL GRASSLANDS W/ BROMUS RUBENS, DISTICHLIS SPICATA ON LOKERN CLAY, DRAINED/SALINE-ALKALINE. VALLEY SALT BUSH SCRUB W/ SUAEDA, ATRIPLEX, ALLENROLFEA ON CAJON LOAMY SAND OR WESTHAVEN FINE SANDY LOAM.						
General:	FORAGING & DENNING SITE. OBSERVED BY K.R. MORGAN. FROM DRAFT REPORT SUBMITTED TO CDFG IN 1980. 1 INDIV OBS ON SEP 16 1990.						
Owner/Manager:	DPR-TULE ELK SNR, PVT-CHEVRON						

Occurrence No.	118	Map Index:	15361	EO Index:	24127	Element Last Seen:	2006-05-02
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2006-05-02
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-04-30
Quad Summary:	Maricopa (3511914), Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.10579 / -119.41895				Accuracy:	non-specific area	
UTM:	Zone-11 N3887452 E279528				Elevation (ft):	900	
PLSS:	T32S, R24E, Sec. 32 (M)				Acres:	2195.0	
Location:	2.5-3.0 MI S OF TAFT ON HWY 33.						
Detailed Location:	MAPPED IN SW1/4 OF S33 AS PER SOURCE. 2 SEEN IN WASH ON E SIDE OF PROPOSED CHALK CLIFF CO-GENERATION PLANT 1988. 2006 SITE ADJACENT TO DIRT RD, MAPPED ACCORDING TO COORDS PROVIDED (GRA06F0003). SITE ALSO OWNED BY POWER SYSTEMS ENGINEERING.						
Ecological:	NON-NATIVE GRASSLAND, VALLEY SALT BUSH SCRUB. INCLUDES MODERATELY DEVELOPED OILFIELD AND AREA OF PLANT HIGH DENSITY.						
General:	OBS BY D.C. HOLLAND FROM REPORT SUBMITTED TO CDFG IN 1980. MVZ SPECIMEN #66428 COLLECTED IN AREA IN 1935. 2 ADULTS OBS 2 SEP 1988. 1 ADULT OBS 9 AUG 1991. 5 INDIV OBS 2 MAY 2006. 15-20 INDIVS OBS BETWEEN THIS OCC, OCC #333 & 334 IN 2006.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	128	Map Index:	15343	EO Index:	24121	Element Last Seen:	1981-06-08
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1981-06-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-12-14
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.33426 / -119.42949			Accuracy:	1/10 mile		
UTM:	Zone-11 N3912820 E279188			Elevation (ft):	300		
PLSS:	T30S, R24E, Sec. 08, NW (M)			Acres:	0.0		
Location:	MILE POSTS 232.24 AND 232.25 ON CALIFORNIA AQUEDUCT, APPROXIMATELY 4.75 MILES SOUTH OF BUTTONWILLOW.						
Detailed Location:	2 SQUIRRELS OBSERVED ONE ON EAST SIDE OF AQUEDUCT, ONE ON WEST SIDE.						
Ecological:	SLIGHT EAST FACING SLOPE WITH SCATTERED ATRIPLEX, BROMUS REBENS, MANY BARE PATCHES. ADJACENT COTTON FIELDS.						
General:							
Owner/Manager:	UNKNOWN						
Occurrence No.	129	Map Index:	15362	EO Index:	24118	Element Last Seen:	1981-06-03
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1981-06-03
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-12-14
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.32532 / -119.41384			Accuracy:	1/10 mile		
UTM:	Zone-11 N3911794 E280586			Elevation (ft):	300		
PLSS:	T30S, R24E, Sec. 17, E (M)			Acres:	0.0		
Location:	MILE POST 233.43 ON EAST SIDE CALIFORNIA AQUEDUCT, APPROXIMATELY 5 MILES SOUTH OF HIGHWAY 58.						
Detailed Location:	1 SQUIRREL OBSERVED.						
Ecological:	FLAT DISTURBED AREA; SANDY SOIL, SPARSE VEGETATION. ADJACENT COTTON FIELDS.						
General:							
Owner/Manager:	UNKNOWN						
Occurrence No.	131	Map Index:	15292	EO Index:	24119	Element Last Seen:	1994-08-23
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1994-08-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-13
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.36205 / -119.49736			Accuracy:	1/5 mile		
UTM:	Zone-11 N3916057 E273096			Elevation (ft):	300		
PLSS:	T29S, R23E, Sec. 34, NW (M)			Acres:	0.0		
Location:	ABOUT 2.5 MI S OF HWY 58 ALONG CALIFORNIA AQUEDUCT.						
Detailed Location:	LOCATION ALSO DESCRIBED AS:MILEPOST 227.75 ON E SIDE OF CA AQUEDUCT 4 MI SE OF HWY 58.						
Ecological:	SALTBUSH SCRUB DOMINATED BY ATRIPLEX POLYCARPA & BROMUS SPP. SALTBUSH SCRUB COMMUNITY HAS PATCHY & SPARSE DISTRIBUTION.						
General:	BREEDING, FORAGING, WINTERING & BURROW SITE. 1 INDIV OBS 04 JUN 1981. 1 INDIV OBS ON 23 AUG 1994.						
Owner/Manager:	DWR						



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Occurrence No.	134	Map Index:	15437	EO Index:	24113	Element Last Seen:	2001-12-03
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2001-12-03
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-03-19
Quad Summary:	Pentland (3511913), Maricopa (3511914)						
County Summary:	Kern						
Lat/Long:	35.12041 / -119.37561				Accuracy:	non-specific area	
UTM:	Zone-11 N3888979 E283518				Elevation (ft):	420	
PLSS:	T32S, R24E, Sec. 26, NW (M)				Acres:	37.1	
Location:	MILE POSTS 254.5-254.8 ON EAST SIDE CALIFORNIA AQUEDUCT, ABOUT 5.8 MILES EAST OF FORD CITY.						
Detailed Location:							
Ecological:	VALLEY SALTBUSH SCRUB; FLAT, DISTURBED AREA; SANDY SOIL, GRAVEL, MODERATE TO DENSE ATRIPLEX. HABITAT ONLY ON DWR RIGHT-OF-WAY ON THIS SIDE OF AQUEDUCT. LAND EAST OF ROW FENCE HAS BEEN DISKED/BLADED BY ADJACENT LANDOWNER.						
General:	1981: 3 SQUIRRELS OBSERVED. 2001: 1 SQUIRREL OBSERVED IN SECTION 23.						
Owner/Manager:	WEST KERN WATER DIST						

Occurrence No.	136	Map Index:	15432	EO Index:	24112	Element Last Seen:	1981-06-05
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1981-06-05
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-12-10
Quad Summary:	Pentland (3511913)						
County Summary:	Kern						
Lat/Long:	35.10880 / -119.37332				Accuracy:	non-specific area	
UTM:	Zone-11 N3887686 E283696				Elevation (ft):	500	
PLSS:	T32S, R24E, Sec. 26, SW (M)				Acres:	26.3	
Location:	MILE POSTS 255.35 AND 255.7 ON EAST SIDE CALIFORNIA AQUEDUCT, APPROXIMATELY 5 MILES EAST OF TAFT.						
Detailed Location:	2 SQUIRRELS OBSERVED; ONE AT EACH MILE POST.						
Ecological:	WIDE FLAT AREA, SANDY SOIL, SOME BROMUS, MANY BARE PATCHES. ADJACENT LAND USE; WHEAT AND COTTON.						
General:							
Owner/Manager:	UNKNOWN						

Occurrence No.	150	Map Index:	14942	EO Index:	24104	Element Last Seen:	1999-04-21
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-04-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-09-30
Quad Summary:	Fellows (3511925), Panorama Hills (3511926)						
County Summary:	Kern						
Lat/Long:	35.23584 / -119.62568				Accuracy:	non-specific area	
UTM:	Zone-11 N3902357 E261063				Elevation (ft):	1700	
PLSS:	T31S, R22E, Sec. 17 (M)				Acres:	107.3	
Location:	TELEPHONE HILLS, ABOUT 2 MILES SOUTHWEST OF DERBY ACRES.						
Detailed Location:							
Ecological:	HABITAT IS 40% HIGH DENSITY OIL FIELD AND 60% GRAZED FOOTHILL GRASSLAND.						
General:	ONE INDIVIDUAL OBSERVED WHILE SURVEYING ON 21 APR 1999. IN 1986 ONE OR MORE INDIVIDUALS OBSERVED AT FIVE SEPARATE SITES WHILE SURVEYING FOR THE BUFFER ZONE AND A LINEAR TRANSECT FOR A PROPOSED POWER PLANT.						
Owner/Manager:	PVT						



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Occurrence No.	151	Map Index:	33847	EO Index:	24102	Element Last Seen:	1986-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1986-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-09-30
Quad Summary:	West Elk Hills (3511935), Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.26477 / -119.62367				Accuracy:	1/5 mile	
UTM:	Zone-11 N3905562 E261330				Elevation (ft):	1500	
PLSS:	T31S, R22E, Sec. 04 (M)				Acres:	0.0	
Location:	ABOUT 0.8 MILE WEST OF HWY 33 & 2 MILES NORTHWEST OF DERBY ACRES.						
Detailed Location:							
Ecological:	HABITAT IS DOMINATED BY GRAZED GRASSLAND AND SCRUB VEGETATION.						
General:	ONE OR MORE INDIVIDUALS OBSERVED AT TWO POINTS WHILE SURVEYING A PROPOSED TRANSMISSION LINE IN 1986.						
Owner/Manager:	UNKNOWN						

Occurrence No.	152	Map Index:	69087	EO Index:	24103	Element Last Seen:	2006-06-27
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2006-06-27
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-04-26
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.35065 / -119.58801				Accuracy:	non-specific area	
UTM:	Zone-11 N3915005 E264824				Elevation (ft):	600	
PLSS:	T30S, R22E, Sec. 02, NW (M)				Acres:	77.0	
Location:	ALONG TRANSMISSION LINE CORRIDOR APPROX 0.75 MI E OF HWY 58 AND 3.5 AIR MI NE MCKITTRICK.						
Detailed Location:	2 POINTS TO THE NORTH ARE MAPPED ACCORDING TO LAT/LONG COORDINATES PROVIDED BY SOURCE.						
Ecological:	IODINE BUSH/SEEPWEED/SPINESCALE/ALLSCALE SERIES & CA ANNUAL GRASSLAND SERIES, W/ ALKALINE CLAY SOILS. DOMINANTS ARE ATRIPLEX POLYCARPA, A. SPINIFERA, ALLENROLFEA OCCIDENTALIS, BROMUS MADRITENSIS RUBENS, DEINANDRA PALLIDA.						
General:	ONE INDIVIDUAL OBSERVED BY FIELD CREW DURING BIOLOGICAL SURVEYS FOR PROPOSED TRANSMISION LINE IN 1986. 2 ADULTS OBSERVED ON 27 JUN 2006.						
Owner/Manager:	DOE-NAVAL PETROLEUM RESERVE						

Occurrence No.	153	Map Index:	15433	EO Index:	24101	Element Last Seen:	1988-04-16
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1988-04-16
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1995-10-26
Quad Summary:	Mouth of Kern (3511923), Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.19706 / -119.37383				Accuracy:	1/5 mile	
UTM:	Zone-11 N3897478 E283883				Elevation (ft):	320	
PLSS:	T31S, R24E, Sec. 26, SW (M)				Acres:	0.0	
Location:	BUENA VISTA VALLEY, APPROX 2 AIR MI SE OF JCT OF HWY 119 AND VALLEY WEST RD.						
Detailed Location:	ONE ADULT OBSERVED.						
Ecological:	ALKALI SINK HABITAT WITH 30-60% COVER OF ATRIPLEX AND GRASS. MUCH OF THE SURROUNDING LAND IS BEING CONVERTED TO AGRICULTURE. SITE QUALITY FAIR ACCORDING TO HOSLER.						
General:							
Owner/Manager:	TNC						



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Occurrence No.	157	Map Index:	33848	EO Index:	24095	Element Last Seen:	1993-09-27
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		1993-09-27	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2006-08-03	

Quad Summary: East Elk Hills (3511934)

County Summary: Kern

Lat/Long:	35.29927 / -119.40882	Accuracy:	non-specific area
UTM:	Zone-11 N3908893 E280972	Elevation (ft):	400
PLSS:	T30S, R24E, Sec. 21 (M)	Acres:	1415.7

Location: ABOUT 2 MILES NORTHWEST TO 4 MILES WEST OF TUPMAN.

Detailed Location: MAPPED IN T 31S, R 24E, SECTIONS 19, 21, & NW 1/4 OF 22 AS INDICATED IN SOURCES.

Ecological: HABITAT CONSISTS OF DENSE GROUND COVER OF RED BROME AND RED-STEMMED FILAREE; DESERT SALTBUSH IS THE DOMINANT SHRUB.

General: 20 OBS DURING 3 SURVEY PERIODS, 22-24 FEB, 20-22 JUNE, 7-9 NOV 1989. 14 OBS DURING 2 SURVEY PERIODS 13-15 FEB, 13-15 JUNE 1990. 3 OBS DURING 3 SURVEY PERIODS 12-14 FEB, 11-13 JUN, 13-15 NOV 1991. NUMEROUS INDIV TRAPPED ON 27 SEP 1993.

Owner/Manager: DOE, PVT

Occurrence No.	158	Map Index:	15449	EO Index:	24092	Element Last Seen:	1988-09-02
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		1988-09-02	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		1995-11-14	

Quad Summary: Tupman (3511933)

County Summary: Kern

Lat/Long:	35.30607 / -119.36623	Accuracy:	1/5 mile
UTM:	Zone-11 N3909554 E284864	Elevation (ft):	300
PLSS:	T30S, R24E, Sec. 23, NE (M)	Acres:	0.0

Location: N OF TUPMAN RD, ONE MI NW OF TUPMAN, ON THE SW EDGE OF TULE ELK STATE RESERVE.

Detailed Location: ONE CAPTURED DURING 3-DAY SURVEY PERIOD (31 AUG TO 2 SEPT, 1988).

Ecological: HABITAT CONSISTS OF DENSE GROUND COVER OF RED BROME AND RED-STEMMED FILAREE; DESERT SALTBUSH IS DOMINANT SHRUB.

General:

Owner/Manager: DOE



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Occurrence No.	178	Map Index:	34117	EO Index:	30216	Element Last Seen:	1987-10-14
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-10-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1997-02-24
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.17629 / -119.50782				Accuracy:	1/5 mile	
UTM:	Zone-11 N3895473 E271624				Elevation (ft):	1070	
PLSS:	T32S, R23E, Sec. 04, NE (M)				Acres:	0.0	
Location:	1.8 AIR MILES EAST OF FELLOWS AND 0.3 AIR MILE SOUTH OF MIDWAY ROAD.						
Detailed Location:	OIL FIELD AREA.						
Ecological:	VALLEY SALTBUSH SCRUB HAS MOSTLY HOMOGENOUS VEGETATION AND RELIEF. LITTLE POTENTIAL FOR SENSITIVE PLANT SPECIES. MANY AREAS SCRAPED.						
General:	POLLUTED WATER RUNNING THROUGH SEVERAL WASHES. HABITAT QUALITY FOR THIS GENERAL AREA RANGES FROM FAIR TO VERY GOOD (HABITAT QUALITY COULD NOT BE DETERMINED FOR THIS SPECIFIC SAMPLE SITE).						
Owner/Manager:	PVT						

Occurrence No.	195	Map Index:	40325	EO Index:	35332	Element Last Seen:	1996-05-01
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1996-05-01
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-12-07
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.16248 / -119.34298				Accuracy:	80 meters	
UTM:	Zone-11 N3893575 E286602				Elevation (ft):	400	
PLSS:	T32S, R24E, Sec. 12, NE (M)				Acres:	0.0	
Location:	BUENA VISTA PUMPING PLANT ACCESS ROAD, ABOUT 0.2 MILE EAST OF CALIFORNIA AQUEDUCT AT MILE 250.85, BUENA VISTA HILLS.						
Detailed Location:	CALIFORNIA DEPARTMENT OF WATER RESOURCES LAND SURROUNDED BY OPEN SPACE.						
Ecological:	VALLEY SALTBUSH SCRUB.						
General:	2 SQUIRRELS OBSERVED, 1997. ALSO OBSERVED AND/OR HABITAT FOR, SAN JOAQUIN KIT FOX, BURROWING OWL, AND BLUNT-NOSED LEOPARD LIZARD IN THE AREA.						
Owner/Manager:	DWR						



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Occurrence No.	196	Map Index:	40329	EO Index:	35336	Element Last Seen:	2016-09-08
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2016-09-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2017-03-20
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.15508 / -119.34366				Accuracy:	specific area	
UTM:	Zone-11 N3892756 E286521				Elevation (ft):	438	
PLSS:	T32S, R24E, Sec. 12, SE (M)				Acres:	15.0	
Location:	BETWEEN CALIF AQUEDUCT & LAKE STATION RD (AT RICHFIELD OIL PUMPING STATION), E SIDE BUENA VISTA HILLS, 6.3 MI E OF TAFT.						
Detailed Location:	MAPPED TO PROVIDED MAP AND COORDINATES. DETECTED ABOUT 0.1 MI E OF CALIFORNIA AQUEDUCT AT MILE POST 251.35 IN 1997 (SOUTH FEATURE), AND ABOUT 0.4 MI W OF NE CORNER OF RICHFIELD OIL PUMPING STATING AT LAKE STATION RD IN 2012 (NORTH FEATURE).						
Ecological:	VALLEY SALTBUUSH SCRUB WITH PORTIONS USED FOR AGRICULTURE. LAND ADJACENT TO AQUEDUCT APPARENTLY OWNED BY BLM, BUT MAY BE MANAGED BY DWR. SAN JOAQUIN KIT FOX, BURROWING OWL, & BLUNT-NOSED LEOPARD LIZARD ALSO FOUND IN AREA.						
General:	2 ADULTS OBSERVED ON 1 MAY 1997. 1 NON-REPRODUCTIVE ADULT MALE WEIGHING 138G DETECTED ON 7 NOV 2012. 1 ADULT OBSERVED FORAGING ON 8 SEP 2016.						
Owner/Manager:	BLM, DWR						

Occurrence No.	197	Map Index:	40352	EO Index:	35359	Element Last Seen:	1995-08-31
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1995-08-31
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-03-19
Quad Summary:	Maricopa (3511914), Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.12535 / -119.37806				Accuracy:	80 meters	
UTM:	Zone-11 N3889532 E283308				Elevation (ft):	520	
PLSS:	T32S, R24E, Sec. 22, SE (M)				Acres:	0.0	
Location:	0.1 MILE WEST OF MILE POST 254.35 OF THE CALIFORNIA AQUEDUCT, 4 MILES EAST OF TAFT, MIDWAY VALLEY.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF SALTBUUSH SCRUB.						
General:	1995: 1 ADULT OBSERVED, BY P. PRUETT.						
Owner/Manager:	WEST KERN WATER DIST, DWR						



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Occurrence No.	198	Map Index:	40376	EO Index:	35383	Element Last Seen:	2016-07-05
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2016-07-05
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2016-12-02
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.13203 / -119.35851				Accuracy:	specific area	
UTM:	Zone-11 N3890231 E285108				Elevation (ft):	488	
PLSS:	T32S, R24E, Sec. 24, E (M)				Acres:	43.0	
Location:	EAST SIDE CALIFORNIA AQUEDUCT, ON N & S SIDES OF LAKE STATION RD ENE OF GARDNER FIELD RD, ABOUT 5.5 MILES E OF TAFT.						
Detailed Location:	1997: E SIDE CALIFORNIA AQUEDUCT, BETWEEN MILE POST 253 & 254. 2002, 2012, 2016: MAPPED TO PROVIDED COORDINATES; DETECTED ALONG LAKE STATION RD & UNNAMED ROADS.						
Ecological:	VALLEY SALTBUUSH SCRUB, DOMINATED BY ATRIPLEX POLYCARPA W/ISOMERIS, MATCHWEED, & ISOCOMA SCATTERED THROUGHOUT. DIPODOMYS BURROWS NOTED AS ABUNDANT IN AREA. ON BLM PROPERTY, AQUEDUCT EASEMENT MANAGED BY DWR.						
General:	2 SQUIRRELS OBSERVED, 1997. 3 ADULTS OBS 21 MAY 2002 (1 DURING BLUNT-NOSED LEOPARD LIZARD SURVEYS, 2 WHILE DIRVING). 1 ADULT OBS & RETREATED TO BURROW, 8 MAR 2012. 3 ADULTS OBSERVED ON 5 JUL 2016.						
Owner/Manager:	DWR						

Occurrence No.	199	Map Index:	40378	EO Index:	35385	Element Last Seen:	1997-05-01
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1997-05-01
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-12-14
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.33795 / -119.43829				Accuracy:	80 meters	
UTM:	Zone-11 N3913250 E278398				Elevation (ft):	300	
PLSS:	T30S, R24E, Sec. 07, NE (M)				Acres:	0.0	
Location:	E SIDE CALIFORNIA AQUEDUCT MILE 231.73, 1.9 AIR MILES ESE OF ELK HILLS ROAD AND THE AQUEDUCT CROSSING.						
Detailed Location:							
Ecological:	VALLEY SALTBUUSH SCRUB.						
General:	1 SQUIRREL OBSERVED, 1997. ALSO OBSERVED AND/OR HABITAT FOR, SAN JOAQUIN KIT FOX, BURROWING OWL, AND BLUNT-NOSED LEOPARD LIZARD.						
Owner/Manager:	DWR						



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Occurrence No.	200	Map Index:	40383	EO Index:	35390	Element Last Seen:	1996-06-05
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1996-06-05
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-12-14
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.32860 / -119.42067				Accuracy:	80 meters	
UTM:	Zone-11 N3912173 E279974				Elevation (ft):	320	
PLSS:	T30S, R24E, Sec. 08, SW (M)				Acres:	0.0	
Location:	SW SIDE CALIFORNIA AQUEDUCT, MILE POST 232.96, 0.7 MILE SE OF FARM ACCESS BRIDGE, ~3.5 MILES NW OF TUPMAN RD BRIDGE.						
Detailed Location:	ALONG AQUEDUCT RIGHT-OF-WAY FENCE, ADJACENT TO OPEN SPACE.						
Ecological:	VALLEY SALTBUUSH SCRUB HABITAT.						
General:	3 SQUIRRELS OBSERVED, 1996. ALSO OBSERVED AND/OR HABITAT FOR, SAN JOAQUIN KIT FOX, & BURROWING OWL.						
Owner/Manager:	DWR						

Occurrence No.	201	Map Index:	41893	EO Index:	41893	Element Last Seen:	1999-05-01
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-05-01
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1999-11-16
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.18231 / -119.36320				Accuracy:	80 meters	
UTM:	Zone-11 N3895818 E284813				Elevation (ft):	300	
PLSS:	T31S, R24E, Sec. 35, SE (M)				Acres:	0.0	
Location:	WEST SIDE OF BUENA VISTA LAKE BED, ON THE SOUTH END OF BUENA VISTA VALLEY.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF SALTBUUSH SINK SCRUB, WHICH IS GRAZED BY SHEEP.						
General:	1 ADULT OBSERVED ON 1 MAY 1999.						
Owner/Manager:	PVT						

Occurrence No.	202	Map Index:	41894	EO Index:	41894	Element Last Seen:	1999-04-22
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-04-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1999-11-16
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.20875 / -119.61973				Accuracy:	80 meters	
UTM:	Zone-11 N3899337 E261526				Elevation (ft):	1900	
PLSS:	T31S, R22E, Sec. 28, NW (M)				Acres:	0.0	
Location:	4 MILES NW OF FELLOWS.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF FOOTHILL GRASSLAND.						
General:	1 ADULT OBSERVED ON 22 APR 1999.						
Owner/Manager:	PVT						



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Occurrence No.	203	Map Index:	48993	EO Index:	48993	Element Last Seen:	2016-03-28
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2016-03-28
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2016-12-01
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.20561 / -119.55306			Accuracy:	specific area		
UTM:	Zone-11 N3898832 E267588			Elevation (ft):	1193		
PLSS:	T31S, R23E, Sec. 30 (M)			Acres:	542.0		
Location:	FROM 0.7 MI W - 1.8 MI E OF SHALE RD, 1.1 MI NNE - 2.4 MI NNW OF FELLOWS, & 1.1 MI NNW-3.7 MI NW OF HWY 33 AT MIDWAY RD.						
Detailed Location:	EITHER SIDE OF HWY 33 ABOUT 2 MILES NNW OF FELLOWS IN T31S R22E SECTIONS 24, 25, AND 26, AND T31S R23E SECTION 30.						
Ecological:	OIL DEVELOPMENT IN VALLEY SALTBUSH SCRUB. SAN JOAQUIN KIT FOX DEN, BURROWING OWL BURROW & ABANDONED GIANT KANGAROO RAT COLONY IN VICINITY (2001). HEAVY OIL DEVELOPMENT; LARGE EQUIPMENT AND OILFIELD ACTIVITY MAY DISTURB THE SQUIRREL (2016).						
General:	2 OBSERVED DURING SURVEYS OF SUNRISE WATERLINE CORRIDOR ON 17 MAR 1999. 3 OBSERVED JAN-FEB 2001. 145 OBSERVATIONS, APR-SEP 2012. UP TO 17 OBSERVATIONS, JUN-SEP 2015. 1 ADULT OBSERVED ON 28 MAR 2016.						
Owner/Manager:	BLM, PVT						

Occurrence No.	206	Map Index:	49083	EO Index:	49083	Element Last Seen:	1998-04-23
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2005-01-14
Quad Summary:	Taft (3511924), Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.18135 / -119.50206			Accuracy:	non-specific area		
UTM:	Zone-11 N3896022 E272162			Elevation (ft):	1000		
PLSS:	T31S, R23E, Sec. 33, SW (M)			Acres:	35.8		
Location:	MIDWAY VALLEY, NORTH OF MIDWAY ROAD, ABOUT 1.5 MILES EAST OF FELLOWS & 2.5 MILES NW OF FORD CITY.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB AND GRASSLAND. SURROUNDING LAND COMPRISED OF LOW DENSITY OIL DEVELOPMENT.						
General:	2 INDIVIDUALS HEARD AND SEEN FORAGING ON 9 APR 1998. 1-2 INDIVIDUALS HEARD ON 23 APR 1998. OBSERVATIONS MADE WHILE SURVEYING ALONG THE SUNRISE VALLEY ACRES TRANSMISSION LINE CORRIDOR.						
Owner/Manager:	PVT						



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Occurrence No.	207	Map Index:	49084	EO Index:	49084	Element Last Seen:	2001-04-24
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-04-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2012-01-20
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.17669 / -119.49210				Accuracy:	non-specific area	
UTM:	Zone-11 N3895483 E273057				Elevation (ft):	900	
PLSS:	T32S, R23E, Sec. 03 (M)				Acres:	144.7	
Location:	MIDWAY VALLEY, 2 MILES NW OF FORD CITY; FROM ABOUT 0.3 MI NE OF HWY 33 TRENDING NE TO JUST NORTH OF MIDWAY ROAD.						
Detailed Location:							
Ecological:	HABITAT DESCRIBED AS VALLEY SALTBUSH SCRUB INCLUDING ATRIPLEX SPINIFERA, ERODIUM CICUTARIUM, BROMUS RUBENS, & LEPIDIUM NITIDUM. SURROUNDING LAND COMPRISED OF LOW DENSITY OIL DEVELOPMENT. GRAVELLY SANDY LOAM. NO SLOPE.						
General:	1 ADULT OBSERVED ON 29 APR 1991; FORAGING SITE. 1 OBSERVED FORAGING ON 22 APR 1998. 1-2 INDIVIDUALS HEARD ON 23 APR 1998. 9 HEARD & OBSERVED IN 24 APRIL 2001.						
Owner/Manager:	PVT-CHEVRON						

Occurrence No.	210	Map Index:	49134	EO Index:	49134	Element Last Seen:	2002-05-21
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2002-05-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-10-24
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.16609 / -119.35062				Accuracy:	80 meters	
UTM:	Zone-11 N3893992 E285916				Elevation (ft):	420	
PLSS:	T32S, R24E, Sec. 12, NW (M)				Acres:	0.0	
Location:	ALONG BUENA VISTA PUMPING PLANT RIGHT-OF-WAY, ON THE WEST SIDE OF THE CALIFORNIA AQUEDUCT.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB, DOMINATED BY ATRIPLEX POLYCARPA, BUT WITH ISOMERIS, MATCHWEED, AND ISOCOMA SCATTERED THROUGHOUT.						
General:	2 INDIVIDUALS OBSERVED INCIDENTALLY ON 21 MAY 2002, WHILE DRIVING TO BUENA VISTA PUMPING PLANT.						
Owner/Manager:	DWR						



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Occurrence No.	212	Map Index:	51290	EO Index:	51290	Element Last Seen:	2002-11-22
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2002-11-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2003-05-19
Quad Summary:	Maricopa (3511914)						
County Summary:	Kern						
Lat/Long:	35.09973 / -119.39222				Accuracy:	80 meters	
UTM:	Zone-11 N3886721 E281949				Elevation (ft):	645	
PLSS:	T32S, R24E, Sec. 34, SW (M)				Acres:	0.0	
Location:	MIDWAY VALLEY, 1.1 MILE EAST OF HIGHWAY 33 AND WEST OF THE CALIFORNIA AQUEDUCT.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSSH SCRUB.						
General:	1 ADULT OBSERVED ON 22 NOV 2002.						
Owner/Manager:	PVT						

Occurrence No.	213	Map Index:	56966	EO Index:	56982	Element Last Seen:	1998-04-07
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2005-01-13
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.17828 / -119.37508				Accuracy:	80 meters	
UTM:	Zone-11 N3895397 E283719				Elevation (ft):	420	
PLSS:	T32S, R24E, Sec. 02, NW (M)				Acres:	0.0	
Location:	SOUTHWEST OF BUENA VISTA LAKE BED. ABOUT 2 MILES NORTHWEST OF THE BUENA VISTA PUMPING PLANT ON THE CALIFORNIA AQUEDUCT.						
Detailed Location:							
Ecological:	HABITAT IS VALLEY SALTBUSSH SCRUB WITH LOW DENSITY OIL DEVELOPMENT.						
General:	1 SQUIRREL AND BURROW SITE OBSERVED 7 APR 1998 DURING SURVEY FOR SUNRISE-VALLEY ACRES TRANSMISSION LINE CORRIDOR.						
Owner/Manager:	PVT						

Occurrence No.	214	Map Index:	56967	EO Index:	56983	Element Last Seen:	1998-04-25
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-25
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-08-08
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.19082 / -119.57633				Accuracy:	80 meters	
UTM:	Zone-11 N3897245 E265425				Elevation (ft):	1400	
PLSS:	T31S, R22E, Sec. 35, NE (M)				Acres:	0.0	
Location:	ABOUT 1 MILE NORTHWEST OF MIDWAY OIL CAMP ALONG MOCAL ROAD.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF GRASSLAND AND SALTBUSSH SCRUB BORDERING HIGH DENSITY OIL DEVELOPMENT.						
General:	DURING SURVEY ALONG THE SUNRISE VALLEY ACRES TRANSMISSION CORRIDOR ON 25 APR 1998, ONE INDIVIDUAL WAS SEEN FORAGING.						
Owner/Manager:	BLM						



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Occurrence No.	216	Map Index:	56976	EO Index:	56992	Element Last Seen:	1998-04-10
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-10
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-09-24
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.18770 / -119.54085				Accuracy:	80 meters	
UTM:	Zone-11 N3896816 E268647				Elevation (ft):	1200	
PLSS:	T31S, R23E, Sec. 31, N (M)				Acres:	0.0	
Location:	ABOUT 0.5 MILE NORTH OF FELLOWS AND 1 MILE NORTHEAST OF MIDWAY OIL CAMP.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF GRASSLAND AND SALTBU SH SCRUB BORDERING HIGH DENSITY OIL DEVELOPMENT.						
General:	DURING SURVEY ALONG THE SUNRISE VALLEY ACRES TRANSMISSION CORRIDOR ON 10 APR 1998, ONE INDIVIDUAL WAS OBSERVED FORAGING.						
Owner/Manager:	PVT						

Occurrence No.	217	Map Index:	56978	EO Index:	56994	Element Last Seen:	1998-04-08
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-09-24
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.17836 / -119.40274				Accuracy:	80 meters	
UTM:	Zone-11 N3895467 E281201				Elevation (ft):	600	
PLSS:	T32S, R24E, Sec. 04, N (M)				Acres:	0.0	
Location:	ABOUT 1 MILE EAST OF STANDARD OIL CAMP 5-D AND 1.5 MILES NORTHWEST OF HONOLULU OIL MAIN CAMP.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF SALTBU SH SCRUB BORDERING LOW DENSITY OIL DEVELOPMENT.						
General:	TWO INDIVIDUALS SEEN AND HEARD WHILE SURVEYING ALONG THE SUNRISE VALLEY ACRES TRANSMISSION CORRIDOR ON 08 APR 1998, 2 CSULB SPECIMENS ALSO COLLECTED IN THIS GENERAL AREA IN 1958.						
Owner/Manager:	PVT						

Occurrence No.	219	Map Index:	56982	EO Index:	56998	Element Last Seen:	2001-04-25
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-04-25
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2012-01-20
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.16285 / -119.50662				Accuracy:	non-specific area	
UTM:	Zone-11 N3893980 E271696				Elevation (ft):	1100	
PLSS:	T32S, R23E, Sec. 09, NE (M)				Acres:	62.9	
Location:	ALONG PIPELINE ROAD ABOUT 1 MILE NORTHEAST OF MIDOIL TO HWY 33.						
Detailed Location:							
Ecological:	SALTBU SH SCRUB WITH MODERATE DENSITY OIL DEVELOPMENT.						
General:	6 INDIVIDUALS DETECTED DURING SURVEY ALONG FUEL LINE CORRIDOR OVER TWO DAY PERIOD (24-25 APR 2001).						
Owner/Manager:	PVT, BLM						



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Occurrence No.	220	Map Index:	56989	EO Index:	57005	Element Last Seen:	2001-04-25
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-04-25
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-08-08
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.15299 / -119.51487				Accuracy:	80 meters	
UTM:	Zone-11 N3892905 E270916				Elevation (ft):	1300	
PLSS:	T32S, R23E, Sec. 09, SW (M)				Acres:	0.0	
Location:	ABOUT 0.5 MILE SOUTHEAST OF MIDOIL AND 0.1 MILE SOUTH OF OIL TANKS.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF SALTBUSSH SCRUB BORDERING MODERATE-HIGH DENSITY OIL DEVELOPMENT.						
General:	DURING FUEL LINE CORRIDOR SURVEY ON 25 APR 2001, ONE INDIVIDUAL WAS HEARD AND OBSERVED FORAGING.						
Owner/Manager:	PVT						

Occurrence No.	221	Map Index:	56993	EO Index:	57009	Element Last Seen:	1998-04-09
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-09
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-08-08
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.18279 / -119.51167				Accuracy:	specific area	
UTM:	Zone-11 N3896203 E271291				Elevation (ft):	1000	
PLSS:	T31S, R23E, Sec. 33, SW (M)				Acres:	6.9	
Location:	ABOUT 1.5 MILES EAST OF FELLOWS NEAR WHERE THE PIPELINE CROSSES NAVELE RESERVE BOUNDARY.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF GRASSLAND AND SALTBUSSH SCRUB BORDERING LOW DENSITY OIL DEVELOPMENT.						
General:	DURING SURVEY ALONG THE SUNRISE VALLEY ACRES TRANSMISSION LINE CORRIDOR ON 9 APR 1998 2 INDIVIDUALS WERE HEARD AND SEEN FORAGING.						
Owner/Manager:	PVT						

Occurrence No.	223	Map Index:	57006	EO Index:	57022	Element Last Seen:	2001-05-02
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-05-02
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-08-08
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.15662 / -119.54513				Accuracy:	80 meters	
UTM:	Zone-11 N3893377 E268169				Elevation (ft):	1600	
PLSS:	T32S, R23E, Sec. 07, N (M)				Acres:	0.0	
Location:	ABOUT 0.5 MILE EAST OF SAN LUIS OBISPO COUNTY BORDER AND 1.5 MILES SOUTH OF FELLOWS.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF SALTBUSSH SCRUB BORDERING MODERATE-HIGH DENSITY OIL DEVELOPMENT.						
General:	DURING SURVEYI ALONG TRANSMISSION LINE CORRIDOR ON 02 MAY 2001 ONE INDIVIDUAL WAS HEARD & SEEN FORAGING.						
Owner/Manager:	PVT						



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Occurrence No.	224	Map Index:	57008	EO Index:	57024	Element Last Seen:	2001-05-02
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-05-02
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-08-08
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.16215 / -119.55103				Accuracy:	specific area	
UTM:	Zone-11 N3894005 E267647				Elevation (ft):	1650	
PLSS:	T32S, R23E, Sec. 06 (M)				Acres:	9.2	
Location:	0.25 MILE EAST OF SAN LUIS OBISPO COUNTY BORDER AND 1.5 MILES SOUTHWEST OF FELLOWS.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF SALTBUCH SCRUB BORDERING MODERATE-HIGH DENSITY OIL DEVELOPMENT.						
General:	DURING SURVEY ALONG TRANSMISSION LINE CORRIDOR ON 02 MAY 2001 2 INDIVIDUALS WERE HEARD AND SEEN FORAGING.						
Owner/Manager:	PVT						

Occurrence No.	225	Map Index:	57010	EO Index:	57026	Element Last Seen:	1998-04-09
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-09
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-09-27
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.18562 / -119.53482				Accuracy:	80 meters	
UTM:	Zone-11 N3896571 E269191				Elevation (ft):	1200	
PLSS:	T31S, R23E, Sec. 32, SW (M)				Acres:	0.0	
Location:	ABOUT 0.5 MILE NORTHEAST OF FELLOWS ALONG CALIFORNIA STATE HIGHWAY 33.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF GRASSLAND AND SALTBUCH SCRUB BORDERING LOW DENSITY OIL DEVELOPMENT.						
General:	ONE INDIVIDUAL SEEN AND HEARD FORAGING WHILE SURVEYING ALONG THE SUNRISE VALLEY ACRES TRANSMISSION LINE CORRIDOR ON 09 APR 1998.						
Owner/Manager:	DOE						

Occurrence No.	226	Map Index:	57014	EO Index:	57030	Element Last Seen:	2016-08-08
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2016-08-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2017-02-03
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.17795 / -119.53784				Accuracy:	specific area	
UTM:	Zone-11 N3895728 E268895				Elevation (ft):	1306	
PLSS:	T32S, R23E, Sec. 6, NE (M)				Acres:	142.0	
Location:	VICINITY OF FELLOWS, FROM ABOUT 0.75 MILES NW TO 1.3 MILES SW OF HWY 33 AT MIDWAY RD.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	GRASSLAND AND SALTBUCH SCRUB IN/AROUND LOW TO MODERATE DENSITY OIL DEVELOPMENT. 1998 SURVEY ALONG SUNRISE VALLEY ACRES TRANSMISSION LINE CORRIDOR.						
General:	1 OBSERVED 9 APR 1998. 15 OBSERVED JUN-JUL 2012. 3 OBS JUN-JUL 2015. 43 OBSERVATIONS FROM MAY TO AUG 2016.						
Owner/Manager:	DOE, UNKNOWN						



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Occurrence No.	227	Map Index:	57018	EO Index:	57034	Element Last Seen:	1998-04-09
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-09
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-08-08
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.18063 / -119.52368				Accuracy:	80 meters	
UTM:	Zone-11 N3895992 E270191				Elevation (ft):	1200	
PLSS:	T31S, R23E, Sec. 32, SE (M)				Acres:	0.0	
Location:	ABOUT 0.8 MILE EAST OF FELLOWS JUST NORTH OF MIDWAY ROAD.						
Detailed Location:							
Ecological:	GRASSLAND AND SALTBU SH SCRUB BORDERING LOW DENSITY OIL DEVELOPMENT.						
General:	DURING SURVEY ALONG THE SUNRISE VALLEY ACRES TRANSMISSION LINE CORRIDOR ON 9 APR 1998 ONE INDIVIDUAL WAS HEARD AND SEEN FORAGING.						
Owner/Manager:	DOE						

Occurrence No.	228	Map Index:	57021	EO Index:	57037	Element Last Seen:	2001-01-23
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-01-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-09-27
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.18714 / -119.50516				Accuracy:	80 meters	
UTM:	Zone-11 N3896671 E271896				Elevation (ft):	1000	
PLSS:	T31S, R23E, Sec. 33, SE (M)				Acres:	0.0	
Location:	ABOUT 2 MILES NORTHEAST OF FELLOWS AND 0.4 MILE NORTH OF NAVAL RESERVE BDY.						
Detailed Location:							
Ecological:	SERAL STAGE GRASSLAND/SALTBU SH SCRUB, LOW DENSITY OIL DEVELOPMENT.						
General:	ONE INDIVIDUAL OBSERVED WHILE SURVEYING ALONG SUNRISE WATERLINE CORRIDOR ON 23 JAN 2001.						
Owner/Manager:	PVT						

Occurrence No.	229	Map Index:	57023	EO Index:	57039	Element Last Seen:	2001-01-23
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-01-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-08-08
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.19132 / -119.51668				Accuracy:	80 meters	
UTM:	Zone-11 N3897161 E270859				Elevation (ft):	1100	
PLSS:	T31S, R23E, Sec. 33, NW (M)				Acres:	0.0	
Location:	ABOUT 0.5 MILE SOUTH OF BROAD CREEK AND 1.5 MILES NORTHEAST OF FELLOWS.						
Detailed Location:							
Ecological:	SERAL STAGE GRASSLAND/SALTBU SH SCRUB, LOW DENSITY OIL DEVELOPMENT.						
General:	DURING SURVEY ALONG THE SUNRISE WATERLINE CORRIDOR 23 JAN 2001 ONE INDIVIDUAL WAS SEEN FORAGING AND ENTERING BURROW.						
Owner/Manager:	PVT						



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Occurrence No.	230	Map Index:	57049	EO Index:	57065	Element Last Seen:	1999-04-08
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-04-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-09-28
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.33054 / -119.60414				Accuracy:	80 meters	
UTM:	Zone-11 N3912812 E263300				Elevation (ft):	780	
PLSS:	T30S, R22E, Sec. 10, SW (M)				Acres:	0.0	
Location:	ABOUT 2.2 MILES NORTHEAST OF MCKITTRICK AND 0.5 MILE EAST OF CALIFORNIA STATE HIGHWAY 58.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB WITH SHEEP GRAZING IN THE SURROUNDING AREA.						
General:	ONE INDIVIDUAL OBSERVED FORAGING WHILE SURVEYING ON 8 APR 1999.						
Owner/Manager:	BLM						

Occurrence No.	231	Map Index:	57050	EO Index:	57066	Element Last Seen:	1999-04-08
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-04-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-09-28
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.33067 / -119.59737				Accuracy:	specific area	
UTM:	Zone-11 N3912810 E263915				Elevation (ft):	750	
PLSS:	T30S, R22E, Sec. 10 (M)				Acres:	18.9	
Location:	ABOUT 2.5 MILES NORTHEAST OF MCKITTRICK AND 0.75 MILE EAST OF CALIFORNIA STATE HIGHWAY 58.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB WITH SHEEP GRAZING IN THE SURROUNDING AREA.						
General:	3 INDIVIDUALS OBSERVED WHILE SURVEYING ON 8 APR 1999.						
Owner/Manager:	BLM						

Occurrence No.	232	Map Index:	57057	EO Index:	57073	Element Last Seen:	1999-04-08
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-04-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-09-28
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.34042 / -119.59907				Accuracy:	specific area	
UTM:	Zone-11 N3913896 E263789				Elevation (ft):	680	
PLSS:	T30S, R22E, Sec. 03, S (M)				Acres:	35.3	
Location:	ABOUT 3 MILES NORTHEAST OF MCKITTRICK AND 0.4 MILE EAST OF CALIFORNIA STATE HIGHWAY 58.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB WITH SHEEP GRAZING IN THE SURROUNDING AREA.						
General:	3 INDIVIDUALS OBSERVED FORAGING ON 30 MAR 1999, ONE INDIVIDUAL OBSERVED FORAGING ON 8 APR 1999. ADDITIONAL INDIVIDUAL OBSERVED WHILE SURVEYING SEGMENT 4 FOR MIDWAY-SUNSET COGENERATION PLANT IN 1986.						
Owner/Manager:	PVT						



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Occurrence No.	233	Map Index:	57065	EO Index:	57081	Element Last Seen:	2005-XX-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2005-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-08-08
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.13879 / -119.51958				Accuracy:	specific area	
UTM:	Zone-11 N3891341 E270447				Elevation (ft):	1600	
PLSS:	T32S, R23E, Sec. 17 (M)				Acres:	104.6	
Location:	LOCATED BETWEEN SEVENTEEN CANYON & TWENTYONE CANYON, WEST OF HIGHWAY 33 & SOUTHWEST OF MIDOL.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF VALLEY SALTBU SH SCRUB AT THE BASE OF THE TEBLOR RANGE WITH LOW TO MODERATE DENSITY OIL DEVELOPMENT.						
General:	DURING SURVEYI ALONG FUEL, TRANSMISSION AND STEAM LINE CORRIDORS 7 MAY 2001 2 HEARD IN SEVENTEEN CANYON. 17 OBSERVATIONS IN THE AREA BETWEEN SEVENTEEN & TWENTYONE CANYONS IN SPRING/SUMMER 2005.						
Owner/Manager:	PVT-CHEVRON						

Occurrence No.	234	Map Index:	57073	EO Index:	57089	Element Last Seen:	1998-04-23
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-09-28
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.18170 / -119.44086				Accuracy:	80 meters	
UTM:	Zone-11 N3895922 E277737				Elevation (ft):	700	
PLSS:	T31S, R24E, Sec. 31, SW (M)				Acres:	0.0	
Location:	ABOUT 1 MILE SW OF INTERSECTION BETWEEN AIRPORT ROAD AND CA-STATE HIGHWAY 119 AND 3 MILES SW OF VALLEY ACRES.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF GRASSLAND AND SALTBU SH SCRUB WITH LOW DENSITY OIL DEVELOPMENT.						
General:	ONE INDIVIDUAL SEEN AND HEARD ON 9 APR 1998 WHILE SURVEYING ALONG THE SUNRISE VALLEY ACRES TRANSMISSION LINE CORRIDOR. SECOND INDIVIDUAL SEEN AND HEARD WHILE SURVEYING AGAIN ON 23 APR 1998.						
Owner/Manager:	DOE						



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Occurrence No.	235	Map Index:	57083	EO Index:	57099	Element Last Seen:	2001-02-07
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-02-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-09-29
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.17927 / -119.44732				Accuracy:	specific area	
UTM:	Zone-11 N3895667 E277142				Elevation (ft):	850	
PLSS:	T32S, R24E, Sec. 06 (M)				Acres:	13.1	
Location:	ABOUT 0.8 MILE EAST OF STANDARD OIL CAMP 1-C. INTERSECTION OF MIDWAY ROAD AND CA STATE HIGHWAY 119 RUN THROUGH POLYGON.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF GRASSLAND AND SALTBUCH SCRUB SURROUNDED BY LOW-MODERATE DENSITY OIL DEVELOPMENT.						
General:	2 INDIVIDUALS SEEN AND HEARD ON 9 APR 1998 WHILE SURVEYING ALONG THE SUNRISE VALLEY ACRES TRANSMISSION LINE CORRIDOR. 23 APR 1998: 1 INDIVIDUAL OBSERVED. 7 FEB 2001: 1 INDIVIDUAL WAS SEEN FORAGING.						
Owner/Manager:	PVT, DOE						

Occurrence No.	236	Map Index:	57115	EO Index:	57131	Element Last Seen:	1986-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1986-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2005-01-31
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.27524 / -119.62261				Accuracy:	non-specific area	
UTM:	Zone-11 N3906721 E261457				Elevation (ft):	1355	
PLSS:	T30S, R22E, Sec. 33, NW (M)				Acres:	22.1	
Location:	ON WEST SIDE OF CALIFORNIA STATE HIGHWAY 33 ABOUT 2 MILES SOUTH OF MCKITTRICK.						
Detailed Location:							
Ecological:	HABITAT IS DOMINATED BY GRAZED GRASSLAND/SCRUB VEGETATION.						
General:	ONE OR MORE INDIVIDUALS OBSERVED AT 2 POINTS ALONG A LINEAR TRANSECT WHILE SURVEYING FOR A PROPOSED TRANSMISSION LINE IN 1986.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	237	Map Index:	57116	EO Index:	57132	Element Last Seen:	1986-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1986-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-09-29
Quad Summary:	Panorama Hills (3511926)						
County Summary:	Kern						
Lat/Long:	35.22663 / -119.63131				Accuracy:	non-specific area	
UTM:	Zone-11 N3901349 E260523				Elevation (ft):	1800	
PLSS:	T31S, R22E, Sec. 17, SE (M)				Acres:	24.6	
Location:	LOCATED IN TELEPHONE HILLS, ABOUT 2.5 MILES SOUTHWEST OF DERBY ACRES.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF RECENTLY GRAZED GRASSLAND AND GRASSLAND SCRUB AS THE DOMINANT VEGETATION TYPES.						
General:	ONE OR MORE INDIVIDUALS OBSERVED AT THREE SEPARATE POINTS WHILE SURVEYING AN 120 ACRE AREA IN 1986.						
Owner/Manager:	PVT						

Occurrence No.	238	Map Index:	57118	EO Index:	57134	Element Last Seen:	1986-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1986-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2005-01-31
Quad Summary:	Panorama Hills (3511926)						
County Summary:	Kern						
Lat/Long:	35.23189 / -119.63792				Accuracy:	1/10 mile	
UTM:	Zone-11 N3901949 E259937				Elevation (ft):	1900	
PLSS:	T31S, R22E, Sec. 17, W (M)				Acres:	0.0	
Location:	LOCATED IN TELEPHONE HILLS, ABOUT 2.8 MILES SOUTHWEST OF DERBY ACRES.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF RECENTLY GRAZED GRASSLAND AND GRASSLAND SCRUB AS THE PRIMARY VEGETATION TYPES.						
General:	UNKNOWN NUMBER OF OBSERVATIONS OF INDIVIDUALS AND/OR BURROWS WHILE SURVEYING BUFFER ZONE SURROUNDING PROPOSED POWER PLANT.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	239	Map Index:	57119	EO Index:	57135	Element Last Seen:	1986-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1986-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-09-29
Quad Summary:	Panorama Hills (3511926)						
County Summary:	Kern						
Lat/Long:	35.22475 / -119.63935				Accuracy:	non-specific area	
UTM:	Zone-11 N3901160 E259785				Elevation (ft):	1850	
PLSS:	T31S, R22E, Sec. 17 (M)				Acres:	21.1	
Location:	LOCATED IN TELEPHONE HILLS, ABOUT 2.75 MILES SOUTHWEST OF DERBY ACRES.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF RECENTLY GRAZED GRASSLAND AND GRASSLAND SCRUB AS THE DOMINANT VEGETATION TYPES.						
General:	ONE OR MORE INDIVIDUALS AND/OR BURROWS OBSERVED AT 5 POINTS WHILE SURVEYING THE BUFFER ZONE AROUND A PROPOSED POWER PLANT.						
Owner/Manager:	UNKNOWN						

Occurrence No.	240	Map Index:	57137	EO Index:	57153	Element Last Seen:	1986-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1986-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-09-30
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.29395 / -119.62353				Accuracy:	non-specific area	
UTM:	Zone-11 N3908799 E261429				Elevation (ft):	1200	
PLSS:	T30S, R22E, Sec. 28 (M)				Acres:	23.4	
Location:	ABOUT 0.7 MILE SOUTH OF MCKITTRICK AND 0.2 MILE EAST OF CALIFORNIA STATE HIGHWAY 33.						
Detailed Location:							
Ecological:	HABITAT IS DOMINATED BY GRASSLAND/SCRUB THAT DOES NOT APPEAR TO BE RECENTLY GRAZED.						
General:	ONE OR MORE OBSERVATIONS AT THREE POINTS ALONG A LINEAR TRANSECT OF A PROPOSED TRANSMISSION LINE.						
Owner/Manager:	UNKNOWN						

Occurrence No.	241	Map Index:	57138	EO Index:	57154	Element Last Seen:	1999-04-02
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-04-02
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-09-30
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.28363 / -119.62097				Accuracy:	1/10 mile	
UTM:	Zone-11 N3907648 E261632				Elevation (ft):	1350	
PLSS:	T30S, R22E, Sec. 28, SW (M)				Acres:	0.0	
Location:	ABOUT 0.1 MILE EAST OF CALIFORNIA STATE HIGHWAY 33 AND 1.5 MILES SOUTHWEST OF MCKITTRICK.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF SALTBUUSH SCRUB AND ALKALI SINK.						
General:	ONE INDIVIDUAL OBSERVED ON 2 APR 1999. ONE OR MORE INDIVIDUALS ALSO OBSERVED IN 1986 WHILE SURVEYING A LINEAR TRANSECT FOR A PROPOSED TRANSMISSION LINE.						
Owner/Manager:	PVT						



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Occurrence No.	243	Map Index:	57140	EO Index:	57156	Element Last Seen:	1999-04-09
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-04-09
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-09-30
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.31808 / -119.59380				Accuracy:	80 meters	
UTM:	Zone-11 N3911404 E264203				Elevation (ft):	900	
PLSS:	T30S, R22E, Sec. 15, E (M)				Acres:	0.0	
Location:	ABOUT 1.6 MILES NORTHEAST OF MCKITTRICK AND 1.5 MILES EAST OF CALIFORNIA STATE HIGHWAY 33.						
Detailed Location:							
Ecological:	HABITAT IS DOMINATED BY HILLY SALTBUSH SCRUB WITH LOW DENSITY OIL DEVELOPMENT.						
General:	ONE ADULT OBSERVED FORAGING ON 9 APR 1999.						
Owner/Manager:	PVT						

Occurrence No.	245	Map Index:	57154	EO Index:	57170	Element Last Seen:	2016-04-20
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2016-04-20
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2016-09-20
Quad Summary:	Mouth of Kern (3511923), Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.24283 / -119.33174				Accuracy:	non-specific area	
UTM:	Zone-11 N3902464 E287836				Elevation (ft):	392	
PLSS:	T31S, R25E, Sec. 7 (M)				Acres:	144.0	
Location:	LOCATED IN ELK HILLS, ALONG HWY 119 & ALONG INTERSECTING ROAD TO THE EAST, ABOUT 2 MILES NORTH OF BUENA VISTA LAKE BED.						
Detailed Location:	1993, 2000: NEAR AQUEDUCT MILE POST 245 (MAPPED TO PROVIDED TOPOS). 2002: ALONG SURVEY ROUTES OF CHERRY AVE 4-LANE PROJECT. 2006-08: ELK HILLS (DFG) & AW NOON PARK; MAPPED TO GIVEN COORDINATES. 2016: IN CALTRANS RIGHT-OF-WAY ALONG HWY 119.						
Ecological:	2004: VALLEY SALTBUSH SCRUB AND BUSH SEEPWEED-IODINE BUSH SCRUB. 2006: ALLSCALE & CA ANNUAL GRASSLAND SERIES, W/ ALKALINE CLAY SOILS. DOMINANTS ARE ATRIPLEX POLYCARPA, A. SPINIFERA, SUAEDA MOQUINII, ALLENROLFEA OCCIDENTALIS, BROMUS RUBENS.						
General:	2 ADULTS OBSERVED 11 MAY 1993. 6 OBSERVED 6 APR 2000. 3 OBSERVED IN APR 2002. 25 ADULTS OBSERVED 6 JUL 2006. 6 TRAPPED 11 MAY 2007. 3 DETECTED 6 MAY 2008. 1 ADULT TRAPPED, 2 ADULTS & 3 JUVENILES OBSERVED APR 2016 (SEE ALSO OCC #246).						
Owner/Manager:	UNKNOWN, DFG, DWR, CALTRANS						



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Occurrence No.	246	Map Index:	57158	EO Index:	57174	Element Last Seen:	2016-04-20
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2016-04-20
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2016-09-20
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.24171 / -119.35554				Accuracy:	non-specific area	
UTM:	Zone-11 N3902391 E285666				Elevation (ft):	506	
PLSS:	T31S, R24E, Sec. 12 (M)				Acres:	161.0	
Location:	ALONG HWY 119, FROM ABOUT 0.4 TO 1.6 MILES NE OF THE GOLF COURSE RD INTERSECTION, ELK HILLS.						
Detailed Location:	2002: MAPPED TO PROVIDED DETECTION LOCATIONS ALONG PROPOSED ROAD ROUTE. 2014: MAPPED TO PROVIDED COORDINATES. 2016: EXACT LOCATIONS UNKNOWN, DETECTED IN HWY 119 RIGHT-OF-WAY BETWEEN UNNAMED ROAD AND ENTRANCE TO ELK HILLS PETROLEUM RESERVE.						
Ecological:	2002: HABITAT CONSISTED OF VALLEY SALT BUSH SCRUB AND BUSH SEEPWEED-IODINE BUSH SCRUB. 2014-2016: CALTRANS RIGHT-OF-WAY; NON-NATIVE GRASSLAND WITH PATCHES OF ALLSCALE SALT BUSH.						
General:	4 INDIVIDUALS OBSERVED WHILE SURVEYING FOR THE CHERRY AVENUE FOUR-LANE PROJECT IN APR 2002. 2 ADULTS TRAPPED 7 SEP - 12 SEP 2014. 2 ADULTS DETECTED, APR 2016 (SEE ALSO OCC #245).						
Owner/Manager:	UNKNOWN						

Occurrence No.	250	Map Index:	57163	EO Index:	57179	Element Last Seen:	2002-04-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2002-04-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-10-01
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.22542 / -119.38096				Accuracy:	1/5 mile	
UTM:	Zone-11 N3900639 E283309				Elevation (ft):	380	
PLSS:	T31S, R24E, Sec. 15, SE (M)				Acres:	0.0	
Location:	LOCATED ALONG CALIFORNIA STATE HIGHWAY 119 ABOUT 0.7 MILE NORTHEAST OF DUSTIN ACRES, NORTHWEST OF BUENA VISTA LAKE BED.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF VALLEY SALT BUSH SCRUB AND BUSH SEEPWEED-IODINE BUSH SCRUB.						
General:	ONE INDIVIDUAL OBSERVED WHILE SURVEYING FOR THE CHERRY AVENUE FOUR-LANE PROJECT IN APR 2002.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	251	Map Index:	57164	EO Index:	57180	Element Last Seen:	2002-04-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2002-04-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-10-01
Quad Summary:	Mouth of Kern (3511923), Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.21863 / -119.37706				Accuracy:	non-specific area	
UTM:	Zone-11 N3899878 E283646				Elevation (ft):	340	
PLSS:	T31S, R24E, Sec. 22 (M)				Acres:	33.1	
Location:	LOCATED ABOUT 0.6 MILE EAST OF DUSTIN ACRES AND 0.8 MILE SOUTH OF CALIFORNIA STATE HIGHWAY 119.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB AND BUSH SEEPWEED-IODINE BUSH SCRUB.						
General:	2 INDIVIDUALS OBSERVED WHILE SURVEYING FOR THE CHERRY AVENUE FOUR-LANE PROJECT IN APR 2002.						
Owner/Manager:	UNKNOWN						

Occurrence No.	252	Map Index:	57168	EO Index:	57184	Element Last Seen:	2002-04-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2002-04-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-10-01
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.21718 / -119.39523				Accuracy:	non-specific area	
UTM:	Zone-11 N3899757 E281988				Elevation (ft):	400	
PLSS:	T31S, R24E, Sec. 21, SE (M)				Acres:	40.7	
Location:	LOCATED ALONG CALIFORNIA STATE HIGHWAY 119 JUST SOUTHWEST OF DUSTIN ACRES.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB AND BUSH SEEPWEED-IODINE BUSH SCRUB.						
General:	TWO INDIVIDUALS OBSERVED WHILE SURVEYING FOR THE CHERRY ACRES FOUR-LANE PROJECT IN APR 2002.						
Owner/Manager:	UNKNOWN						

Occurrence No.	253	Map Index:	57169	EO Index:	57185	Element Last Seen:	2002-04-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2002-04-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-10-01
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.21755 / -119.40866				Accuracy:	1/5 mile	
UTM:	Zone-11 N3899828 E280766				Elevation (ft):	440	
PLSS:	T31S, R24E, Sec. 21, W (M)				Acres:	0.0	
Location:	IN VISTA VALLEY ABOUT 0.8 MILE NORTHWEST OF VALLEY ACRES AND 1 MILE WEST OF DUSTIN ACRES.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB AND BUSH SEEPWEED-IODINE BUSH SCRUB.						
General:	ONE INDIVIDUAL OBSERVED WHILE SURVEYING FOR THE CHERRY AVENUE FOUR-LANE PROJECT IN APR 2002.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	260	Map Index:	15325	EO Index:	57244	Element Last Seen:	1937-05-16
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1937-05-16
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-18
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.14218 / -119.45262				Accuracy:	1 mile	
UTM:	Zone-11 N3891564 E276558				Elevation (ft):	950	
PLSS:	T32S, R23E, Sec. 13, E (M)				Acres:	0.0	
Location:	LOCATED IN VICINITY OF TAFT.						
Detailed Location:							
Ecological:							
General:	2 SPECIMENS COLLECTED (1 MALE, 1 FEMALE) DIED 16 MAY 1937 "NEAR TAFT"; UMMZ CATALOG NUMBERS 80314 & 80315. 1 FEMALE COLLECTED BY M. JOHNSON AT "HILL 25, TOP OF; TAFT" ON 16 MAR 1937, MVZ #66428 COLLECTED 16 MAR 1935.						
Owner/Manager:	UNKNOWN						

Occurrence No.	276	Map Index:	65063	EO Index:	65142	Element Last Seen:	1988-06-17
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1988-06-17
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-11
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.18446 / -119.38971				Accuracy:	specific area	
UTM:	Zone-11 N3896114 E282403				Elevation (ft):	400	
PLSS:	T31S, R24E, Sec. 34, SW (M)				Acres:	159.5	
Location:	2 MI S OF DUSTIN ACRES, ON A DIRT ROAD HEADING SOUTH JUST AT THE EDGE OF TOWN.						
Detailed Location:	INDIVIDUALS SEEN OR HEARD THROUGHOUT THE SW1/4 SEC 34.						
Ecological:	VALLEY SALTBUSH SCRUB. DOMINATED BY ATRIPLEX POLYCARPA. MOSAIC OF MODERATELY DENSE, MATURE SHRUBS WITH NON-NATIVE ANNUAL PLANTS INCLUDING ERODIUM CIRCUTORIUM, BROMUS RUBENS AND VULPIA MYUROS.						
General:	FORAGING AND DENNING SITE. FOUR INDIVIDUALS OBSERVED ON 6/17/1988.						
Owner/Manager:	UNKNOWN						

Occurrence No.	277	Map Index:	65065	EO Index:	65144	Element Last Seen:	1989-11-21
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1989-11-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-11
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.24101 / -119.37819				Accuracy:	non-specific area	
UTM:	Zone-11 N3902363 E283603				Elevation (ft):	550	
PLSS:	T31S, R24E, Sec. 10, SE (M)				Acres:	46.3	
Location:	ABOUT 1.6 MI NNE OF DUSTIN ACRES, NAVAL PETROLEUM RESERVE NO. 1, ELK HILLS.						
Detailed Location:	MAPPED AS PER SOURCE: T31S R24E SE1/4 SEC 10.						
Ecological:	DEVELOPED WASTE WATER SUMP AND HAZARDOUS WATER DISPOSAL SITE.						
General:	BREEDING, FORAGING, WINTERING, & DENNING SITE.						
Owner/Manager:	DOE						



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Occurrence No.	278	Map Index:	65072	EO Index:	65151	Element Last Seen:	1989-11-21
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1989-11-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-11
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.22993 / -119.43132				Accuracy:	non-specific area	
UTM:	Zone-11 N3901252 E278737				Elevation (ft):	575	
PLSS:	T31S, R24E, Sec. 18, SE (M)				Acres:	39.4	
Location:	ABOUT 2.4 MI NW OF VALLEY ACRES.						
Detailed Location:	MAPPED AS PER TRS GIVEN IN SOURCE: T31S R24E SE1/4 SEC 18.						
Ecological:							
General:	BREEDING, FORAGING, WINTERING, & DENNING SITE.						
Owner/Manager:	DOE						

Occurrence No.	279	Map Index:	65075	EO Index:	65154	Element Last Seen:	2007-02-22
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2007-02-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-04-30
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.15531 / -119.42922				Accuracy:	non-specific area	
UTM:	Zone-11 N3892969 E278726				Elevation (ft):	850	
PLSS:	T32S, R24E, Sec. 08 (M)				Acres:	58.0	
Location:	EAST OF TAFT, ABOUT 0.5 MILE NE OF INTERSECTION OF CEDAR ST AND AIRPORT RD.						
Detailed Location:	AT OIL WELL 325-8D. MAPPED AS PER SOURCE: T32S R24E NW1/4 OF SW1/4 SEC 8.						
Ecological:	MODERATELY TO HEAVILY DEVELOPED OIL FIELD. NON-NATIVE GRASSES, DESERT SALTBUSH SCRUB, ATRIPLEX POLYCARPA. FLAT TOPOGRAPHY.						
General:	1 INDIVIDUAL OBSERVED ON 24 AUG 1991. 3 FORAGING ADULTS OBSERVED ON 22 FEB 2007. 2007 SITE QUALITY IS NOTED AS POOR.						
Owner/Manager:	UNKNOWN, PVT						

Occurrence No.	280	Map Index:	65076	EO Index:	65155	Element Last Seen:	1994-04-13
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1994-04-13
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-12
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.18409 / -119.41249				Accuracy:	80 meters	
UTM:	Zone-11 N3896124 E280327				Elevation (ft):	525	
PLSS:	T31S, R24E, Sec. 32, SE (M)				Acres:	0.0	
Location:	ABOUT 1.5 AIR MI SSW OF VALLEY ACRES.						
Detailed Location:	MAPPED IN SE1/4 OF SE1/4 SEC 32.						
Ecological:	VALLEY SALTBUSH SCRUB WITH ATRIPLEX POLYCARPA & THE RARE PLANT EREMALCHE PARRYI SSP. KERNENSIS.						
General:	BURROW SITE; 1 ADULT AND 3 JUVENILES OBSERVED ON 13 APR 1994.						
Owner/Manager:	DOE-NAVAL PETROLEUM RESERVE						



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Occurrence No.	281	Map Index:	65081	EO Index:	65160	Element Last Seen:	1994-04-13
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1994-04-13
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-12
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.19280 / -119.41698				Accuracy:	80 meters	
UTM:	Zone-11 N3897100 E279942				Elevation (ft):	525	
PLSS:	T31S, R24E, Sec. 32, NE (M)				Acres:	0.0	
Location:	ABOUT 1 AIR MI SW OF VALLEY ACRES.						
Detailed Location:	MAPPED IN THE NW1/4 OF NE1/4 SEC 32.						
Ecological:	VALLEY SALTBUSSH SCRUB WITH ATRIPLEX POLYCARPA & THE RARE PLANT EREMACHE PARRYI SSP. KERNENSIS.						
General:	BURROW SITE; 1 ADULT AND 3 JUVENILES OBSERVED ON 13 APR 1994.						
Owner/Manager:	DOE-NAVAL PETROLEUM RESERVE						

Occurrence No.	282	Map Index:	65082	EO Index:	65161	Element Last Seen:	1994-04-13
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1994-04-13
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-12
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.19164 / -119.42898				Accuracy:	specific area	
UTM:	Zone-11 N3896998 E278846				Elevation (ft):	525	
PLSS:	T31S, R24E, Sec. 31, NW (M)				Acres:	3.9	
Location:	ABOUT 1.4 AIR MI WSW OF VALLEY ACRES.						
Detailed Location:	MAPPED AS 2 POLYGONS IN NW1/4 NW1/4 SEC 31.						
Ecological:	VALLEY SALTBUSSH SCRUB WITH ATRIPLEX POLYCARPA & EREMACHE PARRYI SSP. KERNENSIS.						
General:	BURROW SITE; 1 ADULT AND 2 JUVENILES OBSERVED ON 13 APR 1994.						
Owner/Manager:	DOE-NAVAL PETROLEUM RESERVE						

Occurrence No.	283	Map Index:	65083	EO Index:	65162	Element Last Seen:	1994-04-14
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1994-04-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-12-18
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.17650 / -119.46836				Accuracy:	80 meters	
UTM:	Zone-11 N3895407 E275218				Elevation (ft):	825	
PLSS:	T32S, R23E, Sec. 02, NE (M)				Acres:	0.0	
Location:	ABOUT 0.5 MI NNW ON ROAD THAT LEADS OUT OF WALLACE CENTER.						
Detailed Location:	SIGHTING 120' SOUTH OF WELL 21.						
Ecological:	VALLEY SALTBUSSH SCRUB INCLUDING ATRIPLEX POLYCARPA.						
General:	BURROW SITE. 1 JUVENILE OBSERVED ON 14 APR 1994.						
Owner/Manager:	PVT-PHILLIPS PETROLEUM						



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Occurrence No.	284	Map Index:	65084	EO Index:	65163	Element Last Seen:	1994-04-30
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1994-04-30
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-12
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.18859 / -119.44431				Accuracy:	specific area	
UTM:	Zone-11 N3896694 E277441				Elevation (ft):	625	
PLSS:	T31S, R24E, Sec. 31, NW (M)				Acres:	9.1	
Location:	ABOUT 2.4 MI NE FROM CENTER OF FORD CITY.						
Detailed Location:	MAPPED IN SW1/4 NW1/4 SEC 31.						
Ecological:	VALLEY SALTBUSSH SCRUB COMMUNITY.						
General:	2 ADULTS AND 2 JUVENILES OBSERVED ON 30 APR 1994.						
Owner/Manager:	PVT-CHEVRON						

Occurrence No.	285	Map Index:	65088	EO Index:	65167	Element Last Seen:	1994-08-10
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	1994-08-10
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-12
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.21425 / -119.42407				Accuracy:	non-specific area	
UTM:	Zone-11 N3899496 E279355				Elevation (ft):	480	
PLSS:	T31S, R24E, Sec. 20, SW (M)				Acres:	168.1	
Location:	NW EDGE OF VALLEY ACRES.						
Detailed Location:	MAPPED NORTH OF VALLEY WEST RD IN THE SW1/4 SEC 20 AS SPECIFIED IN SOURCE.						
Ecological:	VALLEY SALTBUSSH SCRUB INCLUDING ATRIPLEX POLYCARPA.						
General:	BREEDING, FORAGING, AND BURROW SITE. 1 ADULT OBSERVED ON 10 AUG 1994.						
Owner/Manager:	UNKNOWN						

Occurrence No.	287	Map Index:	65096	EO Index:	65175	Element Last Seen:	1992-05-03
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	1992-05-03
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-13
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.23475 / -119.30890				Accuracy:	non-specific area	
UTM:	Zone-11 N3901520 E289892				Elevation (ft):	340	
PLSS:	T31S, R25E, Sec. 17, NE (M)				Acres:	172.8	
Location:	ABOUT 4.6 AIR MI ENE OF DUSTIN ACRES.						
Detailed Location:	MAPPED IN NE1/4 SEC 17 AS SPECIFIED IN SOURCE.						
Ecological:	VALLEY SALTBUSSH SCRUB. AREA HOUSES ERIASTRUM HOOVERI & SAN JOAQUIN KIT FOX.						
General:	BREDEDING, FORAGING, & WINTERING SITE. 1 ADULT & 2 JUVENILES OBSERVED ON 3 MAY 1992.						
Owner/Manager:	PVT						



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Occurrence No.	288	Map Index:	65108	EO Index:	65187	Element Last Seen:	1994-04-14
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1994-04-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-13

Quad Summary: Fellows (3511925)

County Summary: Kern

Lat/Long:	35.20507 / -119.50733	Accuracy:	80 meters
UTM:	Zone-11 N3898665 E271749	Elevation (ft):	1125
PLSS:	T31S, R23E, Sec. 28, NE (M)	Acres:	0.0

Location: BUENA VISTA HILLS, 2.7 AIR MI NE OF FELLOWS.

Detailed Location: LOCATED 200' E OF WELL 63.

Ecological: VALLEY SALTBUSH SCRUB COMMUNITY.

General: BURROW SITE; 1 ADULT OBS ON 13 APR 1994.

Owner/Manager: DOE

Occurrence No.	290	Map Index:	65110	EO Index:	65189	Element Last Seen:	1990-11-12
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1990-11-12
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-20

Quad Summary: Stevens (3511932)

County Summary: Kern

Lat/Long:	35.26863 / -119.23953	Accuracy:	non-specific area
UTM:	Zone-11 N3905134 E296291	Elevation (ft):	310
PLSS:	T30S, R25E, Sec. 36, SE (M)	Acres:	217.3

Location: 7 MILES WEST OF OLD RIVER, AND IN SW1/4 OF SE1/4 SECTION 36, T30S R25E.

Detailed Location: KELLY 1990 RECORD IS FROM 0.75 MI NE OF INTERSECTION OF ENOS LANE (HWY 43) AND TAFT HWY (HWY 119). HAFNER SPECIMEN IS FROM 7 MI W OF OLD RIVER. MAPPED AS 2 POLYGONS AT CNDDB.

Ecological: VALLEY SALTBUSH/MESQUITE SCRUB DOMINATED BY ATRIPLEX POLYCARPA. FEW MESQUITE TREES PRESENT. CAJON LOAMY SAND BORDERING PANOCHÉ CLAY LOAM. 0-2% SLOPE. ONE OF FEW VALLEY SALTBUSH/MESQUITE SCRUB HABITATS REMAINING IN SAN JOAQUIN VALLEY.

General: KELLY, 1990 REPORTS FORAGING SITE; 1 ADULT OBS ON 12 NOV 1990; AREA HAS APIARIAN (BEEKEEPING) ACTIVITY. 1 MALE, MVZ #158826, COLLECTED BY MARK S. HAFNER ON 11 APR 1976.

Owner/Manager: STATE



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Occurrence No.	301	Map Index:	43158	EO Index:	65292	Element Last Seen:	1915-11-29
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1915-11-29
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-19
Quad Summary:	Buttonwillow (3511944)						
County Summary:	Kern						
Lat/Long:	35.39940 / -119.47328				Accuracy:	1 mile	
UTM:	Zone-11 N3920145 E275387				Elevation (ft):	270	
PLSS:	T29S, R23E, Sec. 14 (M)				Acres:	0.0	
Location:	BUTTONWILLOW.						
Detailed Location:							
Ecological:							
General:	3 MALES AND 2 FEMALES COLLECTED 18 OCT 1918 (COLLECTOR UNKNOWN), CAS #63-67; ONE FEMALE COLLECTED 19 NOV 1915 (COLLECTOR UNKNOWN), CAS #1117.						
Owner/Manager:	UNKNOWN						

Occurrence No.	305	Map Index:	65258	EO Index:	65337	Element Last Seen:	1975-10-12
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1975-10-12
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-20
Quad Summary:	West Elk Hills (3511935), Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.34565 / -119.62580				Accuracy:	2/5 mile	
UTM:	Zone-11 N3914540 E261374				Elevation (ft):	700	
PLSS:	T30S, R22E, Sec. 05 (M)				Acres:	0.0	
Location:	3 MI N OF MCKITTRICK.						
Detailed Location:							
Ecological:							
General:	1 MALE, MVZ #152135, COLLECTED BY JAMES T. MASCARELLO.						
Owner/Manager:	UNKNOWN						

Occurrence No.	307	Map Index:	65286	EO Index:	65365	Element Last Seen:	1977-12-04
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1977-12-04
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-21
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.34661 / -119.30568				Accuracy:	1/10 mile	
UTM:	Zone-11 N3913921 E290474				Elevation (ft):	310	
PLSS:	T30S, R25E, Sec. 05, SE (M)				Acres:	0.0	
Location:	1.5 MILES EAST OF INTERSTATE 5, THEN 0.5 MILE SOUTH OF STOCKDALE HWY, OFF BUSSELL RD.						
Detailed Location:	STOCKDALE HWY IS CALLED BELLEVUE RD ON TOPO MAP.						
Ecological:							
General:	6 FEMALE AND 5 MALE SPECIMENS, LACM #74443-74453, COLLECTED 17 JUL AND 4 DEC 1977 BY K. BOLLES.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	309	Map Index:	65298	EO Index:	65377	Element Last Seen:	1976-04-10
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1976-04-10
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-21
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.20580 / -119.43796				Accuracy:	2/5 mile	
UTM:	Zone-11 N3898589 E278067				Elevation (ft):	530	
PLSS:	T31S, R24E, Sec. 30, N (M)				Acres:	0.0	
Location:	3 MILES NORTH AND 1.5 MILES EAST OF TAFT.						
Detailed Location:							
Ecological:							
General:	2 MALES, MVZ #152131, 152132, COLLECTED BY JAMES T. MASCARELLO AND MARK S. HAFNER.						
Owner/Manager:	UNKNOWN						

Occurrence No.	325	Map Index:	65383	EO Index:	65462	Element Last Seen:	1990-01-12
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1990-01-12
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-25
Quad Summary:	Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.25768 / -119.63594				Accuracy:	non-specific area	
UTM:	Zone-11 N3904805 E260193				Elevation (ft):	1660	
PLSS:	T31S, R22E, Sec. 05, SW (M)				Acres:	23.0	
Location:	3.4 MILES SSW OF MC KITTRICK, 2.4 MILES SOUTH OF HIGHWAY 58 AND 2.3 MILES WNW OF DERBY ACRES.						
Detailed Location:	MAPPED IN T31S R22E NE 1/4 OF SW 1/4 OF SEC 05 AS SPECIFIED IN SOURCE.						
Ecological:	HABITAT CONSISTS OF SALTBUSH SCRUB.						
General:	3 ADULTS OBSERVED ON TWO DIFFERENT SITES ON 1-12-1990. NOT KNOWN HOW MANY AT EACH SITE.						
Owner/Manager:	UNKNOWN						

Occurrence No.	326	Map Index:	65384	EO Index:	65463	Element Last Seen:	1990-01-12
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1990-01-12
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-26
Quad Summary:	West Elk Hills (3511935), Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.28661 / -119.63191				Accuracy:	non-specific area	
UTM:	Zone-11 N3908005 E260645				Elevation (ft):	1360	
PLSS:	T30S, R22E, Sec. 29, NW (M)				Acres:	203.5	
Location:	1.2 MILES SSW OF MC KITTRICK, 3.7 MILES NW OF DERBY ACRES.						
Detailed Location:	MAPPED IN T30S R22E SW 1/4 OF NW 1/4 OF SEC 29 & T30S R22E SE 1/4 OF SEC 29 AS INDICATED IN SOURCES.						
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB.						
General:	3 ADULTS OBSERVED ON TWO DIFFERENT SITES ON 1-12-1990. NOT KNOWN HOW MANY AT EACH SITE. 3 ADULTS SEEN IN SE 1/4 SEC 29 ON 8-10-94.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	327	Map Index:	65391	EO Index:	65470	Element Last Seen:	1991-09-15
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1991-09-15
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-26
Quad Summary:	Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.31196 / -119.63899				Accuracy:	1/10 mile	
UTM:	Zone-11 N3910834 E260076				Elevation (ft):	1020	
PLSS:	T30S, R22E, Sec. 17, SW (M)				Acres:	0.0	
Location:	1.0 MILES WNW OF MCKITTRICK IN MCKITTRICK VALLEY.						
Detailed Location:	T30S R22E SW 1/4 OF SW 1/4 OF SEC 17.						
Ecological:	HABITAT CONSISTS OF NON-NATIVE GRASLAND AND VALLEY SALTBUSH SCRUB.						
General:	2 INDIVIDUALS OBSERVED ON 9-15-1991. LAND USED PARTIALLY FOR OIL FIELD DEVELOPMENT.						
Owner/Manager:	UNKNOWN						

Occurrence No.	330	Map Index:	69088	EO Index:	69863	Element Last Seen:	2006-06-27
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2006-06-27
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-04-30
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.35603 / -119.57513				Accuracy:	80 meters	
UTM:	Zone-11 N3915571 E266011				Elevation (ft):	532	
PLSS:	T29S, R22E, Sec. 35, SE (M)				Acres:	0.0	
Location:	ABOUT 4.4 AIR MILES NE OF MCKITTRICK AND 1 MILE EAST OF HIGHWAY 58.						
Detailed Location:	MAPPED ACCORDING TO LAT/LONG COORDINATES PROVIED BY SOURCE (WAYPOINT NAME = AMNE36).						
Ecological:	IODINE BUSH/SEEPWEED/SPINESCALE/ALLSCALE SERIES & CA ANNUAL GRASSLAND SERIES, W/ ALKALINE CLAY SOILS. DOMINANTS ARE ATRIPLEX POLYCARPA, A. SPINIFERA, ALLENROLFEA OCCIDENTALIS, BROMUS MADRITENSIS RUBENS, DEINANDRA PALLIDA.						
General:	3 ADULTS OBSERVED ON 27 JUN 2006.						
Owner/Manager:	UNKNOWN						

Occurrence No.	335	Map Index:	69102	EO Index:	69878	Element Last Seen:	2006-XX-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2006-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-04-30
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.15908 / -119.38493				Accuracy:	non-specific area	
UTM:	Zone-11 N3893289 E282771				Elevation (ft):	900	
PLSS:	T32S, R24E, Sec. 10 (M)				Acres:	644.0	
Location:	ABOUT 4.5 AIR MILES ENE OF TAFT, VICINITY OF HONOLULU HILLS RACEWAY.						
Detailed Location:	SOURCE GIVES T-R-S AS SW 1/4 OF SECTION 10 BUT ALSO STATES AND SHOWS POINTS WHERE SQUIRRELS WERE OBSERVED THROUGHOUT ENTIRE SECTION.						
Ecological:	VALLEY SALTBUSH SCRUB.						
General:	50-100+ ADULTS OBSERVED DURING SURVEY IN 2006.						
Owner/Manager:	PVT						



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Occurrence No.	336	Map Index:	71808	EO Index:	72693	Element Last Seen:	2007-08-09
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2007-08-09
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-07-25
Quad Summary:	Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.38721 / -119.52059				Accuracy:	specific area	
UTM:	Zone-11 N3918902 E271055				Elevation (ft):	265	
PLSS:	T29S, R23E, Sec. 20, SE (M)				Acres:	5.0	
Location:	ALONG EAST SIDE OF KERN RIVER FLOOD CANAL SOUTH OF SH58 (MCKITTRICK HWY), 1.2 MILES SE OF BM 268 (LOKERN), BUTTONWILLOW.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	LOKERN ECOLOGICAL RESERVE: IODINE BUSH, ALLSCALE, & CALIF. ANNUAL GRASSLAND SERIES, W/ ALKALINE CLAY SOILS. DOM SP- ATRIPLEX POLYCARPA, A. SPINIFERA, ALLENROLFEA OCCIDENTALIS, BROMUS MADRITENSIS RUBENS, DEINANDRA PALLIDA.						
General:	1 CAPTURED 9 AUG 2007.						
Owner/Manager:	UNKNOWN						

Occurrence No.	337	Map Index:	71810	EO Index:	72694	Element Last Seen:	2007-09-24
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2007-09-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-07-28
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.34191 / -119.45474				Accuracy:	80 meters	
UTM:	Zone-11 N3913726 E276913				Elevation (ft):	320	
PLSS:	T30S, R23E, Sec. 01, SE (M)				Acres:	0.0	
Location:	WEST SIDE OF CALIFORNIA AQUEDUCT, EAST OF ELK HILLS RD, 2.7 MILES ESE OF BM 360 ALONG UNIMPROVED ROAD, MC KITTRICK.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES; WAYPOINT = AMNE17.						
Ecological:	IODINE BUSH SERIES, ALLSCALE SERIES & CALIFORNIA ANNUAL GRASSLAND SERIES, WITH ALKALINE CLAY SOILS. DOM SP- ATRIPLEX POLYCARPA, A. SPINIFERA, ALLENROLFEA OCCIDENTALIS, BROMUS MADRITENSIS RUBENS, DEINANDRA PALLIDA.						
General:	1 ADULT CAPTURED ON 24 SEP 2007.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	338	Map Index:	71811	EO Index:	72695	Element Last Seen:	2007-09-24
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2007-09-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-07-28
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.33984 / -119.46549				Accuracy:	80 meters	
UTM:	Zone-11 N3913521 E275930				Elevation (ft):	360	
PLSS:	T30S, R23E, Sec. 11, NE (M)				Acres:	0.0	
Location:	JUST EAST OF ELK HILLS RD, 0.5 ROAD MILE SOUTH OF CALIF. AQUEDUCT, MC KITTRICK. AT THE SW EDGE OF LOKERN ER.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES; WAYPOINT = AMNE16.						
Ecological:	IODINE BUSH SERIES, ALLSCALE SERIES & CALIFORNIA ANNUAL GRASSLAND SERIES, WITH ALKALINE CLAY SOILS. DOM SP- ATRIPLEX POLYCARPA, A. SPINIFERA, ALLENROLFEA OCCIDENTALIS, BROMUS MADRITENSIS RUBENS, DEINANDRA PALLIDA.						
General:	1 ADULT CAPTURED ON 24 SEP 2007.						
Owner/Manager:	DFG-LOKERN ER, UNKNOWN						

Occurrence No.	340	Map Index:	87419	EO Index:	88413	Element Last Seen:	2016-09-08
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2016-09-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2017-03-20
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.15296 / -119.33507				Accuracy:	specific area	
UTM:	Zone-11 N3892503 E287298				Elevation (ft):	326	
PLSS:	T32S, R25E, Sec. 7, SW (M)				Acres:	9.0	
Location:	ACROSS LAKE STATION RD (EAST) FROM RICHFIELD OIL PUMPING PLANT, E SIDE OF BUENA VISTA HILLS, 6.8 MI E OF FORD CITY.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	2012: TRAPPING AREA CONTAINED SALT BUSH SCRUB HABITAT, ALKALI SINK HABITAT, AND AN AREA THAT WAS DENUDED FROM AGRICULTURAL USE. 2016: INDIVIDUAL FOUND ALONG ROADSIDE IN AREA USED FOR OIL AND GAS EXTRACTION, GRAZING, AG, AND OPEN SPACE.						
General:	1 MALE ADULT WEIGHING 145G AND POSSIBLY REPRODUCTIVE WAS CAPTURED ON 6 NOV 2012. 1 ADULT OBSERVED FORAGING ON 8 SEP 2016.						
Owner/Manager:	PVT, BLM						



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Occurrence No.	341	Map Index:	A0929	EO Index:	102489	Element Last Seen:	2016-01-11
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2016-01-11
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2016-07-05
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.28102 / -119.3531				Accuracy:	specific area	
UTM:	Zone-11 N3906747 E285992				Elevation (ft):	534	
PLSS:	T30S, R24E, Sec. 36, NW (M)				Acres:	10.0	
Location:	ELK HILLS OIL FIELD; W SIDE OF N ACCESS RD FROM ABOUT 0.9-1.2 MI SSW OF THE TUPMAN RD JUNCTION & 1.2-1.4 MI S OF TUPMAN.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	ALKALI SALTBUSH SCRUB HABITAT ON ROLLING HILLS. OIL PRODUCTION NEARBY, WITH INFRASTRUCTURE INCLUDING LARGE WELL PADS AND ABOVEGROUND PIPELINES.						
General:	1 OBSERVED ON 21 NOV 2013. 1 ADULT PHOTOGRAPHED AT CAMERA TRAP ON 11 JAN 2016. 1 ADULT OBSERVED ON 3 FEB 2016.						
Owner/Manager:	PVT						

Occurrence No.	344	Map Index:	A2558	EO Index:	104142	Element Last Seen:	2016-06-03
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2016-06-03
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2016-11-09
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.33356 / -119.58373				Accuracy:	specific area	
UTM:	Zone-11 N3913099 E265165				Elevation (ft):	744	
PLSS:	T30S, R22E, Sec. 11 (M)				Acres:	150.0	
Location:	ABOUT 2.5 MILES NE OF MCKITTRICK & 4.6 MILES SE OF HWY 33 AT CYMRIC RD, ELK HILLS AREA.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	OIL FIELDS IN LOW DENSITY VALLEY SALTBUSH SCRUB, NON-NATIVE GRASS.						
General:	4 ADULTS OBSERVED IN OCT & 1 IN DEC 2010. 57 OBSERVED, APR-MAY; 9 IN JUL-SEP & 1 IN NOV 2013. 4 ADULTS & 2 JUVENILES OBSERVED, 24 MAR; 6 OBS APR-MAY 2014. 2 ADULTS OBSERVED FORAGING ON 3 JUN 2016.						
Owner/Manager:	PVT						



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Occurrence No.	345	Map Index:	A3603	EO Index:	105240	Element Last Seen:	2016-05-13
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2016-05-13
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2017-02-06
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.29339 / -119.34308				Accuracy:	specific area	
UTM:	Zone-11 N3908098 E286936				Elevation (ft):	310	
PLSS:	T30S, R24E, Sec. 25, NE (M)				Acres:	14.0	
Location:	FROM ABOUT 0.1 MILES SE TO 0.25 MILES NE OF TUPMAN RD AT N ACCESS RD, 0.5 MILES SE OF ELK ST AT GRACE AVE IN TUPMAN.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	DOMINANT SHRUB WAS ATRIPLEX POLYCARPA, DOMINANT GRASS WAS BROMUS MADRITENSIS SSP. RUBENS. SITE IS IN ACTIVE OIL FIELD.						
General:	2 ADULTS OBSERVED ON 24 JUL 2013. UNKNOWN NUMBER HEARD VOCALIZING ON 12 MAY, 1 ADULT OBSERVED ON 13 MAY 2016.						
Owner/Manager:	PVT						
Occurrence No.	348	Map Index:	A3818	EO Index:	105473	Element Last Seen:	2016-09-08
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2016-09-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2017-03-03
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.15164 / -119.36893				Accuracy:	specific area	
UTM:	Zone-11 N3892428 E284210				Elevation (ft):	663	
PLSS:	T32S, R24E, Sec. 14, NW (M)				Acres:	23.0	
Location:	VICINITY OF HONOLULU RD ABOUT 1.5 MI NNE OF THE GARDNER FIELD RD INTERSECTION, 1.3 MI SW OF BUENA VISTA PUMPING PLANT.						
Detailed Location:	OIL FIELDS EAST OF TAFT. MAPPED TO PROVIDED COORDINATES.						
Ecological:	OBSERVED ALONG DRY WASHES, ROADS AND DRAINAGES. LAND USES INCLUDED OPEN SPACE, GRAZING, AND OIL AND GAS EXTRACTION.						
General:	2 ADULTS OBSERVED ON 30 AUG 2016. 2 ADULTS OBSERVED ON 6 SEP, 2 ADULTS ON 7 SEP, & 2 ON 8 SEP 2016.						
Owner/Manager:	BLM, PVT						



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Occurrence No.	349	Map Index:	A3820	EO Index:	105475	Element Last Seen:	2016-09-07
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2016-09-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2017-02-28
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.1545 / -119.35678				Accuracy:	specific area	
UTM:	Zone-11 N3892720 E285324				Elevation (ft):	632	
PLSS:	T32S, R24E, Sec. 12, SW (M)				Acres:	15.0	
Location:	ABOUT 1.7-2.1 MILES NE OF GARDNER FIELD RD AT HONOLULU RD, 0.5 TO 1.0 MILES SW OF BUENA VISTA PUMPING PLANT.						
Detailed Location:	OIL FIELDS EAST OF TAFT. MAPPED TO PROVIDED COORDINATES.						
Ecological:	DETECTED ALONG ACCESS ROADS, DRY WASHES, SCRUBLAND. LAND USES INCLUDED OPEN SPACE, OIL AND GAS EXTRACTION AND GRAZING. DISTURBANCE FROM EXISTING ROADS AND FACILITIES.						
General:	1 ADULT OBSERVED FORAGING ON 31 AUG 2016. 1 ADULT OBSERVED ON 6 SEP AND 1 ON 7 SEP 2016.						
Owner/Manager:	BLM, PVT						

Occurrence No.	350	Map Index:	A3869	EO Index:	105523	Element Last Seen:	2016-09-08
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2016-09-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2017-03-03
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.1555 / -119.4011				Accuracy:	80 meters	
UTM:	Zone-11 N3892927 E281289				Elevation (ft):	1056	
PLSS:	T32S, R24E, Sec. 9, SE (M)				Acres:	5.0	
Location:	TAFT OIL FIELDS; ABOUT 1.2 MILES SE OF AIRPORT RD AT HONOLULU RD AND 1.2 MILES NE OF GAS COMPANY RD AT SUNDOWN AVE.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	DRY WASHES AND ROADS. LAND USES INCLUDED OPEN SPACE, GRAZING, AND OIL AND GAS EXTRACTION.						
General:	1 ADULT OBSERVED ON 8 SEP 2016.						
Owner/Manager:	PVT						

Occurrence No.	352	Map Index:	A8030	EO Index:	109822	Element Last Seen:	2017-03-14
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2017-03-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2018-01-19
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.2693 / -119.33953				Accuracy:	specific area	
UTM:	Zone-11 N3905417 E287196				Elevation (ft):	606	
PLSS:	T30S, R25E, Sec. 31, SW (M)				Acres:	10.0	
Location:	ABOUT 1.2-1.3 MILES NE OF SKYLINE RD AT N ACCESS RD & 1.6 MILES WNW OF HWY 119 AT TUPMAN RD, ELK HILLS OIL FIELDS.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	SALTBUSH SCRUB AND ANNUAL GRASSLAND ON STEEP HILLS. LAND USED FOR OIL PRODUCTION AND SHEEP GRAZING.						
General:	1 OBSERVED ON 21 AUG 2013. 1 ADULT OBSERVED ON 14 MAR 2017.						
Owner/Manager:	PVT						



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Occurrence No.	353	Map Index:	A8350	EO Index:	110135	Element Last Seen:	2017-06-29
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2017-06-29
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2018-02-05
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.26689 / -119.33022				Accuracy:	specific area	
UTM:	Zone-11 N3905130 E288037				Elevation (ft):	509	
PLSS:	T31S, R25E, Sec. 6, NE (M)				Acres:	83.0	
Location:	VICINITY OF SKYLINE ROAD, FROM ABOUT 0.9 MILES NW TO 1.1 MILES WSW OF HWY 119 AT TUPMAN RD, 2.5 MILES SE OF TUPMAN.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	DIRT ACCESS ROAD IN VALLEY SALTBUSH SCRUB DOMINATED BY ATRIPLEX POLYCARPA. LAND USES INCLUDE OIL AND GAS DRILLING, PIPELINES, AND GRAZING.						
General:	1 FEMALE CAUGHT & RELEASED ON 5 AUG 2014. UP TO 40 INDIVIDUALS, INCLUDING PREGNANT FEMALES AND JUVENILES, OBSERVED OR TRAPPED MAR-JUN 2017.						
Owner/Manager:	BLM, PVT, DFG						

Occurrence No.	369	Map Index:	B2630	EO Index:	114564	Element Last Seen:	2017-04-19
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2017-04-19
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2019-03-19
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.33014 / -119.54982				Accuracy:	80 meters	
UTM:	Zone-11 N3912639 E268238				Elevation (ft):	746	
PLSS:	T30S, R23E, Sec. 7, SW (M)				Acres:	5.0	
Location:	ABOUT 4.4 MILES NE OF MCKITTRICK & 5.0 MILES SW OF BUTTONWILLOW DR AT BRITE RD, WEST ELK HILLS.						
Detailed Location:	MAPPED TO COORDINATES GIVEN FOR LOCATION 336-7R.						
Ecological:	VALLEY SALTBUSH SCRUB & NON-NATIVE GRASSLAND IN HIGHLY DEVELOPED OIL FIELDS. DISTURBANCE FROM WELL PADS, ROADS, PIPELINE RIGHT-OF-WAYS, AND TANK FACILITIES.						
General:	1 ADULT OBSERVED ON 19 APR 2017.						
Owner/Manager:	PVT						

Occurrence No.	370	Map Index:	B2631	EO Index:	114565	Element Last Seen:	2010-11-17
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2010-11-17
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2019-03-19
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.34031 / -119.55379				Accuracy:	80 meters	
UTM:	Zone-11 N3913776 E267906				Elevation (ft):	607	
PLSS:	T30S, R23E, Sec. 6, SW (M)				Acres:	5.0	
Location:	ABOUT 4.5 MILES NE OF MCKITTRICK & 4.9 MILES SW OF BUTTONWILLOW DR AT BRITE RD, WEST ELK HILLS.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	GRASSLAND IN OIL FIELD AND CATTLE GRAZING AREA.						
General:	1 ADULT OBSERVED ON 17 NOV 2010.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	371	Map Index:	B2632	EO Index:	114566	Element Last Seen:	2018-06-18
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2018-06-18
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2019-03-19
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.31987 / -119.53547				Accuracy:	specific area	
UTM:	Zone-11 N3911466 E269513				Elevation (ft):	847	
PLSS:	T30S, R23E, Sec. 17, NW (M)				Acres:	10.0	
Location:	ABOUT 5.0 MILES ENE OF MCKITTRICK & 4.8 MILES SW OF BUTTONWILLOW DR AT BRITE RD, WEST ELK HILLS.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	VALLEY SALTBUSSH SCRUB AND NON-NATIVE GRASSLAND IN AREA USED FOR OIL AND GAS PRODUCTION.						
General:	2 ADULTS OBSERVED ON 18 JUN 2018.						
Owner/Manager:	UNKNOWN						

Occurrence No.	372	Map Index:	B2636	EO Index:	114570	Element Last Seen:	2018-07-02
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2018-07-02
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2019-03-19
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.31459 / -119.55011				Accuracy:	specific area	
UTM:	Zone-11 N3910914 E268167				Elevation (ft):	1033	
PLSS:	T30S, R23E, Sec. 18, SW (M)				Acres:	11.0	
Location:	ABOUT 6.0 MILES E OF MCKITTRICK & 5.2 MILES SSW OF BUTTONWILLOW DR AT BRITE RD, WEST ELK HILLS.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	BURROWS IN SALTBUSSH SCRUB IN AREA USED FOR SHEEP GRAZING AND OIL AND GAS PRODUCTION.						
General:	1 ADULT OBSERVED ON 20 MAR, 3 ADULTS AND 1 JUVENILE ON 12 APR, & 1 ADULT ON 2 JUL 2018.						
Owner/Manager:	PVT						

Occurrence No.	373	Map Index:	B3140	EO Index:	115059	Element Last Seen:	2017-09-06
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2017-09-06
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2019-05-28
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.13717 / -119.48944				Accuracy:	specific area	
UTM:	Zone-11 N3891092 E273190				Elevation (ft):	1213	
PLSS:	T32S, R23E, Sec. 15, SE (M)				Acres:	15.0	
Location:	ALONG DIRT ROAD SOUTH OF MIDOIL RD, FROM ABOUT 0.5 MI WNW TO 0.7 MI W OF A ST AT ARROYO WAY IN TAFT.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	VALLEY SALTBUSSH SCRUB AND NON-NATIVE GRASSLAND IN AREA USED FOR OIL PRODUCTION. DISTURBANCE FROM DIRT ROADS, OIL PRODUCTION.						
General:	1 DETECTED ON 16 SEP 2016. 2 ADULTS OBSERVED FORAGING ALONG ROADWAY ON 6 SEP 2017.						
Owner/Manager:	BLM, UNKNOWN						



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Occurrence No.	374	Map Index:	B3600	EO Index:	115520	Element Last Seen:	2017-07-13
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2017-07-13
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2019-07-30
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.24716 / -119.38178				Accuracy:	specific area	
UTM:	Zone-11 N3903053 E283293				Elevation (ft):	613	
PLSS:	T31S, R24E, Sec. 10, NE (M)				Acres:	7.0	
Location:	ABOUT 1.3 MI NW OF GOLF COURSE RD AT BRANDY ST & 1.6 MI NNE OF HWY 119 AT SUNRIDGE RD, ELK HILLS.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES. 2017: LOCATION 63-10G.						
Ecological:	HIGHLY DEVELOPED OIL FIELD IN VALLEY SALTBUSH SCRUB AND NON-NATIVE GRASSLAND. DISTURBANCE FROM WELL PADS, ROADS, PIPELINE RIGHT-OF-WAYS AND TANK FACILITIES.						
General:	1 OBSERVED ON 5 SEP 2012. 2 ADULTS OBSERVED ON 13 JUL 2017.						
Owner/Manager:	PVT						

<i>Perognathus inornatus</i>				Element Code: AMAFD01060			
San Joaquin pocket mouse							
Listing Status:	Federal:	None			CNDDDB Element Ranks:	Global:	G3
	State:	None				State:	S2S3
	Other:	BLM_S-Sensitive, IUCN_LC-Least Concern					
Habitat:	General:	GRASSLAND, OAK SAVANNA AND ARID SCRUBLAND IN THE SOUTHERN SACRAMENTO VALLEY, SALINAS VALLEY, SAN JOAQUIN VALLEY AND ADJACENT FOOTHILLS, SOUTH TO THE MOJAVE DESERT.					
	Micro:	ASSOCIATED WITH FINE-TEXTURED, SANDY, FRIABLE SOILS.					

Occurrence No.	7	Map Index:	14963	EO Index:	2430	Element Last Seen:	1947-09-13
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1947-09-13
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1995-08-04
Quad Summary:	West Elk Hills (3511935), Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.33746 / -119.62124				Accuracy:	1 mile	
UTM:	Zone-11 N3913620 E261766				Elevation (ft):	1200	
PLSS:	T30S, R22E, Sec. 09, NW (M)				Acres:	0.0	
Location:	2 MILES NORTH OF MCKITTRICK.						
Detailed Location:							
Ecological:							
General:	MVZ #107437.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	8	Map Index:	14957	EO Index:	2981	Element Last Seen:	1911-05-21
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	1911-05-21		
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:	1989-08-10		

Quad Summary: West Elk Hills (3511935), Reward (3511936)

County Summary: Kern

Lat/Long:	35.30495 / -119.62429	Accuracy:	1 mile
UTM:	Zone-11 N3910021 E261393	Elevation (ft):	
PLSS:	T30S, R22E, Sec. 21 (M)	Acres:	0.0

Location: MCKITTRICK.

Detailed Location:

Ecological:

General: MVZ #14560.

Owner/Manager: UNKNOWN

Occurrence No.	62	Map Index:	64339	EO Index:	33293	Element Last Seen:	2003-XX-XX
Occ. Rank:	Poor	Presence:	Presumed Extant	Site Last Seen:	2003-XX-XX		
Occ. Type:	Natural/Native occurrence	Trend:	Increasing	Record Last Updated:	2006-08-02		

Quad Summary: West Elk Hills (3511935), Lokern (3511945)

County Summary: Kern

Lat/Long:	35.38241 / -119.60587	Accuracy:	non-specific area
UTM:	Zone-11 N3918571 E263294	Elevation (ft):	500
PLSS:	T29S, R22E, Sec. 27 (M)	Acres:	775.8

Location: LOKERN NATURAL AREA, 1 MILE SOUTH OF LOKERN ROAD, 7 MILES WEST OF BUTTONWILLOW.

Detailed Location:

Ecological: HABITAT CONSISTED OF GRAZED ATRIPLEX/CHENOPOD BUSHLAND, WHICH BURNED IN JULY 1997. EXOTIC ANNUAL GRASSES NOW DOMINATE THE HABITAT.

General: 1 ADULT OBSERVED ON 16 AUG 1997. 23 INDIVIDUALS CAPTURED IN SECTION 21, AND 28 IN SECTION 27, IN 2003; CATTLE WERE NOT PLACED ON THESE STUDY SITES IN 2003 AND POPULATIONS OF SJ POCKET MICE INCREASED OVER YEAR-EARLIER COUNTS.

Owner/Manager: PVT-CHEVRON



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Occurrence No.	67	Map Index:	15460	EO Index:	33736	Element Last Seen:	1990-XX-XX
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1990-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-05-07
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.31483 / -119.36228				Accuracy:	specific area	
UTM:	Zone-11 N3910517 E285246				Elevation (ft):	290	
PLSS:	T30S, R24E, Sec. 23 (M)				Acres:	938.8	
Location:	TULE ELK STATE RESERVE SP, NORTH OF TUPMAN AND SOUTH OF JUNCTION BELLEVUE ROAD AND I-5.						
Detailed Location:	CAPTURED THROUGHOUT TULE ELK RESERVE. CAPTURED IN UPPER PART OF RESERVE (NORTH OF MAIN CANAL) IN 1986-87, CAPTURED IN LOWER SECTION (SOUTH OF MAIN CANAL) IN 1990.						
Ecological:	ANNUAL GRASSLAND OF WEEDY, NON-NATIVE GRASSES, BROMUS & HORDEUM, & WEEDS SYMBRIUM & ERODIUM ON DRAINED LOKEN CLAY. FLAT AREA, INTERTWINED WITH OLD BEDS OF BUENA VISTA SLOUGH. LAND USE AS ELK RESERVE.						
General:	4 ANIMALS CAPTURED, 3 ADULTS AND 1 JUVENILE IN 1990. 6 ANIMALS CAPTURED IN 1986-87.						
Owner/Manager:	DPR-TULE ELK SNR, PVT-CHEVRON						

Occurrence No.	86	Map Index:	41619	EO Index:	41640	Element Last Seen:	1999-03-30
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-03-30
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1999-09-16
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.35873 / -119.55861				Accuracy:	non-specific area	
UTM:	Zone-11 N3915831 E267520				Elevation (ft):	475	
PLSS:	T29S, R22E, Sec. 36, SE (M)				Acres:	28.3	
Location:	5 MILES NE OF MCKITTRICK.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB (BURNED IN 1997).						
General:	1 ADULT FOUND DEAD ON 30 MAR 1999.						
Owner/Manager:	PVT						

Occurrence No.	102	Map Index:	62637	EO Index:	62676	Element Last Seen:	2003-05-11
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2003-05-11
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2005-09-21
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.33615 / -119.23013				Accuracy:	1/5 mile	
UTM:	Zone-11 N3912604 E297315				Elevation (ft):	340	
PLSS:	T30S, R26E, Sec. 07, NW (M)				Acres:	0.0	
Location:	VICINITY OF STRAND OIL FIELD. SOUTH OF PIONEER CANAL & NORTH OF THE KERN RIVER.						
Detailed Location:	MAPPED ACCORDING TO LAT-LONG GIVEN.						
Ecological:							
General:	2 MALES & 2 FEMALES CAPTURED 11-15 OCT 2002. 1 (SEX UNKNOWN) CAPTURED 7-11 MAY 2003.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	117	Map Index:	65555	EO Index:	65634	Element Last Seen:	1991-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1991-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-08-01
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.30939 / -119.39434				Accuracy:	non-specific area	
UTM:	Zone-11 N3909984 E282316				Elevation (ft):	400	
PLSS:	T30S, R24E, Sec. 21 (M)				Acres:	72.4	
Location:	2.5 MILES WNW OF TUPMAN.						
Detailed Location:	TRAPPING AREA IN NE 1/4 OF NE 1/4 OF SEC. 21 AND NW 1/4 OF NW 1/4 OF SEC. 22.						
Ecological:	DENSE GROUND COVER OF RED BROME AND RED-STEMMED FILAREE. DESERT SALTBUSH IS THE DOMINANT SHRUB.						
General:	LAND IS MANAGED FOR PETROLEUM PRODUCTION. 5 OBSERVED; TRAPPING PERIODS WERE 12-14 FEB., 11-13 JUN, AND 13-15 NOV 1991.						
Owner/Manager:	PVT, DOE						

Occurrence No.	118	Map Index:	65556	EO Index:	65635	Element Last Seen:	1991-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1991-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-08-01
Quad Summary:	East Elk Hills (3511934), West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.28073 / -119.53199				Accuracy:	non-specific area	
UTM:	Zone-11 N3907116 E269718				Elevation (ft):	1300	
PLSS:	T30S, R23E, Sec. 32 (M)				Acres:	3205.8	
Location:	9.5-12.5 MILES WEST OF TUPMAN.						
Detailed Location:	TRAPPING AREA IS IN NO. 1 BURN STUDY SITE, IN SECTIONS 29-33.						
Ecological:	DENSE GROUND COVER OF RED BROME AND RED-STEMMED FILAREE. DESERT SALTBUSH IS THE DOMINANT SHRUB.						
General:	LAND IS MANAGED FOR PETROLEUM PRODUCTION. 172 CAPTURED, TRAPPING PERIODS WERE 22-24 JAN, 12-14 MAR, 9-11 JUL, AND 29-31 OCT 1991.						
Owner/Manager:	DOE						

Occurrence No.	122	Map Index:	65576	EO Index:	65655	Element Last Seen:	2002-05-04
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2002-05-04
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-08-02
Quad Summary:	Buttonwillow (3511944)						
County Summary:	Kern						
Lat/Long:	35.39991 / -119.45373				Accuracy:	80 meters	
UTM:	Zone-11 N3920158 E277164				Elevation (ft):	280	
PLSS:	T29S, R23E, Sec. 13, SE (M)				Acres:	0.0	
Location:	EAST OF BUTTONWILLOW, ABOUT 0.36 MILES WEST OF INTERSECTION OF HWY 58 AND WASCO AVE, ON NORTH SIDE OF HWY 58.						
Detailed Location:	MAPPED ACCORDING TO LAT/LONG COORDINATES GIVEN.						
Ecological:							
General:	2 SPECIMENS, SEX UNKNOWN, CAPTURED BETWEEN 1-4 MAY 2002.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	124	Map Index:	65193	EO Index:	65661	Element Last Seen:	2003-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2003-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-08-02
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.36152 / -119.61559				Accuracy:	specific area	
UTM:	Zone-11 N3916276 E262350				Elevation (ft):	590	
PLSS:	T29S, R22E, Sec. 33 (M)				Acres:	35.9	
Location:	ABOUT 3.6 AIR MILES SE OF INTERSECTION OF LOKERN RD AND HWY 33.						
Detailed Location:							
Ecological:	IN 2003 THERE WAS BELOW AVERAGE RAINFALL AND THE 4TH CONSECUTIVE YEAR OF DRY CONDITIONS. SUMMER VEGETATION STRUCTURE & BIOMASS WERE LOW. BECAUSE THERE WAS LITTLE NEW GRASS GROWTH, NO CATTLE PLACED ON STUDY SITE IN 2003.						
General:	10 INDIVIDUALS TRAPPED ON TREATMENT PLOT 33T.						
Owner/Manager:	CNLM-LOKERN NATURAL AREA						

Occurrence No.	143	Map Index:	A2428	EO Index:	104040	Element Last Seen:	2016-05-14
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2016-05-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2016-11-15
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.29611 / -119.20176				Accuracy:	specific area	
UTM:	Zone-11 N3908105 E299796				Elevation (ft):	332	
PLSS:	T30S, R26E, Sec. 29 (M)				Acres:	6.0	
Location:	ALONG PANAMA LN NEAR TEN SECTION OIL FIELD, ABOUT 2.8 MILES EAST OF ENOS LN (HWY 43) & I-5, SW OF BAKERSFIELD.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES FOR TWO TRAP LOCATIONS.						
Ecological:	ROAD SHOULDER DOMINATED BY INTRODUCED ANNUAL GRASSES & FORBS. ADJACENT HABITAT WAS MESQUITE/SALTBUSH SHRUBLAND.						
General:	2 ADULT FEMALES TRAPPED DURING KANGAROO RAT SURVEYS, 12-14 MAY 2016.						
Owner/Manager:	CITY OF BAKERSFIELD						



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Occurrence No.	144	Map Index:	A9420	EO Index:	111268	Element Last Seen:	2017-05-21
Occ. Rank:	Excellent	Presence:	Presumed Extant	Site Last Seen:	2017-05-21	Record Last Updated:	2018-05-15
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.15485 / -119.33523				Accuracy:	80 meters	
UTM:	Zone-11 N3892712 E287289				Elevation (ft):	324	
PLSS:	T32S, R25E, Sec. 7, SW (M)				Acres:	5.0	
Location:	ACROSS LAKE STATION RD (EAST) FROM RICHFIELD OIL PUMPING PLANT, E SIDE OF BUENA VISTA HILLS, 6.8 MI E OF FORD CITY.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	VALLEY SALTBUCH SCRUB. AREA USED FOR OIL AND GAS EXTRACTION/PROCESSING.						
General:	1 ADULT MALE CAUGHT AND RELEASED DURING TIPTON KANGAROO RAT TRAPPING SURVEY 20-21 MAY 2017.						
Owner/Manager:	PVT						

Dipodomys ingens				Element Code: AMAFD03080			
giant kangaroo rat							
Listing Status:	Federal:	Endangered	CNDDDB Element Ranks:		Global:	G1G2	
	State:	Endangered			State:	S2	
	Other:	IUCN_EN-Endangered					
Habitat:	General:	ANNUAL GRASSLANDS ON THE WESTERN SIDE OF THE SAN JOAQUIN VALLEY, MARGINAL HABITAT IN ALKALI SCRUB.					
	Micro:	NEED LEVEL TERRAIN AND SANDY LOAM SOILS FOR BURROWING.					

Occurrence No.	30	Map Index:	14900	EO Index:	24058	Element Last Seen:	1979-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1979-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1995-10-25
Quad Summary:	Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.30774 / -119.65568				Accuracy:	1 mile	
UTM:	Zone-11 N3910406 E258546				Elevation (ft):	1400	
PLSS:	T30S, R22E, Sec. 19 (M)				Acres:	0.0	
Location:	1.8 MI W MCKITTRICK IN GETTY OIL FIELDS.						
Detailed Location:							
Ecological:							
General:	2 CM SPECIMENS & 4 SPMNH SPECIMENS FROM 1978.						
Owner/Manager:	PVT-GETTY OIL CO						



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Occurrence No.	46	Map Index:	15102	EO Index:	24056	Element Last Seen:	2004-09-20
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2004-09-20
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-12-07
Quad Summary:	East Elk Hills (3511934), West Elk Hills (3511935), Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.37096 / -119.54445				Accuracy:	non-specific area	
UTM:	Zone-11 N3917155 E268841				Elevation (ft):	380	
PLSS:	T29S, R23E, Sec. 30 (M)				Acres:	5782.7	
Location:	5 MILES SOUTHWEST OF BUTTONWILLOW.						
Detailed Location:	NIC87F0007 & NIC87F0008 STATE T29S R22E SEC 21-28, T29S R22E SEC 19-30, BUT DESCRIPTIONS ARE TOO VAGUE TO MAP.						
Ecological:	HABITAT CONSISTS OF SALTBUSH SCRUB (BURNED IN 1997); SOME SHEEP GRAZING. WAR04F32 STATES OPEN GRASSLAND, PREVIOUSLY BURNED SALTBUSH SCRUB.						
General:	COLONIES VERIFIED BWTWEEN 1979 & 1986 AS INHABITED. COLONY VISITED JUNE 1987; GKR ACTIVITY OBS. 100+ ABANDONED PRECINCTS OBS MARCH 1999, MOSTLY IN SEC 36. 5 INDIV CAPTURED AT DIFFERENT SITES DURING TRAP SESSION FROM 14 TO 24 SEP 2004.						
Owner/Manager:	PVT, CENTER FOR NAT LANDS MGMT						

Occurrence No.	91	Map Index:	14976	EO Index:	24040	Element Last Seen:	1979-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1985-02-XX
Occ. Type:	Natural/Native occurrence			Trend:	Decreasing	Record Last Updated:	1989-08-10
Quad Summary:	West Elk Hills (3511935), Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.27218 / -119.61596				Accuracy:	1 mile	
UTM:	Zone-11 N3906365 E262054				Elevation (ft):	1375	
PLSS:	T30S, R22E, Sec. 33 (M)				Acres:	0.0	
Location:	1.8 MI N DERBY ACRES VIA HWY 33.						
Detailed Location:	WILLIAMS DID NOT OBS ANY EXTANT PRECINCTS IN 1985 BUT SAYS A FEW MAY STILL EXIST ON THE PERIPHERY OF THE RIFLE RANGE.						
Ecological:	COLONY VIRTUALLY DESTROYED BY CONSTRUCTION OF A RIFLE RANGE BY THE TAFT SILHOUETTE CLUB.						
General:	2 CM SPECIMENS COLL IN 1979.						
Owner/Manager:	BLM-CALIENTE RA, PVT						



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Occurrence No.	92	Map Index:	15684	EO Index:	24039	Element Last Seen:	1979-XX-XX
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	1979-XX-XX	Record Last Updated:	1989-08-10
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				

Quad Summary: Millux (3511922)

County Summary: Kern

Lat/Long:	35.20301 / -119.19122	Accuracy:	1 mile
UTM:	Zone-11 N3897756 E300525	Elevation (ft):	295
PLSS:	T31S, R26E, Sec. 28 (M)	Acres:	0.0

Location: APPROX 2 MI E OF OLD BUENA VISTA LAKE BED.

Detailed Location:

Ecological:

General: COLONY VERIFIED (SOMETIME BTWN 1979 & 1986) AS INHABITED. CORRENT STATUS OF COLONY UNKNOWN.

Owner/Manager: PVT

Occurrence No.	93	Map Index:	15517	EO Index:	24037	Element Last Seen:	1989-05-12
Occ. Rank:	Good	Presence:	Presumed Extant	Site Last Seen:	1989-05-12	Record Last Updated:	2006-07-18
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				

Quad Summary: Mouth of Kern (3511923)

County Summary: Kern

Lat/Long:	35.15635 / -119.32318	Accuracy:	1 mile
UTM:	Zone-11 N3892853 E288390	Elevation (ft):	300
PLSS:	T32S, R25E, Sec. 07 (M)	Acres:	0.0

Location: NEAR SW SHORE OLD BUENA VISTA LAKE BED.

Detailed Location: COLONY VERIFIED (SOMETIME BTWN 1979 & 1986) AS INHABITED. OBS IN PORTIONS OF SECS 7 & 8. CURRENT STATUS OF COLONY UNKNOWN. NIC87F0010 INCLUDES ALL OF SECTIONS 6, 7 & 18.

Ecological: NIC87F10: VALLEY SALT BUSH SCRUB TO INTERIOR COAST RANGE SCRUB & VALLEY SINK SCRUB PRESENT. UNDERSTORY DOMINATED BY NON-NATIVE ANNUAL GRASSES W/ FAIRLY HOMOGENOUS STANDS OF ATRIPLEX POLYCARPA. SCATTERED WEEDY SPECIES PRESENT.

General: NIC87F10: OTHER NOTABLE BIOLOGICAL RESOURCES: EREMACHE PARRYI, ROADRUNNER, ACHILLEA GIGANTEA ALONG N OF AQUEDUCT W/ ALLENROLFEA OCCIDENTALIS. PUPPING DEN LOCATED ON 19 OCT 1987. OFA87R01: BURROW SYSTEM OBS IN SE 1/4 OF NE 1/4 OF SEC 18.

Owner/Manager: PVT



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Occurrence No.	96	Map Index:	33882	EO Index:	24036	Element Last Seen:	1979-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1979-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-08-04
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.26443 / -119.59910				Accuracy:	2/5 mile	
UTM:	Zone-11 N3905465 E263565				Elevation (ft):	1400	
PLSS:	T31S, R22E, Sec. 03 (M)				Acres:	0.0	
Location:	1 MI N DERBY ACRES.						
Detailed Location:	COLONY(IES) VERIFIED (SOMETIME BTWN 1979 & 1986) AS INHABITED BUT CURRENT STATUS UNKNOWN.						
Ecological:							
General:							
Owner/Manager:	PVT, UNKNOWN, BLM						

Occurrence No.	117	Map Index:	15218	EO Index:	24022	Element Last Seen:	1986-07-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1986-07-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1989-08-10
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.14520 / -119.51143				Accuracy:	1/5 mile	
UTM:	Zone-11 N3892032 E271208				Elevation (ft):	1350	
PLSS:	T32S, R23E, Sec. 16, NW (M)				Acres:	0.0	
Location:	APPROX 4 RD MI NW OF TAFT ON MIDOIL RD BTWN TAFT & FELLOWS.						
Detailed Location:							
Ecological:							
General:	ONE DOR REPORTED BY G. LAWRENCE.						
Owner/Manager:	PVT						

Occurrence No.	118	Map Index:	14933	EO Index:	24018	Element Last Seen:	1987-09-16
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-09-16
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1995-11-14
Quad Summary:	Panorama Hills (3511926)						
County Summary:	Kern						
Lat/Long:	35.22607 / -119.63513				Accuracy:	1/5 mile	
UTM:	Zone-11 N3901296 E260174				Elevation (ft):	1850	
PLSS:	T31S, R22E, Sec. 17, SW (M)				Acres:	0.0	
Location:	NEAR BASE OF TELEPHONE HILLS, RIDGETOP SOUTH OF CROCKER SPRINGS CANYON, 900 FEET SOUTH OF COUNTY ROAD.						
Detailed Location:	AT LEAST 8 PRECINCTS LOCATED, NO INDIVS OBS IN 1987.						
Ecological:	FOUND IN VALLEY SALTBUSH SCRUB DOMINATED BY ATRIPLEX SPINIFERA AND BROMUS RUBENS IN LIGHT ALKALINE SOIL.						
General:	SAN JOAQUIN ANTELOPE GROUND SQUIRRELS AND KIT FOX PRESENT. SITE PRIVATELY OWNED BY SUN ENERGY AND PROD COMPANY.						
Owner/Manager:	PVT						



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Occurrence No.	119	Map Index:	64368	EO Index:	24016	Element Last Seen:	1990-06-15
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1990-06-15
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-20
Quad Summary:	Tupman (3511933), East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.30842 / -119.39402			Accuracy:	non-specific area		
UTM:	Zone-11 N3909876 E282342			Elevation (ft):	400		
PLSS:	T30S, R24E, Sec. 22, NE (M)			Acres:	3273.9		
Location:	2.5 AIR MI WNW OF TUPMAN.						
Detailed Location:	46 INDIVIDUALS OBS DURING THREE SURVEY PERIODS: 30 MARCH-1 APRIL, 20-22 JULY, AND 2-4 NOVEMBER, 1988. DETAILED SOIL INFORMATION IN OFA87R0001.						
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	31 OBS 22-24 FEB, 20-22 JUN & 7-9 NOV 1989; FEWER OBS THAN LAST VISIT. 1 INDIV OBS BETWEEN 13-15 FEB & 13-15 JUN 1990. BURROW SYSTEMS OBS IN 1987. NO SHRUBS IN SEC 22 (PVT LAND). RANGE FIRES OCCUR OVER LARGE AREAS YEARLY.						
Owner/Manager:	DOE, PVT, DOD-NAVAL PETROL RES						

Occurrence No.	120	Map Index:	41632	EO Index:	41632	Element Last Seen:	199X-XX-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-03-30
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1999-09-15
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.34632 / -119.58378			Accuracy:	80 meters		
UTM:	Zone-11 N3914514 E265197			Elevation (ft):	625		
PLSS:	T30S, R22E, Sec. 02, SW (M)			Acres:	0.0		
Location:	1 MILE EAST OF HIGHWAY 58, 3.5 MILES NNE OF MCKITTRICK.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF SALTBUSH SCRUB (BURNED IN 1997); SURROUNDED BY SHEEP GRAZING.						
General:	1 ABANDONED PRECINCT OBSERVED ON 30 MAR 1999.						
Owner/Manager:	BLM						



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Occurrence No.	121	Map Index:	41618	EO Index:	41633	Element Last Seen:	1999-03-30
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-03-30
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1999-09-16
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.34149 / -119.59548				Accuracy:	80 meters	
UTM:	Zone-11 N3914006 E264119				Elevation (ft):	700	
PLSS:	T30S, R22E, Sec. 03, SE (M)				Acres:	0.0	
Location:	3 MILES NNE OF MCKITTRICK.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF SALTBUSSH SCRUB; SURROUNDING AREA GRAZED BY SHEEP.						
General:	50+ ABANDONED PRECINCTS AND 1 DEAD ADULT GKR OBSERVED ON 30 MAR 1999.						
Owner/Manager:	PVT						

Occurrence No.	122	Map Index:	41634	EO Index:	41634	Element Last Seen:	1996-XX-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-04-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1999-09-15
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.32863 / -119.60157				Accuracy:	80 meters	
UTM:	Zone-11 N3912593 E263528				Elevation (ft):	750	
PLSS:	T30S, R22E, Sec. 10, SW (M)				Acres:	0.0	
Location:	2 MILES NNE OF MCKITTRICK.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF SALTBUSSH SCRUB.						
General:	COLONY WAS ACTIVE IN 1996; ABANDONED BY 8 APR 1999.						
Owner/Manager:	BLM						

Occurrence No.	123	Map Index:	41635	EO Index:	41635	Element Last Seen:	199X-XX-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-04-16
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1999-09-15
Quad Summary:	Panorama Hills (3511926)						
County Summary:	Kern						
Lat/Long:	35.24890 / -119.62743				Accuracy:	80 meters	
UTM:	Zone-11 N3903810 E260942				Elevation (ft):	1750	
PLSS:	T31S, R22E, Sec. 08, NE (M)				Acres:	0.0	
Location:	NORTH OF BUENA VISTA CREEK, IN THE TELEPHONE HILLS, NE OF THE CARRIZO PLAIN.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF FOOTHILL GRASSLAND; SURROUNDED BY OIL DEVLEOPMENT.						
General:	25+ ABANDONED PRECINCTS OBSERVED ON 16 APR 1999.						
Owner/Manager:	PVT						



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Occurrence No.	124	Map Index:	41636	EO Index:	41636	Element Last Seen:	199X-XX-XX
Occ. Rank:	Good	Presence:	Presumed Extant	Site Last Seen:		1999-04-20	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		1999-09-15	

Quad Summary: Panorama Hills (3511926)

County Summary: Kern

Lat/Long:	35.23563 / -119.63211	Accuracy:	80 meters
UTM:	Zone-11 N3902349 E260477	Elevation (ft):	1750
PLSS:	T31S, R22E, Sec. 17, NE (M)	Acres:	0.0

Location: SOUTH OF BUENA VISTA CREEK, IN THE TELEPHONE HILLS, NE OF THE CARRIZO PLAIN.

Detailed Location:

Ecological: HABITAT CONSISTS OF FOOTHILL GRASSLAND; SURROUNDED BY OIL DEVLEOPMENT.

General: 30+ INACTIVE BURROWS OBSERVED ON 20 APR 1999.

Owner/Manager: PVT

Occurrence No.	125	Map Index:	41637	EO Index:	41637	Element Last Seen:	1993-09-27
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		1993-09-27	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2006-07-19	

Quad Summary: Taft (3511924), Fellows (3511925), East Elk Hills (3511934), West Elk Hills (3511935)

County Summary: Kern

Lat/Long:	35.25028 / -119.50285	Accuracy:	non-specific area
UTM:	Zone-11 N3903670 E272283	Elevation (ft):	850
PLSS:	T31S, R23E, Sec. 09 (M)	Acres:	7115.5

Location: BUENA VISTA VALLEY, 5 MILES NORTH OF TAFT, WEST OF ELK HILLS ROAD, EAST OF HWY 33 & SOUTH OF SKYLINE ROAD.

Detailed Location:

Ecological: SJ SALT BUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.

General: BREEDING, FORAGING, WINTERING, & DENNING SITE. 5 OBSERVED 14 JUL 1993; 1 OBS 27 SEP 1993. 2 OBS 10-13 JUL 1990; TRAPS SET ALONG A PROPOSED SOUTHERN CA GAS COMPANY PIPELINE. BURROW SYSTEMS OBS IN 1987.

Owner/Manager: DOE-NAVAL PETROLEUM RES, BLM



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Occurrence No.	128	Map Index:	48992	EO Index:	48992	Element Last Seen:	1987-XX-XX
Occ. Rank:	None			Presence:	Extirpated	Site Last Seen:	2001-01-29
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-19
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.19566 / -119.52793				Accuracy:	specific area	
UTM:	Zone-11 N3897669 E269847				Elevation (ft):	1100	
PLSS:	T31S, R23E, Sec. 29 (M)				Acres:	43.2	
Location:	1.3 MILES NE OF FELLOWS; 1 MILE NORTH OF MIDWAY ROAD AND 0.6 TO 1 MILE EAST OF STATE ROUTE 33.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	2 ABANDONED COLONIES OBS 29 JAN 2001. BURROW SYSTEMS OBS 1987. RESIDUAL/ALLUVIAL SOIL. FLAT AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER AND SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	BLM, PVT, DOD-NAVAL PET RES						

Occurrence No.	129	Map Index:	49010	EO Index:	49010	Element Last Seen:	XXXX-XX-XX
Occ. Rank:	None			Presence:	Extirpated	Site Last Seen:	2001-02-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-10-11
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.18227 / -119.43833				Accuracy:	non-specific area	
UTM:	Zone-11 N3895979 E277970				Elevation (ft):	650	
PLSS:	T31S, R24E, Sec. 31 (M)				Acres:	52.4	
Location:	3 MILES NNE OF TAFT; PRIMARILY BETWEEN UNNAMED ROAD (DIRECTLY EAST OF MIDWAY ROAD) AND STATE ROUTE 119.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF SALTBUSH SCRUB.						
General:	ABANDONED COLONY OBSERVED ON 7 FEB 2001.						
Owner/Manager:	DOE, PVT						



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Occurrence No.	130	Map Index:	49082	EO Index:	49082	Element Last Seen:	1987-XX-XX
Occ. Rank:	None			Presence:	Extirpated	Site Last Seen:	2001-04-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-19
Quad Summary:	Taft (3511924), Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.17013 / -119.49578				Accuracy:	non-specific area	
UTM:	Zone-11 N3894763 E272703				Elevation (ft):	1000	
PLSS:	T32S, R23E, Sec. 03 (M)				Acres:	181.7	
Location:	2.4 MILES NW OF FORD CITY; SOUTH OF MIDWAY ROAD AND NORTH OF STATE ROUTE 33.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	SEVERAL COLONIES THAT APPEARED ABANDONED OBS 24 APR 2001. BURROW SYSTEMS OBS IN 1987. RESIDUAL/ALLUVIAL SOILS. FLAT AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER & SHRUBS OVER LARGE ACREAGES EACH YR.						
Owner/Manager:	PVT, DOD-NAVAL PET RES, BLM						

Occurrence No.	135	Map Index:	63706	EO Index:	63801	Element Last Seen:	2005-04-06
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2005-04-06
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-01-18
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.14039 / -119.52322				Accuracy:	80 meters	
UTM:	Zone-11 N3891526 E270120				Elevation (ft):	1590	
PLSS:	T32S, R23E, Sec. 17, SE (M)				Acres:	0.0	
Location:	SOUTH OF SEVENTEEN CANYON. ABOUT 3.5 MILES WEST OF TAFT.						
Detailed Location:	NUMEROUS PRECINCTS HAVE BEEN OBSERVED IN THE GENERAL AREA.						
Ecological:	VALLEY SALTBUSH SCRUB HABITAT IN A MODERATELY DEVELOPED OIL FIELD AT THE BASE OF THE TEMBLOR RANGE.						
General:	1 YOUNG/ADULT MALE TRAPPED AT THE EDGE OF AN EXISTING WELL LOCATION. BURROW ALSO OBSERVED. SAN JOAQUIN ANTELOPE SQUIRREL ALSO FOUND.						
Owner/Manager:	PVT-CHEVRON						



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Occurrence No.	146	Map Index:	65180	EO Index:	65259	Element Last Seen:	1987-10-19
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1987-10-19
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-17
Quad Summary:	Mouth of Kern (3511923), Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.23268 / -119.33231				Accuracy:	non-specific area	
UTM:	Zone-11 N3901340 E287757				Elevation (ft):	300	
PLSS:	T31S, R25E, Sec. 18 (M)				Acres:	1935.2	
Location:	NEAR NE SHORE OF BUENA VISTA LAKE BED, EAST OF HWY 119.						
Detailed Location:							
Ecological:	VALLEY SALTBUSH SCRUB TO INTERIOR COAST RANGE SCRUB & VALLEY SINK SCRUB PRESENT. UNDERSTORY DOMINATED BY NON-NATIVE ANNUAL GRASSES W/ FAIRLY HOMOGENOUS STANDS OF ATRIPLEX POLYCARPA. SCATTERED WEEDY SPECIES, MESEMBRYANTHEMUM CRYSTALLINUM.						
General:	OTHER NOTABLE BIOLOGICAL RESOURCES INCLUDE EREMACHE PARRYI, ROADRUNNER, ACHILLEA GIGANTEA ALONG N SIDE OF AQUEDUCT WITH ALLENROLFEA OCCIDENTALIS.						
Owner/Manager:	UNKNOWN						

Occurrence No.	151	Map Index:	65193	EO Index:	65272	Element Last Seen:	2003-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2003-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-18
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.36152 / -119.61559				Accuracy:	specific area	
UTM:	Zone-11 N3916276 E262350				Elevation (ft):	590	
PLSS:	T29S, R22E, Sec. 33 (M)				Acres:	35.9	
Location:	ABOUT 3.6 AIR MILES SE OF INTERSECTION OF LOKERN RD AND HWY 33.						
Detailed Location:							
Ecological:	IN 2003 THERE WAS BELOW AVERAGE RAINFALL & THE 4TH CONSECUTIVE YEAR OF DRY CONDITIONS. SUMMER VEGETATION STRUCTURE & BIOMASS WERE LOW. BECAUSE THERE WAS LITTLE NEW GRASS GROWTH, NO CATTLE PLACED ON STUDY SITE IN 2003.						
General:	3 INDIVIDUALS CAPTURED ON 19 DEC 2003 DURING 7TH YEAR OF CENSUSES ON LOKERN NATURAL AREA STUDY SITE.						
Owner/Manager:	CNLM-LOKERN NATURAL AREA						



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Occurrence No.	152	Map Index:	65196	EO Index:	65275	Element Last Seen:	1987-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-19
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.14479 / -119.34339			Accuracy:	1/5 mile		
UTM:	Zone-11 N3891613 E286518			Elevation (ft):	420		
PLSS:	T32S, R24E, Sec. 13 (M)			Acres:	0.0		
Location:	JUST EAST OF CALIFORNIA AQUEDUCT, ON EASTERN EDGE OF BUENA VISTA HILLS, 6.4 AIR MILES EAST OF TAFT.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	BURROW SYSTEMS OBSERVED. SOILS ARE RESIDUAL AND ALLUVIAL, AND DERIVED FROM ANCIENT MARINE DEPOSITS. FLATTER AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER AND SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES						
Occurrence No.	153	Map Index:	65197	EO Index:	65276	Element Last Seen:	1987-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-19
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.17802 / -119.36659			Accuracy:	non-specific area		
UTM:	Zone-11 N3895350 E284492			Elevation (ft):	380		
PLSS:	T32S, R24E, Sec. 02 (M)			Acres:	108.8		
Location:	SOUTHWEST OF BUENA VISTA LAKE BED. ABOUT 1.7 MILES NORTHWEST OF BUENA VISTA PUMPING PLANT ON THE CALIFORNIA AQUEDUCT.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	BURROW SYSTEMS OBSERVED. SOILS ARE RESIDUAL AND ALLUVIAL, AND DERIVED FROM ANCIENT MARINE DEPOSITS. FLATTER AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER AND SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES						



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Occurrence No.	154	Map Index:	65198	EO Index:	65277	Element Last Seen:	1987-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-19
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.18429 / -119.49389				Accuracy:	non-specific area	
UTM:	Zone-11 N3896330 E272914				Elevation (ft):	950	
PLSS:	T31S, R23E, Sec. 34, SW (M)				Acres:	68.6	
Location:	ABOUT 2.8 MI NORTHWEST OF FORD CITY, JUST NORTH OF MIDWAY ROAD.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	BURROW SYSTEMS OBSERVED. SOILS ARE RESIDUAL AND ALLUVIAL, AND DERIVED FROM ANCIENT MARINE DEPOSITS. FLATTER AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER AND SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES						

Occurrence No.	155	Map Index:	65200	EO Index:	65279	Element Last Seen:	1987-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-19
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.15480 / -119.34958				Accuracy:	1/5 mile	
UTM:	Zone-11 N3892737 E285980				Elevation (ft):	500	
PLSS:	T32S, R24E, Sec. 12 (M)				Acres:	0.0	
Location:	BUENA VISTA HILLS, ON CALIFORNIA AQUEDUCT, 6.2 MI ENE OF TAFT.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	BURROW SYSTEMS OBSERVED. SOILS ARE RESIDUAL AND ALLUVIAL, AND DERIVED FROM ANCIENT MARINE DEPOSITS. FLATTER AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER AND SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES						



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Occurrence No.	156	Map Index:	65201	EO Index:	65280	Element Last Seen:	1987-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-19
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.18911 / -119.47273				Accuracy:	1/5 mile	
UTM:	Zone-11 N3896816 E274855				Elevation (ft):	860	
PLSS:	T31S, R23E, Sec. 35, NE (M)				Acres:	0.0	
Location:	BUENA VISTA HILLS, ABOUT 2.6 AIR MI NNW OF FORD CITY, 0.6 MI NORTH OF MIDWAY ROAD.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	BURROW SYSTEMS OBSERVED. SOILS ARE RESIDUAL AND ALLUVIAL, AND DERIVED FROM ANCIENT MARINE DEPOSITS. FLATTER AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER AND SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES						

Occurrence No.	157	Map Index:	65202	EO Index:	65281	Element Last Seen:	1987-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-19
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.19895 / -119.44121				Accuracy:	1/5 mile	
UTM:	Zone-11 N3897836 E277752				Elevation (ft):	570	
PLSS:	T31S, R24E, Sec. 30, SW (M)				Acres:	0.0	
Location:	ABOUT 2 MI WSW OF VALLEY ACRES, 1 MI SW OF INTERSECTION OF AIRPORT ROAD AND VALLEY WEST ROAD.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	BURROW SYSTEMS OBSERVED. SOILS ARE RESIDUAL AND ALLUVIAL, AND DERIVED FROM ANCIENT MARINE DEPOSITS. FLATTER AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER AND SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES						



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Occurrence No.	158	Map Index:	65203	EO Index:	65282	Element Last Seen:	1987-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-19
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.20194 / -119.45633				Accuracy:	non-specific area	
UTM:	Zone-11 N3898202 E276384				Elevation (ft):	720	
PLSS:	T31S, R23E, Sec. 25 (M)				Acres:	131.8	
Location:	ABOUT 2.8 AIR MI W OF VALLEY ACRES, 1.6 MI WSW OF INTERSECTION OF AIPORT ROAD AND VALLEY WEST ROAD.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	BURROW SYSTEMS OBSERVED. SOILS ARE RESIDUAL AND ALLUVIAL, AND DERIVED FROM ANCIENT MARINE DEPOSITS. FLATTER AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER AND SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES						

Occurrence No.	159	Map Index:	65204	EO Index:	65283	Element Last Seen:	1987-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-19
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.19969 / -119.47878				Accuracy:	non-specific area	
UTM:	Zone-11 N3898003 E274333				Elevation (ft):	1070	
PLSS:	T31S, R23E, Sec. 26, SW (M)				Acres:	84.7	
Location:	BUENA VISTA HILLS, ABOUT 2.3 MI NNW OF WALLACE CENTER, 1.3 MI N OF MIDWAY RD.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	BURROW SYSTEMS OBSERVED. SOILS ARE RESIDUAL AND ALLUVIAL, AND DERIVED FROM ANCIENT MARINE DEPOSITS. FLATTER AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER AND SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES						



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Occurrence No.	160	Map Index:	65205	EO Index:	65284	Element Last Seen:	1987-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-19
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.20043 / -119.48909				Accuracy:	1/5 mile	
UTM:	Zone-11 N3898108 E273397				Elevation (ft):	1190	
PLSS:	T31S, R23E, Sec. 27 (M)				Acres:	0.0	
Location:	BUENA VISTA HILLS, ABOUT 2.6 MI NNW OF WALLACE CENTER, ABOUT 1.4 MI N OF MIDWAY ROAD.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	BURROW SYSTEMS OBSERVED. SOILS ARE RESIDUAL AND ALLUVIAL, AND DERIVED FROM ANCIENT MARINE DEPOSITS. FLATTER AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER AND SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES						

Occurrence No.	161	Map Index:	65206	EO Index:	65285	Element Last Seen:	1987-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-19
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.20671 / -119.52435				Accuracy:	non-specific area	
UTM:	Zone-11 N3898886 E270204				Elevation (ft):	1100	
PLSS:	T31S, R23E, Sec. 29, NE (M)				Acres:	77.0	
Location:	BUENA VISTA HILLS, ABOUT 2.2 AIR MI NNE OF FELLOWS.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	BURROW SYSTEMS OBSERVED. SOILS ARE RESIDUAL AND ALLUVIAL, AND DERIVED FROM ANCIENT MARINE DEPOSITS. FLATTER AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER AND SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES						



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Occurrence No.	162	Map Index:	65207	EO Index:	65286	Element Last Seen:	1987-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-19
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.22187 / -119.54077				Accuracy:	non-specific area	
UTM:	Zone-11 N3900606 E268752				Elevation (ft):	1071	
PLSS:	T31S, R23E, Sec. 19, NE (M)				Acres:	120.6	
Location:	ABOUT 3 AIR MI NORTH OF FELLOWS AND 1.6 MI EAST OF INTERSECTION OF HWY 33 AND SHALE ROAD.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	CLUSTERS OF BURROW SYSTEMS OBSERVED. SOILS ARE RESIDUAL & ALLUVIAL, & DERIVED FROM ANCIENT MARINE DEPOSITS. FLATTER AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER & SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES						

Occurrence No.	163	Map Index:	65208	EO Index:	65287	Element Last Seen:	1987-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-19
Quad Summary:	Taft (3511924), Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.22068 / -119.49840				Accuracy:	non-specific area	
UTM:	Zone-11 N3900377 E272606				Elevation (ft):	980	
PLSS:	T31S, R23E, Sec. 22 (M)				Acres:	374.9	
Location:	BUENA VISTA HILLS ABOUT 4 AIR MI EAST OF INTERSECTION OF HWY 33 AND SHALE RD, 5 MI NORTHWEST OF FORD CITY.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	CLUSTER OF BURROW SYSTEMS OBSERVED. SOILS ARE RESIDUAL & ALLUVIAL, & DERIVED FROM ANCIENT MARINE DEPOSITS. FLATTER AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER & SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES						



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Occurrence No.	164	Map Index:	65209	EO Index:	65288	Element Last Seen:	1987-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-19
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.21238 / -119.48048				Accuracy:	non-specific area	
UTM:	Zone-11 N3899415 E274214				Elevation (ft):	1040	
PLSS:	T31S, R23E, Sec. 23, SW (M)				Acres:	127.2	
Location:	BUENA VISTA HILLS, ABOUT 2.0 AIR MI WEST OF INTERSECTION OF VALLEY WEST RD AND ELK HILLS RD.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	BURROW SYSTEMS OBSERVED. SOILS ARE RESIDUAL AND ALLUVIAL, AND DERIVED FROM ANCIENT MARINE DEPOSITS. FLATTER AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER AND SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES						

Occurrence No.	165	Map Index:	65216	EO Index:	65295	Element Last Seen:	1987-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-19
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.23265 / -119.52362				Accuracy:	non-specific area	
UTM:	Zone-11 N3901763 E270343				Elevation (ft):	980	
PLSS:	T31S, R23E, Sec. 17, NE (M)				Acres:	70.5	
Location:	ABOUT 3.9 MI NNE OF FELLOWS AND 2.7 AIR MI ENE OF INTERSECTION OF SHALE RD AND HWY 33.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	BURROW SYSTEMS OBSERVED. SOILS ARE RESIDUAL AND ALLUVIAL, AND DERIVED FROM ANCIENT MARINE DEPOSITS. FLATTER AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER AND SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES						



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Occurrence No.	166	Map Index:	65220	EO Index:	65299	Element Last Seen:	1987-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-19
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.22738 / -119.43058				Accuracy:	non-specific area	
UTM:	Zone-11 N3900967 E278797				Elevation (ft):	530	
PLSS:	T31S, R24E, Sec. 18 (M)				Acres:	340.2	
Location:	ABOUT 2.0 MI NW OF VALLEY ACRES AND 1.2 MI N OF INTERSECTION OF AIRPORT RD AND VALLEY WEST RD.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	BURROW SYSTEMS OBSERVED. SOILS ARE RESIDUAL AND ALLUVIAL, AND DERIVED FROM ANCIENT MARINE DEPOSITS. FLATTER AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER AND SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES						

Occurrence No.	167	Map Index:	65223	EO Index:	65302	Element Last Seen:	1987-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-19
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.24266 / -119.43790				Accuracy:	1/5 mile	
UTM:	Zone-11 N3902678 E278172				Elevation (ft):	780	
PLSS:	T31S, R24E, Sec. 07 (M)				Acres:	0.0	
Location:	ABOUT 3.1 AIR MI NW OF VALLEY ACRES AND 2.3 MI NNW OF INTERSECTION OF AIRPORT RD AND VALLEY WEST RD.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	BURROW SYSTEMS OBSERVED. SOILS ARE RESIDUAL AND ALLUVIAL, AND DERIVED FROM ANCIENT MARINE DEPOSITS. FLATTER AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER AND SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES						



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Occurrence No.	168	Map Index:	65225	EO Index:	65304	Element Last Seen:	1987-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-19
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.25707 / -119.43197				Accuracy:	1/5 mile	
UTM:	Zone-11 N3904263 E278752				Elevation (ft):	1040	
PLSS:	T31S, R24E, Sec. 06, SE (M)				Acres:	0.0	
Location:	ELK HILLS, ABOUT 2.5 AIR MI SE OF INTERSECTION OF ELK HILLS RD AND SKYLINE RD.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	BURROW SYSTEMS OBSERVED. SOILS ARE RESIDUAL AND ALLUVIAL, AND DERIVED FROM ANCIENT MARINE DEPOSITS. FLATTER AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER AND SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES						

Occurrence No.	169	Map Index:	65226	EO Index:	65305	Element Last Seen:	1987-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-19
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.26260 / -119.44330				Accuracy:	1/5 mile	
UTM:	Zone-11 N3904902 E277736				Elevation (ft):	1030	
PLSS:	T31S, R24E, Sec. 06, NW (M)				Acres:	0.0	
Location:	ELK HILLS, ABOUT 1.7 AIR MI SE OF INTERSECTION OF ELK HILLS RD AND SKYLINE RD.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	BURROW SYSTEMS OBSERVED. SOILS ARE RESIDUAL AND ALLUVIAL, AND DERIVED FROM ANCIENT MARINE DEPOSITS. FLATTER AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER AND SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES						



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Occurrence No.	170	Map Index:	65229	EO Index:	65308	Element Last Seen:	1987-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-20
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.25508 / -119.45851				Accuracy:	1/5 mile	
UTM:	Zone-11 N3904102 E276332				Elevation (ft):	960	
PLSS:	T31S, R23E, Sec. 01, SW (M)				Acres:	0.0	
Location:	ELK HILLS, ABOUT 1.7 AIR MI SSE OF INTERSECTION OF SKYLINE RD AND ELK HILLS RD.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	BURROW SYSTEMS OBSERVED. SOILS ARE RESIDUAL AND ALLUVIAL, AND DERIVED FROM ANCIENT MARINE DEPOSITS. FLATTER AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER AND SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES						

Occurrence No.	171	Map Index:	65230	EO Index:	65309	Element Last Seen:	1987-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-20
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.27094 / -119.41736				Accuracy:	1/5 mile	
UTM:	Zone-11 N3905770 E280118				Elevation (ft):	1030	
PLSS:	T30S, R24E, Sec. 32, SE (M)				Acres:	0.0	
Location:	ELK HILLS, JUST NORTH OF SKYLINE RD, 2.8 AIR MI ESE OF INTERSECTION OF SKYLINE RD AND ELK HILLS RD.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	BURROW SYSTEMS OBSERVED. SOILS ARE RESIDUAL AND ALLUVIAL, AND DERIVED FROM ANCIENT MARINE DEPOSITS. FLATTER AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER AND SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES						



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Occurrence No.	172	Map Index:	65231	EO Index:	65310	Element Last Seen:	1987-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-20
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.27240 / -119.45299				Accuracy:	non-specific area	
UTM:	Zone-11 N3906011 E276881				Elevation (ft):	1321	
PLSS:	T30S, R23E, Sec. 36, SE (M)				Acres:	131.8	
Location:	ELK HILLS, ABOUT 0.9 AIR MI SE OF INTERSECTION OF SKYLINE RD AND ELK HILLS RD.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	BURROW SYSTEMS OBSERVED. SOILS ARE RESIDUAL AND ALLUVIAL, AND DERIVED FROM ANCIENT MARINE DEPOSITS. FLATTER AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER AND SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES						

Occurrence No.	173	Map Index:	65232	EO Index:	65311	Element Last Seen:	1987-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-20
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.28977 / -119.45758				Accuracy:	non-specific area	
UTM:	Zone-11 N3907949 E276511				Elevation (ft):	1070	
PLSS:	T30S, R23E, Sec. 25 (M)				Acres:	444.5	
Location:	ELK HILLS, ABOUT 0.8 AIR MI NE OF INTERSECTION OF SKYLINE RD AND ELK HILLS RD.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	BURROW SYSTEMS OBSERVED. SOILS ARE RESIDUAL AND ALLUVIAL, AND DERIVED FROM ANCIENT MARINE DEPOSITS. FLATTER AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER AND SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES						



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Occurrence No.	174	Map Index:	65233	EO Index:	65312	Element Last Seen:	1987-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-20
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.26884 / -119.47927				Accuracy:	1/5 mile	
UTM:	Zone-11 N3905675 E274481				Elevation (ft):	1220	
PLSS:	T30S, R23E, Sec. 35, SW (M)				Acres:	0.0	
Location:	EAST ELK HILLS, ABOUT 1.0 AIR MI SW OF INTERSECTION OF SKYLINE RD AND ELK HILLS RD.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	BURROW SYSTEMS OBSERVED. SOILS ARE RESIDUAL AND ALLUVIAL, AND DERIVED FROM ANCIENT MARINE DEPOSITS. FLATTER AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER AND SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES						

Occurrence No.	175	Map Index:	65234	EO Index:	65313	Element Last Seen:	1987-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-20
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.28329 / -119.51753				Accuracy:	1/5 mile	
UTM:	Zone-11 N3907367 E271040				Elevation (ft):	1400	
PLSS:	T30S, R23E, Sec. 28, SW (M)				Acres:	0.0	
Location:	ELK HILLS, SOUTH OF SKYLINE RD, ABOUT 0.6 AIR MI SW OF HILLCREST POINT.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	BURROW SYSTEMS OBSERVED. SOILS ARE RESIDUAL AND ALLUVIAL, AND DERIVED FROM ANCIENT MARINE DEPOSITS. FLATTER AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER AND SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES						



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Occurrence No.	176	Map Index:	65235	EO Index:	65314	Element Last Seen:	1987-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-20
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.29069 / -119.50746				Accuracy:	1/5 mile	
UTM:	Zone-11 N3908164 E271977				Elevation (ft):	1370	
PLSS:	T30S, R23E, Sec. 28, NE (M)				Acres:	0.0	
Location:	WEST ELK HILLS, EAST OF MCKITTRICK, ABOUT 0.2 MI NE OF HILLCREST POINT, JUST NORTH OF SKYLINE ROAD.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	BURROW SYSTEMS OBSERVED. SOILS ARE RESIDUAL AND ALLUVIAL, AND DERIVED FROM ANCIENT MARINE DEPOSITS. FLATTER AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER AND SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES						

Occurrence No.	177	Map Index:	65237	EO Index:	65316	Element Last Seen:	1987-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-20
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.29976 / -119.53137				Accuracy:	1/5 mile	
UTM:	Zone-11 N3909225 E269828				Elevation (ft):	1230	
PLSS:	T30S, R23E, Sec. 20, SW (M)				Acres:	0.0	
Location:	ELK HILLS, ABOUT 0.7 AIR MI NORTH OF SKYLINE RD, 1.5 MI NW OF HILLCREST POINT.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	BURROW SYSTEMS OBSERVED. SOILS ARE RESIDUAL AND ALLUVIAL, AND DERIVED FROM ANCIENT MARINE DEPOSITS. FLATTER AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER AND SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES						



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Occurrence No.	178	Map Index:	65238	EO Index:	65317	Element Last Seen:	1987-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-20
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.33862 / -119.49161				Accuracy:	1/5 mile	
UTM:	Zone-11 N3913444 E273552				Elevation (ft):	500	
PLSS:	T30S, R23E, Sec. 10, NE (M)				Acres:	0.0	
Location:	NORTH ELK HILLS, ABOUT 1.4 AIR MI WSW OF ELK HILLS RD AT CALIFORNIA AQUEDUCT.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	BURROW SYSTEMS OBSERVED. SOILS ARE RESIDUAL AND ALLUVIAL, AND DERIVED FROM ANCIENT MARINE DEPOSITS. FLATTER AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER AND SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES						

Occurrence No.	179	Map Index:	65239	EO Index:	65318	Element Last Seen:	1987-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-20
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.31613 / -119.47094				Accuracy:	non-specific area	
UTM:	Zone-11 N3910903 E275369				Elevation (ft):	690	
PLSS:	T30S, R23E, Sec. 14, SE (M)				Acres:	150.7	
Location:	ELK HILLS, ABOUT 2.6 AIR MI SSE OF BUTTONWILLOW KERN COUNTY AIRFIELD, WEST OF ELK HILLS RD.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	BURROW SYSTEMS OBSERVED. SOILS ARE RESIDUAL AND ALLUVIAL, AND DERIVED FROM ANCIENT MARINE DEPOSITS. FLATTER AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER AND SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES						



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Occurrence No.	180	Map Index:	65240	EO Index:	65319	Element Last Seen:	1987-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-20
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.33713 / -119.45054				Accuracy:	1/5 mile	
UTM:	Zone-11 N3913186 E277282				Elevation (ft):	320	
PLSS:	T30S, R23E, Sec. 12, NE (M)				Acres:	0.0	
Location:	NORTH ELK HILLS, ABOUT 1.2 AIR MI SE OF ELK HILL RD AT CALIFORNIA AQUEDUCT.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	BURROW SYSTEMS OBSERVED. SOILS ARE RESIDUAL AND ALLUVIAL, AND DERIVED FROM ANCIENT MARINE DEPOSITS. FLATTER AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER AND SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES						

Occurrence No.	181	Map Index:	65241	EO Index:	65320	Element Last Seen:	1987-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-20
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.32122 / -119.42455				Accuracy:	1/5 mile	
UTM:	Zone-11 N3911363 E279601				Elevation (ft):	400	
PLSS:	T30S, R24E, Sec. 17, NW (M)				Acres:	0.0	
Location:	NORTH ELK HILLS, ABOUT 2.3 AIR MI SSE OF INTERSECTION OF FREEBORN RD AND BELLEVUE RD, 0.7 MI S OF THE CALIF AQUEDUCT.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	BURROW SYSTEMS OBSERVED. SOILS ARE RESIDUAL AND ALLUVIAL, AND DERIVED FROM ANCIENT MARINE DEPOSITS. FLATTER AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER AND SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES						



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Occurrence No.	182	Map Index:	65249	EO Index:	65328	Element Last Seen:	1987-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-20
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.28687 / -119.36135				Accuracy:	non-specific area	
UTM:	Zone-11 N3907413 E285256				Elevation (ft):	510	
PLSS:	T30S, R24E, Sec. 26, SE (M)				Acres:	239.1	
Location:	ELK HILLS, 0.9 AIR MI SW OF TUPMAN, 0.7 MI E OF MAIN ROAD BETWEEN TUPMAN RD AND SKYLINE RD.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	BURROW SYSTEMS OBSERVED. SOILS ARE RESIDUAL AND ALLUVIAL, AND DERIVED FROM ANCIENT MARINE DEPOSITS. FLATTER AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER AND SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES						

Occurrence No.	183	Map Index:	65251	EO Index:	65330	Element Last Seen:	1987-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-20
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.27508 / -119.34824				Accuracy:	1/5 mile	
UTM:	Zone-11 N3906077 E286418				Elevation (ft):	580	
PLSS:	T30S, R24E, Sec. 36, SE (M)				Acres:	0.0	
Location:	ELK HILLS, ABOUT 1.6 AIR MI SOUTH OF TUPMAN, 1.5 MI WEST OF INTERSECTION OF TUPMAN RD AND SKYLINE RD.						
Detailed Location:							
Ecological:	SJ SALTBUSH/CA ANNUAL GRASSLAND. BROMUS RUBENS/ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA MOST COMMON; ALSO A. SPINIFERA, GUTIERREZIA BRACTEATA, ERIGONUM FASCICULATUM, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, CERATOIDES LANATA, SUAEDA FRUTICOSA.						
General:	BURROW SYSTEMS OBSERVED. SOILS ARE RESIDUAL AND ALLUVIAL, AND DERIVED FROM ANCIENT MARINE DEPOSITS. FLATTER AREAS ARE SANDY LOAMS, LOAMS & CLAY LOAMS. RANGE FIRES CONSUME STANDING DEAD LITTER AND SHRUBS OVER LARGE ACREAGES EACH YEAR.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES						

<i>Dipodomys nitratoide nitratoide</i>					Element Code: AMAFD03152		
Tipton kangaroo rat							
Listing Status:	Federal:	Endangered			CNDDB Element Ranks:	Global:	G2T1T2
	State:	Endangered				State:	S2
	Other:	IUCN_VU-Vulnerable					
Habitat:	General:	SALTBRUSH SCRUB AND SINK SCRUB COMMUNITIES IN THE TULARE LAKE BASIN OF THE SOUTHERN SAN JOAQUIN VALLEY.					
	Micro:	NEEDS SOFT FRIABLE SOILS WHICH ESCAPE SEASONAL FLOODING. DIGS BURROWS IN ELEVATED SOIL MOUNDS AT BASES OF SHRUBS.					



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Occurrence No.	48	Map Index:	15416	EO Index:	14587	Element Last Seen:	1992-07-14
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1992-07-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-08-03
Quad Summary:	Buttonwillow (3511944)						
County Summary:	Kern						
Lat/Long:	35.41807 / -119.41538				Accuracy:	non-specific area	
UTM:	Zone-11 N3922086 E280697				Elevation (ft):	290	
PLSS:	T29S, R24E, Sec. 08 (M)				Acres:	2516.2	
Location:	SOUTHEAST BUTTONWILLOW RIDGE, ABOUT 3 MI NORTHEAST OF BUTTONWILLOW.						
Detailed Location:	BURROW DENSITY WAS APPROXIMATELY 28 BURROWS/HA IN SEC 16 AND 6 BURROWS/HA IN OTHER AREAS. MVZ LOCALITY IS "4.6 MI EAST OF BUTTONWILLOW." 1 CAPTURED IN 1 NIGHT WITH 100 TRAPS IN SEC 16.						
Ecological:	APPROX 605 HA OF ATRIPLEX SPINIFERA & IODINE BUSH SCRUB HABITATS. SOIL IS GARCES SILT LOAM. LAW92F01: ALKALINE FLATS W/ VERNAL POOLS, INCLUDING: ALLENROLFEA OCCIDENTALIS, AMBROSIA ACANTHICARPA, ATRIPLEX PHYLLOSTEGIA & SPOROBOLUS AIROIDES.						
General:	SITE #35 & 37 (WILLIAMS 1985). 2 MALE SPECIMENS COLLECTED ON 11 APR 1975 BY MARK S. HAFNER. MVZ #158903-158904. 2 ADULTS OBS ON 14 JUL 1992. HIGHLY DISTURBED AREA. EO 64 LUMPED WITH THIS OCCURRENCE.						
Owner/Manager:	PVT						

Occurrence No.	51	Map Index:	64369	EO Index:	14584	Element Last Seen:	1990-11-18
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1990-11-18
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-21
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.31520 / -119.36544				Accuracy:	non-specific area	
UTM:	Zone-11 N3910566 E284959				Elevation (ft):	290	
PLSS:	T30S, R24E, Sec. 14 (M)				Acres:	1340.1	
Location:	TULE ELK STATE RESERVE.						
Detailed Location:	WIL85R01: K-RATS OCCUPY SOUTH PORTION OF AREA. FROM 2-18 BURROWS/HA OBSERVED.						
Ecological:	APPROX 130 HA ATRIPLEX SHRUB HABITAT. ALKALI SINK COMMUNITY W/ SUAEDA & FRANKENIA. DENSE GROUND COVER OF RED BROME & RED-STEMMED FILAREE. FLAT TERRAIN AROUND OLD SLOUGHS. DETAILED SOIL INFORMATION IN CIA90F01. SITE QUALITY RANGE GOOD-FAIR.						
General:	SITES #42 & 43 (WILLIAMS, 1985). 28 CAPTURES DURING 3-DAY SURVEY PERIOD (31 AUGUST - 2 SEPTEMBER, 1988). 331 INDIV CAPTURED & RELEASED THROUGHOUT AREA FROM 1986 TO 1990. EO 70 LUMPED WITH THIS OCCURRENCE.						
Owner/Manager:	DPR-TULE ELK SNR, DOE, CHEVRON						



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Occurrence No.	52	Map Index:	15608	EO Index:	14583	Element Last Seen:	1985-07-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1985-07-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-24
Quad Summary:	Millux (3511922), Mouth of Kern (3511923), Stevens (3511932), Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.23839 / -119.25290				Accuracy:	specific area	
UTM:	Zone-11 N3901806 E294999				Elevation (ft):	300	
PLSS:	T31S, R25E, Sec. 02 (M)				Acres:	7366.0	
Location:	VICINITY OF JCT I-5 & HWY 119; MOSTLY SW OF JCT IN SOUTH COLES LEVEE OIL FIELD.						
Detailed Location:	APPROX 11-50 BURROWS/HA OBS. MVZ RECORD LOCATIONS: 7.5 MI SOUTH AND 10.25 WEST OF BAKERSFIELD; BUENA VISTA LAKE, EAST SIDE LEVEE; 7 MI WEST OF OLD RIVER; AND 1.5 MI EAST ABOUT 2 MI SOUTH OF TUPMAN.						
Ecological:	LARGE AREA OF UNCULTIVATED VEG IN T31S, R25E, SECS 1-4, 9, 10, & 11-13. APPROX 2300 HA MESQUITE/ATRIPLEX SHRUB HABITAT IN T31S, R26E, SECS 5, 6, 8, 18, & 19.						
General:	1 M COLL. 28 OCT 1940 BY L. TEVIS, MVZ #183788. 3 M, 1 F COLL. 26-27 FEB 1932 BY RUSSELL (2 M, 1 F) & ON 15 JAN 1927 BY E. RAYMOND HALL (1 M). MVZ #51508-51510, 37434. 2F & 1M COLL. 11 APR 1976 BY HAFNER. MVZ #158834-158836 & 158871-158872.						
Owner/Manager:	PVT						

Occurrence No.	53	Map Index:	15582	EO Index:	13172	Element Last Seen:	1985-07-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1985-07-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1996-02-26
Quad Summary:	Pentland (3511913), Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.12997 / -119.26762				Accuracy:	specific area	
UTM:	Zone-11 N3889810 E293385				Elevation (ft):	320	
PLSS:	T32S, R25E, Sec. 23 (M)				Acres:	874.9	
Location:	SOUTH OF BUENA VISTA LAKE BED ON BOTH SIDES OF SOUTH LAKE RD.						
Detailed Location:	APPROX 25 BURROWS/HA OBS.						
Ecological:	APPROX 241 HA IODINE BUSH AND ATRIPLEX SPINIFERA SHRUB HABITATS.						
General:	SITE #48 (WILLIAMS, 1985).						
Owner/Manager:	PVT						

Occurrence No.	54	Map Index:	15527	EO Index:	14582	Element Last Seen:	1985-07-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1985-07-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1989-08-10
Quad Summary:	Pentland (3511913)						
County Summary:	Kern						
Lat/Long:	35.12208 / -119.31403				Accuracy:	specific area	
UTM:	Zone-11 N3889032 E289135				Elevation (ft):	375	
PLSS:	T32S, R25E, Sec. 29 (M)				Acres:	293.0	
Location:	ON BOTH SIDES OF SOUTH LAKE ROAD ON SE SIDE BUENA VISTA LAKE BED, E OF GARDNER FIELD ROAD.						
Detailed Location:	APPROX 14 BURROWS/HA OBS.						
Ecological:	APPROX 41 HA IODINE BUSH AND ATRIPLEX SPINIERA HABITATS. HIGHLY DISTURBED SITE.						
General:	T32S, R 25 E S 1/4 SECS 19 & 20 & N 1/4 SEC 29. SITE #49 (WILLIAMS, 1985).						
Owner/Manager:	PVT						



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Occurrence No.	59	Map Index:	15651	EO Index:	14578	Element Last Seen:	1985-07-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1985-07-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1989-08-10
Quad Summary:	Millux (3511922)						
County Summary:	Kern						
Lat/Long:	35.15410 / -119.21475				Accuracy:	specific area	
UTM:	Zone-11 N3892377 E298262				Elevation (ft):	295	
PLSS:	T32S, R26E, Sec. 08 (M)				Acres:	235.9	
Location:	JUST N OF SOUTH LAKE RD, APPROX 2 MI SSW OF MILLUX.						
Detailed Location:	APPROX 35 BURROWS/HA OBS.						
Ecological:	APPROX 115 HA IODINE BUSH SHRUB HABITAT.						
General:	SOUTHERN PORTIONS OF SECS 7 & 8. SITE #54 (WILLIAMS, 1985).						
Owner/Manager:	BLM, PVT						

Occurrence No.	65	Map Index:	15531	EO Index:	14572	Element Last Seen:	1985-07-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1985-07-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1989-08-10
Quad Summary:	Rio Bravo (3511943)						
County Summary:	Kern						
Lat/Long:	35.38565 / -119.31430				Accuracy:	specific area	
UTM:	Zone-11 N3918270 E289792				Elevation (ft):	300	
PLSS:	T29S, R25E, Sec. 20, S (M)				Acres:	148.4	
Location:	APPROX 8 MI E BUTTONWILLOW ON HWY 58. 0.75 MI S OF HWY 58.						
Detailed Location:	APPROX 3 BURROWS/HA OBS.						
Ecological:	APPROX 56 HA ATRIPLEX SPINIFERA & IODINE BUSH SHRUB HABITATS, A PORTION OF THIS AREA IS A FALLOW FIELD.						
General:	SITE #41 (WILLIAMS, 1985).						
Owner/Manager:	PVT						

Occurrence No.	68	Map Index:	15407	EO Index:	23906	Element Last Seen:	1988-11-04
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1988-11-04
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1995-11-14
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.30856 / -119.39484				Accuracy:	1 mile	
UTM:	Zone-11 N3909893 E282269				Elevation (ft):	400	
PLSS:	T30S, R24E, Sec. 21, NE (M)				Acres:	0.0	
Location:	2.5 MILES WNW OF TUPMAN.						
Detailed Location:	262 INDIVIDUALS OBS DURING THREE SURVEY PERIODS. 30 MARCH-1 APRIL, 20-22 JULY, AND 2-4 NOVEMBER, 1988.						
Ecological:	HABITAT IN SEC 21 (DOE LAND) CONSISTS OF DENSE GROUND COVER OF RED BROME & RED-STEMMED FILAREE; DESERT SALTBUSH IS THE DOMINANT SHRUB. NO SHRUBS FOUND WITHIN SEC 22 (PVT LAND).						
General:							
Owner/Manager:	DOE, PVT						



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Occurrence No.	69	Map Index:	15508	EO Index:	23905	Element Last Seen:	1988-09-02
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1988-09-02
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1995-11-14
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.23026 / -119.33144			Accuracy:	1 mile		
UTM:	Zone-11 N3901069 E287829			Elevation (ft):	320		
PLSS:	T31S, R25E, Sec. 18, E (M)			Acres:	0.0		
Location:	APPROX 9 MI NE OF TAFT, ON NW SIDE OF BUENA VISTA LAKE BED.						
Detailed Location:	66 CAPTURES DURING 31 AUGUST - 2 SEPTEMBER, 1988 SURVEY PERIOD.						
Ecological:	HABITAT CONSISTS OF DENSE GROUND COVER OF RED BROME AND RED-STEMMED FILAREE; DESERT SALTBUSH IS THE DOMINANT SHRUB.						
General:							
Owner/Manager:	DOE						
Occurrence No.	72	Map Index:	62627	EO Index:	62664	Element Last Seen:	2002-05-22
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2002-05-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2012-11-29
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.16305 / -119.34398			Accuracy:	80 meters		
UTM:	Zone-11 N3893641 E286512			Elevation (ft):	400		
PLSS:	T32S, R24E, Sec. 12, NE (M)			Acres:	0.0		
Location:	ABOUT 0.25 MI NE OF BUENA VISTA PUMPING PLANT (CALIFORNIA AQUEDUCT), ABOUT 0.75 MI NNW OF RICHFIELD OIL PUMPING STATION.						
Detailed Location:	NEAR LAKE STATION ROAD. MAPPED TO PROVIDED COORDINATES.						
Ecological:	VALLEY SALTBUSH SCRUB. ATRIPLEX POLYCARPA IS THE DOMINANT SHRUB, BUT ISOMERIS, MATCHWEED & ISOCOMA ARE SCATTERED THROUGHOUT. OIL DEVELOPMENT, SWP FACILITIES & RANGELAND SURROUNDING. BLM APPEARS TO OWN THE LAND, BUT DWR MAY MANAGE/MAINTAIN.						
General:	1 ADULT CAPTURED HERE (2 TOTAL) DURING 1 NIGHT OF TRAPPING (104 TRAP-NIGHTS) ON 22 MAY 2002.						
Owner/Manager:	BLM, DWR						



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Occurrence No.	73	Map Index:	62631	EO Index:	62668	Element Last Seen:	2002-10-15
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	2002-10-15
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-08-03
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.33126 / -119.19841				Accuracy:	non-specific area	
UTM:	Zone-11 N3911997 E300186				Elevation (ft):	335	
PLSS:	T30S, R26E, Sec. 09 (M)				Acres:	4621.9	
Location:	NORTH OF KERN RIVER, SOUTHWEST OF INTERSECTION OF BELLEVUE ROAD AND NORD AVENUE.						
Detailed Location:	SEE SOURCE FOR SPECIFIC LOCATIONS OF CAPTURES ALONG SOUTHERN PACIFIC RAILROAD AND PIPELINE.						
Ecological:	DISKED, FALLOW AGRICULTURAL FIELD NEXT TO RR TRACK RIGHT-OF-WAY. SURROUNDING AREA IS OIL FIELDS, IRRIGATED AGRICULTURE (COTTON) & VALLEY SALTBUSH SCRUB; ALMOST BARE WITH SOME SALSOLA AUSTRALICUS & SOME GRASSES.						
General:	1 AD TRAPPED 21 OCT 1992. BURROWS & CARCASSES OBS NEARBY. 1 F CAPT 11-15 OCT 2002. 2 F CAPT 7-11 MAY 2003. 1 INDIV (IN SEC 5, 6, 8 & 9) & 2 INDIV (IN SEC 10, 15 & 16) CAPT DURING 4 NIGHTS 20-23 OCT 1992. 1 ADULT CAPT 21 & 23 OCT 1992.						
Owner/Manager:	KRN COUNTY WATER AGENCY						

Occurrence No.	80	Map Index:	65273	EO Index:	65352	Element Last Seen:	2011-10-18
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2011-10-18
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-07-02
Quad Summary:	Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.40706 / -119.54135				Accuracy:	non-specific area	
UTM:	Zone-11 N3921152 E269226				Elevation (ft):	300	
PLSS:	T29S, R23E, Sec. 18 (M)				Acres:	1627.0	
Location:	SOUTHWEST OF BUTTONWILLOW, ABOUT 5 AIR MI NORTH OF ELK HILLS.						
Detailed Location:	1975 MVZ RECORD LOCATION IS 3.8 MI WEST OF BUTTONWILLOW. 1987 SURVEY CONDUCTED AT T29S R23E SEC18-30 AND T29S R22E SEC21-28. MAPPED TO PROVIDED MAPS AND COORDINATES OF TRAPPING LOCATIONS.						
Ecological:	VALLEY SINK SCRUB DOMINATED BY ATRIPLEX POLYCARPA, A. SPINIFERA & ALLENROLFEA OCCIDENTALIS. RIPARIAN HABITAT W/ SALIX TAMARIX ALONG SLOUGH. VALLEY SALTBUSH IN UPLANDS: MOSTLY ATRIPLEX POLYCARA. PRU95F03: ALKLALI-SINK/ATRIPLEX CANESCENS.						
General:	MVZ#158905 COLLECTED ON 11 APR 1975. DETECTED IN AREA MAY AND JUN 1987. 5 TRAPPED AND RELEASED 11 NOV 1993. 4 ADULTS DETECTED ON 30 JUL 1995. 45 TRAPPED 9-12 AUG 2010. 2 MALES TRAPPED AND RELEASED 18 OCT 2011.						
Owner/Manager:	PVT, BUENA VISTA WATER DIST						



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Occurrence No.	85	Map Index:	65065	EO Index:	65373	Element Last Seen:	1989-11-21
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1989-11-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-21
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.24101 / -119.37819				Accuracy:	non-specific area	
UTM:	Zone-11 N3902363 E283603				Elevation (ft):	550	
PLSS:	T31S, R24E, Sec. 10, SE (M)				Acres:	46.3	
Location:	ABOUT 1.5 AIR MI NNE OF DUSTIN ACRES, NAVAL PETROLEM RESERVE NO. 1, ELK HILLS.						
Detailed Location:	MAPPED IN SE1/4 OF SE1/4 OF SEC 10 AS PER SOURCE.						
Ecological:	DEVELOPED WASTE WATER SUMP AND HAZARDOUS WASTE DISPOSAL SITE.						
General:	BREEDING, FORAGING, WINTERING & DENNING SITE. 26 INDIV CAPTURED BETWEEN 27-28 JUN AND 17 OCT TO 21 NOV 1989.						
Owner/Manager:	DOE						

Occurrence No.	96	Map Index:	65338	EO Index:	65417	Element Last Seen:	1994-07-26
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1994-07-26
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2020-09-15
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.26908 / -119.18387				Accuracy:	1/5 mile	
UTM:	Zone-11 N3905071 E301357				Elevation (ft):	326	
PLSS:	T30S, R26E, Sec. 33, SE (M)				Acres:	70.0	
Location:	KERN FAN, NORTH SIDE OF TAFT HWY (CA 119) ABOUT 2.25 MILES EAST OF I-5, ABOUT 11.5 MILES SW OF CENTRAL BAKERSFIELD.						
Detailed Location:	MAPPED TO PROVIDED 1/4 1/4 SECTION.						
Ecological:	OPEN SPACE IN THE VICINITY OF JAMES CANAL. AREA TO THE EAST AND SOUTH HAS BEEN DEVELOPED AS AGRICULTURE SINCE AT LEAST 1989. SPECIFIC SITE APPEARS UNDEVELOPED IN 2018 AERIALS, BUT APPEARS DISKED.						
General:	2 MALES COLLECTED ON 13 & 26 JUL 1994 AT "KERN FAN" BY J. PATTON.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	98	Map Index:	65343	EO Index:	65422	Element Last Seen:	1975-04-11
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1975-04-11
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-24
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.18606 / -119.42898				Accuracy:	1 mile	
UTM:	Zone-11 N3896380 E278831				Elevation (ft):	550	
PLSS:	T31S, R24E, Sec. 32 (M)				Acres:	0.0	
Location:	1.5 MI E AND 3 MI N OF TAFT.						
Detailed Location:	MAPPED ABOUT ABOUT 1.9 MI SW OF VALLEY ACRES, 1.8 MI SE OF INTERSECTION OF VALLEY WEST RD AND ELK HILLS RD.						
Ecological:							
General:	2 SPECIMENS (1 MALE, 1 FEMALE) COLLECTED ON 11 APR 1975 AT "1.5 MI EAST AND 3 MI NORTH OF TAFT," COLLECTED BY MARK S. HAFNER.						
Owner/Manager:	UNKNOWN						

Occurrence No.	102	Map Index:	87438	EO Index:	88421	Element Last Seen:	2012-11-07
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2012-11-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2012-11-29
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.15573 / -119.34343				Accuracy:	specific area	
UTM:	Zone-11 N3892827 E286543				Elevation (ft):	420	
PLSS:	T32S, R24E, Sec. 12, SE (M)				Acres:	19.0	
Location:	BETWEEN THE BUENA VISTA PUMPING PLANT/CALIFORNIA AQUEDUCT AND RICHFIELD OIL PUMPING STATION, 6.3 MI E OF FORD CITY.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	VALLEY SALTBUSSH SCRUB. ATRIPLEX POLYCARPA IS THE DOMINANT SHRUB, BUT ISOMERIS, MATCHWEED & ISOCOMA ARE SCATTERED THROUGHOUT. OIL DEVELOPMENT, SWP FACILITIES & RANGELAND SURROUNDING. BLM APPEARS TO OWN THE LAND, BUT DWR MAY MANAGE/MAINTAIN.						
General:	1 ADULT CAPTURED HERE (2 TOTAL) DURING 1 NIGHT OF TRAPPING (104 TRAP-NIGHTS) ON 22 MAY 2002. 2 MALE AND 2 FEMALE ADULTS CAPTURED ON 6 & 7 NOV 2012 (TOTAL EFFORT NOT STATED).						
Owner/Manager:	BLM, DWR						



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Occurrence No.	103	Map Index:	87441	EO Index:	88425	Element Last Seen:	2017-05-22
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2017-05-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2018-04-11
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.15499 / -119.33518				Accuracy:	specific area	
UTM:	Zone-11 N3892728 E287294				Elevation (ft):	323	
PLSS:	T32S, R25E, Sec. 7, S (M)				Acres:	34.0	
Location:	ACROSS LAKE STATION RD (EAST) FROM RICHFIELD OIL PUMPING STATION, EAST BUENA VISTA HILLS, 7 MI E OF FORD CITY.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	TRAPPING AREA CONTAINED SALTBUSH SCRUB HABITAT, ALKALI SINK HABITAT, AND AN AREA THAT WAS DENUDED FROM AGRICULTURAL USE.						
General:	4 MALE AND 2 FEMALE ADULTS CAPTURED ON 6 NOV, AND 2 MALE AND 2 FEMALE ADULTS CAPTURED ON 8 NOV 2012 (TOTAL EFFORT NOT STATED). 1 PREGNANT FEMALE & 2 JUVENILE FEMALES TRAPPED 20-22 MAY 2017.						
Owner/Manager:	PVT, BLM						

Occurrence No.	105	Map Index:	A2427	EO Index:	104042	Element Last Seen:	2016-05-14
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2016-05-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2016-11-15
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.29626 / -119.20213				Accuracy:	80 meters	
UTM:	Zone-11 N3908122 E299762				Elevation (ft):	332	
PLSS:	T30S, R26E, Sec. 20, SE (M)				Acres:	5.0	
Location:	ALONG PANAMA LN NEAR TEN SECTION OIL FIELD, ABOUT 2.8 MILES EAST OF ENOS LN (HWY 43) & I-5, SW OF BAKERSFIELD.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	ROAD SHOULDER DOMINATED BY INTRODUCED ANNUAL GRASSES & FORBS. ADJACENT HABITAT WAS MESQUITE/SALTBUSH SHRUBLAND.						
General:	1 ADULT MALE CAUGHT 13 MAY 2016 DURING PROTOCOL SURVEYS FOR THE SPECIES; 1 ADULT, LIKELY THE SAME INDIVIDUAL, CAUGHT THE FOLLOWING DAY ON 14 MAY.						
Owner/Manager:	CITY OF BAKERSFIELD						

Dipodomys nitratoides brevinasus				Element Code: AMAFD03153			
short-nosed kangaroo rat							
Listing Status:	Federal:	None		CNDDB Element Ranks:	Global:	G2T1T2	
	State:	None			State:	S1S2	
	Other:	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_VU-Vulnerable					
Habitat:	General:	WESTERN SIDE OF SAN JOAQUIN VALLEY IN GRASSLAND AND DESERT SHRUB ASSOCIATIONS, ESPECIALLY ATRIPLEX.					
	Micro:	OCCURS IN HIGHLY ALKALINE SOILS AROUND SODA LAKE. NEEDS FRIABLE SOILS. FAVORS FLAT TO GENTLY SLOPING TERRAIN.					



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Occurrence No.	2	Map Index:	38056	EO Index:	33063	Element Last Seen:	1989-12-23
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1989-12-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-19
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.24782 / -119.32601				Accuracy:	non-specific area	
UTM:	Zone-11 N3903006 E288369				Elevation (ft):	450	
PLSS:	T31S, R25E, Sec. 07, NE (M)				Acres:	45.4	
Location:	1 MILE NORTH OF BUENA VISTA LAKE BED, IN THE ELK HILLS, 5 MILES SOUTH OF TUPMAN.						
Detailed Location:	MAPPED AS INDICATED IN SOURCE: T31S R25E SE1/4 OF NE1/4 SEC 7.						
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB, DOMINATED BY DESERT SALTBUSH, WITH A SPARSE GROUND COVER OF RED BROME AND RED-STEMMED FILAREE.						
General:	2 INDIVIDUALS OBSERVED FROM 21-23 DECEMBER 1989. LAND IS MANAGED BY CHEVRON FOR PETROLEUM PRODUCTION.						
Owner/Manager:	PVT-CHEVRON						

Occurrence No.	8	Map Index:	38130	EO Index:	33137	Element Last Seen:	1990-07-13
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1990-07-13
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-21
Quad Summary:	Taft (3511924), Fellows (3511925), East Elk Hills (3511934), West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.26024 / -119.47501				Accuracy:	non-specific area	
UTM:	Zone-11 N3904711 E274844				Elevation (ft):	750	
PLSS:	T31S, R23E, Sec. 02 (M)				Acres:	23952.4	
Location:	ELK HILLS 8.0 MILES NORTH OF TAFT IN THE NAVAL PETROLEUM RESERVE, 9.2 MILES ESE OF MC KITTRICK.						
Detailed Location:	UNKNOWN HOW MANY INDIVIDUALS IN EACH AREA. BROAD RANGE IN THE ELK HILLS. EO INCLUDES MANY SECTIONS IN T30S, T31S AND R23E AND R24E.						
Ecological:	HABITAT CONSISTS OF DESERT SALTBUSH SCRUB, DOMINATED BY DESERT SALTBUSH, WITH DENSE GROUND COVER OF RED BROME AND RED-STEMMED FILAREE; CHEESEBUSH INTERSPERSED THROUGHOUT. LAND IS MANAGED BY THE U. S. DEPT OF ENERGY FOR PETROLEUM PRODUCTION.						
General:	23 OBS DEC 1989. 7 OBS JUL 1990. 5 OBS OCT-NOV 1989. 5 OBS JUNE-OCT NOV 1989. 415 OBS FEB, JUN, NOV 1989. 5 IND. OBS DEC 1989. 253 OBS FEB & JUN 1990. 190 OBS 9/27/1993. 11 OBS DEC 1989.						
Owner/Manager:	DOE						



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Occurrence No.	12	Map Index:	38137	EO Index:	33144	Element Last Seen:	1989-XX-XX
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	1989-XX-XX		
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:	1998-02-17		
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.28022 / -119.46810			Accuracy:	1/5 mile		
UTM:	Zone-11 N3906912 E275528			Elevation (ft):	1350		
PLSS:	T30S, R23E, Sec. 35, NE (M)			Acres:	0.0		
Location:	JUST NE OF THE INTERSECTION OF ELK HILLS ROAD AND SKYLINE ROAD, WEST OF TUPMAN.						
Detailed Location:	SITE CONSISTS OF A DEVELOPED WASTE WATER SUMP.						
Ecological:							
General:	5 INDIVIDUALS CAPTURED FROM 17 OCTOBER-21 NOVEMBER 1989. LAND IS MANAGED BY THE U. S. DEPT OF ENERGY FOR PETROLEUM PRODUCTION.						
Owner/Manager:	DOE						

Occurrence No.	13	Map Index:	38285	EO Index:	33292	Element Last Seen:	2003-XX-XX
Occ. Rank:	Poor	Presence:	Presumed Extant	Site Last Seen:	2003-XX-XX		
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:	1998-03-04		
Quad Summary:	West Elk Hills (3511935), Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.37592 / -119.59777			Accuracy:	non-specific area		
UTM:	Zone-11 N3917830 E264011			Elevation (ft):	500		
PLSS:	T29S, R22E, Sec. 27 (M)			Acres:	640.1		
Location:	LOKERN NATURAL AREA, 1 MILE SOUTH OF LOKERN ROAD, 7 MILES WEST OF BUTTONWILLOW.						
Detailed Location:							
Ecological:	HABITAT CONSISTED OF GRAZED ATRIPLEX/CHENOPOD BUSHLAND, WHICH BURNED IN JULY 1997. EXOTIC ANNUAL GRASSES NOW DOMINATE THE HABITAT.						
General:	2 ADULTS OBSERVED ON 12 AUG 1997. FEW INDIV OBS IN 1998, ~165 INDIV OBS IN 1999, ~160 INDIV OBS IN 2000, ~220 INDIV OBS IN 2001, ~490 INDIV OBS IN 2002 & 385 INDIV OBS IN 2003. ALL POP NUMBERS BETWEEN THIS OCC, OCC #67, 68 & 69.						
Owner/Manager:	PVT-CHEVRON, CNLM						



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Occurrence No.	14	Map Index:	38289	EO Index:	33296	Element Last Seen:	1993-07-14
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1993-07-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-03-04
Quad Summary:	Taft (3511924), Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.18745 / -119.51843				Accuracy:	non-specific area	
UTM:	Zone-11 N3896736 E270689				Elevation (ft):	1100	
PLSS:	T31S, R23E, Sec. 33 (M)				Acres:	1265.6	
Location:	JUST NE OF FELLOWS.						
Detailed Location:	K-RATS TRAPPED IN SECTIONS 32 & 33.						
Ecological:	HABITAT CONSISTS OF DESERT SALTBU SH SCRUB; DOMINATED BY DESERT SALTBU SH, WITH A DENSE COVER OF RED BROME AND RED-STEMMED FILAREE. SJ KIT FOX ALSO PRESENT AT THIS SITE.						
General:	90 INDIVIDUALS CAPTURED ON 14 JUL 1993.						
Owner/Manager:	DOE						
Occurrence No.	18	Map Index:	41613	EO Index:	41613	Element Last Seen:	1999-05-01
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-05-01
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1999-09-14
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.18789 / -119.36260				Accuracy:	specific area	
UTM:	Zone-11 N3896436 E284881				Elevation (ft):	375	
PLSS:	T31S, R24E, Sec. 35, NE (M)				Acres:	36.5	
Location:	WEST SIDE OF THE CALIFORNIA AQUEDUCT, AT THE SOUTH END OF BUENA VISTA VALLEY, 7 MILES NE OF TAFT.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF VALLEY SALTBU SH/SINK SCRUB.						
General:	500+ INDIVIDUALS AND BURROWS OBSERVED ON 1 MAY 1999.						
Owner/Manager:	PVT						
Occurrence No.	19	Map Index:	41616	EO Index:	41616	Element Last Seen:	1999-03-24
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-03-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1999-09-14
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.36742 / -119.54224				Accuracy:	1/10 mile	
UTM:	Zone-11 N3916756 E269033				Elevation (ft):	375	
PLSS:	T29S, R23E, Sec. 31, NE (M)				Acres:	0.0	
Location:	WEST OF THE CALIFORNIA AQUEDUCT, 6 MILES NE OF MCKITTRICK.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF SALTBU SH SCRUB (BURNED IN 1997).						
General:	50+ OBSERVED ON 24 MAR 1999.						
Owner/Manager:	PVT						



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Occurrence No.	20	Map Index:	41618	EO Index:	41618	Element Last Seen:	1999-03-30
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-03-30
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1999-09-14
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.34149 / -119.59548				Accuracy:	80 meters	
UTM:	Zone-11 N3914006 E264119				Elevation (ft):	700	
PLSS:	T30S, R22E, Sec. 03, SE (M)				Acres:	0.0	
Location:	3 MILES NNE OF MCKITTRICK.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF SALTBUUSH SCRUB.						
General:	20 INDIVIDUALS AND ACTIVE BURROWS WERE OBSERVED ON 30 MAR 1999.						
Owner/Manager:	PVT						

Occurrence No.	21	Map Index:	41619	EO Index:	41619	Element Last Seen:	1999-03-30
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-03-30
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1999-09-14
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.35873 / -119.55861				Accuracy:	non-specific area	
UTM:	Zone-11 N3915831 E267520				Elevation (ft):	475	
PLSS:	T29S, R22E, Sec. 36, SE (M)				Acres:	28.3	
Location:	5 MILES NE OF MCKITTRICK.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUUSH SCRUB (BURNED IN 1997).						
General:	30+ OBSERVED ON 30 MAR 1999.						
Owner/Manager:	PVT						

Occurrence No.	26	Map Index:	49007	EO Index:	49007	Element Last Seen:	1998-04-23
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-19
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.18480 / -119.42538				Accuracy:	non-specific area	
UTM:	Zone-11 N3896232 E279155				Elevation (ft):	600	
PLSS:	T31S, R24E, Sec. 32 (M)				Acres:	647.0	
Location:	3.2 MILES NE OF TAFT; 1 MILE ENE FROM JCT OF MIDWAY ROAD AND STATE ROUTE 119, NEAR PIPELINE.						
Detailed Location:	TWO VERY SPECIFIC SITES REPORTED FROM SE1/4 SEC 31 AND FROM NE1/4 SEC 6. ALSO REPORTED FROM ENTIRE SECTION 32.						
Ecological:	HABITAT CONSISTS OF SALTBUUSH/VALLEY SINK SCRUB. GROUND COVER CONSISTS OF RED BROME AND RED-STEMMED FILAREE.						
General:	50+ INDIVIDUALS (FORAGING) OBSERVED IN SPECIFIC SW AREAS OF FEATURE ON 23 APR 1998; BURROWS ALSO OBSERVED. 6 INDIVIDUALS OBSERVED ON 04-24-1991 IN SECTION 32.						
Owner/Manager:	DOE, PVT						



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Occurrence No.	28	Map Index:	56304	EO Index:	56320	Element Last Seen:	2001-02-10
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-02-10
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-08-04
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.23093 / -119.35283			Accuracy:	2/5 mile		
UTM:	Zone-11 N3901190 E285884			Elevation (ft):	340		
PLSS:	T31S, R24E, Sec. 13, SW (M)			Acres:	0.0		
Location:	NW OF BUENA VISTA LAKE BED & SE OF STATE ROUTE 119, BUENA VISTA VALLEY.						
Detailed Location:	SW 1/4 SECTION 13.						
Ecological:	HABITAT CONSISTS OF SALTBUSSH/VALLEY SINK SCRUB.						
General:	50+ BURROWS AND SIGN OBSERVED ON 10 FEB 2001.						
Owner/Manager:	PVT						
Occurrence No.	31	Map Index:	65095	EO Index:	65203	Element Last Seen:	2004-09-24
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2004-09-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-17
Quad Summary:	Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.39977 / -119.57949			Accuracy:	specific area		
UTM:	Zone-11 N3920433 E265741			Elevation (ft):	350		
PLSS:	T29S, R22E, Sec. 14, SE (M)			Acres:	13.0		
Location:	0.36 AIR MILES S OF CALIFORNIA AQUEDUCT AND ABOUT 2.5 MILES W FROM LOKERN RD AND HWY 58 JCT.						
Detailed Location:	2 SPECIFIC UTM'S MAPPED IN THE SW1/4 OF THE SE1/4 SEC 14.						
Ecological:	HABITAT CONSISTS OF SALTBUSSH SCRUB.						
General:	8 ADULTS CAPTURED DURING TRAPPING SESSION FROM 9/14-9/24/2004.						
Owner/Manager:	CNLM						
Occurrence No.	33	Map Index:	65165	EO Index:	65244	Element Last Seen:	2004-09-24
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2004-09-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-17
Quad Summary:	West Elk Hills (3511935), Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.37456 / -119.54064			Accuracy:	specific area		
UTM:	Zone-11 N3917545 E269197			Elevation (ft):	350		
PLSS:	T29S, R23E, Sec. 30, SE (M)			Acres:	13.2		
Location:	1.9 MILE SSW OF HIGHWAY 58 AND LOKERN RD JUNCTION, 0.9 MILES EAST OF LOKREN PUMPING STATION.						
Detailed Location:	2 SPECIFIC SITES MAPPED AS ONE POLYGON BASED ON UTM'S.						
Ecological:	HABITAT CONSISTS OF SALTBUSSH SCRUB.						
General:	44 ADULTS CAPTURED DURING TRAPPING SESSION FROM 14 TO 24 SEP 2004 AT TWO SITES.						
Owner/Manager:	CNLM						



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Occurrence No.	34	Map Index:	65167	EO Index:	65246	Element Last Seen:	2004-09-24
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2004-09-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-17
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.35255 / -119.50640				Accuracy:	specific area	
UTM:	Zone-11 N3915024 E272247				Elevation (ft):	380	
PLSS:	T30S, R23E, Sec. 04, NE (M)				Acres:	12.9	
Location:	2.1 MILES WNW OF CROSSING OF ELK HILLS ROAD & CALIFORNIA AQUEDUCT.						
Detailed Location:	2 SPECIFIC POINTS MAPPED AS ONE POLYGON FROM UTM'S.						
Ecological:	HABITAT CONSISTS OF OPEN GRASSLAND (PREVIOUSLY BURNED SALTBU SH SCRUB).						
General:	68 ADULTS CAPTURED DURING TRAPPING SESSION FROM 14 TO 24 SEP 2004 AT 2 TRAP LOCATIONS.						
Owner/Manager:	CNLM						

Occurrence No.	35	Map Index:	65092	EO Index:	65247	Element Last Seen:	2004-09-24
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2004-09-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-17
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.36792 / -119.55164				Accuracy:	specific area	
UTM:	Zone-11 N3916834 E268179				Elevation (ft):	410	
PLSS:	T29S, R23E, Sec. 31, NW (M)				Acres:	13.2	
Location:	0.8 MILE SOUTH EAST FROM HIGHWAY 58, 16 MILES NNW OF TAFT.						
Detailed Location:	2 SPECIFIC SITES MAPPED AS ONE POLYGON USING UTM'S.						
Ecological:	HABITAT CONSISTS OF OPEN GRASSLAND (PREVIOUSLY BURNT SALTBU SH SCRUB).						
General:	49 ADULTS CAPTURED DURING TRAPPING SESSION CONDUCTED BETWEEN 9/14-9/24/2004.						
Owner/Manager:	CNLM						

Occurrence No.	36	Map Index:	65177	EO Index:	65256	Element Last Seen:	2004-09-24
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2004-09-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-17
Quad Summary:	Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.39073 / -119.57016				Accuracy:	specific area	
UTM:	Zone-11 N3919408 E266562				Elevation (ft):	360	
PLSS:	T29S, R22E, Sec. 24, NW (M)				Acres:	12.6	
Location:	0.5 MILE SOUTH OF LOKERN ROAD & 1.5 MILES WSW OF LOKERN SITE.						
Detailed Location:	MAPPED IN SW1/4 OF NW1/4 AND IN THE NW 1/4 OF SW 1/4 SECTION 24. MAPPED FROM SPECIFIC UTM DATA.						
Ecological:	HABITAT CONSISTS OF OPEN GRASSLAND (PREVIOUSLY BURNED SALTBU SH SCRUB).						
General:	27 ADULTS CAPTURED DURING TRAPPING SURVEY BETWEEN 9/14-9/24/2004 AT TWO SITES.						
Owner/Manager:	CNLM						



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Occurrence No.	37	Map Index:	65179	EO Index:	65258	Element Last Seen:	2004-09-24
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2004-09-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-17
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.35559 / -119.48052				Accuracy:	80 meters	
UTM:	Zone-11 N3915302 E274608				Elevation (ft):	320	
PLSS:	T29S, R23E, Sec. 35, SW (M)				Acres:	0.0	
Location:	0.4 MILE W OF ELK HILLS RD IN THE VISCINITY OF BUTTONWILLOW-KERN COUNTY AIRFIELD & 3.2 MILES SSW FROM BUTTONWILLOW.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF SALTBUSSH SCRUB.						
General:	12 ADULTS CAPTURED DURING TRAPPING SESSION FROM 14 TO 24 SEP 2004.						
Owner/Manager:	KRN COUNTY						

Occurrence No.	38	Map Index:	65090	EO Index:	65264	Element Last Seen:	2004-09-24
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2004-09-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-18
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.35526 / -119.48989				Accuracy:	80 meters	
UTM:	Zone-11 N3915286 E273755				Elevation (ft):	350	
PLSS:	T29S, R23E, Sec. 34, SE (M)				Acres:	0.0	
Location:	0.9 MILE WEST OF ELK HILLS ROAD IN THE VICINITY OF BUTTONWILLOW-KERN COUNTY AIRFIELD.						
Detailed Location:	MAPPED IN THE SW1/4 OF THE SE1/4 SECTION 34.						
Ecological:	HABITAT CONSISTS OF SALTBUSSH SCRUB.						
General:	22 ADULTS CAPTURED DURING TRAPPING SESSION FROM 9/14-9/24/2004.						
Owner/Manager:	CNLM						

Occurrence No.	41	Map Index:	65189	EO Index:	65268	Element Last Seen:	2002-01-16
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2002-01-16
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-18
Quad Summary:	Millux (3511922)						
County Summary:	Kern						
Lat/Long:	35.17476 / -119.20390				Accuracy:	80 meters	
UTM:	Zone-11 N3894648 E299301				Elevation (ft):	290	
PLSS:	T32S, R26E, Sec. 05, NE (M)				Acres:	0.0	
Location:	0.5 MILE WSW FROM MILLUX, 0.25 MILE WEST OF SUNSET HILL ROAD.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF SALTBUSSH SCRUB AND NON-NATIVE GRASSLAND. A BURROWING OWL AND ITS BURROW WERE ALSO OBSERVED. K-RAT WAS THE OWL'S PREY (WHICH IT DROPPED).						
General:	1 ADULT OBSERVED ON 16 JANUARY 2002.						
Owner/Manager:	DWR						



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Occurrence No.	43	Map Index:	65194	EO Index:	65273	Element Last Seen:	2002-05-22
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2002-05-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-08-01
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.16585 / -119.34942				Accuracy:	80 meters	
UTM:	Zone-11 N3893963 E286024				Elevation (ft):	400	
PLSS:	T32S, R24E, Sec. 12, N (M)				Acres:	0.0	
Location:	BUENA VISTA HILLS VICINITY, ON WEST SIDE OF CALIFORNIA AQUEDUCT, 1.2 MILES NNW OF RICHMOND OIL PUMPING STATION.						
Detailed Location:	MAPPED IN MIDDLE OF N1/4 SEC 12.						
Ecological:	HABITAT DOMINATED BY VALLEY SALTBUSH SCRUB WITH SCATTERED ISOMERIS, MATCHWEED, AND ISOCOMA. SURROUNDING AREA IN OIL DEVELOPMENT SWP FACILITIES AND RANGELAND.						
General:	2 NON-REPRODUCTIVE MALES WERE CAPTURED ON 5/22/2002 DURING A 73 NIGHT TRAPPING SESSION.						
Owner/Manager:	DWR						

Occurrence No.	44	Map Index:	65195	EO Index:	65274	Element Last Seen:	2002-05-22
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2002-05-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-08-01
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.15909 / -119.34973				Accuracy:	80 meters	
UTM:	Zone-11 N3893214 E285978				Elevation (ft):	490	
PLSS:	T32S, R24E, Sec. 12, NW (M)				Acres:	0.0	
Location:	BUENA VISTA HILLS VICINITY, ON WEST SIDE OF CALIFORNIA AQUEDUCT, 0.2 MILE W OF BUENA VISTA PUMPING PLANT.						
Detailed Location:	MAPPED NEAR CENTER OF SECTION 12.						
Ecological:	HABITAT DOMINATED BY VALLEY SALTBUSH SCRUB WITH SCATTERED ISOMERIS, MATCHWEED, AND ISOCOMA. SURROUNDING AREA OIL DEVELOPMENT SWP FACILITIES AND RANGELAND.						
General:	1 NON-REPRODUCTIVE FEMALE WAS CAPTURED ON 5/22/2002 DURING A 73 NIGHT TRAPPING SESSION.						
Owner/Manager:	DWR						

Occurrence No.	45	Map Index:	65210	EO Index:	65289	Element Last Seen:	1991-04-04
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1991-04-04
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-19
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.24061 / -119.32084				Accuracy:	non-specific area	
UTM:	Zone-11 N3902195 E288821				Elevation (ft):	410	
PLSS:	T31S, R25E, Sec. 08, SW (M)				Acres:	47.4	
Location:	ADJACENT TO BUENA VISTA PARK, JUST NORTH OF CALIFORNIA AQUEDUCT, 10.5 MILES NE OF TAFT.						
Detailed Location:	SOURCE STATED ANIMALS FOUND IN SEC 8, BUT DIRECTIONS PLACED IT IN SW1/4 OF SW1/4 SEC 8.						
Ecological:	HABITAT DOMINATED BY SALTBUSH WITH A GROUND COVER OF RED BROME AND RED-STEMMED FILAREE.						
General:	3 INDIVIDUALS CAPTURED DURING TRAPPING PERIOD OF APRIL 2-4 1991.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	46	Map Index:	65214	EO Index:	65293	Element Last Seen:	2003-02-XX
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2003-02-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2016-09-19
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.19930 / -119.42042				Accuracy:	80 meters	
UTM:	Zone-11 N3897829 E279646				Elevation (ft):	480	
PLSS:	T31S, R24E, Sec. 29, SW (M)				Acres:	0.0	
Location:	HIGHWAY 119, 1 MILE SOUTHWEST OF VALLEY ACRES IN BUENA VISTA VALLEY.						
Detailed Location:							
Ecological:	HABITAT CONSISTED OF DISTURBED SALTBUSH SCRUB ALONG WITH IODINEBUSH SCRUB AND SEEPWEED; TULARE GRASSHOPPER MOUSE AND SAN JOAQUIN ANTELOPE SQUIRREL ALSO OBSERVED.						
General:	105 ANIMALS WERE CAPTURED IN THE ENTIRE STUDY AREA IN FEBRUARY 2003. 70 TOTAL WERE CAUGHT BETWEEN JANUARY AND FEBRUARY 2002. IT IS NOT KNOWN HOW MANY ANIMALS WERE CAUGHT AT THIS PARTICULAR SITE.						
Owner/Manager:	PVT-CHEVRON						

Occurrence No.	47	Map Index:	65218	EO Index:	65297	Element Last Seen:	2003-02-XX
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2003-02-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-19
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.20402 / -119.41453				Accuracy:	specific area	
UTM:	Zone-11 N3898339 E280196				Elevation (ft):	450	
PLSS:	T31S, R24E, Sec. 29, NE (M)				Acres:	28.1	
Location:	HIGHWAY 119, 0.5 MILE SW OF VALLEY ACRES IN BUENA VISTA VALLEY.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF DISTURBED SALTBUSH SCRUB ALONG WITH IODINE BUSH SCRUB AND SEEPWEED; TULARE GRASSHOPPER MOUSE AND SAN JOAQUIN ANTELOPE SQUIRREL ALSO OBSERVED.						
General:	105 ANIMALS WERE CAPTURED IN THE ENTIRE STUDY AREA IN FEBRUARY 2003. 70 TOTAL WERE CAUGHT BETWEEN JANUARY AND FEBRUARY 2002. IT IS NOT KNOWN HOW MANY ANIMALS WERE CAUGHT AT THIS PARTICULAR SITE.						
Owner/Manager:	PVT-CHEVRON						



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Occurrence No.	48	Map Index:	65222	EO Index:	65301	Element Last Seen:	2003-02-XX
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2003-02-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-19
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.21034 / -119.41351				Accuracy:	specific area	
UTM:	Zone-11 N3899039 E280306				Elevation (ft):	440	
PLSS:	T31S, R24E, Sec. 20, SE (M)				Acres:	17.4	
Location:	0.5 MILE WEST FROM VALLEY WEST ROAD & HIGHWAY 119 JUNCTION, 0.4 MILE NW OF VALLEY ACRES.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF DISTURBED SALTBUSH SCRUB ALONG WITH IODINE BUSH SCRUB AND SEEPWEED; TULARE GRASSHOPPER MOUSE AND SAN JOAQUIN ANTELOPE SQUIRREL ALSO OBSERVED.						
General:	105 ANIMALS WERE CAPTURED IN THE ENTIRE STUDY AREA IN FEBRUARY 2003. 70 TOTAL WERE CAUGHT BETWEEN JANUARY AND FEBRUARY 2002. IT IS NOT KNOWN HOW MANY ANIMALS WERE CAUGHT AT THIS PARTICULAR SITE.						
Owner/Manager:	PVT-CHEVRON						

Occurrence No.	49	Map Index:	65246	EO Index:	65325	Element Last Seen:	2003-02-XX
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2003-02-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-20
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.21570 / -119.39568				Accuracy:	non-specific area	
UTM:	Zone-11 N3899593 E281943				Elevation (ft):	400	
PLSS:	T31S, R24E, Sec. 21, SE (M)				Acres:	18.1	
Location:	0.7 MILE NE OF VALLEY ACRES AND 0.2 MILE SW OF DUSTIN ACRES ON HIGHWAY 119.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF DISTURBED SALTBUSH SCRUB ALONG WITH IODINE BUSH SCRUB AND SEEPWEED; TULARE GRASSHOPPER MOUSE AND SAN JOAQUIN ANTELOPE SQUIRREL ALSO OBSERVED.						
General:	105 ANIMALS WERE CAPTURED IN THE ENTIRE STUDY AREA IN FEBRUARY 2003. 70 TOTAL WERE CAUGHT BETWEEN JANUARY AND FEBRUARY 2002. IT IS NOT KNOWN HOW MANY ANIMALS WERE CAUGHT AT THIS PARTICULAR SITE.						
Owner/Manager:	PVT-CHEVRON						



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Occurrence No.	50	Map Index:	65248	EO Index:	65327	Element Last Seen:	2003-02-XX
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2003-02-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-20
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.20337 / -119.39075				Accuracy:	1/5 mile	
UTM:	Zone-11 N3898215 E282359				Elevation (ft):	370	
PLSS:	T31S, R24E, Sec. 27, NW (M)				Acres:	0.0	
Location:	0.9 MILE ESE OF VALLEY ACRES, 5.0 MILES NE OF FORD CITY IN BUENA VISTA VALLEY.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF DISTURBED SALTBUSH SCRUB ALONG WITH IODINE BUSH SCRUB AND SEEPWEED; TULARE GRASSHOPPER MOUSE AND SAN JOAQUIN ANTELOPE SQUIRREL ALSO OBSERVED.						
General:	105 ANIMALS WERE CAPTURED IN THE ENTIRE STUDY AREA IN FEBRUARY 2003. 70 TOTAL WERE CAUGHT BETWEEN JANUARY AND FEBRUARY 2002. IT IS NOT KNOWN HOW MANY ANIMALS WERE CAUGHT AT THIS PARTICULAR SITE.						
Owner/Manager:	PVT-CHEVRON						

Occurrence No.	51	Map Index:	65250	EO Index:	65329	Element Last Seen:	2003-02-XX
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2003-02-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-08-01
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.21813 / -119.40837				Accuracy:	1/10 mile	
UTM:	Zone-11 N3899891 E280794				Elevation (ft):	440	
PLSS:	T31S, R24E, Sec. 21, NW (M)				Acres:	0.0	
Location:	0.75 MILE NORTH OF VALLEY ACRES, 1.0 MILES WSW OF DUSTIN ACRES IN BUENA VISTA VALLEY.						
Detailed Location:	MAPPED IN SW1/4 OF NW1/4 SEC 21.						
Ecological:	HABITAT CONSISTS OF DISTURBED SALTBUSH SCRUB ALONG WITH IODINE BUSH SCRUB AND SEEPWEED; TULARE GRASSHOPPER MOUSE AND SAN JOAQUIN ANTELOPE SQUIRREL ALSO OBSERVED.						
General:	105 ANIMALS WERE CAPTURED IN THE ENTIRE STUDY AREA IN FEBRUARY 2003. 70 TOTAL WERE CAUGHT BETWEEN JANUARY AND FEBRUARY 2002. IT IS NOT KNOWN HOW MANY ANIMALS WERE CAUGHT AT THIS PARTICULAR SITE.						
Owner/Manager:	PVT-CHEVRON						



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Occurrence No.	52	Map Index:	65253	EO Index:	65332	Element Last Seen:	2003-02-XX
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2003-02-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-20
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.22303 / -119.40068				Accuracy:	non-specific area	
UTM:	Zone-11 N3900418 E281507				Elevation (ft):	430	
PLSS:	T31S, R24E, Sec. 21, NE (M)				Acres:	20.0	
Location:	0.2 MILE SOUTH OF STANDARD OIL TANK FARM, 0.7 MILE WNW OF DUSTIN ACRES, 1.2 MILES NNW OF VALLEY ACRES.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF DISTURBED SALTBUSH SCRUB ALONG WITH IODINE BUSH SCRUB AND SEEPWEED; TULARE GRASSHOPPER MOUSE AND SAN JOAQUIN ANTELOPE SQUIRREL ALSO OBSERVED.						
General:	105 ANIMALS WERE CAPTURED IN THE ENTIRE STUDY AREA IN FEBRUARY 2003. 70 TOTAL WERE CAUGHT BETWEEN JANUARY AND FEBRUARY 2002. IT IS NOT KNOWN HOW MANY ANIMALS WERE CAUGHT AT THIS PARTICULAR SITE.						
Owner/Manager:	PVT-CHEVRON						

Occurrence No.	53	Map Index:	65254	EO Index:	65333	Element Last Seen:	2003-02-XX
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2003-02-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-08-01
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.20951 / -119.38166				Accuracy:	1/10 mile	
UTM:	Zone-11 N3898877 E283203				Elevation (ft):	350	
PLSS:	T31S, R24E, Sec. 27, NE (M)				Acres:	0.0	
Location:	BUENA VISTA VALLEY, 0.8 MILE SE OF DUSTIN ACRES, 1.4 MILES ENE OF VALLEY ACRES, 5.6 MILES NE OF FORD CITY.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF DISTURBED SALTBUSH SCRUB ALONG WITH IODINE BUSH SCRUB AND SEEPWEED; TULARE GRASSHOPPER MOUSE AND SAN JOAQUIN ANTELOPE SQUIRREL ALSO OBSERVED.						
General:	105 ANIMALS WERE CAPTURED IN THE ENTIRE STUDY AREA IN FEBRUARY 2003. 70 TOTAL WERE CAUGHT BETWEEN JANUARY AND FEBRUARY 2002. IT IS NOT KNOWN HOW MANY ANIMALS WERE CAUGHT AT THIS PARTICULAR SITE.						
Owner/Manager:	PVT-CHEVRON						



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Occurrence No.	54	Map Index:	65256	EO Index:	65335	Element Last Seen:	2003-02-XX
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2003-02-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-20
Quad Summary:	Mouth of Kern (3511923), Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.21750 / -119.37135				Accuracy:	specific area	
UTM:	Zone-11 N3899740 E284163				Elevation (ft):	330	
PLSS:	T31S, R24E, Sec. 23, NW (M)				Acres:	37.8	
Location:	BUENA VISTA VALLEY, 1.0 MILE ESE OF DUSTIN ACRES, 0.9 MILE W OF THE CALIFORNIA AQUEDUCT, 6.5 MILES NE OF FORD CITY.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF DISTURBED SALTBUSSH SCRUB ALONG WITH IODINE BUSH SCRUB AND SEEPWEED; TULARE GRASSHOPPER MOUSE AND SAN JOAQUIN ANTELOPE SQUIRREL ALSO OBSERVED.						
General:	105 ANIMALS WERE CAPTURED IN THE ENTIRE STUDY AREA IN FEBRUARY 2003. 70 TOTAL WERE CAUGHT BETWEEN JANUARY AND FEBRUARY 2002. IT IS NOT KNOWN HOW MANY ANIMALS WERE CAUGHT AT THIS PARTICULAR SITE.						
Owner/Manager:	PVT-CHEVRON						
Occurrence No.	55	Map Index:	65259	EO Index:	65338	Element Last Seen:	2003-02-XX
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2003-02-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-08-01
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.22390 / -119.36610				Accuracy:	1/10 mile	
UTM:	Zone-11 N3900439 E284657				Elevation (ft):		
PLSS:	T31S, R24E, Sec. 27, NE (M)				Acres:	0.0	
Location:	BUENA VISTA VALLEY, 1.3 MILES ENE OF DUSTIN ACRES, 5.3 MILE SSW OF TUPMAN.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF DISTURBED SALTBUSSH SCRUB ALONG WITH IODINE BUSH SCRUB AND SEEPWEED; TULARE GRASSHOPPER MOUSE AND SAN JOAQUIN ANTELOPE SQUIRREL ALSO OBSERVED.						
General:	105 ANIMALS WERE CAPTURED IN THE ENTIRE STUDY AREA IN FEBRUARY 2003. 70 TOTAL WERE CAUGHT BETWEEN JANUARY AND FEBRUARY 2002. IT IS NOT KNOWN HOW MANY ANIMALS WERE CAUGHT AT THIS PARTICULAR SITE.						
Owner/Manager:	PVT-CHEVRON						



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Occurrence No.	56	Map Index:	65261	EO Index:	65340	Element Last Seen:	2003-02-XX
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2003-02-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-20
Quad Summary:	Mouth of Kern (3511923), Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.22759 / -119.37658				Accuracy:	non-specific area	
UTM:	Zone-11 N3900871 E283714				Elevation (ft):	400	
PLSS:	T31S, R24E, Sec. 15, SE (M)				Acres:	146.4	
Location:	NORTHERN BUENA VISTA VALLEY, 1.0 MI E OF STANDARD OIL TANK FARM, 0.5 MI NE OF DUSTIN ACRES ON BOTH SIDES OF HIGHWAY 119.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF DISTURBED SALTBUSH SCRUB ALONG WITH IODINE BUSH SCRUB AND SEEPWEED; TULARE GRASSHOPPER MOUSE AND SAN JOAQUIN ANTELOPE SQUIRREL ALSO OBSERVED.						
General:	105 ANIMALS WERE CAPTURED IN THE ENTIRE STUDY AREA IN FEBRUARY 2003. 70 TOTAL WERE CAUGHT BETWEEN JANUARY AND FEBRUARY 2002. IT IS NOT KNOWN HOW MANY ANIMALS WERE CAUGHT AT THIS PARTICULAR SITE.						
Owner/Manager:	PVT-CHEVRON						
Occurrence No.	57	Map Index:	65265	EO Index:	65344	Element Last Seen:	2003-02-XX
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2003-02-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-20
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.23583 / -119.36566				Accuracy:	1/10 mile	
UTM:	Zone-11 N3901761 E284729				Elevation (ft):	470	
PLSS:	T31S, R24E, Sec. 14, NE (M)				Acres:	0.0	
Location:	ON HIGHWAY 119, 1.8 MILES ENE OF STANDARD OIL TANK FARM, 1.7 MILES NE OF DUSTIN ACRES, 22 MILES SW OF BAKERSFIELD.						
Detailed Location:							
Ecological:	SCRUB AND SEEPWEED; TULARE GRASSHOPPER MOUSE AND SAN JOAQUIN ANTELOPE SQUIRREL ALSO OBSERVED.						
General:	105 ANIMALS WERE CAPTURED IN THE ENTIRE STUDY AREA IN FEBRUARY 2003. 70 TOTAL WERE CAUGHT BETWEEN JANUARY AND FEBRUARY 2002. IT IS NOT KNOWN HOW MANY ANIMALS WERE CAUGHT AT THIS PARTICULAR SITE.						
Owner/Manager:	PVT-CHEVRON						



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Occurrence No.	58	Map Index:	A1861	EO Index:	65346	Element Last Seen:	2016-04-23
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2016-04-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2016-09-20
Quad Summary:	Mouth of Kern (3511923), Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.25281 / -119.33568				Accuracy:	non-specific area	
UTM:	Zone-11 N3903580 E287503				Elevation (ft):	523	
PLSS:	T31S, R25E, Sec. 7 (M)				Acres:	401.0	
Location:	HWY 119, FROM TUPMAN RD TO ELK HILLS PETROLEUM RESERVE ACCESS ROAD, ABOUT 3.2 ROAD MILES FURTHER SW; S OF TUPMAN.						
Detailed Location:	MAPPED TO EXTENT OF 2 AREAS SURVEYED IN 2016, EXACT DETECTION LOCATIONS UNKNOWN. MAPPED FEATURE INCLUDES 7 OF ABOUT 36 SITES SURVEYED IN 2002-2003.						
Ecological:	2002-03: DISTURBED SALTBUSH SCRUB ALONG WITH IODINE BUSH SCRUB & SEEPWEED; TULARE GRASSHOPPER MOUSE & SAN JOAQUIN ANTELOPE SQUIRREL ALSO OBSERVED. 2016: NON-NATIVE ANNUAL GRASSLAND W/ SPARSE SHRUBS INCL. ATRIPLEX; DISTURBANCE FROM HIGHWAY.						
General:	AT LEAST 105 CAPTURES MADE IN ENTIRE STUDY AREA, JAN-FEB 2002 & FEB 2003 (ABOUT 7 OUT OF 36 TRAPLINES MAPPED AT THIS OCCURRENCE). 1 ADULT TRAPPED ON 18 MAR 2016; 3 ADULTS AND 3 JUVENILES TRAPPED BETWEEN 18 - 23 APR 2016.						
Owner/Manager:	PVT-CHEVRON, CALTRANS						

Occurrence No.	64	Map Index:	65279	EO Index:	65358	Element Last Seen:	1989-12-23
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1989-12-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-21
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.29831 / -119.51192				Accuracy:	specific area	
UTM:	Zone-11 N3909020 E271592				Elevation (ft):	1330	
PLSS:	T30S, R23E, Sec. 21, SW (M)				Acres:	43.1	
Location:	11.2 MILES NNW OF TAFT IN ELK HILLS, 6.3 MILES EAST OF MC KITTRICK.						
Detailed Location:	MAPPED AS PER TRS GIVEN IN SOURCE: T30S R23E SE1/4 OF SW1/4 SEC 21.						
Ecological:	HABITAT CONSISTS OF A VERY DENSE GROUND COVER OF RED BROME, WITH FEW SHRUBS.						
General:	1 ADULT SEEN ON 12/23/1989.						
Owner/Manager:	DOE						



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Occurrence No.	65	Map Index:	65303	EO Index:	65382	Element Last Seen:	1993-09-27
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1993-09-27
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-21
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.33236 / -119.49215				Accuracy:	non-specific area	
UTM:	Zone-11 N3912752 E273485				Elevation (ft):		
PLSS:	T30S, R23E, Sec. 10 (M)				Acres:	680.3	
Location:	4.9 MILES SE OF HIGHWAY 58 AND CALIFORNIA AQUEDUCT CROSSING. 12.4 MILE NNW OF FORD CITY.						
Detailed Location:	MAPPED IN SEC 10, T30S R23E, AS PER SOURCE.						
Ecological:	HABITAT CONSISTS OF SEMI-ARID SCRUB GRASSLAND. DESERT SALTBUSH IS THE DOMINANT SHRUB; DENSE GROUND COVER OF RED BROME AND RED-STEMMED FILAREE.						
General:	190 IND. CAPTURED ON 9/27/1993 IN SEVERAL SITES, UNKNOWN HOW MANY AT EACH PARTICULAR SITE.						
Owner/Manager:	DOE						

Occurrence No.	66	Map Index:	65304	EO Index:	65383	Element Last Seen:	1992-05-04
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1992-05-04
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-24
Quad Summary:	Millux (3511922), Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.20177 / -119.24394				Accuracy:	non-specific area	
UTM:	Zone-11 N3897726 E295722				Elevation (ft):		
PLSS:	T31S, R25E, Sec. 25 (M)				Acres:	639.1	
Location:	BUENA VISTA LAKE BED, 17.0 MILE SW FORM BAKERSFIELD, 12.8 MILES NE OF TAFT.						
Detailed Location:	MAPPED AS PER TRS GIVEN IN SOURCE: T31S R25E SEC 25.						
Ecological:							
General:	2 INDIVIDUALS IN 100 TRAPS FROM 1-4 MAY 1992.						
Owner/Manager:	UNKNOWN						

Occurrence No.	67	Map Index:	65892	EO Index:	65971	Element Last Seen:	2003-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2003-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-08-17
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.35772 / -119.61735				Accuracy:	non-specific area	
UTM:	Zone-11 N3915858 E262178				Elevation (ft):	590	
PLSS:	T29S, R22E, Sec. 33, SW (M)				Acres:	98.0	
Location:	LOKERN NATURAL AREA, 2.3 MI SE OF INTERSECTION OF CYMRIC ROAD AND HWY 33.						
Detailed Location:							
Ecological:	SPINY SALTBUSH (ATRIPLEX SPINIFERA) WAS THE ONLY SHRUB WITH MEASURABLE COVER ALTHOUGH A FEW INDIVIDUALS OF COMMON SALTBUSH (ATRIPLEX POLYCARPA) AND BLADDERPOD (ISOMERIS ARBOREA) ALSO OBSERVED IN AREA.						
General:	FEW INDIV OBS IN 1998, ~165 INDIV OBS IN 1999, ~160 INDIV OBS IN 2000, ~220 INDIV OBS IN 2001, ~490 INDIV OBS IN 2002 & 385 INDIV OBS IN 2003. ALL POP NUMBERS BETWEEN THIS OCC, OCC #13, 68 & 69.						
Owner/Manager:	CNLM-LOKERN NATURAL AREA						



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Occurrence No.	72	Map Index:	71890	EO Index:	72754	Element Last Seen:	2007-11-29
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2007-11-29
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-08-07
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.34305 / -119.47048				Accuracy:	specific area	
UTM:	Zone-11 N3913888 E275485				Elevation (ft):	350	
PLSS:	T30S, R23E, Sec. 02, SE (M)				Acres:	30.0	
Location:	JUST WEST OF ELK HILLS RD (BUTTONWILLOW DR) & SOUTH OF ENTRANCE ROAD TO BUTTONWILLOW AIRPORT, MCKITTRICK.						
Detailed Location:	BUTTONWILLOW AIRPORT UNIT OF LOKERN ECOLOGICAL RESERVE. MAPPED TO PROVIDED COORDINATES. SPECIFIC WAYPOINTS ON FIELD SURVEY FORMS.						
Ecological:	IODINE BUSH SERIES, ALLSCALE SERIES & CALIF. ANNUAL GRASSLAND SERIES, WITH ALKALINE CLAY SOILS. DOM SP-ATRIPLEX POLYCARPA, A. SPINIFERA, ALLENROLFEA OCCIDENTALIS, BROMUS MADRITENSIS RUBENS, DEINANDRA PALLIDA.						
General:	2007: 12 ADULTS CAPTURED FROM 26 -29 NOV.						
Owner/Manager:	DFG-LOKERN ER						

Occurrence No.	73	Map Index:	71891	EO Index:	72755	Element Last Seen:	2007-09-27
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2007-09-27
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2008-08-07
Quad Summary:	West Elk Hills (3511935), Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.37432 / -119.55237				Accuracy:	specific area	
UTM:	Zone-11 N3917546 E268131				Elevation (ft):	392	
PLSS:	T29S, R23E, Sec. 30 (M)				Acres:	31.0	
Location:	SE OF HWY 58, 0.5 MILE SE OF BENCH MARK 407 (LOKERN PUMPING STATION), MC KITTRICK.						
Detailed Location:	FERRIS UNIT OF LOKERN ECOLOGICAL RESERVE. MAPPED TO PROVIDED COORDINATES. SPECIFIC WAYPOINTS ON FIELD SURVEY FORMS.						
Ecological:	IODINE BUSH SERIES, ALLSCALE SERIES & CALIF. ANNUAL GRASSLAND SERIES, WITH ALKALINE CLAY SOILS. DOM SP-ATRIPLEX POLYCARPA, A. SPINIFERA, ALLENROLFEA OCCIDENTALIS, BROMUS MADRITENSIS RUBENS, DEINANDRA PALLIDA.						
General:	44 ADULTS CAPTURED BETWEEN 24-27 SEP 2007.						
Owner/Manager:	DFG-LOKERN ER						



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Occurrence No.	74	Map Index:	B2744	EO Index:	114678	Element Last Seen:	2015-10-30
Occ. Rank:	Good	Presence:	Presumed Extant	Site Last Seen:		2015-10-30	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2019-03-26	
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.34912 / -119.60217				Accuracy:	specific area	
UTM:	Zone-11 N3914868 E263534				Elevation (ft):	633	
PLSS:	T30S, R22E, Sec. 3, NW (M)				Acres:	17.0	
Location:	NW SIDE OF CA-58, ABOUT 3.0 MI NNE OF THE CA-33 INTERSECTION AT MCKITTRICK & 4.7 MI SW OF LOKERN.						
Detailed Location:	MAPPED TO PROVIDED MAP OF TRAP SITES. INCLUDES TRAP SITES W14, C12, E6, E2, W2.						
Ecological:	SOUTHERN CALIFORNIA GAS COMPANY ACCESS ROAD IN DISTURBED ANNUAL GRASSLAND WITH SCATTERED ATRIPLEX SHRUB. GRAZED GRASSLAND & CONSERVATION LANDS THROUGHOUT AREA, OIL EXTRACTION TO WEST, SR-58 TO THE SOUTH.						
General:	9 ADULTS INCLUDING LACTATING AND SCROTAL INDIVIDUALS TRAPPED 25-30 OCT 2015.						
Owner/Manager:	PVT						

Onychomys torridus tularensis

Element Code: AMAFF06021

Tulare grasshopper mouse

Listing Status:	Federal:	None	CNDDDB Element Ranks:	Global:	G5T1T2
	State:	None		State:	S1S2
	Other:	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern			
Habitat:	General:	HOT, ARID VALLEYS AND SCRUB DESERTS IN THE SOUTHERN SAN JOAQUIN VALLEY.			
	Micro:	DIET ALMOST EXCLUSIVELY COMPOSED OF ARTHROPODS, THEREFORE NEEDS ABUNDANT SUPPLY OF INSECTS.			

Occurrence No.	4	Map Index:	15022	EO Index:	23826	Element Last Seen:	1957-06-13
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	1957-06-13		
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:	2004-12-13		
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.33551 / -119.58763				Accuracy:	1 mile	
UTM:	Zone-11 N3913323 E264815				Elevation (ft):	700	
PLSS:	T30S, R22E, Sec. 11 (M)				Acres:	0.0	
Location:	2 MI N AND 2 MI E MCKITTRICK.						
Detailed Location:							
Ecological:							
General:	1 FEMALE SPECIMEN COLLECTED 13 JUN 1957 BY A. ZIEGLER AT "2 MI N AND 2 MI E MCKITTRICK." DEPOSITED AT MVZ #121671.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	5	Map Index:	14968	EO Index:	23824	Element Last Seen:	2003-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2003-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-12-09
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.35825 / -119.62019				Accuracy:	non-specific area	
UTM:	Zone-11 N3915925 E261921				Elevation (ft):	600	
PLSS:	T29S, R22E, Sec. 33, SW (M)				Acres:	162.3	
Location:	LOKERN NATURAL AREA, ABOUT 2.6 MILES SOUTH OF LOKERN ROAD AND 1.2 MILES EAST OF CALIFORNIA STATE HIGHWAY 33.						
Detailed Location:							
Ecological:							
General:	2 INDIVIDUALS TRAPPED IN CONTROL PLOT OF 62 ACRES DURING 2003. ALSO FROM "2 MILES NORTH OF MCKITTRICK" 1 SPECIMEN COLLECTED 13 SEP 1947 AND DEPOSITED AT MVZ (#107560).						
Owner/Manager:	UNKNOWN						

Occurrence No.	17	Map Index:	14957	EO Index:	2983	Element Last Seen:	1931-11-12
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1931-11-12
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-12-13
Quad Summary:	West Elk Hills (3511935), Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.30495 / -119.62429				Accuracy:	1 mile	
UTM:	Zone-11 N3910021 E261393				Elevation (ft):	1111	
PLSS:	T30S, R22E, Sec. 21 (M)				Acres:	0.0	
Location:	MCKITTRICK.						
Detailed Location:							
Ecological:							
General:	ALL SPECIMENS COLLECTED AT "MCKITTRICK." 1 MALE COLLECTED 19 MAY 1911 BY H. SWARTH & H. CARR, DEPOSITED AT MVZ #13874. 2 MALES COLLECTED 12 NOV 1931 BY G. WILLETT, DEPOSITED AT LACM #2935 & 2936.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	22	Map Index:	55828	EO Index:	55844	Element Last Seen:	2002-02-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2002-02-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2023-08-25
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.20093 / -119.41654				Accuracy:	non-specific area	
UTM:	Zone-11 N3898001 E280004				Elevation (ft):	475	
PLSS:	T31S, R24E, Sec. 29, SE (M)				Acres:	74.2	
Location:	VICINITY OF HWY 119 JUST SW OF VALLEY ACRES, ABOUT 5 MILES NE OF TAFT.						
Detailed Location:	MAPPED TO LOCATIONS OF CAPTURE GRIDS 32 AND 33. HISTORIC SPECIMEN COLLECTED IN 1927 WITH LOCALITY "TAFT, S OF BUENA VISTA RESERVOIR" INCLUDED HERE.						
Ecological:	HABITAT CONSISTED OF VALLEY SALTBUSH SCRUB.SAN JOAQUIN ANTELOPE SQUIRREL (AMMOSPERMOPHILUS NELSONI) AND SHORT-NOSED K-RAT (DIPODOMYS NITRATOIDES BREVINASUS) ALSO DETECTED IN THIS AREA.						
General:	HISTORIC SPECIMEN COLLECTED IN GENERAL AREA ON 30 JAN 1927 AND DEPOSITED AT USNM. 2 ADULTS CAPTURED HERE (IN 2 OUT OF 34 GRIDS) DURING FEB 2002 CAPTURE EFFORTS.						
Owner/Manager:	UNKNOWN						

Occurrence No.	24	Map Index:	58458	EO Index:	58494	Element Last Seen:	2003-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2003-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-12-09
Quad Summary:	Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.37948 / -119.59344				Accuracy:	non-specific area	
UTM:	Zone-11 N3918216 E264415				Elevation (ft):	450	
PLSS:	T29S, R22E, Sec. 27, NE (M)				Acres:	168.1	
Location:	LOKERN NATURAL AREA, ABOUT 1.3 MILES SOUTH OF LOKERN ROAD AND 3.4 MILES EAST OF CALIFORNIA STATE HIGHWAY 33.						
Detailed Location:							
Ecological:							
General:	1 INDIVIDUAL TRAPPED IN CONTROL PLOT OF 62 ACRES DURING 2003.						
Owner/Manager:	UNKNOWN						

Occurrence No.	30	Map Index:	58451	EO Index:	58506	Element Last Seen:	2002-10-08
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2002-10-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2019-01-22
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.27397 / -119.23649				Accuracy:	1/5 mile	
UTM:	Zone-11 N3905720 E296581				Elevation (ft):	300	
PLSS:	T30S, R25E, Sec. 36, W (M)				Acres:	0.0	
Location:	LOCATED ON THE WEST SIDE OF INTERSTATE 5 ABOUT 0.8 MILE NORTHWEST OF WHERE HIGHWAY 119 CROSSES I-5.						
Detailed Location:							
Ecological:							
General:	1 FEMALE CAPTURED AND RELEASED 4-8 OCT 2002.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	33	Map Index:	14963	EO Index:	58564	Element Last Seen:	1947-09-13
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1947-09-13
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-12-13
Quad Summary:	West Elk Hills (3511935), Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.33746 / -119.62124				Accuracy:	1 mile	
UTM:	Zone-11 N3913620 E261766				Elevation (ft):	1200	
PLSS:	T30S, R22E, Sec. 09 (M)				Acres:	0.0	
Location:	2 MILES NORTH OF MCKITTRICK.						
Detailed Location:							
Ecological:							
General:	11 SPECIMENS COLLECTED (8 MALE AND 3 FEMALE) 11-13 NOV 1947 BY P. DEHNEL, G. SALT, R. STORER AND A. MILLER AT "2 MI N MCKITTRICK." DEPOSITED AT MVZ #107555-107565.						
Owner/Manager:	UNKNOWN						

Occurrence No.	48	Map Index:	65090	EO Index:	65169	Element Last Seen:	2004-09-24
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2004-09-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-12
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.35526 / -119.48989				Accuracy:	80 meters	
UTM:	Zone-11 N3915286 E273755				Elevation (ft):	353	
PLSS:	T29S, R23E, Sec. 34, SE (M)				Acres:	0.0	
Location:	0.9 MILE WEST OF ELK HILLS ROAD IN THE VICINITY OF BUTTONWILLOW-KERN COUNTY AIRFIELD.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF SALTBUSH SCRUB.						
General:	1 ADULT CAPTURED DURING TRAPPING SESSOIN BETWEEN 14 AND 24 SEP 2004.						
Owner/Manager:	CNLM						

Occurrence No.	49	Map Index:	65092	EO Index:	65171	Element Last Seen:	2004-09-24
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2004-09-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-17
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.36792 / -119.55164				Accuracy:	specific area	
UTM:	Zone-11 N3916834 E268179				Elevation (ft):	409	
PLSS:	T29S, R23E, Sec. 31, NW (M)				Acres:	13.2	
Location:	0.8 MILE SOUTHEAST OF THE INTERSECTION OF HIGHWAY 58 AND THE ROAD TO THE LOKERN PUMPING STATION, 16 MILES NNW OF TAFT.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF OPEN GRASSLAND (PREVIOUSLY BURNT SALTBUSH SCRUB).						
General:	1 ADULT CAPTURED DURING TRAPPING SESSION CONDUCTED BETWEEN 14 AND 24 SEP 2004.						
Owner/Manager:	CNLM						



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Occurrence No.	50	Map Index:	65093	EO Index:	65172	Element Last Seen:	2004-09-24
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2004-09-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-12
Quad Summary:	Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.38983 / -119.57013			Accuracy:	80 meters		
UTM:	Zone-11 N3919309 E266562			Elevation (ft):	355		
PLSS:	T29S, R22E, Sec. 24, SW (M)			Acres:	0.0		
Location:	0.75 MILE SOUTHWEST OF LOKERN ROAD CROSSING OF CALIFORNIA AQUEDUCT & 1.6 AIR MILES WSW OF LOKERN.						
Detailed Location:	MAPPED IN NW 1/4 OF SW 1/4 SECTION 24.						
Ecological:	HABITAT CONSISTS OF OPEN GRASSLAND (PREVIOUSLY BURNED SALTBU SH SCRUB).						
General:	1 ADULT CAPTURED DURING TRAPPING SURVEY BETWEEN 14 AND 24 SEP 2004.						
Owner/Manager:	CNLM						
Occurrence No.	51	Map Index:	65095	EO Index:	65174	Element Last Seen:	2004-09-24
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2004-09-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-13
Quad Summary:	Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.39977 / -119.57949			Accuracy:	specific area		
UTM:	Zone-11 N3920433 E265741			Elevation (ft):	330		
PLSS:	T29S, R22E, Sec. 14, SE (M)			Acres:	13.0		
Location:	0.36 AIR MILES S OF CALIFORNIA AQUEDUCT AND ABOUT 2.5 MILES W FROM LOKERN RD AND HWY 58 INTERSECTION.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF SALTBU SH SCRUB.						
General:	6 ADULTS CAPTURED DURING TRAPPING SURVEY BETWEEN 14 AND 24 SEP 2004.						
Owner/Manager:	CNLM						
Occurrence No.	52	Map Index:	65112	EO Index:	65191	Element Last Seen:	2004-09-24
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2004-09-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-07-13
Quad Summary:	West Elk Hills (3511935), Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.37517 / -119.54137			Accuracy:	80 meters		
UTM:	Zone-11 N3917615 E269133			Elevation (ft):	350		
PLSS:	T29S, R23E, Sec. 30, SE (M)			Acres:	0.0		
Location:	1.6 MILE SSW OF HIGHWAY 58 AND LOKERN RD JUNCTION, 0.9 MILE EAST OF LOKERN PUMPING STATION.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF SALTBU SH SCRUB.						
General:	1 ADULT CAPTURED DURING TRAPPING SESSION FROM 14 AND 24 SEP 2004.						
Owner/Manager:	CNLM						



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Occurrence No.	58	Map Index:	A1861	EO Index:	103455	Element Last Seen:	2016-04-23
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2016-04-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2016-09-19
Quad Summary:	Mouth of Kern (3511923), Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.25281 / -119.33568				Accuracy:	non-specific area	
UTM:	Zone-11 N3903580 E287503				Elevation (ft):	523	
PLSS:	T31S, R25E, Sec. 7 (M)				Acres:	401.0	
Location:	NORTH SIDE OF HWY 119, FROM TUPMAN RD TO ELK HILLS PETROLEUM RESERVE ACCESS ROAD, ABOUT 3.2 ROAD MILES FURTHER SW.						
Detailed Location:	INCLUDES TWO TRAPPING AREAS: AREA BETWEEN TUPMAN RD & UNNAMED PRIVATE ROAD ABOUT 1.3 MILES SW WAS TRAPPED 14-21 MAR 2016; AREA BETWEEN UNNAMED ROAD AND ACCESS ROAD WAS TRAPPED 18-23 APR 2016.						
Ecological:	NON-NATIVE ANNUAL GRASSLAND WITH SPARSE SHRUBS INCLUDING ATRIPLEX, IN CALTRANS RIGHT-OF-WAY. BURROWS OBSERVED. DISTURBANCE FROM STATE HIGHWAY NOTED.						
General:	15 ADULTS, 14 JUVENILES, AND 4 OF UNKNOWN AGE TRAPPED BETWEEN 14 AND 21 MAR 2016. 4 ADULTS & 2 JUVENILES TRAPPED BETWEEN 18 AND 23 APR 2016.						
Owner/Manager:	CALTRANS						

Occurrence No.	59	Map Index:	A2427	EO Index:	104039	Element Last Seen:	2016-05-14
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2016-05-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2016-11-15
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.29626 / -119.20213				Accuracy:	80 meters	
UTM:	Zone-11 N3908122 E299762				Elevation (ft):	332	
PLSS:	T30S, R26E, Sec. 20, SE (M)				Acres:	5.0	
Location:	ALONG PANAMA LN NEAR TEN SECTION OIL FIELD, ABOUT 2.8 MILES EAST OF ENOS LN (HWY 43) & I-5, SW OF BAKERSFIELD.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	ROAD SHOULDER DOMINATED BY INTRODUCED ANNUAL GRASSES & FORBS. ADJACENT HABITAT WAS MESQUITE/SALTBUSH SHRUBLAND.						
General:	1 ADULT MALE TRAPPED 10 MAY 2016 DURING KANGAROO RAT SURVEYS; 1 ADULT, LIKELY THE SAME INDIVIDUAL, CAUGHT BETWEEN 12 AND 14 MAY WITHIN 100 FEET OF FIRST DETECTION.						
Owner/Manager:	CITY OF BAKERSFIELD						



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Occurrence No.	60	Map Index:	A9423	EO Index:	111271	Element Last Seen:	2017-05-21
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2017-05-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2023-08-18
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.13782 / -119.44689				Accuracy:	80 meters	
UTM:	Zone-11 N3891068 E277069				Elevation (ft):	904	
PLSS:	T32S, R24E, Sec. 18, SW (M)				Acres:	5.0	
Location:	EAST SIDE OF HWY 119, ABOUT 330 FT NNE OF THE MAIN ST/GARDNER FIELD RD INTERSECTION, TAFT.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	VALLEY SALTBUSSH SCRUB.						
General:	1 JUVENILE MALE CAUGHT AND RELEASED DURING TIPTON KANGAROO RAT SURVEY 20-21 MAY 2017.						
Owner/Manager:	PVT-SOUTHERN CAL GAS CO						

Occurrence No.	62	Map Index:	B2033	EO Index:	113957	Element Last Seen:	2014-10-03
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2014-10-03
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2019-01-22
Quad Summary:	Stevens (3511932), Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.27007 / -119.25237				Accuracy:	specific area	
UTM:	Zone-11 N3905319 E295127				Elevation (ft):	309	
PLSS:	T30S, R25E, Sec. 36, SW (M)				Acres:	17.0	
Location:	VICINITY OF THE INTERSECTION OF HWY 43 & HWY 113, FROM ABOUT 370 FEET E TO 0.3 MI N OF THE INTERSECTION.						
Detailed Location:	MAPPED TO COORDINATES GIVEN FOR 2014 DETECTIONS. 2000 DETECTION LOCATION GIVEN AS SW CORNER OF THE JUNCTION OF HWY 119 & HWY 43.						
Ecological:	2014: TRAPS SET IN OR CLOSE TO RIGHT-OF-WAY OF HWY 119, HWY 43, AND ENOS LANE; HABITAT WAS MARGINAL VALLEY SALTBUSSH SCRUB; LAND USES INCLUDED AGRICULTURE AND COMMERCIAL PROPERTIES.						
General:	1 CAUGHT AND RELEASED ON 29 JAN 2000. 4 ADULTS CAUGHT AND RELEASED 29 SEP - 3 OCT 2014.						
Owner/Manager:	CALTRANS, UNK						



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Occurrence No.	72	Map Index:	B9254	EO Index:	125464	Element Last Seen:	1987-04-28
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-04-28
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2023-08-16
Quad Summary:	Millux (3511922)						
County Summary:	Kern						
Lat/Long:	35.21979 / -119.23049				Accuracy:	2/5 mile	
UTM:	Zone-11 N3899697 E296992				Elevation (ft):	298	
PLSS:	T31S, R26E, Sec. 19, NW (M)				Acres:	280.0	
Location:	VICINITY OF COLES LEVEE RD ABOUT 1.3 MILES SOUTH OF UNION RD, JUST EAST OF LAKE WEBB, 9 MILES SE OF TUPMAN.						
Detailed Location:	MAPPED TO PROVIDED QUARTER SECTION.						
Ecological:	HABITAT INDICATED AS NON-NATIVE GRASSLAND IN 1987. SAN JOAQUIN KIT FOX ALSO DETECTED IN THIS AREA. SINCE THE EARLY 2000S IT APPEARS THIS AREA HAS BEEN CONVERTED TO AGRICULTURE, POSSIBLY RENDERING THE HABITAT UNUSABLE FOR SOME SMALL MAMMALS.						
General:	SOUTHERN GRASSHOPPER MOUSE DETECTED IN THIS AREA DURING SURVEYS FROM 24-28 APR 1987; PRESUMED O. T. TULARENSIS.						
Owner/Manager:	PVT						
Occurrence No.	73	Map Index:	B9255	EO Index:	125465	Element Last Seen:	2019-04-17
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2019-04-17
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2023-08-16
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.17636 / -119.52256				Accuracy:	1/10 mile	
UTM:	Zone-11 N3895515 E270282				Elevation (ft):	1178	
PLSS:	T32S, R23E, Sec. 5, NW (M)				Acres:	18.0	
Location:	ALONG HIGHWAY 33 ABOUT 0.4 MILES SE OF MOCAL RD/MIDWAY RD, FELLOWS.						
Detailed Location:	MAPPED WITH RESPECT TO COLLECTOR'S GPS COORDINATES NOTED AS HAVING 100M UNCERTAINTY.						
Ecological:							
General:	1 FEMALE COLLECTED BY J. PATTON (EXPERT) ON 17 APR 2019 AND DEPOSITED AT MVZ.						
Owner/Manager:	PVT						



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Occurrence No.	74	Map Index:	B9256	EO Index:	125466	Element Last Seen:	2016-01-14
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2016-01-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2023-09-13
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.225 / -119.57187				Accuracy:	80 meters	
UTM:	Zone-11 N3901026 E265930				Elevation (ft):	1267	
PLSS:	T31S, R22E, Sec. 14, SE (M)				Acres:	5.0	
Location:	NE SIDE OF HIGHWAY 33 ABOUT 0.25 MILES NW OF SHALE RD, JUST WEST OF MIDWAY PUMPING STATION, 4 MILES NW OF FELLOWS.						
Detailed Location:	MAPPED TO LOCATION OF TRAPPING SITE.						
Ecological:							
General:	DURING SMALL MAMMAL LIVE TRAPPING FROM 9-14 JAN, 1 WAS CAPTURED/RELEASED ON 13 JAN AND 1 WAS CAPTURED/RELEASED ON 14 JAN 2016.						
Owner/Manager:	PVT						

Occurrence No.	75	Map Index:	B9257	EO Index:	125468	Element Last Seen:	2020-11-08
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2020-11-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2023-08-16
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.24001 / -119.58787				Accuracy:	non-specific area	
UTM:	Zone-11 N3902729 E264517				Elevation (ft):	1354	
PLSS:	T31S, R22E, Sec. 11, SW (M)				Acres:	31.0	
Location:	ALONG HIGHWAY 33 JUST SOUTH OF THE COMMUNITY OF DERBY ACRES, NW OF FELLOWS.						
Detailed Location:	MAPPED TO GENERAL AREA OF TRAPPING GRID.						
Ecological:	SMALL MAMMAL TRAPPING SURVEY ASSOCIATED WITH CULVERT MAINTENANCE ALONG HWY 33.						
General:	1 MALE CAPTURED/RELEASED ON 6 NOV AND 1 UNKNOWN CAPTURED/RELEASED (ESCAPED) ON 8 NOV DURING TRAPPING EFFORT FROM 28 OCT TO 8 NOV 2020.						
Owner/Manager:	PVT						

Occurrence No.	76	Map Index:	B9258	EO Index:	125469	Element Last Seen:	2020-11-08
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2020-11-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2023-08-16
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.2321 / -119.58008				Accuracy:	non-specific area	
UTM:	Zone-11 N3901833 E265203				Elevation (ft):	1331	
PLSS:	T31S, R22E, Sec. 14 (M)				Acres:	20.0	
Location:	ALONG HIGHWAY 33 ABOUT 1.3 MILES SE OF THE COMMUNITY OF DERBY ACRES, NW OF FELLOWS.						
Detailed Location:	MAPPED TO GENERAL AREA OF TRAPPING GRID. CENTER OF SECTION 14.						
Ecological:	SMALL MAMMAL TRAPPING SURVEY ASSOCIATED WITH CULVERT MAINTENANCE ALONG HWY 33.						
General:	1 MALE CAPTURED/RELEASED ON 5 & 7 NOV (RECAPTURE), AND 1 PREGNANT FEMALE CAPTURED/RELEASED ON 8 NOV, DURING TRAPPING EFFORT FROM 28 OCT - 8 NOV 2020.						
Owner/Manager:	PVT						



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Occurrence No.	77	Map Index:	B9259	EO Index:	125470	Element Last Seen:	2020-11-08
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2020-11-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2023-08-16
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.21753 / -119.56591				Accuracy:	1/10 mile	
UTM:	Zone-11 N3900184 E266452				Elevation (ft):	1233	
PLSS:	T31S, R22E, Sec. 24, NW (M)				Acres:	18.0	
Location:	ALONG HIGHWAY 33 ABOUT 0.3 MILES SE OF SHALE RD, BETWEEN THE COMMUNITIES OF DERBY ACRES AND FELLOWS.						
Detailed Location:	MAPPED TO GENERAL AREA OF TRAPPING GRID.						
Ecological:	SMALL MAMMAL TRAPPING SURVEY ASSOCIATED WITH CULVERT MAINTENANCE ALONG HWY 33.						
General:	1 MALE CAPTURED/RELEASED ON 8 NOV, DURING TRAPPING EFFORT FROM 28 OCT - 8 NOV 2020.						
Owner/Manager:	BLM						

Occurrence No.	78	Map Index:	B9260	EO Index:	125471	Element Last Seen:	2020-11-08
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2020-11-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2023-08-16
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.19847 / -119.54723				Accuracy:	non-specific area	
UTM:	Zone-11 N3898026 E268098				Elevation (ft):	1204	
PLSS:	T31S, R23E, Sec. 30, SW (M)				Acres:	20.0	
Location:	ALONG HIGHWAY 33, 0.6 MILES NW OF RANDALL ROAD, ABOUT 1.5 MILES NORTH OF THE TOWN OF FELLOWS.						
Detailed Location:	MAPPED TO GENERAL AREA OF TRAPPING GRID.						
Ecological:	SMALL MAMMAL TRAPPING SURVEY ASSOCIATED WITH CULVERT MAINTENANCE ALONG HWY 33.						
General:	1 FEMALE CAPTURED/RELEASED ON 6 NOV, AND 1 MALE CAPTURED/RELEASED ON 8 NOV, DURING TRAPPING EFFORT FROM 28 OCT - 8 NOV 2020.						
Owner/Manager:	PVT						

Occurrence No.	79	Map Index:	B9261	EO Index:	125472	Element Last Seen:	2020-11-06
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2020-11-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2023-08-16
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.18481 / -119.53251				Accuracy:	1/10 mile	
UTM:	Zone-11 N3896476 E269400				Elevation (ft):	1194	
PLSS:	T31S, R23E, Sec. 32, SW (M)				Acres:	18.0	
Location:	ALONG HIGHWAY 33, 0.4 MILES NW OF MIDWAY ROAD, NEAR THE TOWN OF FELLOWS.						
Detailed Location:	MAPPED TO GENERAL AREA OF TRAPPING GRID.						
Ecological:	SMALL MAMMAL TRAPPING SURVEY ASSOCIATED WITH CULVERT MAINTENANCE ALONG HWY 33.						
General:	1 FEMALE CAPTURED/RELEASED ON 6 NOV, DURING TRAPPING EFFORT FROM 28 OCT - 8 NOV 2020.						
Owner/Manager:	PVT						



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Occurrence No.	80	Map Index:	B9262	EO Index:	125473	Element Last Seen:	2020-11-07
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2020-11-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2023-08-16
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.17167 / -119.5154				Accuracy:	1/10 mile	
UTM:	Zone-11 N3894978 E270921				Elevation (ft):	1158	
PLSS:	T32S, R23E, Sec. 4, SW (M)				Acres:	18.0	
Location:	ALONG HIGHWAY 33, 0.9 MILES SE OF MIDWAY ROAD, NEAR THE TOWN OF FELLOWS.						
Detailed Location:	MAPPED TO GENERAL AREA OF TRAPPING GRID.						
Ecological:	SMALL MAMMAL TRAPPING SURVEY ASSOCIATED WITH CULVERT MAINTENANCE ALONG HWY 33.						
General:	1 FEMALE CAPTURED/RELEASED ON 7 NOV, DURING TRAPPING EFFORT FROM 28 OCT - 8 NOV 2020.						
Owner/Manager:	PVT						

Occurrence No.	82	Map Index:	B9270	EO Index:	125481	Element Last Seen:	1997-04-12
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1997-04-12
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2023-08-18
Quad Summary:	Taft (3511924), East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.2458 / -119.47448				Accuracy:	3/5 mile	
UTM:	Zone-11 N3903109 E274853				Elevation (ft):	931	
PLSS:	T31S, R23E, Sec. 11 (M)				Acres:	776.0	
Location:	WEST OF ELK HILLS ROAD, ABOUT 2 MILES SOUTH OF SKYLINE ROAD, 6 MILES NORTH OF TAFT.						
Detailed Location:	MAPPED NON-SPECIFICALLY TO SECTION 11. LOCATION OF LIVE TRAPPING WAS ONLY STATED AS "SEC 11, T31S, R23E."						
Ecological:							
General:	1 FEMALE CAPTURED/RELEASED DURING 21-26 AUG 1995 EFFORTS. 1 MALE CAPTURED/RELEASED DURING 25-30 MAR 1996. 2 MALES, 1 FEMALE CAPTURED/RELEASED DURING 19-24 AUG 1996. 1 MALE, 1 FEMALE CAPTURED/RELEASED DURING 7-12 APR 1997.						
Owner/Manager:	UNKNOWN						

Occurrence No.	83	Map Index:	B9271	EO Index:	125482	Element Last Seen:	1995-09-21
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1995-09-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2023-09-14
Quad Summary:	East Elk Hills (3511934), West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.28915 / -119.49239				Accuracy:	3/5 mile	
UTM:	Zone-11 N3907958 E273344				Elevation (ft):	1265	
PLSS:	T30S, R23E, Sec. 27 (M)				Acres:	776.0	
Location:	SECTION 27, N SIDE OF SKYLINE RD ABOUT 1.5 MILES W OF ELK HILLS RD, 10 MILES NORTH OF TAFT, ELK HILLS.						
Detailed Location:	MAPPED NON-SPECIFICALLY TO SECTION 27. LOCATION OF LIVE TRAPPING WAS ONLY STATED AS "SEC 27, T30S, R23E."						
Ecological:							
General:	4 MALES CAPTURED/RELEASED DURING 19-21 SEP 1995 EFFORTS.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	84	Map Index:	B9272	EO Index:	125483	Element Last Seen:	2021-08-07
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2021-08-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2023-08-18
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.15004 / -119.42309				Accuracy:	1/10 mile	
UTM:	Zone-11 N3892370 E279271				Elevation (ft):	776	
PLSS:	T32S, R24E, Sec. 17, NW (M)				Acres:	18.0	
Location:	WEST SIDE OF GAS COMPANY RD ABOUT 1 MILE NNW OF GARDNER FIELD RD, EAST OF TAFT.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES FOR TRAPPING GRID AND WITH RESPECT TO GAS COMPANY ROAD SOLAR PROJECT FOOTPRINT.						
Ecological:	SITE OF PROPOSED SOLAR PROJECT.						
General:	1 FEMALE, 1 UNK CAPTURED/RELEASED ON 3 AUG; 1 MALE, 1 UNK CAPTURED/RELEASED ON 5 AUG; 1 MALE CAPTURED/RELEASED ON 6 AUG; AND 1 FEMALE CAPTURED/RELEASED ON 7 AUG, ALL IN 2021.						
Owner/Manager:	PVT						

Occurrence No.	85	Map Index:	B9273	EO Index:	125484	Element Last Seen:	2018-09-21
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2018-09-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2023-08-18
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.2249 / -119.43676				Accuracy:	1/10 mile	
UTM:	Zone-11 N3900705 E278230				Elevation (ft):	533	
PLSS:	T31S, R24E, Sec. 18, S (M)				Acres:	18.0	
Location:	0.5 MILES ENE OF WHERE ELK HILLS RD CROSSES BUENA VISTA WASH, ABOUT 5 MILES NORTH OF TAFT, BUENA VISTA VALLEY.						
Detailed Location:	MAPPED NON-SPECIFICALLY TO COORDINATES REPRESENTING TRAPPING GRID.						
Ecological:							
General:	1 MALE AND 3 FEMALES CAPTURED/RELEASED DURING EFFORTS 21-22 SEP 2017. 3 MALES, 3 FEMALES, AND 1 SEX UNKNOWN CAPTURED/RELEASED DURING EFFORTS 18-21 SEP 2018.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	86	Map Index:	B9274	EO Index:	125485	Element Last Seen:	2018-09-21
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2018-09-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2023-08-18
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.24538 / -119.40825				Accuracy:	1/10 mile	
UTM:	Zone-11 N3902913 E280880				Elevation (ft):	701	
PLSS:	T31S, R24E, Sec. 9, NW (M)				Acres:	18.0	
Location:	VICINITY OF TANK FARM RD ABOUT 2 MILES NNW OF DUSTIN ACRES, ELK HILLS, ABOUT 7 MILES NE OF TAFT.						
Detailed Location:	MAPPED NON-SPECIFICALLY TO COORDINATES REPRESENTING TRAPPING GRID.						
Ecological:	AREA APPEARS TO BE USED FOR OIL EXTRACTION.						
General:	1 MALE AND 2 FEMALES CAPTURED/RELEASED DURING EFFORTS 19-22 SEP 2017. 1 MALE AND 1 FEMALE CAPTURED/RELEASED DURING EFFORTS 19-20 SEP 2018.						
Owner/Manager:	UNKNOWN						

Occurrence No.	87	Map Index:	B9275	EO Index:	125486	Element Last Seen:	2018-09-06
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2018-09-06
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2023-10-23
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.25978 / -119.49824				Accuracy:	1/10 mile	
UTM:	Zone-11 N3904714 E272730				Elevation (ft):	1062	
PLSS:	T31S, R23E, Sec. 3, SW (M)				Acres:	18.0	
Location:	2.2 MILES SW OF SKYLINE RD AT ELK HILLS RD, 5.5 MI ENE OF DERBY ACRES, ELK HILLS, ABOUT 8 MILES NORTH OF TAFT.						
Detailed Location:	MAPPED NON-SPECIFICALLY TO COORDINATES REPRESENTING TRAPPING GRID.						
Ecological:							
General:	1 CAPTURED/RELEASED ON 6 SEP 2018.						
Owner/Manager:	UNKNOWN						

Occurrence No.	88	Map Index:	B9276	EO Index:	125487	Element Last Seen:	2017-10-05
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2017-10-05
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2023-08-18
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.28258 / -119.35581				Accuracy:	1/10 mile	
UTM:	Zone-11 N3906926 E285750				Elevation (ft):	480	
PLSS:	T30S, R24E, Sec. 25, SW (M)				Acres:	18.0	
Location:	1 MILE SSW OF TUPMAN, NORTH SIDE OF ELK HILLS.						
Detailed Location:	MAPPED NON-SPECIFICALLY TO COORDINATES REPRESENTING TRAPPING GRID.						
Ecological:	AREA APPEARS TO BE USED FOR OIL EXTRACTION.						
General:	1 FEMALE AND 1 UNKNOWN SEX CAPTURED/RELEASED DURING EFFORTS 3-5 OCT 2017.						
Owner/Manager:	UNKNOWN						



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Vulpes macrotis mutica

Element Code: AMAJA03041

San Joaquin kit fox

Listing Status: **Federal:** Endangered

CNDDB Element Ranks: **Global:** G4T2

State: Threatened

State: S3

Other:

Habitat: **General:** ANNUAL GRASSLANDS OR GRASSY OPEN STAGES WITH SCATTERED SHRUBBY VEGETATION.

Micro: NEED LOOSE-TEXTURED SANDY SOILS FOR BURROWING, AND SUITABLE PREY BASE.

Occurrence No.	28	Map Index:	46017	EO Index:	46017	Element Last Seen:	2001-06-27
Occ. Rank:	Excellent	Presence:	Presumed Extant	Site Last Seen:			2001-06-27
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:			2025-07-03

Quad Summary: Taft (3511924), Fellows (3511925), East Elk Hills (3511934), West Elk Hills (3511935)

County Summary: Kern

Lat/Long:	35.24123 / -119.45011	Accuracy:	non-specific area
UTM:	Zone-11 N3902547 E277057	Elevation (ft):	
PLSS:	T31S, R23E, Sec. 12 (M)	Acres:	8395.0

Location: NAVAL PETROLEUM RESERVE NO. 1 & 2.

Detailed Location: PRINTS/SCAT AT DENS, RECENT USE 2001. MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ & CEC. SIGHTING/ROADKILL/DEN PRIOR TO 1972. 5 SIGHTINGS, DEN & ROADKILL 1972-1975. DENS OBS 1979. 48 LITTERS OBS 1980-85. 1 OBS 27 JUN 2001.

Ecological: BROMUS RUBENS, SCHISMUS ARABICUS, FESTUCA, PLANTAGO, LEPIDIUM, ATRIPLEX POLYCARPA, A. SPINIFERA, GUTIERREZIA BRACTEATA, EUROTIA LANATA, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, SALSOLA KALI, EREMOCARPUS SETIGERUS, ERODIUM CIRCUTARIUM.

General: MVZ 195361-64, 195388-409, 195411-14, 195437-41, 195443, 195458-61, 195463-72, 195480-500, 195501-03, 195506-24, 195531-48, 195550-69, 195583-93, 195650-58, 195678-99, 195705-13, 195715-17, 195719, 195728, 195775-81, 195782-85 COLL 1980-94.

Owner/Manager: DOD-NAVAL PETROLEUM RES 1 & 2

Occurrence No.	64	Map Index:	48944	EO Index:	48944	Element Last Seen:	2001-07-30
Occ. Rank:	Good	Presence:	Presumed Extant	Site Last Seen:			2001-07-30
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:			2007-02-09

Quad Summary: Millux (3511922), Mouth of Kern (3511923), Stevens (3511932), Tupman (3511933)

County Summary: Kern

Lat/Long:	35.26177 / -119.23561	Accuracy:	non-specific area
UTM:	Zone-11 N3904364 E296631	Elevation (ft):	325
PLSS:	T31S, R25E, Sec. 01, SW (M)	Acres:	7887.0

Location: NEAR KERN RIVER. 6.2 MILES ENE OF TUPMAN, EAST OF STATE ROUTE 43 AND NORTH OF PANAMA LANE.

Detailed Location: ADULT OBSERVED. SECTION 24 MAPPED ACCORDING TO DATA PROVIDED BY DFG87U0018. MVZ #195623 COLLECTED IN SE 1/4 OF SE 1/4 OF SECTION 35 ACCORDING TO DATA PROVIDED BY MVZ. SW 1/4 OF SECTION 2 MAPPED ACCORDING TO DATA PROVIDED BY CEC.

Ecological: HABITAT CONSISTS OF ANNUAL GRASSLAND AND ATRIPLEX SCRUB. SECTION 24 CONSISTS OF VALLEY MESQUITE SCRUB AND RIPARIAN, INCLUDING BROMUS RUBENS, MALVA SP., AMBROSIA, HORDEUM, MELILOTUS & BRASSICA.

General: ROADKILL & SIGHTING 1972-1975. TRACKED MOVEMENTS OF 8 FOXES, 7 DENS, 2 DEAD FOXES OBS BTWN APR & NOV 1977. MVZ #195623 COLLECTED 23 JUL 1981. INDIVIDUAL(S) OBS 30 MAR 1988. SCAT/KNOWN DEN/SIGHTINGS OBS BEFORE 1990.1 ADULT OBS 30 JULY 2001.

Owner/Manager: KERN WATER BANK AUTHORITY



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Occurrence No.	65	Map Index:	48947	EO Index:	48947	Element Last Seen:	2002-08-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2002-08-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-02-14
Quad Summary:	Mouth of Kern (3511923), Taft (3511924), Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.23732 / -119.33832				Accuracy:	non-specific area	
UTM:	Zone-11 N3901867 E287222				Elevation (ft):	320	
PLSS:	T31S, R25E, Sec. 18 (M)				Acres:	3130.0	
Location:	1.0 MI ESE TO 6.2 MI NE OF VALLEY ACRES, BUENA VISTA VALLEY; NW OF BUENA VISTA LAKE BED & SOUTH OF SR 119.						
Detailed Location:	RECORDS MAPPED IN 1/4 1/4 & 1/4 SECS AS PER MVZ & CEC DATA. OTHERS MAPPED TO TRS DATA FROM SOURCE. 1 MVZ RECORD STATES LOCATION AS "SEC 12." FOXES/DENS OBS AT MILEPOSTS 242.48, 242.49, 242.70-242.80, 243.25, 244.20, 244.42-244.54, 244.85.						
Ecological:	VALLEY SALTBUSH SCRUB, BUSH SEEPWEED-IODINE SCRUB, INTERIOR COAST RANGE SCRUB. PRIMARILY ATRIPELX POLYCARPA. VALLEY SINK SPECIES ALONG AQUEDUCT ON N SIDE DOMINATED BY ALLENROLFEA OCCIDENTALIS. VALLEY SINK DOMINATED BY SUAEDA MOQUINII.						
General:	3 SIGHTINGS/DEN 1972-75. 9 FOXES & DENS OBS JUN 1981. 2 PUP DENS OBS 1987. MVZ #195576-81, 195642-3, 195664-8 COLL 1980-81, 1983-84, 1986, 1989-91. 1 AD OBS 1992. DEN/SCATS/TRACK OBS FEB 2001. 3 SIGHTINGS, DEN & TRACKS JUL-AUG 2002.						
Owner/Manager:	BLM, DWR, USBOR, PVT, UNKNOWN						

Occurrence No.	67	Map Index:	49009	EO Index:	49009	Element Last Seen:	2001-02-06
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-02-06
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-01-16
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.17302 / -119.43858				Accuracy:	non-specific area	
UTM:	Zone-11 N3894954 E277921				Elevation (ft):	400	
PLSS:	T32S, R24E, Sec. 06 (M)				Acres:	944.0	
Location:	2.8 MILES NE OF TAFT; EAST & WEST OF AIRPORT RD. ABOUT 0.8 MI SOUTH OF STATE ROUTE 119 ALONG AIRPORT ROAD.						
Detailed Location:	DENS, SCAT AND INDIVIDUALS OBSERVED. APPEARS TO BE 2 SEPARATE DENS AND MULTIPLE SIGHTINGS. 1/4 OF 1/4 SECTIONS MAPPED ACCORDING TO DATA PROVIDED BY MVZ.						
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB. ATRIPLEX POLYCARPA, HYMENOCLEA SALSOLA, GROUND COVER OF INTRODUCED WEEDY ANNUALS SUCH AS BROMUS RUBENS & ERODIUM CICUTARIUM. UNDISTURBED PATCHES OF DENSE GROUND COVER WITH FEW NATURALLY OPEN AREAS.						
General:	2 ROAD KILLS FROM 1972-75. 21 DENS OBS DURING SURVEY 1981 & 1982. MVZ #195724, 195729, 195731, 195735, 195742-195743, 195750 & 195754 COLL. 1983-1988. 2 DENS (#32G-6) OBS 8-9 APRIL, 1 KNOWN DEN OBS 23 APR 1998. 1 KNOWN DEN OBS 6 FEB 2001.						
Owner/Manager:	DOE, DOD, PVT						



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Occurrence No.	68	Map Index:	49064	EO Index:	49064	Element Last Seen:	2001-05-01
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-05-01
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-02-08
Quad Summary:	Fellows (3511925), Panorama Hills (3511926), West Elk Hills (3511935), Reward (3511936)						
County Summary:	Kern, San Luis Obispo						
Lat/Long:	35.20581 / -119.61893				Accuracy:	non-specific area	
UTM:	Zone-11 N3899009 E261590				Elevation (ft):	1700	
PLSS:	T31S, R22E, Sec. 28 (M)				Acres:	7661.0	
Location:	EAST SIDE OF THE TEMBLOR RANGE, W OF DERBY ACRES & FELLOWS.						
Detailed Location:	DEN/SCAT OBS ALONG LIGHT DUTY RDS. MAPPED ACCORDING TO SEC DATA BY EG&G MEAS. INC. & CEC. T31S R22E S17: TRACKS OBS AT E ENTRANCE OF ARTIFICIALLY MADE DEN & AT SCENT STATION NEAR DEN. DENS OBS SE 1/4 OF S17. 3 SIGHTINGS 2 DENS FROM 1972-75.						
Ecological:	BROMUS RUBENS, ATRIPLEX POLYCARPA, GUTIERREZIA BRACTEATA, ISOMERIS ARBOREA, SALSOLA KALI, EREMOCARPUS SETIGERUS, CENTAUREA MELITENSIS, AMBROSIA ACANTHICARPA, HELIANTHUS ANNUUS, DATURA STRAMONIUM, SCHISMUS ARABICUS, AND ERODIUM CICUTARIUM.						
General:	DENS OBS 1979, 1986, 1988. TRACKS, SCAT, 4 OBS 1986. CAPT/RELEASE 1989 & 1992. LACM #95564-95567 & 95569 COLL BY CEC 1989-1990, 1992-1993. TRACKS OBS AUG 1993. DENS & DEAD FOX APR 1999. 3 KNOWN DENS W/ SCAT OBS MAY 2001. SCAT OBS JUN 2001.						
Owner/Manager:	BLM, PVT						

Occurrence No.	69	Map Index:	49065	EO Index:	49065	Element Last Seen:	2001-05-07
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-05-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-12-05
Quad Summary:	Elkhorn Hills (3511915), Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.12970 / -119.52827				Accuracy:	non-specific area	
UTM:	Zone-11 N3890353 E269630				Elevation (ft):	1550	
PLSS:	T32S, R23E, Sec. 20, SW (M)				Acres:	503.0	
Location:	SEVENTEEN CANYON, 2.4 MILES SSE OF FELLOWS AND EAST OF TEMBLOR RANGE, 0.8 MILE WEST OF MIDOIL ROAD.						
Detailed Location:	2 KNOWN DENS, SCAT. NW 1/4, SE 1/4 AND SW 1/4 OF SECTION 20 MAPPED ACCORDING TO MAP PROVIDED BY EG&G ENERGY MEASUREMENTS INC.						
Ecological:	HABITAT CONSISTS OF VALLEY SALT BUSH SCRUB. SECTION 20 INCLUDES BROMUS RUBENS, SCHISMUS ARABICUS, FESTUCA, HAPLOPAPPUS ACRADENIUS, GUTIERREZIA BRACTEATA, ATRIPLEX POLYCARPA, ERIOGONUM FASCICULATUM, EUROTIA LANATA, EASTWOODIA ELEGANS.						
General:	6 DENS OBSERVED THROUGHOUT LAND UNIT 6 IN SURVEY DURING 13, 20, 25-26 SEP, 23-25 OCT AND 1-2 NOV 1979. 2 KNOWN DENS (1 WITH FRESH SCAT) OBSERVED ON 7 MAY 2001.						
Owner/Manager:	PVT, BLM						



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Occurrence No.	70	Map Index:	49066	EO Index:	49066	Element Last Seen:	2001-04-24
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-04-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-12-20
Quad Summary:	Taft (3511924), Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.16276 / -119.49494			Accuracy:	non-specific area		
UTM:	Zone-11 N3893943 E272759			Elevation (ft):	1100		
PLSS:	T32S, R23E, Sec. 10, SE (M)			Acres:	822.0		
Location:	2.2 MILES SE OF FELLOWS, MIDWAY VALLEY.						
Detailed Location:	SKULL IN SECTION 4. NE 1/4, NW 1/4 AND SE 1/4 OF SECTION 10 AND NE 1/4 OF SECTION 9 WERE MAPPED ACCORDING TO MAP PROVIDED BY EG&G ENERGY MEASUREMENTS INC. SECTION 2 MAPPED ACCORDING TO DATA PROVIDED BY MVZ.						
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSSH SCRUB. SEC 9 & 10 INCLUDES BROMUS RUBENS, SCHISMUS ARABICUS, FESTUCA, PLANTAGO, LEPIDIUM, ATRIPLEX POLYCARPA, GUTIERREZIA BRACTEATA, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, SALSOLA & MORE LISTED IN SOURCE.						
General:	KNOWN DEN/SIGHTING & SCAT OBS IN MAY 1988. DENS & SCATS OBS BETWEEN 10 SEP & 16 NOV 1979. 3 SPECIMENS (MVZ #195738-195740) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 3 AUG 1984, 9 APR & 7 MAY 1985. 1 ADULT SKULL FOUND ON 24 APR 2001.						
Owner/Manager:	PVT, DOD-NAVAL PETROLEUM RES 2						

Occurrence No.	71	Map Index:	49067	EO Index:	49067	Element Last Seen:	2001-02-01
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-02-01
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-04-03
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.19802 / -119.54694			Accuracy:	non-specific area		
UTM:	Zone-11 N3897974 E268122			Elevation (ft):	1000		
PLSS:	T31S, R23E, Sec. 30, SW (M)			Acres:	35.0		
Location:	MIDWAY VALLEY; ALONG HWY 33, ABOUT 1.3 MILES NORTH OF FELLOWS. VICINITY OF ASSOCIATED OIL CAMP.						
Detailed Location:	MVZ SPECIMEN FROM THE SE 1/4 OF THE SW 1/4 OF SECTION 30.						
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSSH SCRUB.						
General:	ROAD KILL OBSERVED IN THIS AREA SOMETIME FROM 1972 TO JUL 1975. MVZ #195786 COLLECTED 28 DEC 1989. 2 KNOWN DENS AND KIT FOX SIGN OBSERVED 1 FEB 2001.						
Owner/Manager:	PVT						



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Occurrence No.	103	Map Index:	33831	EO Index:	54691	Element Last Seen:	1998-04-15
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1998-04-15
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-12-04
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.21078 / -119.58656				Accuracy:	non-specific area	
UTM:	Zone-11 N3899484 E264551				Elevation (ft):	1400	
PLSS:	T31S, R22E, Sec. 23, SW (M)				Acres:	9.8	
Location:	3.4 AIR MILES NW OF FELLOWS, ABOUT 1.3 MI SW OF THE INTERSECTION OF SHALE ROAD AND STATE ROUTE 33.						
Detailed Location:	SITE IS ALONG A CREEK; KNOWN DEN SITE IS IN THE EASTERN PORTION OF THE EO. MEASUREMENTS INC.						
Ecological:	BROMUS RUBENS, ATRIPLEX POLYCARPA, GUTIERREZIA BRACTEATA, ISOMERIS ARBOREA, SALSOLA KALI, EREMOCARPUS SETIGERUS, CENTAUREA MELITENSIS, AMBROSIA ACANTHICARPA, HELIANTHUS ANNUUS, DATURA STRAMONIUM AND ERODIUM CICUTARIUM.						
General:	1 DEN OBSERVED IN LAND UNIT 10 IN SURVEY BETWEEN 10 SEP AND 16 NOV 1979. 3/16/1999: ONE SCAT FOUND, WESTERN PORTION OF EO. 3/23/1999: ONE TRACK IN THE MUD SEEN IN SAME LOCATION AS THE SCAT 15 APR 1998: ONE KNOWN DEN WITH SCAT IDENTIFIED.						
Owner/Manager:	PVT, BLM						
Occurrence No.	106	Map Index:	54695	EO Index:	54695	Element Last Seen:	1999-03-23
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	1999-03-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-09-25
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.21179 / -119.60007				Accuracy:	non-specific area	
UTM:	Zone-11 N3899628 E263323				Elevation (ft):	1500	
PLSS:	T31S, R22E, Sec. 22, SW (M)				Acres:	23.0	
Location:	JUST WEST OF MOCAL ROAD. ABOUT 1.8 MI WSW OF STATE ROUTE 33 AND SHALE ROAD INTERSECTION. 3.1 MI WNW OF MIDWAY OIL CAMP.						
Detailed Location:							
Ecological:	HEAVILY DISTURBED, MODERATE TO HIGH DENSITY OIL FIELD WITH PATCHES OF SALTBUSH SCRUB HABITAT. ALONG PROPOSED TRANSMISSION LINE CORRIDOR.						
General:	3/23/1999: ONE SIGN OF KIT FOX NOTED - TRACK IN MUD. LACM #95568 COLLECTED 21 SEP 1992 BY LIZ BOWEN (CEC).						
Owner/Manager:	PVT						



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Occurrence No.	107	Map Index:	54707	EO Index:	54707	Element Last Seen:	1999-03-16
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-03-16
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-12-07
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.21472 / -119.56187			Accuracy:	non-specific area		
UTM:	Zone-11 N3899863 E266810			Elevation (ft):	1250		
PLSS:	T31S, R22E, Sec. 24, SW (M)			Acres:	579.0		
Location:	EAST AND WEST OF SHALE ROAD. 0.7 TO 0.9 MI S OF SR 33 & SHALE ROAD INTERSECTION. 2.0 MI NNW OF MIDWAY OIL CAMP.						
Detailed Location:	NE 1/4 OF NW 1/4 OF SECTION 25 MAPPED ACCORDING TO DATA PROVIDED BY MVZ. NW, NE & SE 1/4 OF SECTION 24 MAPPED ACCORDING TO DATA PROVIDED BY EG&G ENERGY MEASUREMENTS INC.						
Ecological:	BROMUS RUBENS, SCHISMUS ARABICUS, FESTUCA SP, PLANTAGO, LEPIDIUM, ATRIPLEX POLYCARPA, GUTIERREZIA BRACTEATA, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, SALSOLA KALI, EREMOCARPUS SETIGERUS, CENTAUREA MELITENSIS, & MORE LISTED IN SOURCE.						
General:	DENS OBS DURING SURVEY 12-14, 17, 21 SEP AND 22-23 OCT 1979. 2 MALE SPECIMENS (MVZ #195772-195773) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 28 JUN 1983. 1 KNOWN KIT FOX DEN OBSERVED ON 16 MAR 1999.						
Owner/Manager:	BLM, UNKNOWN						

Occurrence No.	108	Map Index:	41604	EO Index:	54708	Element Last Seen:	1999-03-17
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-03-17
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-03-15
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.19609 / -119.56128			Accuracy:	80 meters		
UTM:	Zone-11 N3897794 E266811			Elevation (ft):	1400		
PLSS:	T31S, R22E, Sec. 25, SE (M)			Acres:	0.0		
Location:	1.6 MILES NW OF FELLOWS, 1.8 MI SSE OF SHALE ROAD AND SR 33 INTERSECTION, ON THE WESTERN EDGE OF MIDWAY VALLEY.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF SALTBUCH SCRUB ON AN OLD OIL SUMP. SURROUNDED BY LOW-DENSITY OIL DEVELOPMENT.						
General:	3/17/1999: 3 ADULTS REPORTED AT DEN.						
Owner/Manager:	PVT						



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Occurrence No.	109	Map Index:	54710	EO Index:	54710	Element Last Seen:	1999-03-17
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-03-17
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-03-15
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.19817 / -119.57024				Accuracy:	specific area	
UTM:	Zone-11 N3898046 E266000				Elevation (ft):	1400	
PLSS:	T31S, R22E, Sec. 25, SW (M)				Acres:	10.2	
Location:	WEST OF SHALE ROAD, ABOUT 1.5 MI S OF SHALE ROAD AND SR 33 INTERSECTION, ABOUT 1.3 MI NW OF MIDWAY OIL CAMP.						
Detailed Location:							
Ecological:	SURROUNDING AREA IS SALTBUSH SCRUB AND LOW TO MODERATE DENSITY OIL DEVELOPMENT.						
General:	3/17/1999: TWO SIGNS OF KIT FOX REPORTED, MOST LIKELY DEN SITES.						
Owner/Manager:	PVT						

Occurrence No.	151	Map Index:	55318	EO Index:	55318	Element Last Seen:	2002-06-26
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2002-06-26
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-01-17
Quad Summary:	Maricopa (3511914), Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.13101 / -119.42382				Accuracy:	non-specific area	
UTM:	Zone-11 N3890261 E279152				Elevation (ft):	715	
PLSS:	T32S, R24E, Sec. 20 (M)				Acres:	717.0	
Location:	MIDWAY VALLEY, ABOUT 1.8 MILES EAST OF THE TAFT HOSPITAL, ON & SOUTH OF GARDNER FIELD ROAD.						
Detailed Location:	INDIVIDUAL OBSERVED IN THE MOST NOTHERLY FEATURE IN 2002. MAPPED IN SE 1/4 OF NW 1/4 OF SECTION 19 ACCORDING TO DATA PROVIDED BY MVZ.						
Ecological:	VALLEY SALTBUSH SCRUB, WITH TRASH AND DEBRIS PRESENT, NO OBVIOUS CURRENT USE, OPEN LAND.						
General:	SIGHTING & 2 DENS FROM 1972 THROUGH JUL 1975. 1 MALE SPECIMEN (MVZ #195793) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 30 NOV 1989. 6/26/2002: ONE OBSERVED CROSSING GARDNER FIELD ROAD, THEN TRAVELING SOUTH UNTIL OUT OF SIGHT.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	152	Map Index:	55322	EO Index:	55322	Element Last Seen:	2002-08-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2002-08-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-02-07
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.18198 / -119.39397				Accuracy:	non-specific area	
UTM:	Zone-11 N3895849 E282009				Elevation (ft):		
PLSS:	T31S, R24E, Sec. 33, SE (M)				Acres:	899.0	
Location:	SOUTHERN BUENA VISTA VALLEY, 2.0 MI SSE OF VALLEY ACRES, SOUTH OF STATE ROUTE 119.						
Detailed Location:	DEN OBSERVED IN SE 1/4 OF SE 1/4 OF SEC 33 IN 1998. DENS, SIGN (SCAT), & INDIVIDUALS OBSERVED 1998-2002. MVZ RECORDS MAPPED IN 1/4 OF 1/4 SECTIONS ACCORDING TO DATA PROVIDED BY MVZ. CEC RECORDS MAPPED IN 1/4 SECTIONS ACCORDING TO CEC DATA.						
Ecological:	VALLEY SALTBUSH SCRUB, HOOVER'S WOOLY STAR, OIL NESTSTRAW AND SAN JOAQUIN ANTELOPE SQUIRREL, AND LOGGERHEAD SHRIKE IN THE AREA.						
General:	SIGHTING 1972-1975. MVZ #195748 COLL 18 APR 1985. DEN/SIGHTING OBS BEFORE1990. MVZ #195788 COLL 21 JAN 1991. KNOWN KIT FOX DEN & SCAT OBS ON 8 APR 1998. SCAT OBS 6 FEB 2001. 1 PUP DEN, 1 KNOWN DEN & SCATS 5 FEB 2000. 2 FOX OBS JUL-AUG 2002.						
Owner/Manager:	PVT						
Occurrence No.	154	Map Index:	55356	EO Index:	55356	Element Last Seen:	1998-04-22
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-05-04
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.17948 / -119.48211				Accuracy:	80 meters	
UTM:	Zone-11 N3895769 E273974				Elevation (ft):	700	
PLSS:	T32S, R23E, Sec. 02 (M)				Acres:	0.0	
Location:	1.6 MI EAST OF STATE ROUTE 119 JUST SOUTH OF MIDWAY ROAD. NE OF TAFT. MIDWAY VALLEY.						
Detailed Location:	SCAT OBSERVED.						
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB. LOGGERHEAD SHRIKE REPORTED IN THE AREA.						
General:	1998: 4/9/1998 ONE SCAT OBSERVED, 4/22/1998 ONE SCAT OBSERVED.						
Owner/Manager:	PVT						



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Occurrence No.	155	Map Index:	55358	EO Index:	55358	Element Last Seen:	1998-04-22
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-06
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.18209 / -119.46525				Accuracy:	non-specific area	
UTM:	Zone-11 N3896020 E275517				Elevation (ft):	750	
PLSS:	T31S, R23E, Sec. 35, SE (M)				Acres:	163.0	
Location:	BUENA VISTA HILLS, ABOUT 0.7 MI WEST OF STATE ROUTE 119 AT MIDWAY ROAD, N OF TAFT.						
Detailed Location:	1998: DEN OBSERVED. MVZ RECORDS MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB.						
General:	MVZ #195725-195727, 195733-195734, 195736-195737 COLLECTED BY EG&G ENERGY MEASUREMENTS INC. IN AUG 1982, AUG & SEP 1983, NOV 1984, NOV 1990, MAR 1994. 1 KNOWN DEN REPORTED ON 22 APR 1998.						
Owner/Manager:	PVT						

Occurrence No.	156	Map Index:	55387	EO Index:	55387	Element Last Seen:	1998-04-07
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-05-07
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.18149 / -119.36141				Accuracy:	80 meters	
UTM:	Zone-11 N3895724 E284973				Elevation (ft):	500	
PLSS:	T31S, R24E, Sec. 35, SE (M)				Acres:	0.0	
Location:	ABOUT 3.1 MILES SE OF VALLEY ACRES, WEST OF CALIFORNIA AQUEDUCT & BUENA VISTA LAKE BED.						
Detailed Location:	DEN AND SIGN OBSERVED.						
Ecological:	VALLEY SALTBUSH SCRUB HABITAT WITH LOW DENSITY OIL DEVELOPMENT. HOOVER'S WOOLY STAR, BLUNT-NOSED LEOPARD LIZARD AND SAN JOAQUIN ANTELOPE SQUIRREL NOTED IN THE AREA.						
General:	1998: 4/7/1998 KNOWN DEN WITH SIGN.						
Owner/Manager:	PVT						



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Occurrence No.	158	Map Index:	55400	EO Index:	55400	Element Last Seen:	2007-09-25
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2007-09-25
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2016-07-18
Quad Summary:	East Elk Hills (3511934), West Elk Hills (3511935), Reward (3511936), Lokern (3511945), Belridge (3511946)						
County Summary:	Kern						
Lat/Long:	35.37658 / -119.57575				Accuracy:	non-specific area	
UTM:	Zone-11 N3917852 E266013				Elevation (ft):	400	
PLSS:	T29S, R22E, Sec. 26 (M)				Acres:	18970.0	
Location:	NORTH OF MCKITTRICK, WEST OF BUTTONWILLOW, EAST & WEST OF THE CALIFORNIA AQUEDUCT, EAST OF STATE ROUTE 33.						
Detailed Location:	OBS @ MI POST 223.20R, 223.65R, 224.19-224.45R, 227.00R, 227.5R, 227.57L. 2006 CAPT/RELEASE FOX #S IN SOURCE. SIGHTING/RDKILL '72-75. FOX ACTIVITY '77. FOX/DEN '81. DEN/SIGN, COLL DEPOSIT @ SBMNH '86. DENS/SIGN '86-7. 2007 COORD. OF CAMERA.						
Ecological:	VALLEY SINK SCRUB DOMINATED BY ATRIPLEX POLYCARPA, A. SPINIFERA, ALLENROLFEA OCCIDENTALIS, BROMUS. ALONG THE SLOUGH, A CORRIDOR OF RIPARIAN HABITAT W/ SALIX TAMARIX. VALLEY SALTBUSH IN UPLANDS, PRIMARILY ATRIPLEX POLYCARPA. SOME GRASSLANDS.						
General:	OBS '87. DEN/OBS/SCAT '88. OBS '94. DEN/SIGN '99. MVZ206979-80, 195597-600, 195611-13 COLL '88-91&03. SJKF RECOV PRJ, ESRP, CSUS (6157, 6159). 68 DENS/3 FOX TRACKED '01-04. 4 OBS 1&3 AUG '06. 33 CAPT/REL MAY-DEC '06. MULTI CAMERA OBS, '07.						
Owner/Manager:	DWR-CA AQUEDUCT, PVT, BLM						

Occurrence No.	159	Map Index:	55432	EO Index:	55432	Element Last Seen:	1999-04-02
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-04-02
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-02-08
Quad Summary:	West Elk Hills (3511935), Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.28564 / -119.61997				Accuracy:	non-specific area	
UTM:	Zone-11 N3907868 E261728				Elevation (ft):		
PLSS:	T30S, R22E, Sec. 28 (M)				Acres:	251.0	
Location:	1.1 MI S OF MCKITTRICK, EAST OF STATE ROUTE 33.						
Detailed Location:	SE 1/4 OF SE 1/4 OF SECTION 29 & SW 1/4 OF NE 1/4 OF SECTION 28 MAPPED ACCORDING TO DATA PROVIDED BY MVZ. SW 1/4 OF SECTION 28 MAPPED ACCORDING TO DATA PROVIDED BY CEC.						
Ecological:	SALTBUSH SCRUB HABITAT; SURROUNDING AREA IS OIL DEVELOPMENT.						
General:	ROAD KILL FROM 1972 THROUGH JUL 1975. 1 FEMALE & MALE SPECIMEN (MVZ #195604-195605) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. 8 OCT 1982 & 16 MAY 1989. KNOWN DEN(S) OR SIGHTING(S) BEFORE 1990. 2 SEPARATE LOCATIONS FOR SCATS ON 2 APR 1999.						
Owner/Manager:	PVT, UNKNOWN						



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Occurrence No.	160	Map Index:	55434	EO Index:	55434	Element Last Seen:	2003-10-28
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2003-10-28
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-06-14
Quad Summary:	Fellows (3511925), West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.28098 / -119.56540			Accuracy:	non-specific area		
UTM:	Zone-11 N3907222 E266679			Elevation (ft):	1000		
PLSS:	T30S, R22E, Sec. 36 (M)			Acres:	6627.0		
Location:	EAST OF MCKITTRICK, MCKITTRICK VALLEY, NAVAL PETROLEUM RESERVE NO. 1.						
Detailed Location:	INCLUDES S22, N 1/2 OF N 1/2 & SE 1/4 OF S12 & 26; SECTIONS MAPPED AS PER SOURCES. LITTERS IN S32,4,5,8. SIGHTING/ROADKILL/DEN FROM 1972-1975. SCATS/DENS OBS 1979. 7 LITTERS OBS 1980-85. TRACKS/DENS/SCAT OBS 1986. ADULT & JUV OBS SEP 1990.						
Ecological:	BROMUS RUBENS, SCHISMUS ARABICUS, FESTUCA SP, PLANTAGO SP, LEPIDIUM SP, ATRIPLEX POLYCARPA, A. SPINIFERA, GUTIERREZIA BRACTEATA, EUROTIA LANATA, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, SALSOLA SP, EREMOCARPUS SP & ERODIUM CICUTARIUM.						
General:	MVZ #195350, 195376-82, 195385, 195476-79, 195615-17, 195602, 195624-41, 195669-77, 195769-70 COLL 1980-89, 1991. DEN/SIGHTING 1988. SCAT, PUP DEN, TRACKS OBS 1999. MVZ #206987 COLL 28 OCT 2003. KIT FOX RECOVERY PROJECT, ESRP, SCUS (6436).						
Owner/Manager:	DOD-NAVAL PETROLEUM RES, PVT						

Occurrence No.	164	Map Index:	55444	EO Index:	55444	Element Last Seen:	1998-04-23
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-05-11
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.18409 / -119.54124			Accuracy:	non-specific area		
UTM:	Zone-11 N3896416 E268602			Elevation (ft):	1100		
PLSS:	T31S, R23E, Sec. 31, SE (M)			Acres:	157.2		
Location:	JUST NORTH OF FELLOWS.						
Detailed Location:	OCC #164 IS IN T31S R23E SE 1/4 OF SEC 31. OCC #165 IS IN T32S R23E, NE 1/4 OF SEC 4. ATTACHED MAP DID NOT SHOW DEN SITES, MAPPED ACCORDING TO T-R-S GIVEN.						
Ecological:	VALLEY SALT BUSH SCRUB HABITAT, LOGGERHEAD SHRIKE AND ANTELOPE SQUIRREL ALSO NOTED IN THE AREA. LOW DENSITY OIL DEVELOPMNET IN SURROUNDING AREA.						
General:	04/23/1998: TWO SCATS AND TWO KNOWN DENS REPORTED BETWEEN OCC #164 AND OCC #165.						
Owner/Manager:	PVT						



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Occurrence No.	165	Map Index:	55445	EO Index:	55445	Element Last Seen:	1998-04-23
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-12-20
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.17608 / -119.50890				Accuracy:	non-specific area	
UTM:	Zone-11 N3895453 E271524				Elevation (ft):	1100	
PLSS:	T32S, R23E, Sec. 04, NE (M)				Acres:	170.0	
Location:	QUARTER SECTION 2.0 MI EAST OF FELLOWS, EAST OF STATE ROUTE 33, MIDWAY VALLEY.						
Detailed Location:	OCC #164 IS IN T31S R23S SE 1/4 OF SEC 31. OCC#165 IS IN R32S R23S, NE 1/4 OF SEC 4. ATTACHED MAP DID NOT SHOW DEN SITES, MAPPED ACCORDING TO T-R-S GIVEN. APPROX. N 1/2 OF SECTION 4 INCLUDED HERE ACCORDING TO EG&G ENERGY MEASUREMENTS INC.						
Ecological:	VALLEY SALTBUSSH SCRUB HABITAT, LOGGERHEAD SHRIKE AND ANTELOPE SQUIRREL ALSO NOTED IN THE AREA. SURROUNDING AREA IS LOW DENSITY OIL DEVELOPMENT. BROMUS RUBENS, SCHISMUS ARABICUS, FESTUCA, PLANTAGO, LEPIDIUM, ATRIPLEX, MORE LISTED IN SOURCE.						
General:	2 KNOWN DENS OR SIGHTINGS IN MAY 1988. DENS AND SCATS OBSERVED DURING SURVEY BETWEEN 12-14 SEP AND 22-23 OCT 1979. 04/23/1998: TWO SCATS AND TWO KNOWN DENS REPORTED BETWEEN OCC #164 AND OCC #165.						
Owner/Manager:	PVT						

Occurrence No.	168	Map Index:	55464	EO Index:	55464	Element Last Seen:	1994-08-23
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1994-08-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-05-12
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.35448 / -119.47546				Accuracy:	non-specific area	
UTM:	Zone-11 N3915168 E275065				Elevation (ft):	310	
PLSS:	T29S, R23E, Sec. 35, SW (M)				Acres:	17.7	
Location:	CALIFORNIA AQUEDUCT, SE OF STATE ROUTE 58, MILEPOST 229.0, ABOUT 3.2 MI S OF BUTTONWILLOW.						
Detailed Location:	MVZ RECORD FROM THE NW 1/4 OF NE 1/4 OF SECTION 2.						
Ecological:	SALTBUSSH SCRUB DOMINATED BY ATRIPLEX POLYCARPA AND BROMUS SP. THE SCRUB COMMUNITY HAS A PATCHY AND SPARSE DISTRIBUTION IN THE AREA. AMMOSPERMOPHILUS NELSONI IS IN THE AREA.						
General:	1 MALE SPECIMEN (MVZ #195609) COLLECTED BY EG&G MEASUREMENTS INC. 27 DEC 1989. ONE FOX WAS REPORTED IN WEST SIDE CULVERT UNDER ROAD (#27 ABOUT MILEPOST 229.00) ON 23 AUG 1994.						
Owner/Manager:	DWR-CALIFORNIA AQUEDUCT						



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Occurrence No.	181	Map Index:	55602	EO Index:	55602	Element Last Seen:	1998-12-01
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-12-01
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-05-24
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.31920 / -119.29800				Accuracy:	1/5 mile	
UTM:	Zone-11 N3910865 E291101				Elevation (ft):	310	
PLSS:	T30S, R25E, Sec. 16 (M)				Acres:	0.0	
Location:	WEST OF I-5. ABOUT 3.1 MI NW OF ENOS LANE (SR 43) & I-5 INTERCHANGE. ABOUT 3.2 MI ENE OF TUPMAN.						
Detailed Location:	MAPPED ACCORDING TO THE PROVIDED MAP. THE T-R-S PROVIDED ON THE FORM - T32S, R24E SEC 35 - DID NOT MATCH THE MAP. SITE MAYBE JUST NORTH OF JAMES AND DIXON CANAL.						
Ecological:	SURROUNDING AREA IS OPEN SPACE AND AGRICULTURE, HABITAT IS ATRIPLEX SCRUB.						
General:	12/1/1998: ONE FORAGING ADULT OBSERVED.						
Owner/Manager:	DWR						

Occurrence No.	182	Map Index:	55604	EO Index:	55604	Element Last Seen:	1998-08-24
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-08-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-02-08
Quad Summary:	Pentland (3511913), Maricopa (3511914), Mouth of Kern (3511923), Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.10579 / -119.37465				Accuracy:	non-specific area	
UTM:	Zone-11 N3887355 E283566				Elevation (ft):	500	
PLSS:	T32S, R24E, Sec. 35 (M)				Acres:	1710.0	
Location:	CALIFORNIA AQUEDUCT FROM GARDNERFIELD ROAD S TO BASIC SCHOOL ROAD. ABOUT 5 MI NNE OF MARICOPA TO 5 MI ENE OF MARICOPA.						
Detailed Location:	MVZ#195767 LOCATION IS NW 1/4 OF NW 1/4 OF S33. MVZ#191416 LOCATION IS "S OF CADET RD. W OF AQUEDUCT" & T-R-S SW 1/4 OF S35. GRA98F0001 LOCATION IS "ALONG AQUEDUCT FROM GARDNER FIELD RD S TO BASIC SCHOOL RD." DEN OBS AT MIPOST 254.95 (L).						
Ecological:	HABITAT IS SALTBUSH SCRUB SURROUNDING THE CA AQUEDUCT. SURROUNDING LAND USE, GRAZING & FEDERAL PRISON TO W; AGRICULTURE ON E. BROMUS RUBENS, SCHISMUS ARABICUS, ATRIPLEX POLYCARPA, HAPLOPAPPUS ACRADENIUS, SALSOLA KALI, CENTAUREA MELITENSIS.						
General:	DEN/SIGHTING 1972-75. MVZ #191416 COLL. DATE NOT RECORDED. DENS OBS OCT 1979. DEN OBS 1981. KNOWN DENS/SIGHTINGS 1987-1988. MVZ #195767 COLLECTED 14 NOV 1988. AUG 1998: SPOTLIGHT SURVEY CONDUCTED FOR 3 NIGHTS & 10 ADULTS COUNTED FORAGING.						
Owner/Manager:	DWR-CALIFORNIA AQUEDUCT, PVT						



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Occurrence No.	190	Map Index:	55668	EO Index:	55668	Element Last Seen:	1993-05-20
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1993-05-20
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-05-26
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.33563 / -119.46404				Accuracy:	non-specific area	
UTM:	Zone-11 N3913050 E276051				Elevation (ft):	425	
PLSS:	T30S, R23E, Sec. 12, NW (M)				Acres:	14.2	
Location:	NAVAL PETROLEUM RESERVE #1, 0.8 MI SOUTH OF CALIFORNIA AQUEDUCT ON ELK HILLS ROAD.						
Detailed Location:							
Ecological:	SCATTERED SALTBUSH, MOSTLY ANNUAL GRASSES AND FORBS IN VICINITY. SURROUNDING AREA IS NATURAL LAND, RECENT FIRE IN THE AREA.						
General:	1993: 5/20/1993 ONE DEAD ANIMAL ON ROAD.						
Owner/Manager:	DOE-NAVAL PETROLEUM RESERVE						

Occurrence No.	197	Map Index:	55802	EO Index:	55818	Element Last Seen:	2002-08-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2002-08-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-07
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.22165 / -119.39777				Accuracy:	non-specific area	
UTM:	Zone-11 N3900258 E281769				Elevation (ft):	400	
PLSS:	T31S, R24E, Sec. 21, NE (M)				Acres:	144.0	
Location:	AREA BETWEEN VALLEY ACRES AND DUSTIN ACRES AND AREA TO THE NW OF DUSTIN ACRES. BUENA VISTA VALLEY.						
Detailed Location:	SE 1/4 OF SE 1/4 OF SECTION 16 & SE 1/4 OF NE 1/4 OF SECTION 21 MAPPED ACCORDING TO DATA PROVIDED BY MVZ. #200684 LOCATION GIVEN AS "HWY 119 BETWEEN VALLEY ACRES AND DUSTIN ACRES."						
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB. BUSH SEEPWEED- IODINE BUSH SCRUB.						
General:	MVZ #195648-195649, 195661, 200684 COLLECTED ON 2 SEP 1983, 17 APR 1984, 4 JUN 1987, & 26 JUN 1994. 2 INDIVIDUALS & 4 SCENT STATIONS WITH TRACKS REPORTED DURING SPOTLIGHT SURVEY JUL-AUG 2002.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	199	Map Index:	55814	EO Index:	55830	Element Last Seen:	2002-08-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2002-08-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-06-15
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.20424 / -119.41535				Accuracy:	non-specific area	
UTM:	Zone-11 N3898365 E280122				Elevation (ft):	300	
PLSS:	T31S, R24E, Sec. 29, NE (M)				Acres:	149.4	
Location:	WEST AND SOUTH OF VALLEY ACRES, ALONG SR 119. ABOUT 3.5 MILES WEST OF THE CALIFORNIA AQUEDUCT AND BUENA VISTA LAKEBED.						
Detailed Location:	MVZ RECORD FROM THE SE 1/4 OF NE 1/4 OF SECTION 29 ACCORDING TO LOCALITY DATA PROVIDED BY MVZ.						
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB. BUSH SEEPWEED-IODINE BUSH SCRUB.						
General:	1 MALE SPECIMEN (MVZ #195787) COLLETCTED BY EG&G ENERGY MEASUREMENTS INC. ON 15 MAR 1985. 11 SCENT STATIONS MONITORED, TRACKS FOUND AT 9 STATIONS JUL-AUG 2002.						
Owner/Manager:	UNKNOWN						

Occurrence No.	201	Map Index:	55816	EO Index:	55832	Element Last Seen:	2002-08-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2002-08-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-02
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.26783 / -119.31013				Accuracy:	non-specific area	
UTM:	Zone-11 N3905192 E289866				Elevation (ft):	400	
PLSS:	T30S, R25E, Sec. 32, N (M)				Acres:	109.0	
Location:	ABOUT 0.25 MI WEST OF CALIFORNIA AQUEDUCT ALONG SR 119, NORTH OF BUENA VISTA LAKEBED. NORTH SIDE OF SR 119.						
Detailed Location:	MVZ SPECIMENS FROM THE NE 1/4 OF NE 1/4 OF SEC 5 AND SW 1/4 OF SE 1/4 OF SEC 32.						
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB. BUSH SEEPWEED-IODINE BUSH SCRUB.						
General:	2 FEMALE SPECIMENS (MVZ #195622 &195663) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 19 AUG 1981 & 31 JUL 1990. 2 SCENT STATIONS WITH TRACKS NOTED JUL-AUG 2002.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	204	Map Index:	55824	EO Index:	55840	Element Last Seen:	2002-08-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2002-08-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-01-16
Quad Summary:	Mouth of Kern (3511923), Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.22966 / -119.37578			Accuracy:	non-specific area		
UTM:	Zone-11 N3901099 E283792			Elevation (ft):	400		
PLSS:	T31S, R24E, Sec. 14 (M)			Acres:	335.0		
Location:	N & S OF SR 119. ABOUT 4.2 MI SW OF CALIFORNIA AQUEDUCT, ABOUT 1 MI NE OF DUSTIN ACRES. NW OF BUENA VISTA LAKEBED.						
Detailed Location:	INDIVIDUAL, DEN, AND SIGN (SCENT STATIONS WITH TRACK). MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB. BUSH SEEPWEED-IODINE BUSH SCRUB.						
General:	DEN & SIGHTING IN VICINITY FROM 1972-1975. MVZ #195644, 195646-195647 COLL BY EG&G ENERGY MEASUREMENTS INC 15 JAN, 5 JUL 1984, 12 JUN 1987. 2 KNOWN DENS, 2 SPOTLIGHT SIGHTINGS, & 7/10 SCENT STATIONS HAD KIT FOX TRACKS PRESENT JUL-AUG 2002.						
Owner/Manager:	UNKNOWN						

Occurrence No.	205	Map Index:	55825	EO Index:	55841	Element Last Seen:	2002-08-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2002-08-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-06-16
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.20174 / -119.40144			Accuracy:	non-specific area		
UTM:	Zone-11 N3898058 E281381			Elevation (ft):	400		
PLSS:	T31S, R24E, Sec. 28, SE (M)			Acres:	20.2		
Location:	JUST SE OF SOUTHEASTERN CORNER OF VALLEY ACRES, W OF BUENA VISTA LAKEBED. ABOUT 0.5 MI S OF SR 119, VALLEY ACRES.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB. BUSH SEEPWEED-IODINE BUSH SCRUB.						
General:	7-8/2002: TWO SCENT STATIONS WITH KIT FOX TRACKS PRESENT.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	221	Map Index:	66382	EO Index:	66478	Element Last Seen:	1991-01-10
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1991-01-10
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-09-25
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.22478 / -119.60331				Accuracy:	80 meters	
UTM:	Zone-11 N3901077 E263067				Elevation (ft):	1550	
PLSS:	T31S, R22E, Sec. 15, SW (M)				Acres:	0.0	
Location:	OIL FIELD ALONG CROCKER CANYON, EAST SIDE OF TELEPHONE HILLS. ABOUT 1.75 MILES SSW OF DERBY ACRES.						
Detailed Location:							
Ecological:							
General:	LACM #95566 COLLECTED 10 JAN 1991 BY LIZ BOWEN (CEC). ANIMAL WAS FIRST CAPTURED AND RELEASED 30 NOV 1990 FROM THIS SAME AREA.						
Owner/Manager:	UNKNOWN						

Occurrence No.	222	Map Index:	66396	EO Index:	66493	Element Last Seen:	1993-02-08
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1993-02-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-12-13
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.20578 / -119.60283				Accuracy:	specific area	
UTM:	Zone-11 N3898968 E263055				Elevation (ft):	1630	
PLSS:	T31S, R22E, Sec. 27, NW (M)				Acres:	8.0	
Location:	ABOUT 0.25 MI WEST OF MOCAL ROAD. ABOUT 3 AIR MILES SOUTH OF DERBY ACRES.						
Detailed Location:	NE 1/4, NW 1/4 AND SW 1/4 OF SECTION 27 INCLUDED HERE ACCORDING TO DATA PROVIDED BY EG&G ENERGY MEASUREMENTS INC.						
Ecological:	BROMUS RUBENS, ATRIPLEX POLYCARPA, GUTIERREZIA BRACTEATA, ISOMERIS ARBOREA, SALSOLA KALI, EREMOCARPUS SETIGERUS, CENTAUREA MELITENSIS, AMBROSIA ACANTHICARPA, HELIANTHUS ANNUUS, DATURA STRAMONIUM AND ERODIUM CICUTARIUM.						
General:	1 DEN OBSERVED IN LAND UNIT 10 IN SURVEY BETWEEN 10 SEP AND 16 NOV 1979. 1 INDIVIDUAL OBSERVED 8 JUL 1987. LACM #95557 COLLECTED 8 FEB 1993 BY LIZ BOWEN (CEC). ANIMAL FIRST CAPTURED AND RELEASED 4 JAN 1993 FROM THIS SAME AREA.						
Owner/Manager:	BLM, UNKNOWN						



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Occurrence No.	238	Map Index:	66723	EO Index:	66873	Element Last Seen:	2003-01-03
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2003-01-03
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-10-13
Quad Summary:	Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.41936 / -119.52368			Accuracy:	3/5 mile		
UTM:	Zone-11 N3922476 E270865			Elevation (ft):	260		
PLSS:	T29S, R23E, Sec. 08 (M)			Acres:	0.0		
Location:	VICINITY OF MAIN DRAIN ROAD AND CORN CAMP ROAD. NORTH OF HWY 58 AND ABOUT 3 MILES WNW OF BUTTOWILLOW.						
Detailed Location:	MVZ RECORD GIVES LOCATION AS "10 MI E ON HWY 58 FROM HWY 33, THEN 1.65 MI NW OF HWY 58". MAPPED ACCORDING TO THOSE DIRECTIONS.						
Ecological:							
General:	MVZ #206976 COLLECTED 3 JAN 2003. FROM KIT FOX RECOVERY PROJECT, ESRP, CSU STANISLAUS (6033). NOTED AS DEN D245.						
Owner/Manager:	UNKNOWN						
Occurrence No.	246	Map Index:	66777	EO Index:	66928	Element Last Seen:	2003-10-03
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2003-10-03
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-10-31
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.29317 / -119.34401			Accuracy:	non-specific area		
UTM:	Zone-11 N3908076 E286850			Elevation (ft):	292		
PLSS:	T30S, R24E, Sec. 25 (M)			Acres:	128.0		
Location:	SOUTH OF TUPMAN AND ALONG THE CALIFORNIA AQUEDUCT ACCESS ROAD, ON THE WEST SIDE OF THE AQUEDUCT, SOUTH OF TUPMAN.						
Detailed Location:	MVZ #206972 GIVES LOCATION AS "14.5 MI S OF HWY 58 ON CALIFORNIA AQUEDUCT ACCESS ROAD, ALONG CALIFORNIA AQUEDUCT". MAPPED ACCORDING TO THOSE DIRECTIONS. ALSO MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ FOR #195425-7.						
Ecological:							
General:	MVZ #195425-195427 COLLECTED BY EG&G ENERGY MEASUREMENTS INC. 11 SEP 1981, 3 JUL 1984 AND 17 JUL 1990. MVZ #206972 COLLECTED 6 OCT 2003. FROM KIT FOX RECOVERY PROJECT, ESRP, CSU STANISLAUS (6019).						
Owner/Manager:	UNKNOWN						



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Occurrence No.	252	Map Index:	66836	EO Index:	66995	Element Last Seen:	1990-08-06
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1990-08-06
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-10-30
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.33416 / -119.56057				Accuracy:	non-specific area	
UTM:	Zone-11 N3913110 E267271				Elevation (ft):	710	
PLSS:	T30S, R22E, Sec. 12, NE (M)				Acres:	37.0	
Location:	ABOUT 4 MI NE OF MCKITTRICK, 2.7 MI E OF HWY 58.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 MALE SPECIMEN (MVZ #195603) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 6 AUG 1990.						
Owner/Manager:	UNKNOWN						

Occurrence No.	255	Map Index:	66839	EO Index:	66998	Element Last Seen:	1990-07-18
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1990-07-18
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-10-30
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.34555 / -119.49352				Accuracy:	non-specific area	
UTM:	Zone-11 N3914218 E273398				Elevation (ft):	430	
PLSS:	T30S, R23E, Sec. 03, SW (M)				Acres:	37.0	
Location:	ABOUT 4 MI SSW OF BUTTONWILLOW, 0.9 MI SW OF BUTTONWILLOW-KERN COUNTY AIRFIELD.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 FEMALE SPECIMEN (MVZ #195610) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 18 JUL 1990.						
Owner/Manager:	UNKNOWN						

Occurrence No.	256	Map Index:	66840	EO Index:	66999	Element Last Seen:	1990-08-07
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1990-08-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-02-14
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.34814 / -119.46491				Accuracy:	non-specific area	
UTM:	Zone-11 N3914440 E276006				Elevation (ft):	300	
PLSS:	T30S, R23E, Sec. 01, NW (M)				Acres:	40.0	
Location:	ABOUT 3.6 MI SOUTH OF BUTTONWILLOW, JUST NORTH OF CALIFORNIA AQUEDUCT.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ. DEN OBSERVED ALONG AQUEDUCT AT MILEPOST 229.72 ON LEFT/EAST SIDE OF AQUEDUCT.						
Ecological:	DESERT SHRUB. LOAM & SANDY SOILS. SPARSE VEGETATION.						
General:	4 ACTIVE DENS & SCATS OBSERVED ON 4 JUN 1981. 1 FEMALE SPECIMEN (MVZ #195608) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 7 AUG 1990.						
Owner/Manager:	UNKNOWN, DWR, USBOR						



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Occurrence No.	257	Map Index:	66841	EO Index:	67000	Element Last Seen:	1988-10-21
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1988-10-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-10-30
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.32758 / -119.46733				Accuracy:	non-specific area	
UTM:	Zone-11 N3912165 E275729				Elevation (ft):	520	
PLSS:	T30S, R23E, Sec. 11, SE (M)				Acres:	37.0	
Location:	ABOUT 5 AIR MILES SOUTH OF BUTTONWILLOW, ALONG ELK HILLS ROAD.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 FEMALE SPECIMEN (MVZ #195614) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 21 OCT 1988.						
Owner/Manager:	UNKNOWN						

Occurrence No.	258	Map Index:	66842	EO Index:	67001	Element Last Seen:	1990-01-31
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1990-01-31
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-02-15
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.33925 / -119.44350				Accuracy:	non-specific area	
UTM:	Zone-11 N3913406 E277927				Elevation (ft):	330	
PLSS:	T30S, R24E, Sec. 07, NE (M)				Acres:	63.0	
Location:	ABOUT 4.4 MI SSE OF BUTTONWILLOW, JUST SOUTH OF THE CALIFORNIA AQUEDUCT.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ. ALSO OBSERVED ALONG THE CALIFORNIA AQUEDUCT AT MILEPOSTS 231.10 (R), 231.20 (R), 231.52 (L), 231.72 (L) & 231.73 (R).						
Ecological:	DESERT SHRUB, ANNUAL GRASSLAND. SCATTERED ATRIPLEX AND BROMUS. SANDY & GRAVELLY SOILS.						
General:	SITE QUALITY RANGES FROM POOR TO FAIR. SCATS, 3 FOXES & 1 BURROW WITH SIGNS OF RECENT USE OBSERVED ON 4 JUN 1981. 1 FEMALE SPECIMEN (MVZ #195351) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 31 JAN 1990.						
Owner/Manager:	UNKNOWN, DWR, USBOR						

Occurrence No.	259	Map Index:	66843	EO Index:	67002	Element Last Seen:	1990-12-12
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1990-12-12
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-10-30
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.33442 / -119.43194				Accuracy:	non-specific area	
UTM:	Zone-11 N3912844 E278965				Elevation (ft):	310	
PLSS:	T30S, R24E, Sec. 07, NE (M)				Acres:	32.0	
Location:	ABOUT 5 MI SSE OF BUTTONWILLOW, ALONG THE CALIFORNIA AQUEDUCT.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 FEMALE SPECIMEN (MVZ #195618) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 12 DEC 1990.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	260	Map Index:	66847	EO Index:	67003	Element Last Seen:	1991-02-19
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1991-02-19
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-10-31
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.32589 / -119.42090				Accuracy:	non-specific area	
UTM:	Zone-11 N3911873 E279945				Elevation (ft):	300	
PLSS:	T30S, R24E, Sec. 08, SE (M)				Acres:	76.0	
Location:	ABOUT 5.8 MI SE OF BUTTONWILLOW, ALONG THE CALIFORNIA AQUEDUCT.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 MALE SPECIMEN (MVZ #195619) COLLECTED ON 5 JUL 1990 AND 1 MALE SPECIMEN (MVZ #195416) COLLECTED ON 19 FEB 1991 BY EG&G ENERGY MEASUREMENTS INC.						
Owner/Manager:	UNKNOWN						

Occurrence No.	261	Map Index:	66845	EO Index:	67004	Element Last Seen:	1990-08-13
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1990-08-13
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-12-11
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.32753 / -119.39671				Accuracy:	non-specific area	
UTM:	Zone-11 N3912002 E282149				Elevation (ft):	280	
PLSS:	T30S, R24E, Sec. 09, SE (M)				Acres:	37.0	
Location:	ABOUT 1.8 MI WEST OF TULE ELK RESERVE STATE PARK AND 1 MILE WEST OF TUPMAN ROAD, NEAR WEST SIDE CANAL.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	KIT FOX ACTIVITY OBSERVED IN 1977. 1 MALE SPECIMEN (MVZ #195620) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 13 AUG 1990.						
Owner/Manager:	UNKNOWN						

Occurrence No.	262	Map Index:	66846	EO Index:	67005	Element Last Seen:	1988-10-12
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1988-10-12
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-10-31
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.31331 / -119.38757				Accuracy:	non-specific area	
UTM:	Zone-11 N3910404 E282942				Elevation (ft):	340	
PLSS:	T30S, R24E, Sec. 15, SW (M)				Acres:	38.0	
Location:	WEST OF TULE ELK RESERVE STATE PARK, ABOUT 0.6 MI WEST OF THE INTERSECTION OF TUPMAN ROAD AND WEST SIDE CANAL.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 MALE SPECIMEN (MVZ #195621) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 12 OCT 1988.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	263	Map Index:	66848	EO Index:	67006	Element Last Seen:	1991-04-09
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1991-04-09
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-10-31
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.31984 / -119.47241				Accuracy:	non-specific area	
UTM:	Zone-11 N3911317 E275245				Elevation (ft):	750	
PLSS:	T30S, R23E, Sec. 14, NE (M)				Acres:	35.0	
Location:	NORTH PART OF NAVAL PETROLEUM RESERVE NO. 1, ABOUT 1.8 MI SOUTH OF WHERE ELK HILLS RD. CROSSES THE CALIFORNIA AQUEDUCT.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 FEMALE SPECIMEN (MVZ #195352) COLLECTED ON 4 FEB 1988, 1 FEMALE SPECIMEN (MVZ #195353) COLLECTED ON 9 APR 1991 BY EG&G ENERGY MEASUREMENTS INC.						
Owner/Manager:	UNKNOWN						

Occurrence No.	264	Map Index:	66849	EO Index:	67007	Element Last Seen:	1983-02-10
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1983-02-10
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-10-31
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.31996 / -119.50780				Accuracy:	non-specific area	
UTM:	Zone-11 N3911412 E272028				Elevation (ft):	980	
PLSS:	T30S, R23E, Sec. 16, NE (M)				Acres:	31.0	
Location:	ABOUT 6 MI SW OF BUTTONWILLOW, NORTH OF NAVAL PETROLEUM RESERVE NO. 1.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 MALE SPECIMEN (MVZ #195354) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 10 FEB 1983.						
Owner/Manager:	UNKNOWN						

Occurrence No.	266	Map Index:	66851	EO Index:	67010	Element Last Seen:	1990-08-15
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1990-08-15
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-10-31
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.32351 / -119.53844				Accuracy:	non-specific area	
UTM:	Zone-11 N3911877 E269252				Elevation (ft):	890	
PLSS:	T30S, R23E, Sec. 18, NE (M)				Acres:	33.0	
Location:	ABOUT 4.9 MI ENE OF MCKITTRICK, NORTH OF NAVAL PETROLEUM RESERVE NO. 1.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 MALE SPECIMEN (MVZ #195355) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 15 AUG 1990.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	267	Map Index:	66870	EO Index:	67023	Element Last Seen:	1990-09-04
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1990-09-04
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-10-31
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.29890 / -119.39055				Accuracy:	non-specific area	
UTM:	Zone-11 N3908812 E282632				Elevation (ft):	480	
PLSS:	T30S, R24E, Sec. 22, SW (M)				Acres:	118.0	
Location:	NAVAL PETROLEUM RESERVE NO. 1, 2.1 MI WEST OF TUPMAN.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PRODIVDED BY MVZ.						
Ecological:							
General:	2 MALE AND 1 FEMALE SPECIMENS (MVZ #195421-195422, 195429) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 25 MAY 1984, 12 MAR AND 4 SEP 1990.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 1						

Occurrence No.	268	Map Index:	66853	EO Index:	67011	Element Last Seen:	2017-02-14
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2017-02-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2018-01-09
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.31988 / -119.55167				Accuracy:	80 meters	
UTM:	Zone-11 N3911505 E268040				Elevation (ft):	903	
PLSS:	T30S, R23E, Sec. 18, NW (M)				Acres:	5.0	
Location:	NAVAL PETROLEUM RESERVE NO. 1, ABOUT 3.2 MILES NW OF HILLCREST POINT & 4.1 MILES ENE OF MCKITTRICK.						
Detailed Location:	1980: COLLECTED FROM NAVAL PETROLEUM RESERVE NO. 1, T.30S R.23E SEC. 18 SWNW. MAPPED TO COORDINATES GIVEN FOR 2017 DETECTION.						
Ecological:	ANNUAL GRASSLAND ON GENTLE HILLS ADJACENT TO ACTIVE OIL PRODUCTION AREAS. AN ABANDONED DEN WITH OLD SCAT OBSERVED IN 2017, AS WELL AS SOME PIPES THAT COULD BE USED FOR DENNING; THE FOX WAS SEEN INVESTIGATING THE PIPES BUT NOT ENTERING THEM.						
General:	1 FEMALE SPECIMEN COLLECTED ON 14 MAY 1980. 1 ADULT OBSERVED ON 14 FEB 2017.						
Owner/Manager:	PVT						

Occurrence No.	269	Map Index:	66854	EO Index:	67012	Element Last Seen:	1982-12-28
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1982-12-28
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-02
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.29875 / -119.54730				Accuracy:	non-specific area	
UTM:	Zone-11 N3909150 E268376				Elevation (ft):	1270	
PLSS:	T30S, R23E, Sec. 19, SW (M)				Acres:	33.0	
Location:	NAVAL PETROLEUM RESERVE NO. 1, ABOUT 2.2 AIR MI WNW OF HILLCREST POINT. ALONG SKYLINE ROAD.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 MALE SPECIMEN (MVZ #195357) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 28 DEC 1982.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 1						



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Occurrence No.	270	Map Index:	66856	EO Index:	67014	Element Last Seen:	1986-05-29
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1986-05-29
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-01-03
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.29485 / -119.50935				Accuracy:	non-specific area	
UTM:	Zone-11 N3908630 E271817				Elevation (ft):	1350	
PLSS:	T30S, R23E, Sec. 28, SW (M)				Acres:	145.0	
Location:	NAVAL PETROLEUM RESERVE NO. 1, ABOUT 5.3 MI EAST OF MCKITTRICK, JUST NORTH OF HILLCREST POINT AND SKYLINE ROAD.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ. LITTER OBSERVED IN SECTION 28.						
Ecological:							
General:	4 LITTERS OBSERVED BETWEEN 1980-1985. 4 MALE & 2 FEMALE SPECIMENS (MVZ #195358, 195369-295373) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 16 JUN 1980, 27 AUG 1982, 19 JUL 1983, 24 JUL 1984, 23 & 29 MAY 1986.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 1						

Occurrence No.	271	Map Index:	66857	EO Index:	67015	Element Last Seen:	1990-06-22
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1990-06-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-21
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.30190 / -119.49033				Accuracy:	non-specific area	
UTM:	Zone-11 N3909368 E273566				Elevation (ft):	1040	
PLSS:	T30S, R23E, Sec. 22, SE (M)				Acres:	33.0	
Location:	NAVAL PETROLEUM RESERVE NO. 1, ABOUT 2 MILES NW OF INTERSECTION OF SKYLINE ROAD AND ELK HILLS ROAD.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 MALE SPECIMEN (MVZ #195359) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 22 JUN 1990.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 1						

Occurrence No.	272	Map Index:	66858	EO Index:	67016	Element Last Seen:	1983-06-30
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1983-06-30
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-10-31
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.30191 / -119.46399				Accuracy:	non-specific area	
UTM:	Zone-11 N3909310 E275961				Elevation (ft):	1010	
PLSS:	T30S, R23E, Sec. 24, SW (M)				Acres:	44.0	
Location:	NAVAL PETROLEUM RESERVE NO. 1, ALONG ELK HILLS ROA ABOUT 1.6 ROAD MI NORTH OF INTERSECTION OF SKYLINE RD & ELK HILLS RD.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 MALE SPECIMEN (MVZ #195360) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 30 JUN 1983.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 1						



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Occurrence No.	273	Map Index:	66859	EO Index:	67017	Element Last Seen:	1990-06-28
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1990-06-28
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-10-31
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.30345 / -119.43846				Accuracy:	non-specific area	
UTM:	Zone-11 N3909423 E278288				Elevation (ft):		
PLSS:	T30S, R24E, Sec. 19 (M)				Acres:	682.0	
Location:	NAVAL PETROLEUM RESERVE NO. 1, ABOUT 2.3 MI NE OF INTERSECTION OF SKYLINE RD AND ELK HILLS RD.						
Detailed Location:	MAPPED ACCORDING TO SECTION AND 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ. MVZ #195417 LOCATION GIVEN ONLY AS SECTION 19.						
Ecological:							
General:	3 MALE SPECIMENS (MVZ #195417, 195435-195436) COLLECTED BY EG&G ENERGY MEASUREMENTS ON 11 JUL 1980, 25 & 28 JUN 1990.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 1						

Occurrence No.	274	Map Index:	66860	EO Index:	67018	Element Last Seen:	1989-02-13
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1989-02-13
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-10-31
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.30285 / -119.41861				Accuracy:	non-specific area	
UTM:	Zone-11 N3909312 E280091				Elevation (ft):	550	
PLSS:	T30S, R24E, Sec. 20, SE (M)				Acres:	33.0	
Location:	NAVAL PETROLEUM RESERVE NO. 1, ABOUT 3.2 MI NE OF INTERSECTION OF SKYLINE RD AND ELK HILLS RD.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 FEMALE SPECIMEN (MVZ #195418) COLLECTED BY EG&G ENERGY MEASUREMENTS ON 13 FEB 1989.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 1						

Occurrence No.	275	Map Index:	66861	EO Index:	67019	Element Last Seen:	1990-06-27
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1990-06-27
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-08
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.30957 / -119.40316				Accuracy:	non-specific area	
UTM:	Zone-11 N3910023 E281514				Elevation (ft):	420	
PLSS:	T30S, R24E, Sec. 21 (M)				Acres:	83.0	
Location:	NAVAL PETROLEUM RESERVE NO. 1, 3 MI WNW OF TUPMAN.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 MALE AND 1 FEMALE SPECIMEN (MVZ #195419-195420) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 23 MAY AND 27 JUN 1990.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 1						



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Occurrence No.	276	Map Index:	66868	EO Index:	67026	Element Last Seen:	1990-09-18
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1990-09-18
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-02-14
Quad Summary:	Tupman (3511933), East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.30491 / -119.37121				Accuracy:	non-specific area	
UTM:	Zone-11 N3909437 E284407				Elevation (ft):		
PLSS:	T30S, R24E, Sec. 23 (M)				Acres:	632.0	
Location:	ABOUT 1.6 MI WEST OF TUPMAN.						
Detailed Location:	MAPPED ACCORDING TO SECTION DATA PROVIDED BY MVZ. MVZ #195423 GIVES LOCATION ONLY AS SEC 23. MVZ #195424 GIVES LOCATION AS SW 1/4 OF NE 1/4 OF SEC 23. FOXES OBS AT MILEPOST 235.80 & 236.01-236.17. SITE QUALITY RANGES FROM FAIR TO GOOD.						
Ecological:	ANNUAL GRASSLANDS WITH BROMUS RUBENS IN LOKERN CLAY IN DRAINED BUENA VISTA SLOUGH AREA. VALLEY SALTBUSH SCRUB WITH SUAEDA, ATRIPLEX ON CAJON LOAMY SAND OR WESTHAVEN FINE SANDY LOAM.						
General:	1 SIGHTING IN FEB & 1 ON 16 MAR 1978. DEAD FOX OBS DURING SURVEY 16 MAY TO 9 JUN, 1 FOX & DENS OBS 4 JUN 1981. 2 MALE SPECIMENS (MVZ #195423-195424) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. 17 JUN 1980 & 18 SEP 1990.						
Owner/Manager:	UNKNOWN, DWR, USBOR						
Occurrence No.	277	Map Index:	66869	EO Index:	67027	Element Last Seen:	1983-08-09
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1983-08-09
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-10-31
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.28443 / -119.36150				Accuracy:	non-specific area	
UTM:	Zone-11 N3907144 E285236				Elevation (ft):	550	
PLSS:	T30S, R24E, Sec. 26, SE (M)				Acres:	45.0	
Location:	NAVAL PETROLEUM RESERVE NO. 1, ABOUT 1 MI SW OF TUPMAN.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 MALE SPECIMEN (MVZ #195428) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 9 AUG 1983.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 1						



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Occurrence No.	278	Map Index:	66871	EO Index:	67028	Element Last Seen:	1988-06-27
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1988-06-27
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-10-31
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.28876 / -119.40650				Accuracy:	non-specific area	
UTM:	Zone-11 N3907722 E281155				Elevation (ft):	830	
PLSS:	T30S, R24E, Sec. 28 (M)				Acres:	107.0	
Location:	NAVAL PETROLEUM RESERVE NO. 1, ABOUT 3.1 MI WSW OF TUPMAN.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION PROVIDED BY MVZ.						
Ecological:							
General:	MVZ #195430-195432 COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 16 JUL 1981, 16 AUG 1983 & 27 JUN 1988.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 1						

Occurrence No.	279	Map Index:	66872	EO Index:	67029	Element Last Seen:	1988-05-31
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1988-05-31
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-10-31
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.28648 / -119.42042				Accuracy:	non-specific area	
UTM:	Zone-11 N3907500 E279882				Elevation (ft):	800	
PLSS:	T30S, R24E, Sec. 29, S (M)				Acres:	66.0	
Location:	NAVAL PETROLEUM RESERVE NO. 1, ABOUT 2.7 MI WSW OF INTERSECTION OF SKYLINE RD AND ELK HILLS RD.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 FEMALE AND 1 MALE SPECIMEN (MVZ #195433-195434) COLLECTED BY EG&G ENERGY MEASUREMENT INC. ON 13 FEB 1981 AND 31 MAY 1988.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 1						

Occurrence No.	280	Map Index:	66873	EO Index:	67030	Element Last Seen:	1983-08-17
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1983-08-17
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-10-31
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.27003 / -119.41218				Accuracy:	non-specific area	
UTM:	Zone-11 N3905657 E280588				Elevation (ft):	1130	
PLSS:	T30S, R24E, Sec. 33 (M)				Acres:	71.0	
Location:	NAVAL PETROLEUM RESERVE NO. 1, ABOUT 3 MI ESE OF INTERSECTION OF SKYLINE RD AND ELK HILLS RD.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 FEMALE AND 1 MALE SPECIMENS (MVZ #195442 & 195444) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 21 JUN AND 17 AUG 1983.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 1						



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Occurrence No.	281	Map Index:	66874	EO Index:	67031	Element Last Seen:	1983-10-13
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1983-10-13
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-10-31
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.27746 / -119.39079				Accuracy:	non-specific area	
UTM:	Zone-11 N3906435 E282553				Elevation (ft):	850	
PLSS:	T30S, R24E, Sec. 34 (M)				Acres:	154.0	
Location:	NAVAL PETROLEUM RESERVE NO. 1, NORTH OF SKYLINE ROAD AND ABOUT 2.6 MI SW OF TUPMAN.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	MVZ #195445-195448 COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 11 MAY 1981, 17 JUN AND 13 OCT 1983.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 1						

Occurrence No.	282	Map Index:	66875	EO Index:	67032	Element Last Seen:	1985-08-18
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1985-08-18
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-10-31
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.27349 / -119.36146				Accuracy:	non-specific area	
UTM:	Zone-11 N3905930 E285211				Elevation (ft):	690	
PLSS:	T30S, R24E, Sec. 35, SE (M)				Acres:	35.0	
Location:	NAVAL PETROLEUM RESERVE NO. 1, ABOUT 1.7 MI SSW OF TUPMAN.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 MALE SPECIMEN (MVZ #195449) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 18 AUG 1985.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 1						

Occurrence No.	283	Map Index:	66878	EO Index:	67035	Element Last Seen:	1984-06-24
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1984-06-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-01
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.26976 / -119.35216				Accuracy:	non-specific area	
UTM:	Zone-11 N3905496 E286048				Elevation (ft):	630	
PLSS:	T30S, R24E, Sec. 36, SW (M)				Acres:	34.0	
Location:	NAVAL PETROLEUM RESERVE NO. 1, ABOUT 1.9 MI SOUTH OF TUPMAN.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 FEMALE SPECIMEN (MVZ #195450) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 24 JUN 1984.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 1						



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Occurrence No.	284	Map Index:	66879	EO Index:	67036	Element Last Seen:	1989-04-26
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1989-04-26
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-01
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.26260 / -119.35694				Accuracy:	non-specific area	
UTM:	Zone-11 N3904712 E285594				Elevation (ft):	800	
PLSS:	T31S, R24E, Sec. 01, NW (M)				Acres:	33.0	
Location:	NAVAL PETROLEUM RESERVE NO 1, ABOUT 2.7 ROAD MI W OF INTERSECTION OF SKYLINE RD AND TUPMAN RD.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	MVZ #195525 COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 26 APR 1989.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 1						

Occurrence No.	285	Map Index:	66880	EO Index:	67037	Element Last Seen:	1984-12-24
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1984-12-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-01
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.26073 / -119.36714				Accuracy:	non-specific area	
UTM:	Zone-11 N3904526 E284660				Elevation (ft):	780	
PLSS:	T31S, R24E, Sec. 02 (M)				Acres:	63.0	
Location:	NAVAL PETROLEUM RESERVE NO. 1, ABOUT 3.2 ROAD MI WEST OF THE INTERSECTION OF SKYLINE RD AND TUPMAN RD.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	3 MALES (MVZ #195526-195528) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 9 AUG 1982, 25 JUL 1983 & 24 DEC 1984.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 1						

Occurrence No.	286	Map Index:	66881	EO Index:	67038	Element Last Seen:	1990-07-18
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1990-07-18
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-01-03
Quad Summary:	Mouth of Kern (3511923), Taft (3511924), Tupman (3511933), East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.25753 / -119.38308				Accuracy:	non-specific area	
UTM:	Zone-11 N3904206 E283202				Elevation (ft):	1130	
PLSS:	T31S, R24E, Sec. 03, NE (M)				Acres:	797.0	
Location:	NAVAL PETROLEUM RESERVE NO. 1, ABOUT 3.4 MI SW OF TUPMAN, ALONG SKYLINE RD.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ. SECTION 3 MAPPED ACCORDING TO SECTION DATA PROVIDED BY EG&G ENERGY MEASUREMENTS INC.						
Ecological:							
General:	2 LITTERS OBSERVED BETWEEN 1980-1985. 3 MALE AND 2 FEMALE SPECIMENS (MVZ #195570-195571, 195575, 195529-195530) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 12 JUN 1980, 19 JUL 1983, 6 JUL 1984 & 18 JUL 1990.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 1						



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Occurrence No.	287	Map Index:	66882	EO Index:	67039	Element Last Seen:	1984-06-22
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1984-06-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-01
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.25185 / -119.36047				Accuracy:	non-specific area	
UTM:	Zone-11 N3903527 E285244				Elevation (ft):	620	
PLSS:	T31S, R24E, Sec. 11, NE (M)				Acres:	32.0	
Location:	NAVAL PETROLEUM RESERVE NO. 1, ABOUT 2.7 MI NE OF DUSTIN ACRES.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 MALE SPECIMEN (MVZ #195573) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 22 JUN 1984.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 1						

Occurrence No.	288	Map Index:	66883	EO Index:	67040	Element Last Seen:	1987-01-20
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-01-20
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-01
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.24424 / -119.36873				Accuracy:	non-specific area	
UTM:	Zone-11 N3902701 E284472				Elevation (ft):	640	
PLSS:	T31S, R24E, Sec. 11, SW (M)				Acres:	38.0	
Location:	NAVAL PETROLEUM RESERVE NO. 1, ABOUT 2.1 MI NNE OF DUSTIN ACRES.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 MALE SPECIMEN (MVZ #195574) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 20 JAN 1987.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 1						

Occurrence No.	290	Map Index:	66885	EO Index:	67042	Element Last Seen:	1990-07-31
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1990-07-31
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-01
Quad Summary:	East Elk Hills (3511934), West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.29074 / -119.49679				Accuracy:	non-specific area	
UTM:	Zone-11 N3908145 E272947				Elevation (ft):	1260	
PLSS:	T30S, R23E, Sec. 27, NW (M)				Acres:	79.0	
Location:	NAVAL PETROLEUM RESERVE NO. 1, ABOUT 0.5 MI NORTH OF SKYLINE ROAD AND 0.7 MI NNE OF HILLCREST POINT.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 MALE AND 2 FEMALE SPECIMENS (MVZ #195366-195368) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 17 AUG 1982, 30 MAY 1984 & 31 JUL 1990.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 1						



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Occurrence No.	291	Map Index:	66886	EO Index:	67043	Element Last Seen:	1985-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1985-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-01-03
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.29469 / -119.47256			Accuracy:	non-specific area		
UTM:	Zone-11 N3908528 E275162			Elevation (ft):	1200		
PLSS:	T30S, R23E, Sec. 26, NE (M)			Acres:	35.0		
Location:	NAVAL PETROLEUM RESERVE NO. 1, ABOUT 1.1 MI NNW OF INTERSECTION OF SKYLINE RD AND ELK HILLS RD.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ. LITTER OBSERVED IN SECTION 26.						
Ecological:							
General:	1 MALE SPECIMEN (MVZ #195365) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 3 AUG 1984. 1 LITTER OBSERVED BETWEEN 1980-1985.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 1						

Occurrence No.	292	Map Index:	66887	EO Index:	67044	Element Last Seen:	1990-06-27
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1990-06-27
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-07-23
Quad Summary:	East Elk Hills (3511934), West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.27653 / -119.50104			Accuracy:	non-specific area		
UTM:	Zone-11 N3906578 E272522			Elevation (ft):	1370		
PLSS:	T30S, R23E, Sec. 34 (M)			Acres:	76.0		
Location:	NAVAL PETROLEUM RESERVE NO. 1, ABOUT 0.5 MI SOUTH OF SKYLINE ROAD AND 1 MI SE OF HILLCREST POINT.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	DEN OBSERVED SOMETIME FROM 1972 THROUGH JUL 1975. 1 FEMALE AND 1 MALE SPECIMENS (MVZ #195383-195384 & 195386-195387) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 30 OCT 1980, 12 FEB 1982, 16 AUG 1988 & 27 JUN 1990.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 1						

Occurrence No.	293	Map Index:	66890	EO Index:	67045	Element Last Seen:	1990-06-01
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1990-06-01
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-01
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.26521 / -119.50544			Accuracy:	non-specific area		
UTM:	Zone-11 N3905333 E272089			Elevation (ft):	1170		
PLSS:	T31S, R23E, Sec. 04, NE (M)			Acres:	74.0		
Location:	NE OF BUENA VISTA VALLEY, ABOUT 1.6 MI SSE OF HILLCREST POINT.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 MALE AND 2 FEMALE SPECIMENS (MVZ #195473-195475) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 13 JUN 1980, 4 JAN 1988 & 1 JUN 1990.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	296	Map Index:	66893	EO Index:	67048	Element Last Seen:	1988-05-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1988-05-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-12-20
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.24177 / -119.56468				Accuracy:	non-specific area	
UTM:	Zone-11 N3902870 E266632				Elevation (ft):	1200	
PLSS:	T31S, R22E, Sec. 12, SW (M)				Acres:	83.0	
Location:	SOUTH OF MIDWAY VALLEY, ABOUT 1.7 MI ESE OF DERBY ACRES.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:	VALLEY SALTBUSSH SCRUB.						
General:	KNOWN DEN OR SIGHTING IN MAY 1988. 1 MALE SPECIMEN (MVZ #195771) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 5 JAN 1988.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 2						

Occurrence No.	297	Map Index:	66894	EO Index:	67049	Element Last Seen:	1983-06-30
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1983-06-30
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-01-16
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.23645 / -119.53825				Accuracy:	non-specific area	
UTM:	Zone-11 N3902218 E269023				Elevation (ft):	1050	
PLSS:	T31S, R23E, Sec. 18, NE (M)				Acres:	35.0	
Location:	NAVAL PETROLEUM RESERVE NO. 2, ABOUT 3.3 MI ESE OF DERBY ACRES.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ. NIGHT SPOTLIGHT SURVEY CONDUCTED IN UNSPECIFIED PORTION OF SECTION 18.						
Ecological:	BROMUS RUBENS, ERODIUM CICUTARIUM, ATRIPLEX POLYCARPA, SCHISMUS ARABICUS, ATRIPLEX SPINIFERA.						
General:	SIGHTING/ROAD KILL/DEN PRIOR TO 1972. 34 POTENTIAL DEN SITES FOUND IN VICINITY IN APR, MAY & SEP 1981. 2 INDIVS OBS DURING NIGHT SURVEY 6 CT 1981. 1 MALE SPECIMEN (MVZ #195704) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. 30 JUN 1983.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 2						



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Occurrence No.	298	Map Index:	66895	EO Index:	67050	Element Last Seen:	1987-06-08
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-06-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-01-16
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.23661 / -119.52340				Accuracy:	non-specific area	
UTM:	Zone-11 N3902202 E270374				Elevation (ft):	950	
PLSS:	T31S, R23E, Sec. 17, NE (M)				Acres:	72.0	
Location:	NAVAL PETROLEUM RESERVE NO. 2, ABOUT 4.2 MI ESE OF DERBY ACRES.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	SIGHTING, ROAD KILL OR DEN SOMETIME PRIOR TO 1972. 1 MALE AND 1 FEMALE SPECIMEN (MVZ #195700 & 195702) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 15 SEP 1982 AND 8 JUN 1984.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 2						

Occurrence No.	299	Map Index:	66896	EO Index:	67051	Element Last Seen:	1984-02-22
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1984-02-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-01
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.22741 / -119.52066				Accuracy:	non-specific area	
UTM:	Zone-11 N3901174 E270598				Elevation (ft):	940	
PLSS:	T31S, R23E, Sec. 17, SE (M)				Acres:	70.0	
Location:	NAVAL PETROLEUM RESERVE NO. 2, ABOUT 4.3 MI SE OF DERBY ACRES.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	2 FEMALE SPECIMENS (MVZ #195701 & 195703) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 2 OCT 1980 AND 22 FEB 1984.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 2						

Occurrence No.	301	Map Index:	66899	EO Index:	67053	Element Last Seen:	1981-02-10
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1981-02-10
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-02-07
Quad Summary:	Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.28048 / -119.64792				Accuracy:	non-specific area	
UTM:	Zone-11 N3907364 E259171				Elevation (ft):	1690	
PLSS:	T30S, R22E, Sec. 31, NW (M)				Acres:	399.0	
Location:	MOSTLY SOUTH OF HWY 58, ABOUT 2.5 AIR MI SW OF MCKITTRICK.						
Detailed Location:	MAPPED ACCORDING TO THE 1/4 OF 1/4 SECTION INFORMATION GIVEN IN THE MVZ RECORD AND MAPPED IN 1/4 SECTION ACCORDING TO MAP PROVIDED BY CEC.						
Ecological:	INTERIOR COAST RANGE SALTBUSH SCRUB.						
General:	1 MALE SPECIMEN (MVZ #195606) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 10 FEB 1981. 2 SCATS OBSERVED BEFORE 1990.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	304	Map Index:	66902	EO Index:	67056	Element Last Seen:	1989-07-05
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1989-07-05
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-01
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.28364 / -119.52079				Accuracy:	non-specific area	
UTM:	Zone-11 N3907413 E270745				Elevation (ft):	1390	
PLSS:	T30S, R23E, Sec. 29, SE (M)				Acres:	30.0	
Location:	NAVAL PETROLEUM RESERVE NO. 1, SOUTH OF SKYLINE ROAD, ABOUT 0.7 MI SW OF HILLCREST POINT.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 MALE SPECIMEN (MVZ #195375) COLLECTED BY EG&G ENERGY MEASUREMENTS ON 5 JUL 1989.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 1						

Occurrence No.	305	Map Index:	66904	EO Index:	67058	Element Last Seen:	1984-07-20
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1984-07-20
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-01-10
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.29078 / -119.52948				Accuracy:	non-specific area	
UTM:	Zone-11 N3908225 E269974				Elevation (ft):	1320	
PLSS:	T30S, R23E, Sec. 29, NW (M)				Acres:	32.0	
Location:	NAVAL PETROLEUM RESERVE NO. 1, ABOUT 1.1 ROAD MI W OF HILLCREST POINT ON SKYLINE RD.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	SIGHTING SOMETIME FROM 1972 THROUGH JUL 1975. 1 MALE SPECIMEN (MVZ #195374) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 20 JUL 1984.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 1						

Occurrence No.	310	Map Index:	66914	EO Index:	67064	Element Last Seen:	1994-01-27
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1994-01-27
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-02
Quad Summary:	Taft (3511924), East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.26143 / -119.46177				Accuracy:	non-specific area	
UTM:	Zone-11 N3904814 E276052				Elevation (ft):		
PLSS:	T31S, R23E, Sec. 01 (M)				Acres:	316.0	
Location:	NAVAL PETROLEUM RESERVE NO. 1, ABOUT 1.1 MI SSE OF THE INTERSECTION OF SKYLINE RD AND ELK HILLS RD.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 UNK, 6 MALES & 5 FEMALES (MVZ #195410, 195415, 195451-53, 195455-57, 195462, 195504-05 & 195607) COLL BY EG&G ENERGY MEASUREMENTS INC IN MAY & JUN 1980, DEC 1981, FEB 1982, JUL 1983, JAN, AUG 1984, MAR, APR & DEC 1988, AUG 1989, JAN 1994.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 1						



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Occurrence No.	311	Map Index:	66915	EO Index:	67065	Element Last Seen:	1984-06-21
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1984-06-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-02
Quad Summary:	Taft (3511924), East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.25311 / -119.44721				Accuracy:	non-specific area	
UTM:	Zone-11 N3903858 E277354				Elevation (ft):	970	
PLSS:	T31S, R24E, Sec. 07 (M)				Acres:	74.0	
Location:	NAVAL PETROLEUM RESERVE NO. 1, ABOUT 2 MI SE OF THE INTERSECTION OF SKYLINE RD AND ELK HILLS RD.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	2 FEMALE SPECIMENS (MVZ #195454, 195549) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 26 AUG 1981 AND 21 JUN 1984.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 1						

Occurrence No.	313	Map Index:	66917	EO Index:	67067	Element Last Seen:	1983-06-24
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1983-06-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-02
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.23718 / -119.43649				Accuracy:	non-specific area	
UTM:	Zone-11 N3902067 E278286				Elevation (ft):	690	
PLSS:	T31S, R24E, Sec. 18, NE (M)				Acres:	36.0	
Location:	NAVAL PETROLEUM RESERVE NO. 1, N OF BUENA VISTA VALLEY, S OF ELK HILLS, ABOUT 0.6 MI E OF ELK HILLS RD.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 FERMALE SPECIMEN (MVZ #195582) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 24 JUN 1983.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 1						

Occurrence No.	321	Map Index:	66924	EO Index:	67075	Element Last Seen:	1990-06-14
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1990-06-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-01-17
Quad Summary:	Maricopa (3511914)						
County Summary:	Kern						
Lat/Long:	35.11423 / -119.43474				Accuracy:	non-specific area	
UTM:	Zone-11 N3888424 E278111				Elevation (ft):	960	
PLSS:	T32S, R24E, Sec. 30, SW (M)				Acres:	445.0	
Location:	ABOUT 2.7 ROAD MILES SE OF SOUTH TAFT ON HWY 33.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION PROVIDED BY MVZ AND MORRELL MAP FROM 1975.						
Ecological:							
General:	SIGHTING AND DEN SOMETIME FROM 1972 THROUGH JUL 1975. 1 MALE SPECIMEN (MVZ #195796) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 14 JUN 1990.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	323	Map Index:	66927	EO Index:	67077	Element Last Seen:	1984-08-15
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	1984-08-15		
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:	2006-11-02		

Quad Summary: Mouth of Kern (3511923)

County Summary: Kern

Lat/Long:	35.13572 / -119.36965	Accuracy:	non-specific area
UTM:	Zone-11 N3890664 E284101	Elevation (ft):	710
PLSS:	T32S, R24E, Sec. 23, NW (M)	Acres:	33.0

Location: NAVAL PETROLEUM RESERVE NO.2, NE OF MIDWAY VALLEY, ABOUT 0.4 MI N OF INTERSECTION OF GARDNER FIELD RD & THE CA AQUEDUCT.

Detailed Location: MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.

Ecological:

General: 1 MALE AND 1 FEMALE SPECIMEN (MVZ #195794 & 195795) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 7 JUN AND 15 AUG 1984.

Owner/Manager: DOD-NAVAL PETROLEUM RES 2

Occurrence No.	326	Map Index:	66945	EO Index:	67095	Element Last Seen:	1991-06-24
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	1991-06-24		
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:	2006-11-06		

Quad Summary: Fellows (3511925)

County Summary: Kern

Lat/Long:	35.22188 / -119.54755	Accuracy:	non-specific area
UTM:	Zone-11 N3900624 E268135	Elevation (ft):	1110
PLSS:	T31S, R23E, Sec. 19, NW (M)	Acres:	33.0

Location: NAVAL PETROLEUM RESERVE NO. 2, MIDWAY VALLEY, ABOUT 3.1 MI SE OF DERBY ACRES.

Detailed Location: MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.

Ecological:

General: 1 FEMALE SPECIMEN (MVZ #195774) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 24 JUN 1991.

Owner/Manager: DOD-NAVAL PETROLEUM RES 2



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Occurrence No.	328	Map Index:	66947	EO Index:	67097	Element Last Seen:	1985-01-08
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1985-01-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-01-16
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.17839 / -119.52488				Accuracy:	non-specific area	
UTM:	Zone-11 N3895746 E270076				Elevation (ft):	1190	
PLSS:	T32S, R23E, Sec. 05, NE (M)				Acres:	35.0	
Location:	ABOUT 1 MILE EAST OF FELLOWS, ALONG HWY 33.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ. EG&G ENERGY MEASUREMENTS INC. GIVES LOCATION ONLY AS "SECTION 5".						
Ecological:	BROMUS RUBENS, SCHISMUS ARABICUS, FESTUCA SP, PLANTAGO, LEPIDIUM, ATRIPLEX POLYCARPA, GUTIERREZIA BRACTEATA, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, SALSOLA KALI, EREMOCARPUS SETIGERUS, CENTAUREA MELITENSIS, & MORE LISTED IN SOURCE.						
General:	SIGHTING AT DEN SOMETIME FROM 1972 THROUGH JUL 1975. DENS OBS DURING SURVEY 12-14 SEP AND 22-23 OCT 1979. 1 MALE SPECIMEN (MVZ #195790) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 8 JAN 1985.						
Owner/Manager:	UNKNOWN						
Occurrence No.	329	Map Index:	66948	EO Index:	67098	Element Last Seen:	1985-01-30
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1985-01-30
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-06
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.18933 / -119.48509				Accuracy:	non-specific area	
UTM:	Zone-11 N3896868 E273730				Elevation (ft):	880	
PLSS:	T31S, R23E, Sec. 34, NE (M)				Acres:	36.0	
Location:	BUENA VISTA HILLS, ABOUT 3.4 MI ENE OF FELLOWS IN VICINITY OF BROAD CREEK.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 FEMALE SPECIMEN (MVZ #195721) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 30 JAN 1985.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	330	Map Index:	66949	EO Index:	67099	Element Last Seen:	1989-07-08
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1989-07-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-06
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.19472 / -119.47418				Accuracy:	non-specific area	
UTM:	Zone-11 N3897441 E274739				Elevation (ft):	1000	
PLSS:	T31S, R23E, Sec. 35 (M)				Acres:	83.0	
Location:	BUENA VISTA HILLS, ABOUT 4 MI NE OF FELLOWS.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	2 MALE SPECIMENS (MVZ #195718 & 195723) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 17 JUN 1985 AND 8 JUL 1989.						
Owner/Manager:	UNKNOWN						

Occurrence No.	332	Map Index:	66951	EO Index:	67101	Element Last Seen:	1991-07-17
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1991-07-17
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-06
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.14773 / -119.46581				Accuracy:	non-specific area	
UTM:	Zone-11 N3892210 E275372				Elevation (ft):		
PLSS:	T32S, R23E, Sec. 14 (M)				Acres:	109.0	
Location:	SW OF FORD CITY, NW OF TAFT, NORTH OF HWY 33.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA.						
Ecological:							
General:	1 FEMALE AND 2 MALE SPECIMENS (MVZ #195741, 195746, 195791) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 10 APR 1990, 27 MAY & 17 JUL 1991.						
Owner/Manager:	UNKNOWN						

Occurrence No.	333	Map Index:	66952	EO Index:	67102	Element Last Seen:	1990-01-04
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1990-01-04
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-06
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.13836 / -119.46314				Accuracy:	non-specific area	
UTM:	Zone-11 N3891164 E275589				Elevation (ft):	1050	
PLSS:	T32S, R23E, Sec. 13, SW (M)				Acres:	29.0	
Location:	SW CORNER OF TAFT, NE OF THE INTERSECTION OF OAK ST & S 10TH ST; ABOUT 0.75 MI SW OF LINCOLN SCHOOL.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED.						
Ecological:							
General:	1 MALE SPECIMEN (MVZ #195747) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 4 JAN 1990.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	334	Map Index:	66953	EO Index:	67103	Element Last Seen:	1989-06-08
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1989-06-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-06
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.15166 / -119.44488				Accuracy:	non-specific area	
UTM:	Zone-11 N3892599 E277289				Elevation (ft):		
PLSS:	T32S, R24E, Sec. 07 (M)				Acres:	121.0	
Location:	MIDWAY VALLEY, JUST SE OF FORD CITY, NEAR FRANKLIN FIELD.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	3 FEMALE AND 2 MALE SPECIMENS (MVZ #195744-195745, 195752, 195763-195764) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 4 JAN, 11 JUN, 5 SEP 1985, 7 APR 1986, 8 JUN 1989.						
Owner/Manager:	UNKNOWN						

Occurrence No.	335	Map Index:	66954	EO Index:	67104	Element Last Seen:	1984-05-22
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1984-05-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-06
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.15703 / -119.43647				Accuracy:	non-specific area	
UTM:	Zone-11 N3893175 E278070				Elevation (ft):	830	
PLSS:	T32S, R24E, Sec. 07, SE (M)				Acres:	35.0	
Location:	EAST OF FORD CITY, ABOUT 1.1 MI ROAD MI E OF INTERSECTION OF CEDAR ST AND HARRISON ST.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 FEMALE SPECIMEN (MVZ #195751) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 22 MAY 1984.						
Owner/Manager:	UNKNOWN						

Occurrence No.	337	Map Index:	66956	EO Index:	67106	Element Last Seen:	1985-07-05
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1985-07-05
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-01-17
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.14969 / -119.41351				Accuracy:	non-specific area	
UTM:	Zone-11 N3892310 E280142				Elevation (ft):	850	
PLSS:	T32S, R24E, Sec. 17 (M)				Acres:	238.0	
Location:	S OF BUENA VISTA HILLS & AT SE END OF MIDWAY VALLEY, ABOUT 2.3 MI E OF INTERSECTION OF HARRISON & CEDAR ST. FORD CITY.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	ROAD KILL IN VICINITY SOMETIME FROM 1972 THROUGH JUL 1975. 1 UNKNOWN, 3 FEMALE & 2 MALE SPECIMENS (MVZ #195753, 195755, 195757, 195760-195762) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. 31 MAY, 5 JUN 1984, 15 JAN, 5 FEB, 29 MAY, 5 JUL 1985.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	338	Map Index:	66957	EO Index:	67107	Element Last Seen:	1985-06-28
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1985-06-28
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-06
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.15749 / -119.39404				Accuracy:	non-specific area	
UTM:	Zone-11 N3893132 E281937				Elevation (ft):	810	
PLSS:	T32S, R24E, Sec. 10 (M)				Acres:	79.0	
Location:	BUENA VISTA HILLS, ABOUT 3.5 MI EAST OF FORD CITY.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 MALE AND 1 FEMALE SPECIMEN (MVZ #195756 & 195758) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 20 SEP 1984 & 28 JUN 1985.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 2						

Occurrence No.	339	Map Index:	66958	EO Index:	67108	Element Last Seen:	1984-06-25
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1984-06-25
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-06
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.14630 / -119.40104				Accuracy:	non-specific area	
UTM:	Zone-11 N3891906 E281269				Elevation (ft):	920	
PLSS:	T32S, R24E, Sec. 16, NE (M)				Acres:	33.0	
Location:	ABOUT 3.2 MILES EAST OF TAFT.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 FEMALE SPECIMEN (MVZ #195759) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 25 JUN 1984.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	343	Map Index:	66963	EO Index:	67112	Element Last Seen:	1983-05-17
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1983-05-17
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-27
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.18909 / -119.43772				Accuracy:	non-specific area	
UTM:	Zone-11 N3896735 E278043				Elevation (ft):	600	
PLSS:	T31S, R24E, Sec. 31, NE (M)				Acres:	64.0	
Location:	NAVAL PETROLEUM RESERVE NO. 2, JUST SW OF WHERE TAFT HWY (HWY 119). INTERSECTS BROAD CREEK.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ AND TO INCLUDE THE LOCATION "HWY 119 AT HARRIS RD, BETWEEN MIDWAY RD AND VALLEY ACRES" FROM MVZ; HARRIS RD COULD NOT BE FOUND & PROBABLY REFERS TO HARRISON ST.						
Ecological:							
General:	1 ADULT FEMALE SPECIMEN (MVZ #207030) COLLECTED BY ALAN B. SHABEL (NO DATE GIVEN). KIT FOX RECOVERY PROJECT, ESRP, CSU STANISLAUS (U016). 1 MALE SPECIMEN (MVZ #195730) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 17 MAY 1983.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 2						

Occurrence No.	344	Map Index:	66964	EO Index:	67113	Element Last Seen:	1992-03-25
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1992-03-25
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-06
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.18911 / -119.42704				Accuracy:	non-specific area	
UTM:	Zone-11 N3896713 E279016				Elevation (ft):	550	
PLSS:	T31S, R24E, Sec. 32, NW (M)				Acres:	34.0	
Location:	ABOUT 0.25 MI SOUTH OF THE INTERSECTION OF HWY 119 AND AIRPORT ROAD. ABOUT 1.6 MI SW OF VALLEY ACRES.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 MALE SPECIMEN (MVZ #195732) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 25 MAR 1992.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	345	Map Index:	66965	EO Index:	67114	Element Last Seen:	1988-06-21
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1988-06-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-12-07
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.21534 / -119.42240				Accuracy:	non-specific area	
UTM:	Zone-11 N3899613 E279509				Elevation (ft):	480	
PLSS:	T31S, R24E, Sec. 20, SW (M)				Acres:	40.0	
Location:	BUENA VISTA VALLEY, ABOUT 1 MI NW OF VALLEY ACRES, NEAR BUENA VISTA CREEK, ABOUT 0.3 MI NORTH OF VALLEY WEST ROAD.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:	BROMUS RUBENS, SCHISMUS ARABICUS, FESTUCA, PLANTAGO, LEPIDIUM, ATRIPLEX POLYCARPA, A. SPINIFERA, GUTIERREZIA BRACTEATA, EUROTIA LANATA, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, SALSOLA KALI, EREMOCARPUS SETIGERUS, ERODIUM CIRCUTARIUM.						
General:	DENS OBS DURING SURVEY 10-12, 14, 19 SEP AND 6 NOV 1979. 1 MALE SPECIMEN (MVZ #195660) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 21 JUN 1988.						
Owner/Manager:	UNKNOWN						

Occurrence No.	348	Map Index:	66968	EO Index:	67117	Element Last Seen:	1985-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1985-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-01-03
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.23913 / -119.38302				Accuracy:	non-specific area	
UTM:	Zone-11 N3902165 E283158				Elevation (ft):	630	
PLSS:	T31S, R24E, Sec. 10 (M)				Acres:	78.0	
Location:	NAVAL PETROLEUM RESERVE NO. 1, ABOUT 1.4 MI NNE OF DUSTIN ACRES.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	2 MALE SPECIMENS (MVZ #195572 & 195645) COLLECTED BY EG&G MEASUREMENTS INC. ON 10 & 24 APR 1984. 2 LITTERS OBSERVED IN SECTION 15 BETWEEN 1980-1985.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 1						



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Occurrence No.	349	Map Index:	66969	EO Index:	67118	Element Last Seen:	1987-10-23
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-10-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-06
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.21874 / -119.38725				Accuracy:	non-specific area	
UTM:	Zone-11 N3899912 E282718				Elevation (ft):	373	
PLSS:	T31S, R24E, Sec. 22, NW (M)				Acres:	31.0	
Location:	DUSTIN ACRES.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 MALE SPECIMEN (MVZ #195662) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 23 OCT 1987.						
Owner/Manager:	UNKNOWN						

Occurrence No.	350	Map Index:	66970	EO Index:	67119	Element Last Seen:	1985-02-19
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1985-02-19
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-06
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.16780 / -119.41846				Accuracy:	non-specific area	
UTM:	Zone-11 N3894330 E279740				Elevation (ft):	930	
PLSS:	T32S, R24E, Sec. 05, SE (M)				Acres:	39.0	
Location:	NAVAL PETROLEUM RESERVE NO. 2, ABOUT 2.3 MI NE OF FORD CITY.						
Detailed Location:	MAPPED ACCORDING TO 1/4 OF 1/4 SECTION DATA PROVIDED BY MVZ.						
Ecological:							
General:	1 FEMALE SPECIMEN (MVZ #195749) COLLECTED BY EG&G ENERGY MEASUREMENTS INC. ON 19 FEB 1985.						
Owner/Manager:	DOD-NAVAL PETROLEUM RES 2						

Occurrence No.	394	Map Index:	67047	EO Index:	67198	Element Last Seen:	1992-05-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1992-05-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-12-11
Quad Summary:	Buttonwillow (3511944)						
County Summary:	Kern						
Lat/Long:	35.41003 / -119.46465				Accuracy:	80 meters	
UTM:	Zone-11 N3921305 E276200				Elevation (ft):	280	
PLSS:	T29S, R23E, Sec. 13, NE (M)				Acres:	0.0	
Location:	NORTH OF BUTTONWILLOW, ABOUT 0.9 MI NE OF JUNCTION OF HWY 58 & BUTTONWILLOW AVE.						
Detailed Location:							
Ecological:							
General:	KIT FOX ACTIVITY OBSERVED IN VICINITY IN 1977. 1 UNOCCUPIED DEN WITH 2 OLD KIT FOX SCAT OBSERVED DURING SURVEYS CONDUCTED IN JUL 1990, JUN 1991 & MAY 1992.						
Owner/Manager:	KRN COUNTY						



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Occurrence No.	453	Map Index:	67128	EO Index:	67278	Element Last Seen:	2002-10-13
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	2002-10-13
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-20
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.31832 / -119.31748				Accuracy:	1/5 mile	
UTM:	Zone-11 N3910809 E289328				Elevation (ft):	300	
PLSS:	T30S, R25E, Sec. 17, NW (M)				Acres:	0.0	
Location:	ABOUT 2.5 MI E OF TULE ELK RESERVE STATE PARK, 2.3 MI SW OF BUENA VISTA RANCH.						
Detailed Location:							
Ecological:	ATRIPLEX PLANT COMMUNITY WITH NON-NATIVE ANNUALS. KERN RIVER RUNS ALONG S SIDE OF PROPERTY WITH RIPARIAN SPECIES INCLUDING OAK & COTTONWOOD. LAND IS PRIMARILY USED TO RECHARGE GROUND WATER. LAND USE IS RESTRICTED FROM GENERAL PUBLIC USE.						
General:	1 ADULT OBSERVED FORAGING ON 13 OCT 2002.						
Owner/Manager:	KERN WATER BANK AUTHORITY						

Occurrence No.	516	Map Index:	65778	EO Index:	67351	Element Last Seen:	1992-06-03
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1992-06-03
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-21
Quad Summary:	Buttonwillow (3511944)						
County Summary:	Kern						
Lat/Long:	35.40956 / -119.39844				Accuracy:	non-specific area	
UTM:	Zone-11 N3921105 E282212				Elevation (ft):	285	
PLSS:	T29S, R24E, Sec. 16, NE (M)				Acres:	147.7	
Location:	JUST NORTH OF INTERSECTION OF INTERSTATE 5 AND HWY 58, ABOUT 3.9 MI ENE OF BUTTONWILLOW.						
Detailed Location:	MAPPED IN NE 1/4 OF SEC 16 ACCORDING TO DATA PROVIDED BY SOURCE.						
Ecological:	VALLEY SALTBUSH SCRUB, VALLY SINK SCRUB.						
General:	FORAGING SITE. 1 ADULT OBSERVED ON 3 JUN 1992.						
Owner/Manager:	PVT						

Occurrence No.	539	Map Index:	67230	EO Index:	67392	Element Last Seen:	1990-10-13
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1990-10-13
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-28
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.27570 / -119.20630				Accuracy:	80 meters	
UTM:	Zone-11 N3905849 E299332				Elevation (ft):	320	
PLSS:	T30S, R26E, Sec. 32, NW (M)				Acres:	0.0	
Location:	1.5 MI NE OF THE INTERSECTION OF INTERSTATE 5 AND TAFT HWY (HWY 119).						
Detailed Location:							
Ecological:	FALLOW FARM LAND DOMINATED BY SALSOLA KALI. KIMBERLINA FINE SANDY LOAM, 0-2 PERCENT SLOPE. NUMEROUS KANGAROO RAT BURROWS.						
General:	FORAGING SITE. 1 ADULT OBSERVED ON 13 OCT 1990.						
Owner/Manager:	STATE						



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Occurrence No.	540	Map Index:	67231	EO Index:	67394	Element Last Seen:	1990-10-14
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1990-10-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-28
Quad Summary:	Stevens (3511932), Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.32312 / -119.25017				Accuracy:	non-specific area	
UTM:	Zone-11 N3911200 E295461				Elevation (ft):	325	
PLSS:	T30S, R25E, Sec. 13, NW (M)				Acres:	41.0	
Location:	ABOUT 2 ROAD MI N OF INTERSECTION OF HWY 43 & I-5.						
Detailed Location:	MAPPED IN NW 1/4 OF NW 1/4 OF SECTION 13 ACCORDING TO DATA PROVIDED BY SOURCE.						
Ecological:	NATIVE LAND MIXED WITH OIL FIELD EQUIPMENT.						
General:	1 INDIVIDUAL OBSERVED WHILE SPOTLIGHTING ON 14 OCT 1990.						
Owner/Manager:	UNKNOWN						

Occurrence No.	541	Map Index:	67233	EO Index:	67395	Element Last Seen:	1990-10-14
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1990-10-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-01-16
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.33203 / -119.23702				Accuracy:	non-specific area	
UTM:	Zone-11 N3912161 E296678				Elevation (ft):	335	
PLSS:	T30S, R25E, Sec. 12, SW (M)				Acres:	554.0	
Location:	NORTH OF KERN RIVER, ABOUT 2 MI SE OF INTERSECTION OF ENOS LANE (HWY 43) AND BELLEVUE RD.						
Detailed Location:	SIGHTINGS IN NW 1/4 OF SW 1/4 OF SECTION 7 IN 1990 ACCORDING TO DATA PROVIDED BY SOURCE.						
Ecological:	FALLOW FOR A YEAR AND NATIVE OIL FIELD LAND.						
General:	2 SIGHTINGS SOMETIME FROM 1972 THROUGH JUL 1975. 1 ADULT OBSERVED WHILE SPOTLIGHTING ON 14 OCT 1990. TRACKS FREQUENTLY RECORDED AT SCENT STATIONS IN THIS AREA.						
Owner/Manager:	UNKNOWN						

Occurrence No.	542	Map Index:	65756	EO Index:	67397	Element Last Seen:	1991-05-07
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1991-05-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-01-16
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.29939 / -119.19403				Accuracy:	non-specific area	
UTM:	Zone-11 N3908453 E300506				Elevation (ft):	335	
PLSS:	T30S, R26E, Sec. 21, SW (M)				Acres:	167.0	
Location:	NORTH OF PANAMA LANE, APPROXIMATELY 1.3 MI W OF BUENA VISTA RD.						
Detailed Location:	MAPPED IN SW 1/4 OF SECTION 21 ACCORDING TO DATA PROVIDED BY SOURCE.						
Ecological:	GREAT VALLEY MESQUITE SCRUB. WIDELY SCATTERED PROSOPIS GLANDULOSA TORREYANA IN ANNUAL GRASSLAND.						
General:	SIGHTING, ROAD KILL OR DEN IN VICINITY PRIOR TO 1972. SIGHTING SOMETIME FROM 1972 THROUGH JUL 1975. 1 OR MORE ADULTS OBSERVED ON EACH OF 3 NIGHTS OF SPOTLIGHTING IN 1991.						
Owner/Manager:	PVT						



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Occurrence No.	543	Map Index:	67236	EO Index:	67399	Element Last Seen:	1987-05-24
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-05-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-11-28
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.32615 / -119.36439				Accuracy:	non-specific area	
UTM:	Zone-11 N3911778 E285084				Elevation (ft):		
PLSS:	T30S, R24E, Sec. 11 (M)				Acres:	311.0	
Location:	NORTHERN SECTION OF TULE ELK RESERVE STATE PARK.						
Detailed Location:							
Ecological:							
General:	6 ACTIVE DENS (BUT WITHOUT RECENT ACTIVITY) OBSERVED DURING 21 THROUGH 24 MAY 1987 SURVEY. KIT FOX SKULL ALSO FOUND ON SITE.						
Owner/Manager:	DPR-TULE ELK SNR						

Occurrence No.	579	Map Index:	67295	EO Index:	67458	Element Last Seen:	1979-10-23
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1979-10-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-12-05
Quad Summary:	Maricopa (3511914)						
County Summary:	Kern						
Lat/Long:	35.11930 / -119.48636				Accuracy:	non-specific area	
UTM:	Zone-11 N3889103 E273420				Elevation (ft):	1510	
PLSS:	T32S, R23E, Sec. 27, NE (M)				Acres:	150.0	
Location:	ABOUT 2.3 AIR MI SW OF TAFT, SW OF SPELLACY HILL.						
Detailed Location:	MAPPED IN NE 1/4 OF SECTION 27 ACCORDING TO MAP PROVIDED BY EG&G ENERGY MEASUREMENTS INC.						
Ecological:	BROMUS RUBENS, SCHISMUS ARABICUS, FESTUCA, PLANTAGO, LEPIDIUM, ATRIPLEX POLYCARPA, A. SPINIFERA, GUTIERREZIA BRACTEATA, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, SALSOLA KALI, EREMOCARPUS SETIGERUS, CENTAUREA MELITENSIS & MORE LISTED IN SOURCE.						
General:	SINGLE AND MULTIPLE HOLE DENS AND SCATS OBSERVED DURING SURVEY BETWEEN 12-14 SEP AND 22-23 OCT 1979.						
Owner/Manager:	BLM						

Occurrence No.	643	Map Index:	67415	EO Index:	67584	Element Last Seen:	1986-07-08
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1986-07-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-01-16
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.18616 / -119.55470				Accuracy:	80 meters	
UTM:	Zone-11 N3896677 E267381				Elevation (ft):	130	
PLSS:	T31S, R22E, Sec. 36 (M)				Acres:	0.0	
Location:	ABOUT 0.9 AIR MI NW OF FELLOWS, MIDWAY OIL CAMP.						
Detailed Location:							
Ecological:	ROLLING FOOTHILLS, ATRIPLEX POLYCARPA, ISOMERIS, CHAPARRAL.						
General:	SIGHTING AT DEN SOMETIME FROM 1972 THROUGH JUL 1975. 1 INDIVIDUAL OBSERVED ON 8 JUL 1986.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	647	Map Index:	67419	EO Index:	67588	Element Last Seen:	1988-04-16
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	1988-04-16
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-12-14
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.19704 / -119.37135				Accuracy:	non-specific area	
UTM:	Zone-11 N3897471 E284108				Elevation (ft):	1200	
PLSS:	T31S, R24E, Sec. 26, SW (M)				Acres:	81.0	
Location:	7 MI NE OF TAFT AND 0.5 MI W OF BUENA VISTA LAKEBED.						
Detailed Location:	MAPPED IN S 1/2 OF SW 1/4 OF SECTION 26 ACCORDING TO DATA PROVIDED BY SOURCE.						
Ecological:	ALKALI SINK. GRASSES AND ATRIPLEX DOMINANT.						
General:	NUMEROUS FRESH TRACKS AND A FEW SCATS OBSERVED ON 16 APR 1988.						
Owner/Manager:	TNC						

Occurrence No.	653	Map Index:	67427	EO Index:	67594	Element Last Seen:	1988-08-30
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1988-08-30
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-12-14
Quad Summary:	Maricopa (3511914)						
County Summary:	Kern						
Lat/Long:	35.09886 / -119.42519				Accuracy:	specific area	
UTM:	Zone-11 N3886697 E278940				Elevation (ft):	1000	
PLSS:	T32S, R24E, Sec. 32, SW (M)				Acres:	12.0	
Location:	1 MI W OF HWY 33 BETWEEN TAFT & MARICOPA, JUST S OF CADET RD TURNOFF.						
Detailed Location:	OBSERVED OFF ROAD IN DRAINAGE.						
Ecological:	VALLEY SALTBUSSH SCRUB COMMUNITY DOMINATED BY ATRIPLEX POLYCARPA & BROMUS RUBENS. UNDULATING HILLS WITH WASHES & DRAINAGES, SOME AREAS STEEP.						
General:	FORAGING & DENNING SITE. 2 INDIVIDUALS OBSERVED WITHIN 200-300 FT OF EACH OTHER ON 30 AUG 1988.						
Owner/Manager:	PVT-POWER SYSTEMS ENGINEERING						

Occurrence No.	657	Map Index:	67432	EO Index:	67598	Element Last Seen:	1988-05-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1988-05-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-12-20
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.24022 / -119.57526				Accuracy:	1/10 mile	
UTM:	Zone-11 N3902723 E265665				Elevation (ft):	1290	
PLSS:	T31S, R22E, Sec. 11, SE (M)				Acres:	0.0	
Location:	ABOUT 1.2 MI SE OF DERBY ACRES AND 0.7 MI E OF HWY 33.						
Detailed Location:							
Ecological:	INTERIOR COAST RANGE SALTBUSSH SCRUB.						
General:	KNOWN DEN OR SIGHTING IN MAY 1988.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	694	Map Index:	67481	EO Index:	67646	Element Last Seen:	1987-05-12
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1987-05-12
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-02-14
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.17033 / -119.33180			Accuracy:	non-specific area		
UTM:	Zone-11 N3894422 E287640			Elevation (ft):	350		
PLSS:	T32S, R25E, Sec. 06 (M)			Acres:	1956.0		
Location:	E OF NAVAL PETROLEUM RESERVE NO. 2, FROM 1.8 MI N TO 1.1 MI S OF RICHFIELD OIL PUMPING STATION.						
Detailed Location:	MAPPED IN SECTIONS 6, 7 & 18 ACCORDING TO T-R-S DATA PROVIDED IN DFG87U0018. INACTIVE DENS OBSERVED AT MILEPOSTS 249.52, 249.65, 249.75 & 249.80 ON THE LEFT/EAST SIDE OF AQUEDUCT.						
Ecological:	INTERIOR COAST RANGE SCRUB TO VALLEY SALTBUCH SCRUB INTERSPERSED. PRIMARILY ATRIPLEX POLYCARPA. VALLEY SINK SPECIES ALONG AQUEDUCT ON N SIDE DOMINATED BY ALLENROLFEA OCCIDENTALIS. VALLEY SINK DOMINATED BY SUAEDA MOQUINII W/ SOME ATRIPLEX.						
General:	SIGHTING/DEN IN VICINITY SOMETIME FROM 1972-JUL 1975. INACTIVE DENS OBS MAY/JUN 1981. ACTIVE NATAL DEN, ACTIVE DEN, 6 INACTIVE DENS & PUP OBS IN SURVEY 28 MAY, 15 & 24 JUN 1981. ACTIVITY OBS 12 MAY 1987. SCAT/KNOWN DEN/SIGHTING BEFORE '90.						
Owner/Manager:	PVT, DWR, USBOR, UNKNOWN						

Occurrence No.	753	Map Index:	67608	EO Index:	67763	Element Last Seen:	1975-07-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1975-07-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-01-09
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.30115 / -119.30184			Accuracy:	non-specific area		
UTM:	Zone-11 N3908871 E290706			Elevation (ft):			
PLSS:	T30S, R25E, Sec. 21 (M)			Acres:	774.0		
Location:	ABOUT 1.8 MI E TO 3.5 MI ENE OF TUPMAN. IN THE VICINITY OF THE KERN RIVER BYPASS CHANNEL.						
Detailed Location:							
Ecological:							
General:	2 DENS OBSERVED SOMETIME FROM 1972 THROUGH JUL 1975.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	754	Map Index:	67609	EO Index:	67764	Element Last Seen:	1971-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1971-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-02-20
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.34223 / -119.28016				Accuracy:	2/5 mile	
UTM:	Zone-11 N3913382 E292782				Elevation (ft):	320	
PLSS:	T30S, R25E, Sec. 03 (M)				Acres:	0.0	
Location:	ABOUT 3.3 MI ESE OF INTERSECTION OF BELLEVUE RD AND I-5, JUST E OF BUENA VISTA RANCH.						
Detailed Location:							
Ecological:							
General:	SIGHTING, ROAD KILL OR DEN PRIOR TO 1972.						
Owner/Manager:	UNKNOWN						

Occurrence No.	755	Map Index:	67610	EO Index:	67765	Element Last Seen:	1975-07-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1975-07-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-01-09
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.33424 / -119.33613				Accuracy:	2/5 mile	
UTM:	Zone-11 N3912615 E287674				Elevation (ft):	300	
PLSS:	T30S, R25E, Sec. 07 (M)				Acres:	0.0	
Location:	E OF TULE ELK RESERVE STATE PARK, ABOUT 1.5 MI S OF INTERSECTION OF BELLEVUE RD AND I-5.						
Detailed Location:							
Ecological:							
General:	KIT FOX DEN OBSERVED SOMETIME FROM 1972 THROUGH JUL 1975.						
Owner/Manager:	UNKNOWN						

Occurrence No.	756	Map Index:	67611	EO Index:	67766	Element Last Seen:	1975-07-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1975-07-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-01-09
Quad Summary:	Tupman (3511933), Rio Bravo (3511943)						
County Summary:	Kern						
Lat/Long:	35.36327 / -119.32870				Accuracy:	non-specific area	
UTM:	Zone-11 N3915819 E288425				Elevation (ft):		
PLSS:	T29S, R25E, Sec. 31 (M)				Acres:	2136.0	
Location:	ABOUT 3.4 MI ESE TO 5.8 MI SE OF INTERSECTION OF HWY 58 AND I-5.						
Detailed Location:							
Ecological:							
General:	3 DENS, 1 SIGHTING AND 2 ROAD KILLS FROM 1972 THROUGH JUL 1975.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	757	Map Index:	67612	EO Index:	67767	Element Last Seen:	1987-09-16
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1987-09-16
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-02-07
Quad Summary:	Tupman (3511933), East Elk Hills (3511934), Rio Bravo (3511943)						
County Summary:	Kern						
Lat/Long:	35.37298 / -119.36775				Accuracy:	non-specific area	
UTM:	Zone-11 N3916980 E284902				Elevation (ft):	290	
PLSS:	T29S, R24E, Sec. 26 (M)				Acres:	790.0	
Location:	ABOUT 2.3 MI SSE TO 2.9 MI SE OF INTERSECTION OF HWY 58 AND I-5.						
Detailed Location:	SE 1/4 AND NE 1/4 OF SECTION 26 MAPPED ACCORDING TO DATA PROVIDED BY CEC.						
Ecological:	VALLEY SALTBUSSH SCRUB, PRIMARILY ATRIPLEX SPINIFERA. SOME VALLEY SINK SPECIES, MOSTLY SUAEDA FRUTICOSA.						
General:	SIGHTING AT DEN SOMETIME FROM 1972 THROUGH JUL 1975. KNOWN DEN OR SIGHTING ON 16 SEP 1987.						
Owner/Manager:	UNKNOWN						

Occurrence No.	758	Map Index:	67613	EO Index:	67768	Element Last Seen:	1975-07-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1975-07-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-02-07
Quad Summary:	Buttonwillow (3511944)						
County Summary:	Kern						
Lat/Long:	35.40184 / -119.43559				Accuracy:	non-specific area	
UTM:	Zone-11 N3920332 E278818				Elevation (ft):	290	
PLSS:	T29S, R24E, Sec. 18 (M)				Acres:	908.0	
Location:	EAST OF BUTTONWILLOW, BETWEEN THE EAST SIDE CANAL AND I-5.						
Detailed Location:							
Ecological:	VALLEY SALTBUSSH SCRUB.						
General:	SIGHTING, ROAD KILL OR DEN PRIOR TO 1972. SIGHTING AT DEN SOMETIME FROM 1972 THROUGH JUL 1975. KNOWN DEN(S) OR SIGHTING(S) BEFORE 1990.						
Owner/Manager:	UNKNOWN						

Occurrence No.	760	Map Index:	67615	EO Index:	67770	Element Last Seen:	1975-07-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1975-07-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-01-09
Quad Summary:	Buttonwillow (3511944)						
County Summary:	Kern						
Lat/Long:	35.43104 / -119.41008				Accuracy:	2/5 mile	
UTM:	Zone-11 N3923514 E281214				Elevation (ft):	280	
PLSS:	T29S, R24E, Sec. 04 (M)				Acres:	0.0	
Location:	ABOUT 3.8 MI NE OF BUTTONWILLOW, E OF I-5, 0.8 MI S OF INTERSECTION OF SEVENTH STANDARD RD AND TRACY AVE.						
Detailed Location:							
Ecological:							
General:	ROAD KILL SOMETIME FROM 1972 THROUGH JUL 1975.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	846	Map Index:	67704	EO Index:	67859	Element Last Seen:	1975-07-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1975-07-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-01-12
Quad Summary:	East Elk Hills (3511934), Buttonwillow (3511944)						
County Summary:	Kern						
Lat/Long:	35.37838 / -119.48421				Accuracy:	2/5 mile	
UTM:	Zone-11 N3917839 E274336				Elevation (ft):	270	
PLSS:	T29S, R23E, Sec. 27 (M)				Acres:	0.0	
Location:	~1.7 MI SW OF BUTTONWILLOW, W OF FLORIDA DRAIN/EIGHTYFOOT DITCH. 1 MI WSW OF INTERSECTION OF BUERKLE RD & MIRASOL AVE.						
Detailed Location:							
Ecological:							
General:	DEN OBSERVED SOMETIME FROM 1972 THROUGH JUL 1975.						
Owner/Manager:	UNKNOWN						

Occurrence No.	1040	Map Index:	67999	EO Index:	68147	Element Last Seen:	198X-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	198X-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-02-28
Quad Summary:	Buttonwillow (3511944)						
County Summary:	Kern						
Lat/Long:	35.38782 / -119.38957				Accuracy:	non-specific area	
UTM:	Zone-11 N3918674 E282960				Elevation (ft):	290	
PLSS:	T29S, R24E, Sec. 22, SW (M)				Acres:	170.0	
Location:	ABOUT 4.5 MI ESE OF BUTTONRILLOW, 0.8 MI SE OF INTERSECTION OF I-5 AND HWY 58.						
Detailed Location:	MAPPED IN THE SW 1/4 OF SECTION 22.						
Ecological:	VALLEY SALTBUSSH SCRUB.						
General:	KNOWN DEN OR SIGHTING BEFORE 1990.						
Owner/Manager:	UNKNOWN						

Occurrence No.	1043	Map Index:	68055	EO Index:	68206	Element Last Seen:	198X-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	198X-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-02-28
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.25612 / -119.19510				Accuracy:	non-specific area	
UTM:	Zone-11 N3903656 E300302				Elevation (ft):	320	
PLSS:	T31S, R26E, Sec. 04, SW (M)				Acres:	152.0	
Location:	NE OF BUENA VISTA LAKE BED, ABOUT 1.8 AIR MI SE OF INTERSECTION OF I-5 AND HWY 119.						
Detailed Location:	MAPPED IN SW 1/4 OF SECTION 4 ACCORDING TO DATA PROVIDED BY CEC.						
Ecological:	VALLEY SALTBUSSH SCRUB.						
General:	KNOWN DEN(S) OR SIGHTING(S) OBSERVED BEFORE 1990.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	1073	Map Index:	68120	EO Index:	68262	Element Last Seen:	1981-06-05
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	1981-06-05
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-02-14
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.18332 / -119.35406				Accuracy:	80 meters	
UTM:	Zone-11 N3895911 E285647				Elevation (ft):	300	
PLSS:	T31S, R24E, Sec. 36, SW (M)				Acres:	0.0	
Location:	SE OF BUENA VISTA VALLEY, ABOUT 3.4 MI SE OF VALLEY ACRES.						
Detailed Location:	OBSERVED ALONG THE CALIFORNIA AQUEDUCT AT MILEPOST 249.05 ON THE LEFT/EAST SIDE OF AQUEDUCT. FOX OBSERVED AT BASE OF SLOPE NEAR DRAINPIPE, THEN RAN SOUTH OUT OF SIGHT.						
Ecological:	DISTURBED & BARREN WITH SPARSE VEGETATION. SANDY SOILS.						
General:	1 FOX OBSERVED ON 5 JUN 1981.						
Owner/Manager:	DWR, USBOR						
Occurrence No.	1080	Map Index:	68792	EO Index:	69302	Element Last Seen:	2001-04-24
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-04-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-04-03
Quad Summary:	Taft (3511924), Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.18154 / -119.49560				Accuracy:	non-specific area	
UTM:	Zone-11 N3896028 E272751				Elevation (ft):	975	
PLSS:	T31S, R23E, Sec. 34 (M)				Acres:	165.0	
Location:	MIDWAY VALLEY; EAST SIDE OF STATE ROUTE 33 AND ABOUT 2.6 MILES EAST OF FELLOWS.						
Detailed Location:	1983 RECORD FROM SW 1/4 OF SE 1/4 OF SECTION 34. 1989 RECORD FROM NE 1/4 OF SW OF SECTION 34. JAN 2001 OBSERVATIONS IN T31S, R23E, SECTION 34, APRIL 2001 OBSERVATIONS IN T32S, R23E, SECTION 3.						
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB.						
General:	MVZ #195720 COLLECTED 27 OCT 1989 & 1957221 COLLECTED 16 SEP 1983. KNOWN DEN, PUPPING DEN & 3 SCATS FOUND 22 JAN 2001. KNOWN DEN AND 1 SCAT FOUND 24 APR 2001.						
Owner/Manager:	DOE, PVT						
Occurrence No.	1081	Map Index:	68794	EO Index:	69303	Element Last Seen:	2001-01-29
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2001-01-29
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-04-03
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.19232 / -119.51900				Accuracy:	non-specific area	
UTM:	Zone-11 N3897277 E270650				Elevation (ft):	1050	
PLSS:	T31S, R23E, Sec. 32 (M)				Acres:	42.0	
Location:	MIDWAY VALLEY, EAST OF HWY 33 AND ABOUT 1.5 MILES NE OF FELLOWS.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSH SCRUB.						
General:	SIGHTING AT DEN IN THIS VICINITY SOMETIME BETWEEN 1972 & JUL 1975. DEN AND SCAT OBSERVED 23 JAN 2001 AND ANOTHER DEN OBSERVED 29 JAN 2001.						
Owner/Manager:	BLM, PVT						



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Occurrence No.	1082	Map Index:	68801	EO Index:	69312	Element Last Seen:	2001-01-29
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2001-01-29
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-04-03
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.19505 / -119.53388				Accuracy:	80 meters	
UTM:	Zone-11 N3897615 E269303				Elevation (ft):	1150	
PLSS:	T31S, R23E, Sec. 29 (M)				Acres:	0.0	
Location:	MIDWAY VALLEY, ABOUT 0.5 MI EAST OF HWY 33 AND ABOUT 1.2 MILES NNE OF FELLOWS.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUCH SCRUB.						
General:	1 KNOWN DEN AND 1 POTENTIAL KIT FOX DEN OBSERVED 29 JAN 2001.						
Owner/Manager:	BLM, UNKNOWN						

Occurrence No.	1121	Map Index:	69812	EO Index:	70634	Element Last Seen:	2007-05-23
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2007-05-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-08-28
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.13510 / -119.48050				Accuracy:	non-specific area	
UTM:	Zone-11 N3890842 E273998				Elevation (ft):	1250	
PLSS:	T32S, R23E, Sec. 23, NW (M)				Acres:	38.0	
Location:	PG&E SUBSTATION AT THE WEST END OF A ST. IN THE SOUTHWEST PART OF TAFT.						
Detailed Location:	INSIDE A PG&E SUBSTATION. DENS ARE LOCATED IN AN EMBANKMENT ON THE INTERIOR SOUTHERN END OF THE SUBSTATION.						
Ecological:	AREA TO THE SOUTH AND EAST IS RESIDENTIAL AND THE AREA TO THE WEST AND NORTH IS DISTURBED AND UNDISTURBED SCRUB HABITAT.						
General:	KIT FOXES APPEAR HABITUATED TO THE ONGOING ACTIVITIES. PG&E STAFF STATE THAT THE FOXES HAVE BEEN HERE ON AND OFF FOR 3 YEARS. 2 ADULT FOXES OBSERVED 23 MAY 2007.						
Owner/Manager:	PVT-PGE						



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Occurrence No.	1158	Map Index:	A2803	EO Index:	104410	Element Last Seen:	2016-07-05
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2016-07-05
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2016-12-21
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.1387 / -119.34998				Accuracy:	specific area	
UTM:	Zone-11 N3890953 E285902				Elevation (ft):	483	
PLSS:	T32S, R24E, Sec. 13, S (M)				Acres:	10.0	
Location:	ALONG LAKE STATION RD & ALONG E SIDE CALIFORNIA AQUEDUCT, BOTH ABOUT 1 MI ENE OF GARDNER FIELD RD, 6 MI E OF TAFT.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	2013: DISTURBED VALLEY SALTBUSS SCRUB, HEAVILY GRAZED BY SHEEP. 2016: OPEN RANGE DISTURBED BY OHV TRACKS, ACCESS ROAD, AND FENCE.						
General:	1 ADULT OBSERVED ON 26 SEP 2013 AND "ON A SUBSEQUENT NIGHT IN THE SAME AREA." 1 ADULT OBSERVED ON 5 JUL 2016.						
Owner/Manager:	DWR, BLM						

<i>Taxidea taxus</i>				Element Code: AMAJF04010			
American badger							
Listing Status:	Federal:	None			CNDDB Element Ranks:	Global:	G5
	State:	None				State:	S3
	Other:	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern					
Habitat:	General:	MOST ABUNDANT IN DRIER OPEN STAGES OF MOST SHRUB, FOREST, AND HERBACEOUS HABITATS, WITH FRIABLE SOILS.					
	Micro:	NEEDS SUFFICIENT FOOD, FRIABLE SOILS AND OPEN, UNCULTIVATED GROUND. PREYS ON BURROWING RODENTS. DIGS BURROWS.					

Occurrence No.	8	Map Index:	48986	EO Index:	48986	Element Last Seen:	2001-XX-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-10-09
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.21132 / -119.57881				Accuracy:	non-specific area	
UTM:	Zone-11 N3899525 E265258				Elevation (ft):	1400	
PLSS:	T31S, R22E, Sec. 23, SE (M)				Acres:	14.6	
Location:	3 MILES NW OF FELLOWS AND 0.45 TO 0.6 MILE WEST OF SHALE ROAD.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF SALTBUSSH SCRUB.						
General:	2 BURROWS WITH SIGN OBSERVED ON 15 MAR 1999. 1 BURROW WITH SIGN OBSERVED ON 16 FEB 1999.						
Owner/Manager:	PVT						



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Occurrence No.	9	Map Index:	48989	EO Index:	48989	Element Last Seen:	2001-05-01
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-05-01
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-10-09
Quad Summary:	Fellows (3511925)						
County Summary:	San Luis Obispo						
Lat/Long:	35.16882 / -119.56134				Accuracy:	specific area	
UTM:	Zone-11 N3894769 E266728				Elevation (ft):	1650	
PLSS:	T32S, R22E, Sec. 01 (M)				Acres:	12.2	
Location:	1.2 MILES SW OF FELLOWS.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF SALTBUH SCRUB WITH MODERATE DENSITY OIL DEVELOPMENT.						
General:	2 BURROW SITES OBSERVED ON 1 MAY 2001.						
Owner/Manager:	PVT						

Occurrence No.	10	Map Index:	49645	EO Index:	49645	Element Last Seen:	1999-03-24
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-03-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-16
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.36027 / -119.55718				Accuracy:	1/5 mile	
UTM:	Zone-11 N3915998 E267654				Elevation (ft):	450	
PLSS:	T29S, R22E, Sec. 36, SE (M)				Acres:	0.0	
Location:	ABOUT 5 MILES NE OF MCKITTRICK, KERN COUNTY.						
Detailed Location:							
Ecological:	SALTBUH SCRUB HABITAT (BURNED IN 1997), CURRENTLY GRAZED BY SHEEP.						
General:	ONE ADULT FORAGING 3/24/1999.						
Owner/Manager:	PVT						

Occurrence No.	11	Map Index:	49664	EO Index:	49664	Element Last Seen:	1999-03-30
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-03-30
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-17
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.34257 / -119.59436				Accuracy:	1/5 mile	
UTM:	Zone-11 N3914123 E264224				Elevation (ft):	700	
PLSS:	T30S, R22E, Sec. 03, SE (M)				Acres:	0.0	
Location:	EAST OF HWY 58, ABOUT 3 MILES NE OF MCKITTRICK.						
Detailed Location:							
Ecological:	SHEEP-GRAZED SALTBUH SCRUB HABITAT.						
General:	ONE FORAGING ADULT AND ONE BADGER DIG SITE OBSERVED 3/30/1999.						
Owner/Manager:	PVT						



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Occurrence No.	12	Map Index:	49676	EO Index:	49676	Element Last Seen:	1999-04-09
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-04-09
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-17
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.31904 / -119.59745				Accuracy:	non-specific area	
UTM:	Zone-11 N3911519 E263874				Elevation (ft):	1000	
PLSS:	T30S, R22E, Sec. 15, NE (M)				Acres:	109.8	
Location:	1.75 MILES NE OF MCKITTRICK.						
Detailed Location:							
Ecological:	HILLY SALT BUSH SCRUB WITH LOW DENSITY OIL DEVELOPMENT.						
General:	2 ADULTS OBSERVED FORAGING, ALSO REPORTED ON AN ATTACHED MAP WAS TWO BADGER DIGS 4/9/1999.						
Owner/Manager:	PVT						

Occurrence No.	13	Map Index:	49673	EO Index:	49673	Element Last Seen:	1999-04-08
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-04-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-17
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.30710 / -119.60331				Accuracy:	1/5 mile	
UTM:	Zone-11 N3910209 E263307				Elevation (ft):	950	
PLSS:	T30S, R22E, Sec. 22, NW (M)				Acres:	0.0	
Location:	MCKITTRICK VALLEY, ABOUT 1.25 MILES EAST OF MCKITTRICK.						
Detailed Location:							
Ecological:	SALT BUSH SCRUB HABITAT.						
General:	ONE ADULT AND ONE BURROW SITE OBSERVED 4/8/1999.						
Owner/Manager:	BLM						

Occurrence No.	14	Map Index:	49681	EO Index:	49681	Element Last Seen:	1999-04-14
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-04-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-19
Quad Summary:	West Elk Hills (3511935), Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.25698 / -119.62327				Accuracy:	non-specific area	
UTM:	Zone-11 N3904696 E261345				Elevation (ft):	1600	
PLSS:	T31S, R22E, Sec. 04, SW (M)				Acres:	158.6	
Location:	BETWEEN HWY 33 & TELEPHONE HILLS. 3.5 MILES S OF MCKITTRICK, 1.5 MILES NW OF DERBY ACRES.						
Detailed Location:	5 DIG SITES REPORTED, SPREAD THROUGH OUT THE AREA.						
Ecological:	GRAZED SALT BUSH SCRUB HABITAT.						
General:	TWO ADULTS OBSERVED FORAGING, AND FIVE BADGER DIGS (COULD ALSO BE POTENTIAL KIT FOX DENS) OBSERVED 4/14/99.						
Owner/Manager:	BLM						



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Occurrence No.	15	Map Index:	49698	EO Index:	49698	Element Last Seen:	1999-03-31
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-03-31
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-19
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.29525 / -119.61817			Accuracy:	1/5 mile		
UTM:	Zone-11 N3908930 E261921			Elevation (ft):	1150		
PLSS:	T30S, R22E, Sec. 28, NW (M)			Acres:	0.0		
Location:	ABOUT 0.75 MILE SE OF MCKITTRICK, EAST OF HWY 33 & SOUTH OF MCKITTRICK VALLEY.						
Detailed Location:							
Ecological:	HABITAT IS SALTBUSH SCRUB WITH NEARBY OIL DEVELOPMENT.						
General:	ONE ADULT AND TWO BADGER DIGS OBSERVED 3/31/1999.						
Owner/Manager:	PVT						
Occurrence No.	16	Map Index:	49702	EO Index:	49702	Element Last Seen:	1999-04-15
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-04-15
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-20
Quad Summary:	West Elk Hills (3511935), Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.37633 / -119.52239			Accuracy:	2/5 mile		
UTM:	Zone-11 N3917699 E270861			Elevation (ft):	275		
PLSS:	T29S, R23E, Sec. 29, NE (M)			Acres:	0.0		
Location:	2.25 MILES S OF CORN CAMP; BETWEEN CALIFORNIA AQUEDUCT AND WEST SIDE CANAL, 7.5 MILES NE OF MCKITTRICK.						
Detailed Location:							
Ecological:	SHEEP-GRAZED SALTBUSH/ VALLEY SINK SCRUB HABITAT.						
General:	FIVE INDIVIDUALS REPORTED FORAGING 15 APR 1999, AND FIVE BADGER SIGN LOCATIONS SHOWN ON AN ATTACHED MAP.						
Owner/Manager:	PVT						
Occurrence No.	17	Map Index:	49710	EO Index:	49710	Element Last Seen:	1999-04-22
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-04-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-20
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.20938 / -119.61746			Accuracy:	1/5 mile		
UTM:	Zone-11 N3899402 E261734			Elevation (ft):	1900		
PLSS:	T31S, R22E, Sec. 28, NW (M)			Acres:	0.0		
Location:	BETWEEN CROKER CANYON AND DABNEY CANYON. 5 MILES NE OF FELLOWS.						
Detailed Location:							
Ecological:	FOOTHILL GRASSLAND HABITAT WITH NEARBY OIL DEVELOPMENT.						
General:	ONE ADULT OBSERVED FORAGING 4/22/1999.						
Owner/Manager:	BLM, PVT						



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Occurrence No.	18	Map Index:	49714	EO Index:	49714	Element Last Seen:	2001-05-03
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-05-03
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-09-08
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.14847 / -119.54146			Accuracy:	1/5 mile		
UTM:	Zone-11 N3892465 E268481			Elevation (ft):	1750		
PLSS:	T32S, R23E, Sec. 18, NE (M)			Acres:	0.0		
Location:	2 MILES S OF FELLOWS BETWEEN MCLEOD CANYON AND SEVENTEEN CANYON.						
Detailed Location:	1966: WEST OF TAFT IN TEMBLOR RANGE - EXACT LOCATION NOT GIVEN.						
Ecological:	SALTBUSH SCRUB HABITAT WITH LOW DENSITY OIL DEVELOPMENT.						
General:	UNKNOWN NUMBER TRAPPED IN THE EARLY 1960'S. BADGER DIG OBSERVED 5/3/01.						
Owner/Manager:	PVT						
Occurrence No.	19	Map Index:	49715	EO Index:	49715	Element Last Seen:	2001-05-07
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-05-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-09-08
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.14430 / -119.52436			Accuracy:	non-specific area		
UTM:	Zone-11 N3891962 E270027			Elevation (ft):	1500		
PLSS:	T32S, R23E, Sec. 17 (M)			Acres:	61.1		
Location:	SEVENTEEN CANYON, 2.5 MILES SE OF FELLOWS.						
Detailed Location:	1966: WEST OF TAFT IN TEMBLOR RANGE - EXACT LOCATION NOT GIVEN.						
Ecological:	SALTBUSH SCRUB.						
General:	UNKNOWN NUMBER TRAPPED IN THE EARLY 1960'S. 6 BURROWS WITH BADGER SIGN. 3 WERE ALSO POTENTIAL KIT FOX DENS.						
Owner/Manager:	PVT						
Occurrence No.	20	Map Index:	49717	EO Index:	49717	Element Last Seen:	1999-04-16
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-04-16
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-23
Quad Summary:	Panorama Hills (3511926)						
County Summary:	Kern						
Lat/Long:	35.24395 / -119.63273			Accuracy:	1/5 mile		
UTM:	Zone-11 N3903274 E260445			Elevation (ft):	1750		
PLSS:	T31S, R22E, Sec. 08, SE (M)			Acres:	0.0		
Location:	VICINITY OF BUENA VISTA CREEK. TELEPHONE HILLS, 2 MILES W OF DERBY ACRES, 2 MILES E OF KERN/SAN LUIS OBISPO CTY LINE.						
Detailed Location:							
Ecological:	FOOTHILL GRASSLAND HABITAT.						
General:	ONE ADULT FORAGING, SHOWN ON AN ATTACHED MAP AS BADGER DIG 4/16/99.						
Owner/Manager:	PVT						



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Occurrence No.	21	Map Index:	49718	EO Index:	49718	Element Last Seen:	2001-02-10
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-02-10
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2003-01-07
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.23038 / -119.35456				Accuracy:	non-specific area	
UTM:	Zone-11 N3901132 E285726				Elevation (ft):	350	
PLSS:	T31S, R24E, Sec. 13, SW (M)				Acres:	71.1	
Location:	JUST NORTH OF THE CA AQUEDUCT, NORTH OF THE NW SHORE OF BUENA VISTA LAKE BED.						
Detailed Location:							
Ecological:	SERAL STAGE GRASSLAND/SALTBUSH SCRUB.						
General:	BADGER SIGN WAS SEEN AT 8 BURROWS, BURROWS WERE ALSO POTENTIAL OR KNOWN KIT FOX DENS, & 3 BURROWS WERE NOTED AS BURROWING OWL BURROWS TOO.						
Owner/Manager:	PVT						

Occurrence No.	37	Map Index:	56815	EO Index:	56831	Element Last Seen:	2001-08-01
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-08-01
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-09-16
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.31032 / -119.26223				Accuracy:	specific area	
UTM:	Zone-11 N3909805 E294331				Elevation (ft):	320	
PLSS:	T30S, R25E, Sec. 23, NW (M)				Acres:	13.7	
Location:	0.7 MILE NW OF THE HIGHWAY 43 CROSSING OVER THE KERN RIVER, 5 MILES EAST OF TUPMAN.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF ANNUAL GRASSLAND AND ATRIPLEX SCRUB.						
General:	1 ADULT OBSERVED ON 31 JUL 2001, AND 1 ADULT OBSERVED ON 1 AUG 2001.						
Owner/Manager:	KERN WATER BANK AUTHORITY						

Occurrence No.	119	Map Index:	43158	EO Index:	56769	Element Last Seen:	1910-05-12
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1910-05-12
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-09-13
Quad Summary:	Buttonwillow (3511944)						
County Summary:	Kern						
Lat/Long:	35.39940 / -119.47328				Accuracy:	1 mile	
UTM:	Zone-11 N3920145 E275387				Elevation (ft):	270	
PLSS:	T29S, R23E, Sec. 14 (M)				Acres:	0.0	
Location:	BUTTONWILLOW, KERN COUNTY.						
Detailed Location:							
Ecological:							
General:	1 MALE COLLECTED (CAS MAM #213) BY J. WEIMER ON 12 MAY 1910.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	279	Map Index:	32435	EO Index:	57482	Element Last Seen:	XXXX-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	XXXX-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-10-19
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.26803 / -119.30084				Accuracy:	1 mile	
UTM:	Zone-11 N3905194 E290712				Elevation (ft):	300	
PLSS:	T30S, R25E, Sec. 33 (M)				Acres:	0.0	
Location:	TULARE LAKE, MOUTH OF KERN RIVER.						
Detailed Location:	LOCATION MAPPED AT THE MOUTH OF THE KERN RIVER.						
Ecological:							
General:	2 COLLECTED, USNM.						
Owner/Manager:	UNKNOWN						

Occurrence No.	280	Map Index:	15325	EO Index:	57484	Element Last Seen:	XXXX-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	XXXX-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-10-19
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.14218 / -119.45262				Accuracy:	1 mile	
UTM:	Zone-11 N3891564 E276558				Elevation (ft):	900	
PLSS:	T32S, R23E, Sec. 13 (M)				Acres:	0.0	
Location:	TAFT.						
Detailed Location:							
Ecological:							
General:	INFORMATION FROM: LONG, C.A. 1972. TAXONOMIC REVISION OF THE NORTH AMERICAN BADGER, TAXIDEA TAXUS. J. MAMM., 53: 725-759.						
Owner/Manager:	UNKNOWN						

Occurrence No.	524	Map Index:	A2369	EO Index:	103980	Element Last Seen:	2016-05-05
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2016-05-05
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2016-10-26
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.26102 / -119.3205				Accuracy:	80 meters	
UTM:	Zone-11 N3904458 E288906				Elevation (ft):	481	
PLSS:	T31S, R25E, Sec. 5, NW (M)				Acres:	5.0	
Location:	HWY 119, ABOUT 0.6 MILES SW OF THE TUPMAN RD INTERSECTION & 1.0 MILES S OF TUPMAN RD AT SKYLINE RD, ELK HILLS.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	HIGHWAY IN SALTBUSH SCRUB DOMINATED BY ATRIPLEX POLYCARPA.						
General:	1 ADULT OBSERVED DEAD ON ROAD ON 5 MAY 2016.						
Owner/Manager:	CALTRANS						



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Actinemys marmorata

Element Code: ARAAD02031

northwestern pond turtle

Listing Status: **Federal:** Proposed Threatened

CNDDDB Element Ranks: **Global:** G2

State: None

State: SNR

Other: BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_VU-Vulnerable, USFS_S-Sensitive

Habitat: **General:** ☐

Micro: ☐

Occurrence No.	851	Map Index:	15675	EO Index:	28220	Element Last Seen:	XXXX-XX-XX
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		XXXX-XX-XX	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		1989-08-10	

Quad Summary: Stevens (3511932)

County Summary: Kern

Lat/Long:	35.32690 / -119.20206	Accuracy:	1 mile
UTM:	Zone-11 N3911520 E299844	Elevation (ft):	340
PLSS:	T30S, R26E, Sec. 08, SE (M)	Acres:	0.0

Location: KERN RIVER, 1 MILE NW OF STEVENS.

Detailed Location:

Ecological:

General: OBSERVED BY DAN HOLLAND. DATE UNKNOWN.

Owner/Manager: UNKNOWN

Occurrence No.	852	Map Index:	15441	EO Index:	28227	Element Last Seen:	XXXX-XX-XX
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		XXXX-XX-XX	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		1989-08-10	

Quad Summary: Tupman (3511933)

County Summary: Kern

Lat/Long:	35.30574 / -119.36953	Accuracy:	1/5 mile
UTM:	Zone-11 N3909524 E284563	Elevation (ft):	300
PLSS:	T30S, R24E, Sec. 23, NW (M)	Acres:	0.0

Location: TUPMAN ROAD, BRIDGE 1 MILE NORTH OF TUPMAN, CALIFORNIA AQUEDUCT.

Detailed Location: OCCURRING ALONG CALIFORNIA AQUEDUCT.

Ecological:

General: OBSERVED BY DAN HOLLAND. DATE UNKNOWN.

Owner/Manager: DOE-NAVAL PETROLEUM RESERVE



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Occurrence No.	1023	Map Index:	32717	EO Index:	1160	Element Last Seen:	1989-05-28
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1989-05-28
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1995-12-27
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.33122 / -119.36320				Accuracy:	80 meters	
UTM:	Zone-11 N3912337 E285206				Elevation (ft):	290	
PLSS:	T30S, R24E, Sec. 11, SE (M)				Acres:	0.0	
Location:	NORTHERN EDGE OF TULE ELK STATE RESERVE; 0.2 KM SE OF STATION ROAD ENTRANCE TO RESERVE.						
Detailed Location:	SITE IS ON ELK RESERVE; PONDS USED IN HOT WEATHER AS "WALLOWS".						
Ecological:	MAN-MADE FRESH WATER PONDS MAINTAINED WITH PUMPED WELL WATER; FRESH WATER MARSH COMMUNITY OF TYPHA, JUNCUS, SCIRPUS AND LUDWIGIA; SOIL IS LOKERN CLAY.						
General:	POND TURTLES OBSERVED INCIDENTALLY ON 5/28/89.						
Owner/Manager:	DPR-TULE ELK SNR						

Occurrence No.	1024	Map Index:	32718	EO Index:	1159	Element Last Seen:	1990-03-24
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1990-03-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1995-12-27
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.31859 / -119.35972				Accuracy:	80 meters	
UTM:	Zone-11 N3910928 E285489				Elevation (ft):	290	
PLSS:	T30S, R24E, Sec. 14, NE (M)				Acres:	0.0	
Location:	NORTHERN PORTION OF TULE ELK STATE RESERVE; 1.6 KM SSE OF STATION ROAD ENTRANCE TO RESERVE.						
Detailed Location:	SITE IS ON ELK RESERVE; PONDS USED IN HOT WEATHER AS "WALLOWS".						
Ecological:	MAN-MADE FRESH WATER PONDS MAINTAINED WITH WELL WATER; FRESH WATER MARSH COMMUNITY OF TYPHA, JUNCUS, SCIRPUS AND LUDWIGIA; SOIL TYPE IS LOKERN CLAY.						
General:	POND TURTLES OBSERVED INCIDENTALLY ON 7/4/1988, 7/22/1989, 9/2/1989, 9/23/1989 & 3/24/1990; THE LAST TWO SIGHTINGS HAD TURTLES SUNNING ON THE BANK.						
Owner/Manager:	DPR-TULE ELK SNR						

Anniella alexanderae			Element Code: ARACC01030		
Temblor legless lizard					
Listing Status:	Federal:	None	CNDDDB Element Ranks:	Global:	G1
	State:	Candidate Endangered		State:	S1
	Other:	CDFW_SSC-Species of Special Concern			
Habitat:	General:	SANDY SOIL AT THE SOUTHEAST BASE OF THE TEMBLOR RANGES, SOUTHWESTERN SAN JOAQUIN VALLEY, KERN COUNTY.			
	Micro:	MICROHABITAT OF THIS SPECIES IS POORLY KNOWN. OTHER LEGLESS LIZARD SPECIES OCCUR IN SPARSELY VEGETATED AREAS WITH MOIST, LOOSE SOIL. OFTEN FOUND UNDERNEATH LEAF LITTER, ROCKS, AND LOGS.			



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* SENSITIVE *

Occurrence No.	1	Map Index:	A5160	EO Index:	106863	Element Last Seen:	2022-04-26
Occ. Rank:	Fair	Presence:	Presumed Extant	Site Last Seen:	2022-04-26	Record Last Updated:	2025-07-23
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				

Quad Summary: Fellows (3511925)

County Summary: Kern

Lat/Long:	Accuracy:	specific area
UTM:	Elevation (ft):	1250
PLSS:	Acres:	21.0

Location: *SENSITIVE* LOCATION INFORMATION SUPPRESSED.

Detailed Location: PLEASE CONTACT THE CALIFORNIA NATURAL DIVERSITY DATABASE, CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE, FOR MORE INFORMATION: (916) 322-2493

Ecological: TYPE LOCALITY FOR NEWLY DESCRIBED SPECIES ANNIELLA ALEXANDERAE. FOUND UNDER COVER BOARDS AND CARDBOARD LYING ON SANDY SOIL, PRIMARILY BETWEEN FEB & MAR WHEN THE SOIL IS DAMP. AREA APPEARS TO BE SURROUNDED BY OIL EXTRACTION FIELDS.

General:

Owner/Manager:

Occurrence No.	2	Map Index:	A5161	EO Index:	106864	Element Last Seen:	2024-03-01
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	2024-03-01	Record Last Updated:	2025-07-23
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				

Quad Summary: West Elk Hills (3511935), Reward (3511936)

County Summary: Kern

Lat/Long:	35.30863 / -119.62643	Accuracy:	non-specific area
UTM:	Zone-11 N3910435 E261209	Elevation (ft):	1028
PLSS:	T30S, R22E, Sec. 20, NE (M)	Acres:	55.0

Location: AREA JUST NW OF FIRST STREET AT F STREET IN THE TOWN OF MCKITTRICK, MCKITTRICK VALLEY.

Detailed Location:

Ecological:

General: TWO COLLECTED ON 2 APR 2007; REFERRED SPECIMENS FOR NEWLY DESCRIBED SPECIES ANNIELLA ALEXANDERAE. 4 COLLECTED IN MAR 2017. 1 ADULT FOUND AND PHOTOGRAPHED ON 1 MAR 2024.

Owner/Manager: UNKNOWN



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Occurrence No.	6	Map Index:	B8911	EO Index:	124047	Element Last Seen:	2025-04-09
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2025-04-09
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2025-07-25
Quad Summary:	Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.38293 / -119.58252			Accuracy:	specific area		
UTM:	Zone-11 N3918572 E265418			Elevation (ft):	412		
PLSS:	T29S, R22E, Sec. 26, NW (M)			Acres:	21.0		
Location:	ABOUT 2.3 MILES WSW OF CALIFORNIA AQUEDUCT AT HIGHWAY 58, LOKERN ECOLOGICAL RESERVE.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES. SITE IS 1.3 MI WNW OF BM 407 ON HWY 58 NEAR GATE TO HISTORIC LOKERN PUMPING STATION. ACCESSED BY DIRT ROADS ACROSS VARIOUS LAND OWNERSHIP. USGS SITE 42. 2025 ADJ SITE ON CHEVRON PARCEL WITH DETECTIONS.						
Ecological:	SANDY BANK OF DRY SMALL STREAM CHANNEL.						
General:	2 FOUND ON 25 (OR 27) APR 2023 AND DEPOSITED AT MVZ (CLS1001, CLS1002). DETECTED DURING JAN TO APR SURVEYS IN 2023, 2024, & 2025. 2 DETECTED ON 25 FEB, & 3 DETECTED ON 26 FEB 2025. 1 DETECTED ON 9 APR 2025.						
Owner/Manager:	DFG-LOKERN ER, PVT						

Occurrence No.	7	Map Index:	B8922	EO Index:	124059	Element Last Seen:	2025-XX-XX
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2025-04-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2025-07-23
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.21436 / -119.55807			Accuracy:	specific area		
UTM:	Zone-11 N3899814 E267156			Elevation (ft):	1178		
PLSS:	T31S, R22E, Sec. 24, SE (M)			Acres:	14.0		
Location:	ABOUT 0.2 MILES E OF HWY 33, IN A DRAINAGE CROSSING HWY 33 ABOUT 0.75 MILES SSE OF SHALE RD, 2.6 MILES NNW OF FELLOWS.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES. WITHIN THE MIDWAY-SUNSET OIL FIELD. SITE IS WITHIN THE SAME DRAINAGE AS THE TYPE LOCALITY, ELEMENT OCCURRENCE #1, ABOUT 0.5 MILES WSW FROM THIS LOCATION. USGS SITES 34 & 39.						
Ecological:	COVER BOARDS WERE PLACED UNDER BUSHES ALONG SANDY DRY GULLY. AREA SHOWS SIGNS OF HISTORIC OIL EXTRACTION IN AREA. UNCLEAR IF PAPPENFUSS EFFORT SAME AS USGS; B. BERRY (2024-06) REFERENCES T. PAPPENFUSS.						
General:	DETECTED AT 2 SITES IN 2022 & 2023 (USGS). 2 COLLECTED UNDER DIFFERENT BOARDS 4 FEB 2023 & DEPOSITED AT MVZ W/ TISSUE (CLS998, CLS999). 2 OR MORE BY USGS JAN-APR 2024. 1 FOUND ON 12 JUN, 3 JUL, & 21 AUG 2024. PRESENT AT SITE 34 IN 2025.						
Owner/Manager:	BLM						



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Occurrence No.	13	Map Index:	B9123	EO Index:	124308	Element Last Seen:	2025-04-07
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2025-04-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2025-07-24
Quad Summary:	Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.28892 / -119.63551				Accuracy:	specific area	
UTM:	Zone-11 N3908270 E260325				Elevation (ft):	1389	
PLSS:	T30S, R22E, Sec. 29 (M)				Acres:	46.0	
Location:	VICINITY OF MCKITTRICK LANDFILL, 0.6 MILES SW OF JUNCTION OF HIGHWAY 33 & HIGHWAY 58, JUST S OF THE TOWN OF MCKITTRICK.						
Detailed Location:	MAPPED AS A 5-PART POLYGON TO COORDINATES. N POLY = NEW 2025 COVER SITE, WELL 233D. NW POLY = 2015 LANDFILL DETECTION SITE, FORMER A. SPP. EO #19. NEWLY SAMPLED USGS DATA (SITES 81, 82) ON BLM LAND TO SE & W CONFIRM A. ALEXANDERAE IN AREA.						
Ecological:	LANDFILL EXPANSION (NW POLYGON) WAS SALTBUSH SCRUB WITH SIGNIFICANT DETRITUS & LOOSE, FRIABLE SOILS WITH SURROUNDINGS OF LANDFILL, BLM LAND, & HIGHWAYS; THE IMMEDIATE LANDFILL SITE MAY BE EXTIRPATED. RECENT NEARBY SAMPLING CONFIRMS SPECIES.						
General:	34 FOUND DURING PROJECT, 8-12 FEB 2015 (MANY DEAD; SOME AT MVZ). DETECTED AT 2 SITES BY USGS IN 2023 & 2024, & 1 SITE IN 2025. 2 FOUND & TAIL CLIPPED 15 FEB 2024 (TJP 33002, 33003). 1 FOUND ON 27 FEB AND 1 ON 7 APR 2025.						
Owner/Manager:	PVT-WASTE MANAGEMENT, BLM						

Occurrence No.	14	Map Index:	B9124	EO Index:	124309	Element Last Seen:	2024-02-29
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2025-04-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2025-07-25
Quad Summary:	West Elk Hills (3511935), Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.35575 / -119.62699				Accuracy:	specific area	
UTM:	Zone-11 N3915663 E261297				Elevation (ft):	656	
PLSS:	T29S, R22E, Sec. 32, SE (M)				Acres:	10.0	
Location:	1.9 AIR MILES SE OF THE INTERSECTION OF HIGHWAY 33 AND CYMRIC ROAD, ABOUT 4 MILES NORTH OF MCKITTRICK.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES, 0.7 MILES EAST OF HIGHWAY 33, AT USGS SITE 17.						
Ecological:							
General:	DETECTED IN 2022 & 2023 (AA 0044 1). AT LEAST ONE DETECTED DURING USGS FIELD WORK FROM JAN TO APR 2024. 1 FOUND ON 29 FEB 2024 AND TAIL CLIPPED FOR GENETIC ANALYSIS (TJP 33006). NOT DETECTED DURING JAN TO APR 2025 USGS FIELD WORK.						
Owner/Manager:	BLM, PVT-AERA ENERGY						



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Occurrence No.	15	Map Index:	C0603	EO Index:	131831	Element Last Seen:	2024-02-14
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2024-02-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-12-19
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.30264 / -119.59651				Accuracy:	80 meters	
UTM:	Zone-11 N3909698 E263913				Elevation (ft):	912	
PLSS:	T30S, R22E, Sec. 22, SE (M)				Acres:	5.0	
Location:	ABOUT 0.6 MILES NORTH OF SKYLINE RD AT RESERVE RD, 1.5 MILES EAST OF CENTRAL MCKITTRICK, BLM.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES NEAR CENTER OF SECTION 22.						
Ecological:	HABITAT DESCRIBED AS SANDY SOIL WITH SCATTERED SHRUBS. THE SURROUNDING AREA APPEARS TO BE USED FOR OIL PRODUCTION. FOUND UNDER COVERBOARD PLACED IN DEC 2022.						
General:	1 ADULT FOUND ON 14 FEB 2024 AND TAIL CLIPPED FOR GENTIC ANALYSIS (TJP 33001; TO BE DEPOSITED/CATALOGED AT MVZ).						
Owner/Manager:	BLM						

Occurrence No.	17	Map Index:	C1502	EO Index:	133754	Element Last Seen:	2025-03-12
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2025-04-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2025-07-25
Quad Summary:	Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.261 / -119.6382				Accuracy:	80 meters	
UTM:	Zone-11 N3905179 E259998				Elevation (ft):	1662	
PLSS:	T31S, R22E, Sec. 5, NW (M)				Acres:	5.0	
Location:	DRAINAGE ALONG EAST SLOPE TELEPHONE HILLS, 1.6 MILES SSW OF ADDIE AVE AT HWY 33, AND 2.5 MILES NE CENTRAL DERBY ACRES.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES FOR USGS SITEID 59.						
Ecological:							
General:	AT LEAST ONE DETECTED & VISUALLY IDENTIFIED DURING FIELD WORK FROM JAN-APR 2024 (SAMPLE COLLECTED FOR GENETIC EVALUATION; AA-2024-6). 1 DETECTED & TISSUE COLLECTED ON 12 MAR 2025 DURING SURVEYS FROM JAN-APR SURVEYS (AA-2025-6).						
Owner/Manager:	BLM						



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Occurrence No.	18	Map Index:	C1503	EO Index:	133755	Element Last Seen:	2025-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2025-04-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2025-07-23
Quad Summary:	Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.27623 / -119.63679				Accuracy:	80 meters	
UTM:	Zone-11 N3906865 E260172				Elevation (ft):	1446	
PLSS:	T30S, R22E, Sec. 32, NW (M)				Acres:	5.0	
Location:	ALONG DRAINAGE ABOUT 0.8 MI ESE OF HWY 33 AT ADDIE AVE, AND ABOUT 3 MI NNW OF DERBY ACRES, 2.1 MI SSW OF MCKITTRICK.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES FOR USGS SITEID 60.						
Ecological:							
General:	AT LEAST ONE DETECTED AND VISUALLY IDENTIFIED DURING FIELD WORK FROM JAN TO APR 2024 (SAMPLE COLLECTED FOR GENETIC EVALUATION; RESULTS CURRENTLY PENDING; AA-2024-7, AA-2024-8). PRESENT DURING 2025 SURVEYS.						
Owner/Manager:	BLM						

Occurrence No.	19	Map Index:	C1504	EO Index:	133756	Element Last Seen:	2025-XX-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2025-04-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2025-07-23
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.34641 / -119.61679				Accuracy:	80 meters	
UTM:	Zone-11 N3914602 E262197				Elevation (ft):	681	
PLSS:	T30S, R22E, Sec. 4 (M)				Acres:	5.0	
Location:	BETWEEN HWY 33 AND HWY 58 ABOUT 2.6 MI N OF THEIR JUNCTION, 2.8 MI SSE OF CYMRIC RD AT HWY 33, 2.8 MI N OF MCKITTRICK.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES FOR USGS SITEID 21, NEAR CENTER OF SECTION 4.						
Ecological:							
General:	AT LEAST ONE DETECTED AND VISUALLY IDENTIFIED DURING FIELD WORK FROM JAN-APR 2024 (SAMPLE COLLECTED FOR GENETIC EVALUATION; RESULTS CURRENTLY PENDING). PRESENT DURING JAN-APR 2025 SURVEYS.						
Owner/Manager:	BLM						

Anniella grinnelli						Element Code: ARACC01050	
Bakersfield legless lizard							
Listing Status:	Federal:	None			CNDDDB Element Ranks:	Global:	G2G3
	State:	None				State:	S2S3
	Other:	CDFW_SSC-Species of Special Concern					
Habitat:	General:	SOUTHERN SAN JOAQUIN VALLEY. KNOWN FROM TWO DISJUNCT AREAS: THE EAST SIDE OF THE CARRIZO PLAIN AND PORTIONS OF THE CITY LIMITS OF BAKERSFIELD.					
	Micro:	MICROHABITAT OF THIS SPECIES IS POORLY KNOWN. OTHER LEGLESS LIZARD SPECIES OCCUR IN SPARSELY VEGETATED AREAS WITH MOIST, LOOSE SOIL. OFTEN FOUND UNDERNEATH LEAF LITTER, ROCKS, AND LOGS.					



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Occurrence No.	23	Map Index:	B7999	EO Index:	121110	Element Last Seen:	2013-03-02
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2013-03-02
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2022-01-04
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.30051 / -119.26731				Accuracy:	1/10 mile	
UTM:	Zone-11 N3908728 E293845				Elevation (ft):	317	
PLSS:	T30S, R25E, Sec. 23, SW (M)				Acres:	18.0	
Location:	NORTH BANK OF KERN RIVER JUST WEST OF INTERSTATE 5, ABOUT 15 MILES WSW OF BAKERSFIELD.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:							
General:	1 DETECTED ON 2 MAR 2013. PARHAM ET AL. 2019 FIGURES CORROBORATES THAT THESE HAVE BEEN EXPERTLY IDENTIFIED AS A. GRINNELLI.						
Owner/Manager:	UNKNOWN						

Occurrence No.	24	Map Index:	B8000	EO Index:	121111	Element Last Seen:	2013-03-02
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2013-03-02
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2022-01-04
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.3224 / -119.25269				Accuracy:	1/10 mile	
UTM:	Zone-11 N3911125 E295230				Elevation (ft):	324	
PLSS:	T30S, R25E, Sec. 14, NE (M)				Acres:	18.0	
Location:	WEST SIDE OF HWY 43, 0.2 MILES S OF MUNZER RD, ABOUT 2 MI NORTH OF I-5 AND 13 MILES WSW OF BAKERSFIELD.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	AREA NOTED AS THE CANAL OIL FIELD.						
General:	1 DETECTED ON 2 MAR 2013. PARHAM ET AL. 2019 FIGURES CORROBORATES THAT THESE HAVE BEEN EXPERTLY IDENTIFIED AS A. GRINNELLI.						
Owner/Manager:	UNKNOWN						

Occurrence No.	25	Map Index:	B8001	EO Index:	121112	Element Last Seen:	2013-03-02
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2013-03-02
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2022-01-04
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.32547 / -119.21767				Accuracy:	1/10 mile	
UTM:	Zone-11 N3911394 E298421				Elevation (ft):	335	
PLSS:	T30S, R26E, Sec. 7, SE (M)				Acres:	18.0	
Location:	NORTH SIDE OF KERN RIVER ABOUT 0.5 MILES WEST OF SOUTHERN PACIFIC RAIL BRIDGE, ABOUT 11 MILES WSW OF BAKERSFIELD.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	AREA NOTED AS THE STRAND OIL FIELD.						
General:	1 DETECTED ON 2 MAR 2013. PARHAM ET AL. 2019 FIGURES CORROBORATES THAT THESE HAVE BEEN EXPERTLY IDENTIFIED AS A. GRINNELLI.						
Owner/Manager:	UNKNOWN, CITY OF BAKERSFIELD						



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Occurrence No.	26	Map Index:	B8002	EO Index:	121113	Element Last Seen:	2013-03-02
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	2013-03-02		
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:	2022-01-04		
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.303 / -119.19898	Accuracy:	1/10 mile				
UTM:	Zone-11 N3908863 E300065	Elevation (ft):	333				
PLSS:	T30S, R26E, Sec. 20, E (M)	Acres:	18.0				
Location:	SOUTH SIDE OF KERN RIVER, 0.5 MILES N OF PANAMA LANE AND 3 MILES E OF INTERSTATE 5, ABOUT 11 MILES WSW OF BAKERSFIELD.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	NORTH OF THE TEN SECTION OIL FIELD.						
General:	1 DETECTED ON 2 MAR 2013. PARHAM ET AL. 2019 FIGURES CORROBORATES THAT THESE HAVE BEEN EXPERTLY IDENTIFIED AS A. GRINNELLI.						
Owner/Manager:	UNKNOWN						

Occurrence No.	27	Map Index:	B7624	EO Index:	121126	Element Last Seen:	2020-04-14
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	2020-04-14		
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:	2022-01-05		
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.34918 / -119.32693	Accuracy:	80 meters				
UTM:	Zone-11 N3914252 E288550	Elevation (ft):	306				
PLSS:	T30S, R25E, Sec. 6, NE (M)	Acres:	5.0				
Location:	JUST NORTH OF PIONEER CANAL AT I-5, 0.6 MILES SE OF STOCKDALE HWY AT I-5, ABOUT 17 MILES ESE OF CENTRAL BAKERSFIELD.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES. RECORD ID MNW20-045 -S10.						
Ecological:	RECENT PHOTO DOCUMENTATION & EVALUATION BY EXPERIENCED HERPETOLOGIST AND FURTHER RANGE UNDERSTANDING OF NEWLY DESCRIBED SPECIES (PARHAM ET AL. 2019) INDICATE THAT THESE ARE MOST LIKELY A. GRINNELLI WITH PHOTOS SHOWING CLEAR PURPLISH BELLY.						
General:	THREE FOUND AND PHOTOGRAPHED DURING VISUAL ENCOUNTER SURVEY ON 14 APR 2020.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	31	Map Index:	C1501	EO Index:	133753	Element Last Seen:	2024-XX-XX
Occ. Rank:	Good	Presence:	Presumed Extant	Site Last Seen:	2025-04-XX	Record Last Updated:	2025-07-23
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.16295 / -119.48759			Accuracy:	80 meters		
UTM:	Zone-11 N3893947 E273430			Elevation (ft):	998		
PLSS:	T32S, R23E, Sec. 10, NE (M)			Acres:	5.0		
Location:	0.4 MI N OF HWY 33 FROM ABOUT 1.8 MI SE OF HENRY RD AND 2.25 MI NW OF DOWNTOWN/CENTRAL TAFT.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES FOR USGS SITEID 96. ALONG DRAINAGE ABOUT 0.4 MI NNW OF HISTORIC USGS SURVEY CAMP, OIL & GAS DIVISION.						
Ecological:	HABITAT APPEARS TO BE A DESERT WASH LINED WITH SHRUBS.						
General:	AT LEAST ONE DETECTED AND VISUALLY IDENTIFIED DURING FIELD WORK FROM JAN TO APR 2024 (SAMPLE COLLECTED FOR GENETIC EVALUATION; AA-2024-4, AA-2024-5). NOT DETECTED DURING 2025 SURVEY EFFORTS.						
Owner/Manager:	BLM						

Gambelia sila				Element Code: ARACF07010			
blunt-nosed leopard lizard							
Listing Status:	Federal:	Endangered		CNDDDB Element Ranks:	Global:	G1	
	State:	Endangered			State:	S2	
	Other:	CDFW_FP-Fully Protected, IUCN_EN-Endangered					
Habitat:	General:	RESIDENT OF SPARSELY VEGETATED ALKALI AND DESERT SCRUB HABITATS, IN AREAS OF LOW TOPOGRAPHIC RELIEF.					
	Micro:	SEEKS COVER IN MAMMAL BURROWS, UNDER SHRUBS OR STRUCTURES SUCH AS FENCE POSTS; THEY DO NOT EXCAVATE THEIR OWN BURROWS.					

Occurrence No.	24	Map Index:	14956	EO Index:	27861	Element Last Seen:	1979-XX-XX
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	1979-XX-XX	Record Last Updated:	2006-09-28
Occ. Type:	Natural/Native occurrence	Trend:	Unknown				
Quad Summary:	Fellows (3511925), Panorama Hills (3511926)						
County Summary:	Kern						
Lat/Long:	35.21403 / -119.62895			Accuracy:	1/5 mile		
UTM:	Zone-11 N3899946 E260701			Elevation (ft):	1950		
PLSS:	T31S, R22E, Sec. 20, SE (M)			Acres:	0.0		
Location:	SOUTH OF CROCKER CANYON ABOUT 5.5 MILES WNW OF FELLOWS.						
Detailed Location:							
Ecological:	48 ACRE GRAZED GRASSLAND. SLOPE RISES GRADUALLY FROM NE TO SW IN PLOT #58.						
General:	BNLL STUDY PLOT #58. 4-6 INDIVIDUALS OBSERVED. DENSITY ESTIMATED AT 1.57 LIZARDS/100 ACRES.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	25	Map Index:	15006	EO Index:	27859	Element Last Seen:	1979-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1979-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-09-28
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.23897 / -119.60577				Accuracy:	1/10 mile	
UTM:	Zone-11 N3902657 E262884				Elevation (ft):	1400	
PLSS:	T31S, R22E, Sec. 10, SW (M)				Acres:	0.0	
Location:	WEST EDGE OF DERBY ACRES.						
Detailed Location:							
Ecological:	320 ACRE GRAZED GRASSLAND. FLAT TERRAIN WITH 2 WASHES.						
General:	ONE INDIVIDUAL OBSERVED.						
Owner/Manager:	UNKNOWN						

Occurrence No.	26	Map Index:	15211	EO Index:	27860	Element Last Seen:	1979-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1979-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2018-10-02
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.17973 / -119.50684				Accuracy:	non-specific area	
UTM:	Zone-11 N3895853 E271723				Elevation (ft):	1055	
PLSS:	T32S, R23E, Sec. 4, NE (M)				Acres:	35.0	
Location:	SOUTH SIDE OF MIDWAY RD, FROM ABOUT 1.0-1.3 MI E OF THE HWY 33 INTERSECTION, 1.8 MI E OF FELLOWS.						
Detailed Location:	STUDY PLOT #71, 1979. MAPPED TO PROVIDED DETECTION LOCATIONS.						
Ecological:	GRASSLAND AND SALTBUSH ON FLAT TERRAIN.						
General:	2 DETECTED IN 1979.						
Owner/Manager:	BLM						

Occurrence No.	29	Map Index:	15364	EO Index:	27856	Element Last Seen:	1984-XX-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1984-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-04-05
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.22014 / -119.42075				Accuracy:	non-specific area	
UTM:	Zone-11 N3900142 E279674				Elevation (ft):	477	
PLSS:	T31S, R24E, Sec. 20, N (M)				Acres:	243.0	
Location:	BUENA VISTA VALLEY, 0.7 TO 1.6 MILES NW OF VALLEY ACRES, ABOUT 5 MILES NNE OF TAFT.						
Detailed Location:	MAPPED TO PROVIDED HAND-DRAWN MAPS. 1979 PLOT #124 IN JONES 1980, AND SITE 14 IN CHESEMORE 1980. BLM PROPERTY IN NORTH HALF OF SECTION 20 SURVEYED.						
Ecological:	GRAZED ATRIPLIX GRASSLAND. KIT FOX ALSO DETECTED IN THIS AREA.						
General:	4 DETECTED IN 1977. ABOUT 20 DETECTED DURING SURVEYS IN APR, MAY, & AUG 1978. AT LEAST 4 MALES AND 2 FEMALES DETECTED IN 1979. 5 DETECTED IN 1984.						
Owner/Manager:	BLM						



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Occurrence No.	37	Map Index:	14989	EO Index:	27851	Element Last Seen:	2016-03-29
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2016-03-29
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2020-11-18
Quad Summary:	West Elk Hills (3511935), Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.34023 / -119.62276				Accuracy:	specific area	
UTM:	Zone-11 N3913932 E261636				Elevation (ft):	743	
PLSS:	T30S, R22E, Sec. 4, SW (M)				Acres:	196.0	
Location:	BETWEEN HIGHWAY 33 AND HIGHWAY 58, ABOUT 2.4 AIR MILES NORTH OF CENTRAL MCKITTRICK.						
Detailed Location:	PRIMARILY DETECTED IN SW SECTION OF 4 AND NW OF SECTION 9. THIS ELEMENT OCCURRENCE, #37, FORMERLY INCLUDED PARTS OF EO #64, #140, #262 AND #282; SEE THOSE OCCURRENCES FOR DETAILS OF OTHER NEARBY DETECTIONS.						
Ecological:	VALLEY SALTBUUSH SCRUB. GRAZED GRASSLAND WITH SIGNS OF OIL INDUSTRY USE.						
General:	DETECTED IN THIS AREA IN 1978, 1979, 1984, 2011, 2012, AND 2016.						
Owner/Manager:	BLM, PVT-CHEVRON,						

Occurrence No.	38	Map Index:	14925	EO Index:	13113	Element Last Seen:	1979-XX-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1979-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-12-24
Quad Summary:	Fellows (3511925), Panorama Hills (3511926), West Elk Hills (3511935), Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.24594 / -119.64049				Accuracy:	non-specific area	
UTM:	Zone-11 N3903513 E259746				Elevation (ft):	1954	
PLSS:	T31S, R22E, Sec. 8 (M)				Acres:	876.0	
Location:	TELEPHONE HILLS, ABOUT 2.6 MILES WEST OF DERBY ACRES, AND ABOUT 4.25 MILES SSW OF MCKITTRICK.						
Detailed Location:	MAPPED GENERALLY TO STUDY PLOTS 50, 55, AND 56 FROM 1979 STUDY. GENERALLY IN SECTIONS 7 AND 8.						
Ecological:	PLOT WAS 680 ACRES OF GRAZED GRASSLAND & SHRUB HABITAT IN LOW ROLLING HILLS. POWER LINE ALONG E SIDE OF PLOT #50.						
General:	16-19 INDIVIDUALS DETECTED DURING FIELD WORK IN 1979.						
Owner/Manager:	BLM						

Occurrence No.	44	Map Index:	15083	EO Index:	14776	Element Last Seen:	1979-07-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1979-07-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1989-08-10
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.19907 / -119.56735				Accuracy:	1/5 mile	
UTM:	Zone-11 N3898139 E266267				Elevation (ft):	1302	
PLSS:	T31S, R22E, Sec. 25, SW (M)				Acres:	0.0	
Location:	3.7 KM NW OF FELLOWS.						
Detailed Location:	3 LIZARDS OBS. EST DENSITY 0.30/HECTARE.						
Ecological:	FLAT TERRAIN W/ SCATTERED KNOLLS. VEG MOSTLY BROMUS RUBENS & ATRIPLEX.						
General:	SITE #11 IN SOURCE.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	64	Map Index:	B6501	EO Index:	119562	Element Last Seen:	1979-08-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1979-08-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2020-11-18
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.342 / -119.60843				Accuracy:	non-specific area	
UTM:	Zone-11 N3914093 E262943				Elevation (ft):	686	
PLSS:	T30S, R22E, Sec. 4, SE (M)				Acres:	31.0	
Location:	WEST SIDE OF HIGHWAY 58 ABOUT 3 ROAD MILES NORTH OF CENTRAL MCKITTRICK, ELK HILLS.						
Detailed Location:	PRIMARILY MAPPED TO CHE80R0001 STUDY SITE 1, A 20 ACRE PLOT IN SE QUARTER OF SECTION 4. ALL GAMBELIA WERE SEEN IN OR IMMEDIATELY ADJACENT TO THE SMALL WASHES THAT TRAVERSED THE PLOT.						
Ecological:	AREA DESCRIBED AS PRIMARILY BROMUS-SCHISMUS GRASSLAND WITH SCATTERED CLUMPS OF ATRIPLEX.						
General:	FIVE COLLECTED IN THIS GENERAL AREA IN 1932. AT LEAST 7 WERE MARKED AND RESIGHTED HERE DURING A STUDY BETWEEN 22 MAY - 1 AUG 1979; RELATIVE DENSITY ESTIMATE OF 12 INDIVIDUALS ON THE STUDY PLOT.						
Owner/Manager:	BLM						

Occurrence No.	72	Map Index:	65661	EO Index:	27836	Element Last Seen:	1987-04-27
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1987-04-27
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-02-08
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.24273 / -119.31045				Accuracy:	2/5 mile	
UTM:	Zone-11 N3902408 E289773				Elevation (ft):	341	
PLSS:	T31S, R25E, Sec. 8, SE (M)				Acres:	280.0	
Location:	JUST EAST OF GOLF COURSE ABOUT 4.75 MILES ENE OF DUSTIN ACRES, NORTH SIDE OF BUENA VISTA LAKEBED, NE OF TAFT.						
Detailed Location:	MAPPED NON-SPECIFICALLY TO HUB87F0007/CEC88M0001 LOCATION OF SE 1/4 SECTION 8. HISTORIC SPECIMENS COLLECTED NEAR BUENA VISTA LAKE AND 12 MILES NE TAFT NEAR GOLF COURSE INCLUDED HERE.						
Ecological:	INTERIOR COAST RANGE SCRUB WITH INTERSPERSED VALLEY SALTBUSH SCRUB, PRIMARILY ATRIPLEX POLYCARPA. VALLEY SINK SPECIES DOMINATED BY ALLENROLFEA OCCIDENTALIS, WITH SUAEDA MOQUINII. SOME STEEP HILLS.						
General:	COLLECTED IN THIS AREA IN 1917 AND 1958. TOLLESTRUP (EXPERT) IN 1974 NOTED THAT BNLL OCCURRED ALL ALONG HWY 119 FROM TAFT TO I-5. FOUND HERE DURING SURVEYS ON 27 APR 1987.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	74	Map Index:	15500	EO Index:	27841	Element Last Seen:	1974-07-29
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1974-07-29
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1989-08-10
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.35662 / -119.33456				Accuracy:	1/5 mile	
UTM:	Zone-11 N3915093 E287876				Elevation (ft):	300	
PLSS:	T29S, R25E, Sec. 31, SW (M)				Acres:	0.0	
Location:	NE CORNER JCT I-5 AND STOCKDALE HWY (AKA BELLVUE RD).						
Detailed Location:							
Ecological:							
General:	OBS BY TOLLESTRUP.						
Owner/Manager:	UNKNOWN						

Occurrence No.	75	Map Index:	15686	EO Index:	27824	Element Last Seen:	1974-07-24
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1974-07-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1989-08-10
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.26634 / -119.18567				Accuracy:	1/5 mile	
UTM:	Zone-11 N3904769 E301186				Elevation (ft):	320	
PLSS:	T31S, R26E, Sec. 04, NE (M)				Acres:	0.0	
Location:	HWY 119, 2.2 MI E I-5.						
Detailed Location:							
Ecological:							
General:	OBS BY TOLLESTRUP.						
Owner/Manager:	UNKNOWN						

Occurrence No.	76	Map Index:	15583	EO Index:	27830	Element Last Seen:	1974-07-22
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1974-07-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1989-08-10
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.26579 / -119.26872				Accuracy:	1/5 mile	
UTM:	Zone-11 N3904878 E293628				Elevation (ft):	305	
PLSS:	T31S, R25E, Sec. 02, NW (M)				Acres:	0.0	
Location:	HWY 119, 2.4 MI W I-5.						
Detailed Location:							
Ecological:							
General:	OBS BY TOLLESTRUP.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	86	Map Index:	15320	EO Index:	27818	Element Last Seen:	1972-06-20
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1972-06-20
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2020-11-03
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.24329 / -119.45678				Accuracy:	1/5 mile	
UTM:	Zone-11 N3902790 E276457				Elevation (ft):	775	
PLSS:	T31S, R23E, Sec. 12, S (M)				Acres:	0.0	
Location:	WEST SIDE OF ELK HILLS RD ABOUT 2.7 MILES NNW OF VALLEY WEST RD, (FORMER) NAVAL PETROLEUM RESERVE NO 1, ELK HILLS.						
Detailed Location:	LOCATION STATED AS NAVAL PETROLEUM RESERVE, 2.7 MI NNW VALLEY WEST ROAD, W SIDE ELK HILLS ROAD ON OIL SURFACE NPR ROAD.						
Ecological:							
General:	ONE OBSERVED BY J. BRODE (DFG) ON 20 JUN 1972 (JMB FIELD 156).						
Owner/Manager:	PVT						

Occurrence No.	140	Map Index:	B6260	EO Index:	119287	Element Last Seen:	2017-06-30
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2017-06-30
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2020-10-13
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.33312 / -119.59064				Accuracy:	specific area	
UTM:	Zone-11 N3913066 E264535				Elevation (ft):	726	
PLSS:	T30S, R22E, Sec. 10 (M)				Acres:	1127.0	
Location:	EAST SIDE OF HWY 58 ABOUT 2.5 MILES NNE OF MCKITTRICK AND ABOUT 5.5 MILES SE OF THE CALIFORNIA AQUEDUCT, NW ELK HILLS.						
Detailed Location:	THROUGHOUT SECTIONS 10 AND 11. THIS AREA HAS BEEN A PRIMARY SURVEYING SITE FOR BLM AND INCLUDES THE SITE OF A TELEMETRY PROJECT STUDYING THE IMPACTS OF OIL PRODUCTION ON BNLLS. THIS AREA INCLUDES RAILROAD GAP OIL FIELD SITE (SECTION 11).						
Ecological:	AREA CLASSIFIED AS ESSENTIAL HABITAT IN 1970S. SECTION 10 IS BLM LAND & SECTION 11 IS OIL LEASE. IN 1970S SITE DESCRIBED AS ATRIPLEX & BROMUS, NOW MOSTLY BROMUS. ADULT FEMALES & MALES IN BREEDING COLORS, & JUVENILES REGULARLY DETECTED.						
General:	COLLECTED IN THIS AREA IN SEP 1947. REGULARLY DETECTED HERE IN 1978, 1979, 1980, 1984, 1987, 2004, 2009, 2010, 2011, 2013, & 2014. 23 (13 MALE, 10 FEMALE) STUDIED WITH TELEMETRY IN 2015, AND 17 IN 2016. 1 DETECTED ON 30 JUN 2017.						
Owner/Manager:	BLM, PVT-CHEVRON						



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Occurrence No.	141	Map Index:	15319	EO Index:	14775	Element Last Seen:	2019-08-21
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2019-08-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-04-05
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.21312 / -119.45659				Accuracy:	non-specific area	
UTM:	Zone-11 N3899443 E276391				Elevation (ft):	659	
PLSS:	T31S, R23E, Sec. 24 (M)				Acres:	402.0	
Location:	JUST WEST OF ELK HILLS RD AT VALLEY WEST RD, ABOUT 5 MILES NORTH OF TAFT.						
Detailed Location:	MAPPED GENERALLY TO POINTS OF DETECTION PRIMARILY IN SECTION 24, BUT ALSO SE SECTION 23 AND NE SECTION 25. 1979 STUDY PLOT 123. 1980 STUDY PLOT SP-1.						
Ecological:	ATRIPLEX POLYCARPA SCRUB WITH ANNUAL GRASSES. SOME INFREQUENTLY-USED DIRT ROADS AND ABANDONED OIL WELLS. SITE QUALITY IN AREA VARIES FROM FAIR TO EXCELLENT.						
General:	ABOUT 12 DETECTED DURING SURVEYS IN 1979. 3 CAPTURED & ABOUT 7 OBSERVED BETWEEN 17 JUN & 22 JUL 1980. DETECTED IN APR 1987. 2 DETECTED IN 2011. 1 HATCHLING ON 14 AUG AND 1 UNKNOWN ON 5 SEP 2012. 3 (1 EACH) DETECTED IN APR, MAY & AUG 2019.						
Owner/Manager:	BLM, PVT						

Occurrence No.	146	Map Index:	15141	EO Index:	27779	Element Last Seen:	1981-06-08
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1981-06-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2020-09-29
Quad Summary:	Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.39136 / -119.55153				Accuracy:	1/5 mile	
UTM:	Zone-11 N3919434 E268258				Elevation (ft):	317	
PLSS:	T29S, R23E, Sec. 19, NW (M)				Acres:	70.0	
Location:	ALONG CALIFORNIA AQUEDUCT ABOUT 0.3 MILES WEST OF THE CROSSING OF HWY 58, ABOUT 5 MILES WEST OF BUTTONWILLOW.						
Detailed Location:	WEST SIDE (SECONDARY OR RIGHT SIDE) OF THE CALIFORNIA AQUEDUCT AT MILE POST 223.70.						
Ecological:	ANNUAL GRASSLAND AND DESERT SHRUB WITH MODERATE VEGETATION DENSITY ACROSS FLAT, SANDY GEOGRAPHY; B. RUBENS AND A. POLYCARPA. MANY RODENT BURROWS IN AREA. HABITAT GOOD (1981). SITE APPEARS RELATIVELY UNCHANGED IN 1967, 1989, & 2018 AERIALS.						
General:	GENERALLY KNOWN FROM THE AREA OF SECTION 19 FROM K. TOLLESTRUP SURVEYS IN 1974. 1 SEEN RUNNING TO COVER UNDER ATRIPLEX POLYCARPA ON 8 JUN 1981 DURING SURVEYS ALONG AQUEDUCT.						
Owner/Manager:	DWR, PVT-CHEVRON, CNLM						



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Occurrence No.	148	Map Index:	15309	EO Index:	27774	Element Last Seen:	1981-06-04
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1981-06-04
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-12-14
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.34685 / -119.46054				Accuracy:	1/5 mile	
UTM:	Zone-11 N3914287 E276400				Elevation (ft):	300	
PLSS:	T30S, R23E, Sec. 01, W (M)				Acres:	0.0	
Location:	MILE POST 230.25 ON CALIFORNIA AQUEDUCT, EAST SIDE, APPROXIMATELY 6 MILES SE HIGHWAY 58.						
Detailed Location:	1 MALE LIZARD OBSERVED.						
Ecological:	FLAT DESERT SHRUB HABITAT W/NO MODERATE VEG. ATRIPLEX PRESENT.						
General:							
Owner/Manager:	UNKNOWN						

Occurrence No.	196	Map Index:	15402	EO Index:	27737	Element Last Seen:	1987-05-08
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1987-05-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-04-09
Quad Summary:	Pentland (3511913), Maricopa (3511914), Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.11641 / -119.38945				Accuracy:	non-specific area	
UTM:	Zone-11 N3888565 E282246				Elevation (ft):	594	
PLSS:	T32S, R24E, Sec. 27 (M)				Acres:	1469.0	
Location:	AREA NORTH OF CADET RD & S OF GARDNER FIELD RD, W OF CALIFORNIA AQUEDUCT & E OF PETROLEUM CLUB RD, 4 MILES SE OF TAFT.						
Detailed Location:	MAPPED NON-SPECIFICALLY TO TOLLESTRUP (EXPERT) MAP WITH STARS INDICATING DETECTIONS IN 1978 AND SHADED AREAS SHOWING OCCUPIED HABITAT IN 1979, AND TO BLM MAPS OF DETECTIONS.						
Ecological:	SALTBUSH SCRUB HABITAT. TAFT CORRECTIONAL FACILITY WAS CONSTRUCTED ON 70 HECTARES IN THIS OCCURRENCE IN THE MID-1990S BUT WAS CLOSED IN 2020.						
General:	DETECTED HERE IN JUN 1977 BY TOLLESTRUP. AT LEAST 3 DETECTED HERE BY TOLLESTRUP, AND 5 DETECTED BY BLM DURING 1978 SURVEYS. NOTED AS OCCUPIED HABITAT BY EXPERT TOLLESTRUP DURING 1979 SURVEYS. AT LEAST 2 DETECTED IN 1987.						
Owner/Manager:	BLM, PVT						



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Occurrence No.	237	Map Index:	15554	EO Index:	27706	Element Last Seen:	1974-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1974-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1989-08-10
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.34746 / -119.29678				Accuracy:	1 mile	
UTM:	Zone-11 N3913997 E291285				Elevation (ft):	310	
PLSS:	T30S, R25E, Sec. 04 (M)				Acres:	0.0	
Location:	2.5 MI WEST OF HWY 43 ALONG STOCKDALE HWY.						
Detailed Location:							
Ecological:	ATRIPLEX GRASSLAND.						
General:							
Owner/Manager:	UNKNOWN						

Occurrence No.	241	Map Index:	B6012	EO Index:	119039	Element Last Seen:	1974-07-XX
Occ. Rank:	None			Presence:	Possibly Extirpated	Site Last Seen:	1974-07-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2020-08-11
Quad Summary:	Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.4344 / -119.53617				Accuracy:	non-specific area	
UTM:	Zone-11 N3924173 E269775				Elevation (ft):	257	
PLSS:	T29S, R23E, Sec. 6 (M)				Acres:	1334.0	
Location:	AREA BOUNDED BY 7TH STANDARD RD AND SNOW RD, AND FROM CORN CAMP RD TO 2 MILES WEST, ABOUT 5 MILES NW OF BUTTONWILLOW.						
Detailed Location:	LOCATION INFORMATION ONLY GIVEN AS SECTIONS; MAPPED TO SECTIONS 5 & 6.						
Ecological:	AREA WAS CONVERTED TO AGRICULTURE; PRESUMABLY EXTIRPATED.						
General:	FOUND IN THIS AREA DURING K. TOLLESTRUP'S SUMMER SURVEYS IN 1974.						
Owner/Manager:	PVT						



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Occurrence No.	242	Map Index:	B6516	EO Index:	119577	Element Last Seen:	2017-07-13
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2017-07-13
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2020-11-19
Quad Summary:	Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.34619 / -119.63489				Accuracy:	80 meters	
UTM:	Zone-11 N3914621 E260551				Elevation (ft):	736	
PLSS:	T30S, R22E, Sec. 5, SW (M)				Acres:	5.0	
Location:	W SIDE OF HWY 33 ABOUT 2 ROAD MILES S OF CYMRIC RD AND 3 ROAD MILES N OF CENTRAL MCKITTRICK, SOUTH CYMRIC OIL FIELD.						
Detailed Location:	1974 DETECTION FROM AN AREA ABOUT 3 MILES N OF MCKITTRICK. MAPPED SPECIFICALLY TO 2017 DETECTION ON W SIDE OF HWY 33 ABOUT 3 MILES N OF MCKITTRICK; APPEARS TO HAVE BEEN SEEN ON A DIRT ROAD. SW SECTION 5, BUT NEAR CENTER OF SECTION.						
Ecological:	VALLEY SALTBUUSH SCRUB WITH AREAS OF NON-NATIVE GRASS IN AN AREA WITH MODERATE OIL AND GAS PRODUCTION INDUSTRY USE.						
General:	OBSERVED IN THIS AREA BY K. TOLLESTRUP ON 22 JUL 1974. 1 ADULT FEMALE IN BREEDING COLORS OBSERVED ON 13 JUL 2017.						
Owner/Manager:	PVT-CHEVRON						

Occurrence No.	243	Map Index:	14953	EO Index:	27697	Element Last Seen:	1979-XX-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1979-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-12-24
Quad Summary:	West Elk Hills (3511935), Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.26315 / -119.61815				Accuracy:	non-specific area	
UTM:	Zone-11 N3905369 E261829				Elevation (ft):	1464	
PLSS:	T31S, R22E, Sec. 4, NW (M)				Acres:	172.0	
Location:	WEST SIDE OF HWY 33 ABOUT 1.8 MILES NNW OF DERBY ACRES, AND ABOUT 3 MILES SOUTH OF MCKITTRICK.						
Detailed Location:	MAPPED GENERALLY TO MAP FIGURES IN DFG85U0003 (P. 57 & 59, 1978 IN SECTION 4 & 33) AND JON79R0001 (P. 105, NE SECTION 5; STUDY PLOT #50).						
Ecological:							
General:	DETECTIONS WERE MADE IN THIS AREA IN 1978 AND 1979.						
Owner/Manager:	BLM						



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Occurrence No.	245	Map Index:	15095	EO Index:	27696	Element Last Seen:	2017-05-10
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2017-05-10
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2018-10-02
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.23892 / -119.56994				Accuracy:	specific area	
UTM:	Zone-11 N3902566 E266146				Elevation (ft):	1254	
PLSS:	T31S, R22E, Sec. 12 (M)				Acres:	54.0	
Location:	FROM ABOUT 0.6 TO 1.1 MI NNE OF HWY 33 AT BILL KIRBY RD & 1.2 TO 1.6 MI SE OF 3RD ST AT BAKER AVE, DERBY ACRES.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	SALTBUSH SCRUB WITH OIL INDUSTRY USE.						
General:	5 OBSERVED IN JUN 2008. 1 OBSERVED ON 23 JUN 2009. 5 OBS MAY-JUN 2011. 3 OBS IN JUN 2012. 2 ADULTS OBS ON 9 MAY 2015. 1 OBS ON 4 JUN 2015. 3 ADULTS OBS ON 10 MAY 2017.						
Owner/Manager:	BLM						

Occurrence No.	247	Map Index:	15173	EO Index:	27695	Element Last Seen:	1978-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1978-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-08-10
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.16543 / -119.53106				Accuracy:	2/5 mile	
UTM:	Zone-11 N3894322 E269476				Elevation (ft):	1250	
PLSS:	T32S, R23E, Sec. 08, NW (M)				Acres:	0.0	
Location:	APPROX 1.0 MI SE OF FELLOWS.						
Detailed Location:							
Ecological:							
General:	OBSERVATIONS.						
Owner/Manager:	BLM						

Occurrence No.	248	Map Index:	15255	EO Index:	27692	Element Last Seen:	1986-07-14
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1986-07-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-04-05
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.139 / -119.49478				Accuracy:	1/10 mile	
UTM:	Zone-11 N3891307 E272708				Elevation (ft):	1280	
PLSS:	T32S, R23E, Sec. 15, SW (M)				Acres:	18.0	
Location:	0.4 WEST OF SANDY CREEK AT MIDOIL RD, BETWEEN TWENTYONE CANYON AND SANDY CREEK, ABOUT 2 MILES WEST OF DOWNTOWN TAFT.						
Detailed Location:	MAPPED TO PROVIDED MAP.						
Ecological:	HABITAT AREA INCLUDES GRASSLAND, CHAPARRAL AND ERIOGONUM GOSSYPINUM, A SENSITIVE PLANT.						
General:	1 ADULT SEEN MOVING BETWEEN ATRIPLEX CLUMPS ON 14 JUL 1986.						
Owner/Manager:	BLM						



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Occurrence No.	253	Map Index:	C0056	EO Index:	128280	Element Last Seen:	1994-04-12
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1994-04-12
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-03-27
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.22506 / -119.36493				Accuracy:	non-specific area	
UTM:	Zone-11 N3900565 E284768				Elevation (ft):	311	
PLSS:	T31S, R24E, Sec. 14, S (M)				Acres:	91.0	
Location:	BETWEEN HWY 119 AND CALIFORNIA AQUEDUCT, NW SIDE OF BUENA VISTA LAKEBED, ABOUT 7 MILES NE OF TAFT.						
Detailed Location:	MAPPED TO DETECTION LOCATIONS ON BLM PROPERTY IN SOUTH HALF OF SECTION 14, AND INATURALIST RECORD JUST SOUTH IN NORTH HALF OF SECTION 23, ENE OF DUSTIN ACRES.						
Ecological:	VALLEY SALTBUUSH SCRUB WITH ATRIPLEX POLYCARPA.						
General:	COLLECTED IN THIS AREA IN JUL 1947. TOLLESTRUP (EXPERT) IN 1974 NOTED THAT BNLL OCCUR ALL ALONG HWY 119 FROM TAFT TO I-5. DETECTED HERE DURING SURVEYS IN 1977 & 1978. 1 ADULT PHOTOGRAPHED ON 17 MAY 1988. 1 ADULT OBSERVED ON 12 APR 1994.						
Owner/Manager:	BLM						

Occurrence No.	256	Map Index:	B6834	EO Index:	119901	Element Last Seen:	2011-04-26
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2011-04-26
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2021-01-07
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.34707 / -119.50323				Accuracy:	80 meters	
UTM:	Zone-11 N3914409 E272521				Elevation (ft):	437	
PLSS:	T30S, R23E, Sec. 4, NE (M)				Acres:	5.0	
Location:	1.3 MI W OF ELK HILLS-BUTTONWILLOW AIRPORT, 1.9 MI W OF ELK HILLS RD AT CALIFORNIA AQUEDUCT, 4.1 MI SSW OF BUTTONWILLOW.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:							
General:	DETECTED IN THIS AREA DURING 1987 CEC SURVEYS. 1 FOUND DURING BLM SURVEYS ON 26 APR 2011; MAY HAVE BEEN SAMPLED FOR GENETIC MATERIAL.						
Owner/Manager:	BLM, PVT						



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Occurrence No.	261	Map Index:	15123	EO Index:	27683	Element Last Seen:	2020-05-07
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2020-05-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2021-01-12
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.36544 / -119.54077				Accuracy:	specific area	
UTM:	Zone-11 N3916534 E269161				Elevation (ft):	372	
PLSS:	T29S, R23E, Sec. 31, N (M)				Acres:	307.0	
Location:	ALONG DIRT ROADS 1 MI SE OF LOKERN PUMPING STATION, 1.75 MI S OF HWY 58 AT CALIF AQUEDUCT, 4.5 MI SW OF BUTTONWILLOW.						
Detailed Location:	1986: ALONG TRANSMISSION LINES, SEC 31. 1987: FOUND DURING CEC SURVEYS, N 1/2 SEC 31. 2007: ALONG DIRT ROAD; SITE QUALITY = EXCELLENT. SOME PARCELS IN AREA ARE PROTECTED AS ECOLOGICAL RESERVE OR PRIVATE PRESERVE. DETECTED ALONG DIRT ROADS.						
Ecological:	MIMA MOUNDS IN SALTBUSSH SCRUB; STEEP TO MODERATE HILLS; MODERATE TO DENSE NON-NATIVE ANNUAL GRASSES; BURNING HAS CHANGED SHRUBLAND TO ANNUAL GRASSLAND ('87). IODINE BUSH, ALLSCALE, CALIF ANNUAL GRASSLAND SERIES, W/ALKALINE CLAY SOILS ('07).						
General:	DETECTED IN THIS AREA DURING 1986, 1987, & 1988 CEC SURVEYS, INCLUDING BREEDING CONDITION ADULTS. DETECTIONS IN MAY 2007 (3), APR 2011 (2), JUN 2012 (2), JUL 2017 (2 BREEDING MALES), MAY 2018 (5 BREEDING ADULTS), AND MAY 2020 (1 MALE).						
Owner/Manager:	DFG-LOKERN ER, CNLM, PVT						
Occurrence No.	262	Map Index:	B6283	EO Index:	119327	Element Last Seen:	2020-04-26
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2020-04-26
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2021-01-25
Quad Summary:	West Elk Hills (3511935), Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.3544 / -119.61771				Accuracy:	specific area	
UTM:	Zone-11 N3915491 E262136				Elevation (ft):	645	
PLSS:	T29S, R22E, Sec. 33 (M)				Acres:	708.0	
Location:	BETWEEN HWY 33 AND HWY 58, ABOUT 3.3 AIR MILES NORTH OF MCKITTRICK AND 4 MILES SW OF CALIFORNIA AQUEDUCT AT HWY 58.						
Detailed Location:	VICINITY OF SECTION 33; PRIMARILY ALONG DIRT ROAD BETWEEN HWY 33 AND HWY 58 ALONG SOUTH BORDER OF SECTION 33, AND ALONG PIPELINES/WATERLINES NEAR SECTION 33.						
Ecological:	VALLEY SALTBUSSH SCRUB WITH NON-NATIVE GRASSES. AREA BURNED IN 1997 REDUCING SHRUB COVER & INCREASING GRASSES. AREA USED FOR GRAZING WITH SIGNS OF PAST OIL INDUSTRY USE WITH SOME CONSERVATION PARCELS. SITE USED FOR BNLL TRAINING.						
General:	BREEDING COLORATION MALES AND FEMALES, AND JUVENILES SEEN HERE. REGULARLY DETECTED IN 1978, 1979, 1983, 1984, 1986, 1987, 1989, 2001, 2006, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, AND 2020.						
Owner/Manager:	BLM, CHEVRON, CNLM						



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Occurrence No.	274	Map Index:	52926	EO Index:	52926	Element Last Seen:	2001-07-12
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2001-07-12
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2003-10-16
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.25573 / -119.51619				Accuracy:	80 meters	
UTM:	Zone-11 N3904305 E271085				Elevation (ft):	900	
PLSS:	T31S, R23E, Sec. 04, SE (M)				Acres:	0.0	
Location:	BUENA VISTA VALLEY PETROLEUM RESERVE NO. 2, BUENA VISTA VALLEY.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF SHORT NATIVE AND NON-NATIVE GRASSLAND, WITH ATRIPLEX AND IODINE BUSH; VARIES FROM HILLY TERRAIN TO SANDY SOIL WITH DRY CREEK WASHES. DISTURBANCES: SHEEP GRAZING, PETROLEUM EXTRACTION, AND ILLEGAL DUMPING.						
General:	1 ADULT OBSERVED OBSERVED RUNNING INTO A K-RAT BURROW ON 12 JUL 2001.						
Owner/Manager:	PVT						

Occurrence No.	279	Map Index:	52957	EO Index:	52957	Element Last Seen:	2002-06-07
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2002-06-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2003-10-20
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.16496 / -119.34954				Accuracy:	80 meters	
UTM:	Zone-11 N3893865 E286010				Elevation (ft):	420	
PLSS:	T32S, R24E, Sec. 12, NE (M)				Acres:	0.0	
Location:	WEST SIDE OF THE CALIFORNIA AQUEDUCT, 0.3 MILE NNW OF THE BUENA VISTA PUMPING PLANT.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF VALLEY SALTBUSSH SCRUB WITH NON-NATIVE GRASSLAND, DOMINATED BY ATRIPLEX POLYCARPA, ISOCOMA ACRADENIA, AVENA FATUA, BROMUS MADRITENSIS RUBENS, AND BROMUS DIANDRUS; SANDY SOILS. SURROUNDING AREA IS GRAZED.						
General:	1 ADULT OBSERVED ON 7 JUN 2002.						
Owner/Manager:	DWR						



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Occurrence No.	282	Map Index:	64656	EO Index:	64735	Element Last Seen:	2020-08-24
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2020-08-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2020-10-12
Quad Summary:	West Elk Hills (3511935), Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.36606 / -119.56625			Accuracy:	specific area		
UTM:	Zone-11 N3916662 E266847			Elevation (ft):	478		
PLSS:	T29S, R22E, Sec. 36 (M)			Acres:	2142.0		
Location:	VICINITY OF LOKERN PUMPING STATION, SE SIDE OF HWY 58 FROM CALIF AQUEDUCT SW TO N SECTION 3, 5.5 MI WSW OF BUTTONWILLOW.						
Detailed Location:	PORTIONS OF THIS OCCURRENCE ARE PART OF THE CDFW LOKERN ER, CNLM LOKERN PRESERVE, KERN CO HCP, & BLM; SEVERAL PARCELS PRIVATE. MANY DETECTIONS MADE WHILE DRIVING ALONG EXISTING DIRT ROADS. SITE REGULARLY SURVEYED & USED FOR BNLL TRAINING.						
Ecological:	NON-NATIVE GRASSLAND MIXED WITH VALLEY SALTBUSH SCRUB. SURROUNDING LAND USE IS OIL EXTRACTION & LIVESTOCK GRAZING. AREA BURNED IN 1997 ELK HILLS/LOKERN FIRE. BREEDING ADULT MALES AND FEMALES, AND JUVENILES REGULARLY SEEN.						
General:	KNOWN FROM THE AREA FROM K. TOLLESTRUP SURVEYS IN 1974. REGULARLY DOCUMENTED IN 1975, 1987, 1988, 1998, 2000, 2002, 2003, 2004, 2005, 2006, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, & 2020.						
Owner/Manager:	PVT-CHEVRON, DFG, CNLM, BLM						

Occurrence No.	352	Map Index:	65752	EO Index:	65831	Element Last Seen:	2018-04-19
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2018-04-19
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-04-04
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.19119 / -119.41832			Accuracy:	non-specific area		
UTM:	Zone-11 N3896924 E279817			Elevation (ft):	495		
PLSS:	T31S, R24E, Sec. 32, N (M)			Acres:	75.0		
Location:	JUST EAST OF AIRPORT RD AT HWY 119, 1.25 MILES SW OF VALLEY ACRES, ABOUT 4 MILES NE OF TAFT.						
Detailed Location:	MAPPED AS A 5-PART POLYGON TO PROVIDED MAP AND COORDINATES.						
Ecological:	COMMON SALTBUSH SCRUB (ATRIPLEX POLYCARPA) WITH CHEESEBUSH (HYMENOCLEA SALSOLA) NEAR WASHES. ANNUALS INCLUDE BROMUS RUBENS, ERODIUM CICUTARIUM, AND SCHISMUS ARABICUS. LEVEL COMPACTED SANDY LOAMS WITH SCATTERED GRAVELS.						
General:	BREEDING, FORAGING AND WINTERING SITE. 6 ADULTS OBSERVED ON 23 APR 1992. 1 DETECTED ON 27 JUN 2011. 1 ADULT INCIDENTALLY DETECTED ON 19 APR 2018.						
Owner/Manager:	BLM, UNKNOWN						



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Occurrence No.	353	Map Index:	65754	EO Index:	65833	Element Last Seen:	2015-06-23
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2015-06-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-04-04
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.18464 / -119.38932				Accuracy:	specific area	
UTM:	Zone-11 N3896134 E282440				Elevation (ft):	396	
PLSS:	T31S, R24E, Sec. 34, SW (M)				Acres:	144.0	
Location:	2.4 MI SOUTH OF DUSTIN ACRES, AND ABOUT 4.8 MILES NE OF TAFT.						
Detailed Location:	AREA IS NEAR GROUP OF "RANCHETTES." MAPPED AS A 4-PART POLYGON TO SW 1/4 SECTION 34 AND TO DETECTIONS IN NW 1/4 SECTION 3.						
Ecological:	VALLEY SALTBUUSH SCRUB DOMINATED BY ATRIPLEX POLYCARPA. DOMINATING GRASSES ARE BROMUS RUBENS, VULPIA MYUROS AND ERODIUM CICUTARIUM.						
General:	BREEDING & FORAGING SITE. 6 ADULTS OBSERVED ON 25 & 26 MAY 1988.1 DETECTED ON 30 JUN 2011. 2 ADULTS DETECTED ON 11 & 23 JUN 2015.						
Owner/Manager:	UNKNOWN						

Occurrence No.	354	Map Index:	65755	EO Index:	65834	Element Last Seen:	1991-05-02
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1991-05-02
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-04-05
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.16751 / -119.49390				Accuracy:	non-specific area	
UTM:	Zone-11 N3894468 E272867				Elevation (ft):	1000	
PLSS:	T32S, R23E, Sec. 03, SW (M)				Acres:	35.5	
Location:	2 MILES ESE OF HWY 33 AT MIDWAY RD, 2.7 MILES NW OF DOWNTOWN TAFT.						
Detailed Location:	MAPPED IN SE1/4 OF SW1/4 SEC 3 AS PER SOURCE.						
Ecological:	SALTBUUSH SCRUB. ATRIPLEX SPINIFERA, ERODIUM CICUTARIUM, BROMUS RUBENS, LEPIDIUM NITIDUM. GRAVELLY SANDY LOAM. NO SLOPE.						
General:	FORAGING SITE. 1 ADULT OBSERVED ON 2 MAY 1991.						
Owner/Manager:	PVT-CHEVRON						



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Occurrence No.	355	Map Index:	65756	EO Index:	65835	Element Last Seen:	1991-04-16
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1991-04-16
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-08-10
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.29939 / -119.19403				Accuracy:	non-specific area	
UTM:	Zone-11 N3908453 E300506				Elevation (ft):	335	
PLSS:	T30S, R26E, Sec. 21, SW (M)				Acres:	167.0	
Location:	NORTH OF PANAMA LANE, APPROXIMATELY 1.3 MI W OF BUENA VISTA RD.						
Detailed Location:	MAPPED IN SW1/4 OF SEC 21 AS PER SOURCE.						
Ecological:	GREAT VALLEY MESQUITE SCRUB. WIDELY SCATTERED PROSOPIS GLANDULOSA VAR. TORREYANA IN ANNUAL GRASSLAND. HILLOCKS WITH SANDY SOILS AND REDUCED ANNUAL COVER APPEAR TO BE THE BEST HABITAT.						
General:	BREEDING, FORAGING AND WINTERING SITE. 1 ADULT OBSERVED ON 16 APR 1991.						
Owner/Manager:	PVT						

Occurrence No.	356	Map Index:	65759	EO Index:	65838	Element Last Seen:	2020-05-21
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2020-05-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2020-09-30
Quad Summary:	East Elk Hills (3511934), West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.35834 / -119.51885				Accuracy:	specific area	
UTM:	Zone-11 N3915695 E271133				Elevation (ft):	379	
PLSS:	T29S, R23E, Sec. 32 (M)				Acres:	803.0	
Location:	SW SIDE OF CA AQUEDUCT, 2 TO 3 MILES SE OF THE CROSSING OF HIGHWAY 58, ABOUT 4 AIR MILES SW OF BUTTONWILLOW.						
Detailed Location:	DETECTED ALONG EXISTING DIRT ROADS THROUGHOUT THIS AREA. 2007 SITE QUALITY WAS DESCRIBED AS "EXCELLENT." MOST OF THIS AREA IS MANAGED AS CNLM LOKERN PRESERVE, BUT SOME PARCELS ARE OWNED BY DFG, BLM, CHEVRON, & OTHER SMALL PRIVATE PARCLES.						
Ecological:	MIMA MOUNDS IN SALTBUSH SCRUB; STEEP TO MODERATE HILLS; MODERATE TO DENSE NON-NATIVE ANNUAL GRASSES; BURNING HAS CHANGED SHRUBLAND TO ANNUAL GRASSLAND ('87). IODINE BUSH, ALLSCALE, CALIF ANNUAL GRASSLAND SERIES, W/ALKALINE CLAY SOILS ('07).						
General:	DETECTED IN THIS AREA DURING CEC SURVEYS IN 1987 & 1988. DETECTIONS IN MAY 2007 (3 ADULTS), JUN 2009 (8, MALES & FEMALES), APR 2011 (2), JUN 2019 (MALE & FEMALE IN BREEDING CONDITION), AND APR & MAY 2020 (5, MALES IN BREEDING CONDITION).						
Owner/Manager:	CNLM, BLM, DFG, PVT-CHEVRON						



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Occurrence No.	358	Map Index:	65763	EO Index:	65842	Element Last Seen:	2015-07-23
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2015-07-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2020-10-12
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.34689 / -119.55666				Accuracy:	specific area	
UTM:	Zone-11 N3914513 E267663				Elevation (ft):	548	
PLSS:	T30S, R22E, Sec. 1 (M)				Acres:	644.0	
Location:	1.75 MI S OF LOKERN PUMPING STATION, NW END ELK HILLS, ABOUT 4.9 MI NE OF MCKITTRICK AND ABOUT 6 MI SW OF BUTTONWILLOW.						
Detailed Location:	MAPPED GENERALLY TO SIGHTINGS ALONG DIRT ROADS & TO SPECIFIC HOME RANGES OF RADIO-MARKED INDIVIDUALS FROM 2015. MOST OF LAND IS PRIVATELY OWNED BY CHEVRON & CALIFORNIA RESOURCES CORP ELK HILLS LLC (OIL & GAS), & A SMALL PARCEL OF LOKERN ER.						
Ecological:	ATRIPLEX PLANT COMMUNITY. RADIO MARKED INDIVIDUALS FROM THIS AREA WERE PREDATED BY RED-TAILED HAWK (B. JAMAICENSIS) AND LONG-NOSED SNAKE (R. LECONTEI).						
General:	DETECTED DURING CEC SURVEYS IN 1987. 1 DETECTED 5 APR 1994. 1 GRAVID FEMALE COLLECTED ALIVE, 4 JUN 2002. DETECTED ALONG DIRT ROADS OR WASH IN 2009, 2010, & 2011. NW SECTION 6 SITE OF TELEMETRY STUDY OF 10 FEMALES & 12 MALES THROUGHOUT 2015.						
Owner/Manager:	PVT, DFG						

Occurrence No.	359	Map Index:	65764	EO Index:	65843	Element Last Seen:	1994-04-12
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1994-04-12
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-08-10
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.30179 / -119.57005				Accuracy:	1/5 mile	
UTM:	Zone-11 N3909541 E266316				Elevation (ft):	1090	
PLSS:	T30S, R22E, Sec. 24, SW (M)				Acres:	0.0	
Location:	WESTERN EDGE OF THE ELK HILLS, ABOUT 2.9 MI EAST OF MCKITTRICK.						
Detailed Location:							
Ecological:	ATRIPLEX PLANT COMMUNITY.						
General:	FORAGING SITE. 1 INDIVIDUAL OBSERVED ON 12 APR 1994.						
Owner/Manager:	DOE						



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Occurrence No.	360	Map Index:	65773	EO Index:	65852	Element Last Seen:	1990-07-25
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1990-07-25
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-03-29
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.32227 / -119.36482				Accuracy:	specific area	
UTM:	Zone-11 N3911349 E285034				Elevation (ft):	290	
PLSS:	T30S, R24E, Sec. 14 (M)				Acres:	26.1	
Location:	TULE ELK STATE NATURAL RESERVE, ABOUT 1.25 MILES NORTH OF TUPMAN.						
Detailed Location:	MAPPED TO PROVIDED MAPS OF DETECTIONS; SEVERAL SIGHTINGS IN SECTIONS 11, 13 AND 14.						
Ecological:	ANNUAL GRASSLANDS OF WEEDY NON-NATIVE GRASSES, BROMUS AND HORDEUM, AND OTHER WEEDS. SISYMBRIUM AND ERODIUM. SOIL IS LOKERN CLAY. FLAT AREAS AROUND OLD BUENA VISTA SLOUGH BEDS.						
General:	145 INDIVIDUALS OBSERVED BETWEEN 18 APR 1980 TO 25 JUL 1990 (2 DETECTION DAYS IN 1980, 13 DAYS IN 1987, 24 DAYS IN 1988, 14 DAYS IN 1989, AND 7 DAYS IN 1990). 1 PHOTOGRAPHED ON 23 MAY 1986.						
Owner/Manager:	DPR-TULE ELK SNR						
Occurrence No.	362	Map Index:	65778	EO Index:	65857	Element Last Seen:	1992-05-23
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1992-05-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-09-06
Quad Summary:	Buttonwillow (3511944)						
County Summary:	Kern						
Lat/Long:	35.40956 / -119.39844				Accuracy:	non-specific area	
UTM:	Zone-11 N3921105 E282212				Elevation (ft):	285	
PLSS:	T29S, R24E, Sec. 16, NE (M)				Acres:	147.7	
Location:	JUST NORTH OF INTERSECTION OF INTERSTATE 5 AND HWY 58, ABOUT 3.9 MI ENE OF BUTTONWILLOW.						
Detailed Location:	MAPPED IN NE1/4 SEC 16 AS PER SOURCE.						
Ecological:	VALLEY SALTBUSH SCRUB, VALLEY SINK SCRUB.						
General:	BREEDING, FORAGING AND WINTERING SITE. 4 ADULTS OBSERVED ON 23 MAY 1992.						
Owner/Manager:	PVT						



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Occurrence No.	363	Map Index:	65784	EO Index:	65863	Element Last Seen:	2015-07-25
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2015-07-25
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2021-01-06
Quad Summary:	West Elk Hills (3511935), Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.37533 / -119.60558			Accuracy:	specific area		
UTM:	Zone-11 N3917784 E263300			Elevation (ft):	504		
PLSS:	T29S, R22E, Sec. 27 (M)			Acres:	470.0		
Location:	3.5 TO 4.5 AIR MILES WSW OF THE INTERSECTION OF LOKERN ROAD AND HIGHWAY 58, ABOUT 8 MILES WEST OF BUTTONWILLOW.						
Detailed Location:	IT APPEARS THAT DETECTIONS WERE ASSOCIATED WITH DIRT ROADS AND/OR PIPELINES. SITE OF 2003-2004 TELEMETRY STUDY OF 56 INDIVIDUALS; HOME RANGES NOT DETAILED, ONLY A SINGLE POINT COORDINATE PROVIDED, SO LIKELY UNDERREPRESENTS EXTENT.						
Ecological:	VALLEY SINK SCRUB DOMINATED BY ATRIPLEX POLYCARPA, ATRIPLEX SPINIFERA & ALLENROLFEA OCCIDENTALIS. HABITAT GENERALLY APPEARS EXTANT IN 2018 AERIALS AND CONTINUOUS WITH ADJACENT CONSERVATION PARCELS.						
General:	DETECTED DURING MAY 1987 SURVEYS. 56 STUDIED WITH TELEMETRY IN 2003-2004. 2 ADULTS & 1 JUVENILE, 15 OCT 2010. 1 JUV SEEN 3 SEP 2011. 3 CAPT/RELEASED IN 2012, & 2 OTHERS SEEN ALONG ROAD JUN 2012. 7 CAPT/RELEASED IN 2013. 1 SEEN 25 JUL 2015.						
Owner/Manager:	PVT-CHEVRON						

Occurrence No.	407	Map Index:	49710	EO Index:	66563	Element Last Seen:	1980-06-11
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1980-06-11
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-09-28
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.20938 / -119.61746			Accuracy:	1/5 mile		
UTM:	Zone-11 N3899402 E261734			Elevation (ft):	2000		
PLSS:	T31S, R22E, Sec. 28, NW (M)			Acres:	0.0		
Location:	APPROXIMATELY 4 MI WNW OF FELLOWS.						
Detailed Location:							
Ecological:							
General:	3 INDIVIDUALS OBSERVED DURING STUDY FROM 28 APR TO 21 JUN 1979 AND 21 MAY TO 11 JUN 1980. BNLL STUDY PLOT #59.						
Owner/Manager:	BLM, PVT						



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Occurrence No.	415	Map Index:	70709	EO Index:	71618	Element Last Seen:	2005-06-21
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2005-06-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2020-08-06
Quad Summary:	Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.40170 / -119.54454				Accuracy:	80 meters	
UTM:	Zone-11 N3920565 E268921				Elevation (ft):	275	
PLSS:	T29S, R23E, Sec. 18 (M)				Acres:	0.0	
Location:	ABOUT 0.5 MILES WNW OF HWY 58 AT LOKERN RD, BETWEEN WEST SIDE CANAL & CALIFORNIA AQUEDUCT, IN LOKERN ECOLOGICAL RESERVE.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	ECOLOGICAL RESERVE.						
General:	HISTORICALLY KNOWN FROM SECTION 18 DURING K. TOLLESTRUP'S SURVEYS IN SUMMER 1974. 1 OR MORE DETECTED HERE ON 21 JUN 2005.						
Owner/Manager:	DFG-LOKERN ER						

Occurrence No.	433	Map Index:	A3216	EO Index:	104847	Element Last Seen:	2017-06-01
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2017-06-01
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2021-01-06
Quad Summary:	Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.3874 / -119.58329				Accuracy:	specific area	
UTM:	Zone-11 N3919070 E265360				Elevation (ft):	399	
PLSS:	T29S, R22E, Sec. 23, SW (M)				Acres:	258.0	
Location:	NW SIDE OF HWY 58, ABOUT 2 MILES W OF THE CALIFORNIA AQUEDUCT AT HWY 58, 6.25 MILES WSW OF BUTTONWILLOW.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	DETECTED LARGELY ON DIRT UTILITY ACCESS ROADS THROUGH SPARSE VALLEY SALTBUSH SCRUB AND NON-NATIVE GRASSLAND IN DISTURBED OPEN SPACE. AREA IS UNDEVELOPED LAND OWNED BY AN OIL CORPORATION.						
General:	1 ADULT ON 5 MAY 2010. 1 HATCHLING, 5 JUVENILES, & 1 UNK AGE SEEN JUL-SEP 2011. 3 ON 14 JUN, 1 ADULT ON 28 JUL, & 1 ON 7 SEP 2012. 1 ADULT SEEN IN 2013. 1 ON 2 MAY 2014. 1 ADULT ON 23 SEP 2015. ADULT MALE IN BREEDING COLORS 1 JUN 2017.						
Owner/Manager:	PVT-CHEVRON						



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Occurrence No.	434	Map Index:	A3821	EO Index:	105476	Element Last Seen:	2022-09-23
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2022-09-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-04-04
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.24128 / -119.48575				Accuracy:	specific area	
UTM:	Zone-11 N3902632 E273815				Elevation (ft):	777	
PLSS:	T31S, R23E, Sec. 10 (M)				Acres:	107.0	
Location:	2.6 TO 3.5 MILES NW OF ELK HILLS RD AT VALLEY WEST RD, BUENA VISTA VALLEY, ABOUT 7 MILES NORTH OF TAFT.						
Detailed Location:	MAPPED AS A MULTI-PART POLYGON TO PROVIDED COORDINATES AND MAPS. PRIMARILY IN SE 1/4 SECTION 10, SW 1/4 SECTION 11, AND NE 1/4 SECTION 15. SE SECTION 10 WAS THE SITE OF A TELEMETRY STUDY IN 1982. AREA USED FOR BNLL TRAINING.						
Ecological:	SALTBUSH SCRUB, IN AREA USED FOR OHV RECREATION AND OIL EXTRACTION. INDIVIDUALS OBSERVED SHELTERING IN BURROWS, UNDER SHRUBS, AND IN WASHES.						
General:	8 IN TELEMETRY STUDY 1982. 1 SEEN 4 MAY 2011. 1 ADULT 12 MAY 2012. 1 JUVENILE 8 SEP 2016. 1 SEEN 24 APR 2018. 2 DETECTED IN JUN 2020. 4 ADULTS DURING TRAINING IN MAY, JUN & SEP 2021. ADULT MALES, FEMALES & HATCHLING IN JUN & SEP 2022.						
Owner/Manager:	UNKNOWN						

Occurrence No.	435	Map Index:	A3822	EO Index:	105477	Element Last Seen:	2016-09-08
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2016-09-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2017-02-28
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.27123 / -119.54394				Accuracy:	specific area	
UTM:	Zone-11 N3906090 E268604				Elevation (ft):	1125	
PLSS:	T30S, R23E, Sec. 31, S (M)				Acres:	144.0	
Location:	ABOUT 3.1 MILES NE OF DERBY ACRES AND 4.8 MILES SE OF MCKITTRICK, BUENA VISTA-ELK HILLS OIL FIELDS.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	OPEN SPACE, OIL FIELDS AND AREAS OF POTENTIAL OIL FIELD DEVELOPMENT. DISTURBANCE FROM WELL PADS, PIPELINES, ROADS, AND OTHER OIL DRILLING INFRASTRUCTURE.						
General:	35 DETECTIONS IN JUN, 6 IN JUL, 6 IN AUG, & 1 IN SEP 2012. 2 ADULTS OBSERVED ALONG ROAD BERM ON 8 SEP 2016.						
Owner/Manager:	PVT, BLM						



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Occurrence No.	443	Map Index:	B0763	EO Index:	112635	Element Last Seen:	2017-05-04
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2017-05-04
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-04-04
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.18299 / -119.49047				Accuracy:	specific area	
UTM:	Zone-11 N3896177 E273223				Elevation (ft):	929	
PLSS:	T31S, R23E, Sec. 34, SE (M)				Acres:	15.0	
Location:	NORTH SIDE OF MIDWAY RD ABOUT 1.4 MI WNW OF THE DIVISION RD JUNCTION & 1.6 MI NE OF HWY 33 AT HENRY RD, NW OF TAFT.						
Detailed Location:	MAPPED AS A 3-PART POLYGON TO PROVIDED COORDINATES.						
Ecological:	PIPELINE RIGHT-OF-WAY IN SALTBUSH SCRUB HABITAT WITH BROMUS & AMSINCKIA SPP, WITHIN ACTIVE OIL FIELD. VISIBLE DISTURBANCE NOTED FROM OIL FIELD INFRASTRUCTURE.						
General:	DETECTED ON 20 & 24 JUN 2011. 1 YEARLING OBSERVED BASKING AT EDGE OF DIRT ROAD ON 4 MAY 2017.						
Owner/Manager:	BLM						

Occurrence No.	444	Map Index:	B0917	EO Index:	112800	Element Last Seen:	2017-08-06
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2017-08-06
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2018-10-03
Quad Summary:	Taft (3511924), Fellows (3511925), West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.22211 / -119.5197				Accuracy:	non-specific area	
UTM:	Zone-11 N3900585 E270671				Elevation (ft):	1021	
PLSS:	T31S, R23E, Sec. 20 (M)				Acres:	1941.0	
Location:	MIDWAY VALLEY FROM BUENA VISTA CREEK TO BROAD CREEK, FROM ABOUT 1.4 MI NE TO 6.0 MI NNW OF FELLOWS.						
Detailed Location:	INCLUDES STUDY SITE #2 FROM CHESEMORE REPORT. MAPPED TO PROVIDED DETECTION LOCATIONS & COORDINATES.						
Ecological:	VALLEY SALTBUSH SCRUB WITH PATCHES OF NON-NATIVE GRASS. AREA USED FOR OIL EXTRACTION.						
General:	6 DETECTED IN 1978. 1 DET IN 1979. 1 JUVENILE IN 2008. 6 DET IN MAY 2011. 753 DETECTIONS, INCLUDING HATCHLINGS & JUVS, APR-SEP 2012. 2 DET APR-MAY 2014. AT LEAST DET MAR 2015. UP TO 16 DETECTED MAR-AUG 2017.						
Owner/Manager:	BLM, PVT						



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Occurrence No.	445	Map Index:	B1062	EO Index:	112955	Element Last Seen:	2019-04-17
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2019-04-17
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-04-04
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.23075 / -119.45743				Accuracy:	specific area	
UTM:	Zone-11 N3901400 E276363				Elevation (ft):	635	
PLSS:	T31S, R23E, Sec. 13 (M)				Acres:	16.0	
Location:	ALONG ROAD ABOUT 0.8 MILES NE OF ELK HILLS RD AT BUENA VISTA CREEK, ABOUT 6 MILES NORTH OF TAFT.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES, PRIMARILY DETECTED ALONG ROAD. NEAR CENTER OF SECTION 13.						
Ecological:	SALTBUSH SCRUB IN AND NEAR DRY WASH IN AREA USED FOR OIL PRODUCTION AND OHV RECREATION. DIRT ROADS THROUGH AREA.						
General:	2 ADULTS DETECTED ON 15 APR 2019. 3 ADULTS DETECTED ON 17 APR 2019.						
Owner/Manager:	PVT						

Occurrence No.	446	Map Index:	B1284	EO Index:	113181	Element Last Seen:	2019-05-02
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2019-05-02
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-04-22
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.22735 / -119.47453				Accuracy:	specific area	
UTM:	Zone-11 N3901062 E274798				Elevation (ft):	725	
PLSS:	T31S, R23E, Sec. 14, S (M)				Acres:	125.0	
Location:	1.7 TO 2.5 MILES NW OF ELK HILLS RD AT VALLEY WEST RD, BUENA VISTA VALLEY, ABOUT 6 MILES NORTH OF TAFT.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES, PRIMARILY ALONG ROADWAYS. GENERALLY SOUTH OF BUENA VISTA CREEK.						
Ecological:	DETECTIONS ALONG ACCESS ROADS THROUGH ACTIVE OIL FIELD, AND ADJACENT TO REMEDIATION SITE. SURROUNDING HABITAT WAS MOSTLY NON-NATIVE GRASSLAND WITH SOME SALTBUSH SCRUB. LAND ALSO USED FOR SHEEP GRAZING.						
General:	1 ADULT 13 MAY 2012. 1 ADULT MALE 17 MAY 2017. 1 ADULT FEMALE 9 MAY & 1 ADULT MALE 17 MAY 2017. 1 ADULT 5 APR 2018. UP TO 11 DETECTED DURING APR & MAY 2019.						
Owner/Manager:	PVT						

Occurrence No.	447	Map Index:	B2062	EO Index:	113988	Element Last Seen:	2017-06-01
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2017-06-01
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2019-01-24
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.22501 / -119.57047				Accuracy:	specific area	
UTM:	Zone-11 N3901024 E266058				Elevation (ft):	1258	
PLSS:	T31S, R22E, Sec. 13, SW (M)				Acres:	6.0	
Location:	ABOUT 0.1 MILES NE OF HWY 33 AT BILL KIRBY RD AND 3.5 MILES NNW OF FELLOWS.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	VALLEY SALTBUSH SCRUB IN AREA USED FOR OIL AND GAS PRODUCTION.						
General:	1 ADULT FEMALE IN BREEDING COLORS OBSERVED ON 1 MAY & 1 ON 1 JUN 2017.						
Owner/Manager:	PVT						



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Occurrence No.	517	Map Index:	B6016	EO Index:	119042	Element Last Seen:	2009-06-23
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2009-06-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2020-08-12
Quad Summary:	Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.39864 / -119.57055				Accuracy:	80 meters	
UTM:	Zone-11 N3920287 E266550				Elevation (ft):	332	
PLSS:	T29S, R22E, Sec. 13, SW (M)				Acres:	5.0	
Location:	NORTH SIDE OF LOKERN RD, 0.5 MILES WEST OF CALIFORNIA AQUEDUCT, ABOUT 6 MILES WEST OF BUTTONWILLOW.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	VALLEY SALTBUSSH SCRUB. HABITAT APPEARS GENERALLY INTACT IN 2018 AERIALS AND CONTINUOUS WITH NEIGHBORING CONSERVATION PARCELS. AQUEDUCT MAY BE A BARRIER AND LOKERN RD MAY INCREASE MORTALITY RISK DUE TO VEHICLE COLLISIONS.						
General:	1 FEMALE ADULT IN BREEDING COLORS DETECTED ON 23 JUN 2009.						
Owner/Manager:	PVT-CHEVRON						

Occurrence No.	518	Map Index:	B6030	EO Index:	119056	Element Last Seen:	1988-04-12
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1988-04-12
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2020-08-13
Quad Summary:	Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.40852 / -119.55837				Accuracy:	non-specific area	
UTM:	Zone-11 N3921354 E267685				Elevation (ft):	273	
PLSS:	T29S, R22E, Sec. 13, NE (M)				Acres:	162.0	
Location:	ABOUT 0.7 MILES NORTH OF LOKERN ROAD AT CALIFORNIA AQUEDUCT, 5 MILES WEST OF BUTTONWILLOW.						
Detailed Location:	MAPPED TO PROVIDED 1/4 SECTION.						
Ecological:	HABITAT APPEARS INTACT IN 2018 AERIAL IMAGE WITH CONVERSION TO AGRICULTURE TO THE NORTH AND TO THE EAST OF WEST SIDE CANAL. PARCELS OWNED BY SEVERAL PRIVATE INDIVIDUALS AND CHEVRON.						
General:	DETECTED IN THIS AREA DURING CEC SURVEYS ON 12 APR 1988.						
Owner/Manager:	PVT						



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Occurrence No.	519	Map Index:	B6033	EO Index:	119059	Element Last Seen:	2008-05-07
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2008-05-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2020-08-13
Quad Summary:	Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.39867 / -119.54924				Accuracy:	80 meters	
UTM:	Zone-11 N3920240 E268486				Elevation (ft):	282	
PLSS:	T29S, R23E, Sec. 18, SW (M)				Acres:	5.0	
Location:	ALONG THE SOUTH SIDE OF LOKERN ROAD, 0.7 MILES EAST OF CALIFORNIA AQUEDUCT, ABOUT 4 MILES WEST OF BUTTONWILLOW.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	CONSERVATION PARCEL.						
General:	DETECTED SOMEWHERE IN SECTION 18 BY K. TOLLESTRUP DURING HER SURVEYS IN SUMMER OF 1974. 1 MALE DETECTED AT THESE COORDINATES ON 7 MAY 2008.						
Owner/Manager:	DFG-LOKERN ER						

Occurrence No.	520	Map Index:	B6034	EO Index:	119060	Element Last Seen:	1974-07-XX
Occ. Rank:	None			Presence:	Possibly Extirpated	Site Last Seen:	1974-07-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2020-08-18
Quad Summary:	Buttonwillow (3511944), Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.40515 / -119.5183				Accuracy:	non-specific area	
UTM:	Zone-11 N3920887 E271315				Elevation (ft):	263	
PLSS:	T29S, R23E, Sec. 16 (M)				Acres:	1286.0	
Location:	AREA FROM 1 MILE WEST TO 1 MILE EAST OF CORN CAMP RD, BETWEEN DELFER RD & HWY 58, 2 TO 3 MILES WEST OF BUTTONWILLOW.						
Detailed Location:	MAPPED TO PROVIDED SECTIONS, 16 AND 17.						
Ecological:	THIS AREA EAST OF WEST SIDE CANAL HAS BEEN CONVERTED TO AGRICULTURE SINCE THE 1990S. LIKELY EXTIRPATED.						
General:	DETECTED IN THESE SECTIONS BY K. TOLLESTRUP DURING HER SURVEYS IN SUMMER OF 1974.						
Owner/Manager:	PVT						



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Occurrence No.	521	Map Index:	B6053	EO Index:	119086	Element Last Seen:	1982-XX-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1982-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2020-08-18
Quad Summary:	Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.39352 / -119.53103				Accuracy:	1/10 mile	
UTM:	Zone-11 N3919626 E270126				Elevation (ft):	276	
PLSS:	T29S, R23E, Sec. 20, NW (M)				Acres:	18.0	
Location:	0.4 MILES SE OF LOKERN RD AT HWY 58 AND ABOUT 0.8 MILES E OF CALIFORNIA AQUEDUCT AT HWY 58, 3.5 MILES E OF BUTTONWILLOW.						
Detailed Location:	MAPPED TO PROVIDED MAP.						
Ecological:	HABITAT APPEARS INTACT AND UNDEVELOPED IN 2018 AERIAL IMAGES. LARGE PARCELS IN THIS AREA ARE PROTECTED BY CDFW LOKERN ER AND CENTER FOR NATURAL LANDS MANAGEMENT; SMALLER PARCELS ARE PRIVATE AND UNDEVELOPED.						
General:	KNOWN FROM SECTION 20 BY K. TOLLESTRUP DURING HER RESEARCH IN SUMMER OF 1974. DETECTED AT THIS LOCATION IN 1982 DURING WORK RELATING TO SHELL INC BELRIDGE FIELD COGENERATION PROJECT.						
Owner/Manager:	CDFW, CNLM, PVT						

Occurrence No.	522	Map Index:	B6827	EO Index:	119894	Element Last Seen:	2015-08-04
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2015-08-04
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2021-01-06
Quad Summary:	Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.38024 / -119.56464				Accuracy:	specific area	
UTM:	Zone-11 N3918232 E267034				Elevation (ft):	401	
PLSS:	T29S, R22E, Sec. 25, NW (M)				Acres:	29.0	
Location:	NW SIDE OF HWY 58, 1.3 MILES SW OF CALIFORNIA AQUEDUCT AND 2 MILES SW OF LOKERN RD, ABOUT 5 MILES WEST OF BUTTONWILLOW.						
Detailed Location:	DETECTIONS APPEAR TO BE ALONG A DIRT ROAD HEADING NW OF HWY 58 THROUGH UNDEVELOPED PRIVATE OIL INDUSTRY LAND.						
Ecological:	AREA DESCRIBED AS SALTBRUSH SCRUB AND GRASSLAND WITH HISTORIC GRAZING AND OIL FIELD USE.						
General:	2 DETECTED ON 14 JUN 2012. 2 ADULT MALES SEEN IN 2013. 1 SEEN ON 21 JUN AND 5 JUL 2014. 1 SEEN ON 25 JUL AND 4 AUG 2015.						
Owner/Manager:	PVT-CHEVRON						



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Occurrence No.	523	Map Index:	B6828	EO Index:	119895	Element Last Seen:	2013-XX-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2013-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2021-02-23
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.36869 / -119.57853				Accuracy:	specific area	
UTM:	Zone-11 N3916983 E265739				Elevation (ft):	489	
PLSS:	T29S, R22E, Sec. 35, NE (M)				Acres:	10.0	
Location:	3.2 MILES SW OF THE INTERSECTION OF HIGHWAY 58 AND LOKERN ROAD, ABOUT 6 MILES SW OF BUTTONWILLOW.						
Detailed Location:	MAPPED AS A TWO PART POLYGON ABOUT 0.2 MILES NW OF HWY 58. DETECTIONS WERE ASSOCIATED WITH A PIPELINE RIGHT-OF-WAY WITH AT LEAST ONE DETECTION ALONG A DIRT ACCESS ROAD.						
Ecological:							
General:	2 ADULTS DETECTED IN 2013.						
Owner/Manager:	PVT-CHEVRON, CNLM						

Occurrence No.	524	Map Index:	B6829	EO Index:	119896	Element Last Seen:	2010-10-15
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2010-10-15
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2021-02-24
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.37033 / -119.59307				Accuracy:	specific area	
UTM:	Zone-11 N3917199 E264422				Elevation (ft):	507	
PLSS:	T29S, R22E, Sec. 27, SE (M)				Acres:	30.0	
Location:	3.1 AIR MILES SW OF THE HWY 58 CROSSING OF CALIFORNIA AQUEDUCT, 7 MILES WSW OF BUTTONWILLOW.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES, ABOUT 0.75 MILES NW OF HIGHWAY 58. AREA IS UNDEVELOPED LAND OWNED BY OIL AND GAS COMPANIES, CHEVRON AND SENTINEL PEAK RESOURCES LLC.						
Ecological:	HABITAT DESCRIBED AS DISTURBED VALLEY GRASSLAND AND VALLEY SALTBUCH SCRUB; PRIMARILY NON-NATIVE GRASSLAND WITH MINOR ATRIPLEX POLYCARPA COMPONENT WITH LARGE PATCHES OF BARE SOIL.						
General:	ADULTS IN REPRODUCTIVE CONDITION WERE DETECTED IN THE SE 1/4 OF SECTION 27 DURING CEC SURVEYS IN MAY-JUN 1987. 2 ADULTS AND 1 JUVENILE WERE SEEN ON 14 & 15 OCT 2010.						
Owner/Manager:	PVT						



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Occurrence No.	525	Map Index:	B6833	EO Index:	119900	Element Last Seen:	1987-06-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1987-06-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2021-01-06
Quad Summary:	East Elk Hills (3511934), West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.36557 / -119.50473				Accuracy:	non-specific area	
UTM:	Zone-11 N3916465 E272437				Elevation (ft):	292	
PLSS:	T29S, R23E, Sec. 33, NE (M)				Acres:	124.0	
Location:	NE SIDE OF THE CALIFORNIA AQUEDUCT ABOUT 2.8 MILES SE OF THE CROSSING OF HWY 58, 3 MILES SW OF BUTTOWILLOW.						
Detailed Location:	MAPPED TO PROVIDED MAP. CONSERVATION LANDS NOW CONSISTING OF CNLM LOKERN PRESERVE AND CDFW LOKERN ECOLOGICAL RESERVE.						
Ecological:	AREA BETWEEN CALIF AQUEDUCT & WEST SIDE LEVEE APPEARS UNDEVELOPED IN 2018 AERIALS & MAY OFFER EXCELLENT HABITAT, BUT IT IS UNKNOWN HOW OFTEN THIS AREA IS FLOODED AS A FLOOD CONTROL BASIN. AQUEDUCT IS LIKELY A BARRIER BTWN POPULATIONS TO SW.						
General:	ADULTS IN REPRODUCTIVE CONDITION WERE DETECTED IN THE NE 1/4 OF SECTION 33 DURING CEC SURVEYS CONDUCTED IN MAY-JUN 1987.						
Owner/Manager:	PVT-CNLM, DFG-LOKERN ER						

Occurrence No.	543	Map Index:	B9589	EO Index:	125818	Element Last Seen:	1996-07-29
Occ. Rank:	None			Presence:	Possibly Extirpated	Site Last Seen:	1996-07-29
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2023-11-14
Quad Summary:	Millux (3511922)						
County Summary:	Kern						
Lat/Long:	35.2445 / -119.24362				Accuracy:	1/5 mile	
UTM:	Zone-11 N3902465 E295859				Elevation (ft):	302	
PLSS:	T31S, R25E, Sec. 12 (M)				Acres:	70.0	
Location:	ABOUT 0.7 MI NE OF THE CORNER OF UNION RD AND S ENOS LN, 1.9 MI SW OF I-5 AT HWY 119, ABOUT 15 MILES SW OF BAKERSFIELD.						
Detailed Location:	MAPPED NON-SPECIFICALLY TO SPECIMEN LOCALITY.						
Ecological:	THIS AREA WAS HISTORICALLY NEAR THE NORTHERN UPLANDS OF BUENA VISTA LAKE, CONVERTED TO OIL PRODUCTION IN THE 1940S AS THE SOUTH COLES LEVEE OIL FIELD, AND MOST RECENTLY CONVERTED TO AGRICULTURE OR BIOSOLIDS SPREADING AROUND 2004-2005.						
General:	1 COLLECTED BY D. GERMANO ON 29 JUL 1996 AND DEPOSITED AT CAS.						
Owner/Manager:	CITY OF LOS ANGELES						



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Occurrence No.	544	Map Index:	B9591	EO Index:	125820	Element Last Seen:	1996-08-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1996-08-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2023-11-16
Quad Summary:	Stevens (3511932), Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.26618 / -119.25123				Accuracy:	1/10 mile	
UTM:	Zone-11 N3904886 E295221				Elevation (ft):	309	
PLSS:	T31S, R25E, Sec. 1, NW (M)				Acres:	18.0	
Location:	SE CORNER OF HWY 119 AT HWY 43, 1.5 MILES W OF I-5 AT HWY 119, ABOUT 13 MILES SW OF BAKERSFIELD.						
Detailed Location:	MAPPED NON-SPECIFICALLY TO COORDINATES FROM MUSEUM AND LOCATION STATED AS SE CORNER HWY 119 AND HWY 43.						
Ecological:							
General:	1 ADULT APPARENTLY COLLECTED ALIVE IN AUG 1996, LIKELY RETAINED AT CSU BAKERSFIELD, AND DIED IN CAPTIVITY IN FEB 1997 (FROM CSU BAKERSFIELD COLLECTION, NOW AT CAS).						
Owner/Manager:	PVT						

Occurrence No.	545	Map Index:	B9592	EO Index:	125821	Element Last Seen:	1987-04-27
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-04-27
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2023-12-28
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.26376 / -119.2395				Accuracy:	1/5 mile	
UTM:	Zone-11 N3904593 E296282				Elevation (ft):	308	
PLSS:	T31S, R25E, Sec. 1, NE (M)				Acres:	70.0	
Location:	SOUTH SIDE OF HWY 119, 0.7 MILES EAST OF HWY 43 AND 0.8 MILES WEST OF INTERSTATE 5, ABOUT 13 MILES SW OF BAKERSFIELD.						
Detailed Location:	MAPPED TO PROVIDED 1/4 SECTION.						
Ecological:	GENERALLY, HABITAT DESCRIBED AS VALLEY SALTBUSH SCRUB AND VALLEY SINK SCRUB IN 1987. AERIAL IMAGERY AND PROPERTY OWNER ADDRESS IMPLIES THE AREA IS NOW USED EITHER AS AGRICULTURE OR BIOSOLIDS SPREADING GROUNDS.						
General:	DETECTED IN THIS AREA DURING CALIFORNIA ENERGY COMMISSION SURVEYS 24-27 APR 1987.						
Owner/Manager:	CITY OF LOS ANGELES						



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Occurrence No.	557	Map Index:	C0059	EO Index:	128281	Element Last Seen:	1978-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1978-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-02-09
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.13125 / -119.35562				Accuracy:	1/10 mile	
UTM:	Zone-11 N3890138 E285369				Elevation (ft):	437	
PLSS:	T32S, R24E, Sec. 24, NW (M)				Acres:	18.0	
Location:	BETWEEN SANDY CREEK & CA AQUEDUCT, 0.7 MILES EAST OF GARDNER FIELD RD CROSSING OF AQUEDUCT, ABOUT 5 MILES EAST OF TAFT.						
Detailed Location:	MAPPED TO PROVIDED MAPS.						
Ecological:							
General:	DETECTED HERE IN 1978 DURING BLM SURVEYS FOR SPECIAL STATUS SPECIES.						
Owner/Manager:	BLM						

Occurrence No.	558	Map Index:	C0060	EO Index:	128284	Element Last Seen:	2017-06-01
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2017-06-01
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-02-09
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.13143 / -119.37432				Accuracy:	80 meters	
UTM:	Zone-11 N3890199 E283665				Elevation (ft):	567	
PLSS:	T32S, R24E, Sec. 23, W (M)				Acres:	5.0	
Location:	ALONG HONOLULU RD ABOUT 0.1 MILE N OF GARDNER FIELD RD, N OF SANDY CREEK & CALIFORNIA AQUEDUCT, ABOUT 4 MILES E OF TAFT.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	ALLSCALE SALTBUSSH SCRUB (A. POLYCARPA) AND NON-NATIVE ANNUAL GRASSLAND DOMINATED BY BROME SP. (BROMUS MATRIDENSIS SSP. RUBENS AND B. DIANDRUS), PEPPERGRASS (LEPIDIUM NITIDUM), AND RED-STEMMED FILAREE (ERODIUM CICUTARUM).						
General:	1 ADULT SEEN ALIVE ON ROAD AND THEN ESCAPE TO COVER/BURROW ON 1 JUN 2017 (SURVEYS CONDUCTED FROM 2 FEB - 10 JUL 2017).						
Owner/Manager:	UNKNOWN						



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Occurrence No.	559	Map Index:	C0063	EO Index:	128288	Element Last Seen:	2022-09-25
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2022-09-25
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-02-09
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.17664 / -119.36744				Accuracy:	80 meters	
UTM:	Zone-11 N3895199 E284411				Elevation (ft):	399	
PLSS:	T32S, R24E, Sec. 2, N (M)				Acres:	5.0	
Location:	0.5 MILE SE OF RICARDO ST AT MIDWAY RD, N SIDE BUENA VISTA HILLS AND JUST W OF CALIF AQUEDUCT, 5.5 MILES ENE OF TAFT.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:							
General:	1 FOUND AND PHOTOGRAPHED ON 25 SEP 2022.						
Owner/Manager:	BLM						

Occurrence No.	560	Map Index:	C0069	EO Index:	128293	Element Last Seen:	2017-05-10
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2017-05-10
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-02-12
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.15196 / -119.36778				Accuracy:	80 meters	
UTM:	Zone-11 N3892462 E284316				Elevation (ft):	643	
PLSS:	T32S, R24E, Sec. 14, N (M)				Acres:	5.0	
Location:	ABOUT 0.2 MILES E OF HONOLULU RD ABOUT 1.5 MILES N OF GARDNER FIELD RD AT HONOLULU RD, 5 MILES ENE OF TAFT.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES AND MAP FIGURE ASSOCIATED WITH PIPELINE ALIGNMENT. BUENA VISTA HILLS, FORMER NAVAL PETROLEUM RESERVE NO. 2 (NPR-2). PROTOCOL LEVEL SURVEYS.						
Ecological:	ALLSCALE SALTBUSH SCRUB (ATRIPLEX POLYCARPA) AND NON-NATIVE ANNUAL GRASSLAND DOMINATED BY BROME SPECIES (BROMUS MATRIDENSIS SSP. RUBENS AND B. DIANDRUS), PEPPERGRASS (LEPIDIUM NITIDUM), AND RED-STEMMED FILAREE (ERODIUM CICUTARUM).						
General:	ONE ADULT OBSERVED ON ROADWAY, THEN FLED TO COVER ON 10 MAY 2017. NOT DETECTED ON MULTIPLE PREVIOUS YEARS OF SURVEYING.						
Owner/Manager:	BLM						



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Occurrence No.	561	Map Index:	C0071	EO Index:	128295	Element Last Seen:	2017-05-15
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2017-05-15
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-02-12
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.1594 / -119.37033				Accuracy:	80 meters	
UTM:	Zone-11 N3893293 E284103				Elevation (ft):	541	
PLSS:	T32S, R24E, Sec. 11, W (M)				Acres:	5.0	
Location:	ABOUT 0.1 MILES E OF HONOLULU RD ABOUT 2 MILES N OF GARDNER FIELD RD AT HONOLULU RD, 5 MILES ENE OF TAFT.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES AND MAP FIGURE ASSOCIATED WITH INSTALLATION OF 8-INCH GAS PIPELINE. BUENA VISTA HILLS, FORMER NAVAL PETROLEUM RESERVE NO. 2 (NPR-2). PROTOCOL LEVEL SURVEYS.						
Ecological:	ALLSCALE SALT BUSH SCRUB (ATRIPLEX POLYCARPA) AND NON-NATIVE ANNUAL GRASSLAND DOMINATED BY BROME SPECIES (BROMUS MATRIDENSIS SSP. RUBENS AND B. DIANDRUS), PEPPERGRASS (LEPIDIUM NITIDUM), AND RED-STEMMED FILAREE (ERODIUM CICUTARUM).						
General:	1 ADULT OBSERVED ON ROADWAY, THEN FLED TO COVER ON 15 MAY 2017.						
Owner/Manager:	PVT						

Occurrence No.	562	Map Index:	C0223	EO Index:	129450	Element Last Seen:	2017-05-04
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2017-07-10
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-03-27
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.15866 / -119.36395				Accuracy:	specific area	
UTM:	Zone-11 N3893197 E284682				Elevation (ft):	596	
PLSS:	T32S, R24E, Sec. 11, E (M)				Acres:	12.0	
Location:	2 MILES N OF LAKE STATION RD AT GARDNER FIELD RD, BETWEEN HONOLULU RD & CALIFORNIA AQUEDUCT, ABOUT 5 MILES ENE OF TAFT.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES AND MAP FIGURE ASSOCIATED WITH INSTALLATION OF 8-INCH GAS PIPELINE. BUENA VISTA HILLS, FORMER NAVAL PETROLEUM RESERVE NO. 2 (NPR-2). PROTOCOL LEVEL SURVEYS.						
Ecological:	ALLSCALE SALT BUSH SCRUB (ATRIPLEX POLYCARPA) AND NON-NATIVE ANNUAL GRASSLAND DOMINATED BY BROME SPECIES (BROMUS MATRIDENSIS SSP. RUBENS AND B. DIANDRUS), PEPPERGRASS (LEPIDIUM NITIDUM), AND RED-STEMMED FILAREE (ERODIUM CICUTARUM).						
General:	1 ADULT EACH SEEN ALONG ROADWAY ON 21 APR, 2 MAY, AND 4 MAY 2017 DURING PROTOCOL LEVEL SURVEYS CONDUCTED BETWEEN 2 FEB AND 10 JUL 2017.						
Owner/Manager:	PVT						



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Occurrence No.	563	Map Index:	C0224	EO Index:	129451	Element Last Seen:	2017-05-04
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2017-07-10
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-03-27
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.15666 / -119.35529				Accuracy:	specific area	
UTM:	Zone-11 N3892956 E285466				Elevation (ft):	600	
PLSS:	T32S, R24E, Sec. 12, SW (M)				Acres:	30.0	
Location:	1.9 TO 2.1 MILES NNE OF GARDNER FIELD RD AT CA AQUEDUCT, BETWEEN HONOLULU RD AND AQUEDUCT, ABOUT 6 MILES ENE OF TAFT.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES AND MAP FIGURE ASSOCIATED WITH INSTALLATION OF 8-INCH GAS PIPELINE. BUENA VISTA HILLS, FORMER NAVAL PETROLEUM RESERVE NO. 2 (NPR-2). PROTOCOL LEVEL SURVEYS.						
Ecological:	ALLSCALE SALTBUH SCRUB (ATRIPLEX POLYCARPA) AND NON-NATIVE ANNUAL GRASSLAND DOMINATED BY BROME SPECIES (BROMUS MATRIDENSIS SSP. RUBENS AND B. DIANDRUS), PEPPERGRASS (LEPIDIUM NITIDUM), AND RED-STEMMED FILAREE (ERODIUM CICUTARUM).						
General:	10 ADULTS DETECTED (1 DEAD ON ROAD; OTHERS DETECTED ALONG ROADS) ACROSS 14 APR, 17 APR, 21 APR, 24 APR, 26 APR, 28 APR, 2 MAY, AND 4 MAY 2017.						
Owner/Manager:	BLM						

Occurrence No.	564	Map Index:	C0229	EO Index:	129457	Element Last Seen:	2002-04-24
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2002-04-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-03-29
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.25719 / -119.30424				Accuracy:	2/5 mile	
UTM:	Zone-11 N3903999 E290375				Elevation (ft):	303	
PLSS:	T31S, R25E, Sec. 4, SW (M)				Acres:	280.0	
Location:	VICINITY OF CALIFORNIA AQUEDUCT ABOUT 0.75 MI S OF HWY 119, ABOUT 4.5 MI WSW OF I-5 AT HWY 119, 11 MILES NE OF TAFT.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES WITH LARGE SPATIAL ERROR.						
Ecological:							
General:	1 FOUND AND PHOTOGRAPHED ON 24 APR 2002.						
Owner/Manager:	PVT						



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Occurrence No.	565	Map Index:	C0231	EO Index:	129458	Element Last Seen:	2009-05-20
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2009-05-20
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-03-29
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.29725 / -119.35947				Accuracy:	80 meters	
UTM:	Zone-11 N3908561 E285456				Elevation (ft):	371	
PLSS:	T30S, R24E, Sec. 23, SE (M)				Acres:	5.0	
Location:	0.25 MILE WEST OF ELK HILLS ELEMENTARY SCHOOL, NE ELK HILLS, JUST WEST OF TUPMAN.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES.						
Ecological:	DEGRADED ALLSCALE SCRUB WHICH HAS BEEN BURNED IN THE PAST AND SHOWS FEW SIGNS OF REGENERATION. HERBACEOUS LAYER DOMINATED BY NON-NATIVE GRASSES. NORTH ASPECT WITH SLOPES RANGING FROM 0 TO 10%. OIL PRODUCTION ON SITE.						
General:	1 ADULT OBSERVED ON 20 MAY 2009.						
Owner/Manager:	PVT						

Occurrence No.	566	Map Index:	C0232	EO Index:	129459	Element Last Seen:	2008-06-27
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2008-06-27
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-04-02
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.31507 / -119.39565				Accuracy:	non-specific area	
UTM:	Zone-11 N3910617 E282213				Elevation (ft):	358	
PLSS:	T30S, R24E, Sec. 16, E (M)				Acres:	35.0	
Location:	1.7 MI NW OF TUPMAN RD CROSSING OF CALIFORNIA AQUEDUCT & 4.6 MI ESE OF ELK HILLS RD AT AQUEDUCT, 2.7 MI NE OF TUPMAN.						
Detailed Location:	MAPPED AS A 2-PART POLYGON TO 1977 LOCATION DESCRIPTION AND 2008 COORDINATE LOCATION. DETECTED ALONG W SIDE CALIFONRIA AQUEDUCT 1.7 MILES N OF TUPMAN RD (AQUEDUCT MILE POST 234.78) AND ROBERTSON PARCEL OF LOKERN ECOLOGICAL RESERVE.						
Ecological:							
General:	1 DETECTED ON 21 JUL 1977 DURING KIT FOX SURVEYS. 1 ADULT MALE DETECTED ON 27 JUN 2008.						
Owner/Manager:	DFG-LOKERN ER, DWR						



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Occurrence No.	567	Map Index:	C0234	EO Index:	129461	Element Last Seen:	2023-05-24
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2023-05-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-04-02
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.35241 / -119.48799				Accuracy:	non-specific area	
UTM:	Zone-11 N3914967 E273921				Elevation (ft):	367	
PLSS:	T30S, R23E, Sec. 3, NE (M)				Acres:	67.0	
Location:	JUST WEST OF ELK HILLS-BUTTONWILLOW AIRPORT, 3.5 MILES SOUTH OF BUTTONWILLOW.						
Detailed Location:	MAPPED TO GENERAL AREA OF COORDINATES REPRESENTING DETECTIONS ALONG DIRT ROAD AND WITHIN CNLM LOKERN PRESERVE PARCEL.						
Ecological:							
General:	6 OBSERVED IN THIS AREA ON 6 JUN 2019. 1 JUVENILE DETECTED ON 7 SEP 2021. 2 ADULT MALES SEEN ALONG ROAD ON 24 MAY 2023.						
Owner/Manager:	PVT-CNLM, UNKNOWN						

Occurrence No.	572	Map Index:	C0255	EO Index:	129481	Element Last Seen:	2022-09-22
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2022-09-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-04-04
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.23421 / -119.46903				Accuracy:	specific area	
UTM:	Zone-11 N3901811 E275317				Elevation (ft):	686	
PLSS:	T31S, R23E, Sec. 14, NE (M)				Acres:	34.0	
Location:	1.3-1.7 MILES NW OF ELK HILLS ROAD CROSSING OF BUENA VISTA CREEK, BUENA VISTA VALLEY, ABOUT 6 MILES NORTH OF TAFT.						
Detailed Location:	MAPPED TO DETECTIONS ALONG ROADWAYS.						
Ecological:	AREA DESCRIBED AS SALTBUSH (ATRIPLEX) SCRUB HABITAT, AND VALLEY SALTBUSH SCRUB WITH AREAS OF NON-NATIVE GRASSES. NEARBY AREAS USED AS AGRICULTURAL PLOTS REGULARLY GRAZED BY SHEEP/GOATS AND OIL FIELDS.						
General:	1 ADULT DETECTED ON 24 APR 2018. 1 ADULT FEMALE IN BREEDING COLORS ON 8 JUN 2022. 1 ADULT FEMALE IN BREEDING COLORS ON 19 AUG 2022. 1 HATCHLING DETECTED ON 22 SEP 2022.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	573	Map Index:	C0256	EO Index:	129484	Element Last Seen:	2019-09-06
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2019-09-06
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-04-04
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.20061 / -119.45405				Accuracy:	non-specific area	
UTM:	Zone-11 N3898049 E276589				Elevation (ft):	714	
PLSS:	T31S, R23E, Sec. 25 (M)				Acres:	129.0	
Location:	ABOUT 0.8 MILES SSW OF VALLEY WEST RD AT ELK HILLS RD, ABOUT 1 MILE NNW OF HWY 119 AT ELK HILLS RD, 4 MILES N OF TAFT.						
Detailed Location:	MAPPED TO SPECIFIC COORDINATES ON WEST SIDE OF LANDFILL AND NON-SPECIFICALLY TO DETECTIONS IN SE 1/4 OF SECTION 25.						
Ecological:							
General:	DETECTED IN THIS AREA IN APR 1987. 1 HATCHLING DETECTED JUST OUTSIDE LANDFILL PERIMETER FENCE ON 6 SEP 2019.						
Owner/Manager:	UNKNOWN						
Occurrence No.	574	Map Index:	C0257	EO Index:	129485	Element Last Seen:	1984-XX-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1984-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-04-04
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.19661 / -119.43948				Accuracy:	non-specific area	
UTM:	Zone-11 N3897573 E277905				Elevation (ft):	584	
PLSS:	T31S, R24E, Sec. 30, S (M)				Acres:	44.0	
Location:	ABOUT 0.75 MILES NNE OF HWY 119 AT ELK HILLS RD, 2 MILES WSW OF VALLEY ACRES AND 3.8 MILES NNE OF TAFT.						
Detailed Location:	MAPPED AS A 2-PART POLYGON TO PROVIDED MAP.						
Ecological:							
General:	3 DETECTED IN THIS AREA DURING SURVEYS IN 1984.						
Owner/Manager:	BLM, UNKNOWN						
Occurrence No.	575	Map Index:	C0263	EO Index:	129489	Element Last Seen:	2015-06-06
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2015-06-06
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-04-05
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.17954 / -119.42304				Accuracy:	80 meters	
UTM:	Zone-11 N3895642 E279355				Elevation (ft):	626	
PLSS:	T32S, R24E, Sec. 5, NW (M)				Acres:	5.0	
Location:	1 MILE SSE OF HWY 119 AT AIRPORT RD AND 1.3 MILES ESE OF ELK HILLS RD AT HWY 119, 3 MILES NE OF TAFT.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES. NEAR HISTORIC "STANDARD OIL CAMP 5 D" LABEL ON TOPOGRAPHIC MAP.						
Ecological:	SALTBRUSH SCRUB WITH OIL INDUSTRY USE. SITE APPEARS TO BE ALONG A DIRT ROAD AT A WASH.						
General:	1 ADULT MALE DETECTED ALONG DIRT ROAD ON 6 JUN 2015.						
Owner/Manager:	PVT						



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Occurrence No.	576	Map Index:	C0264	EO Index:	129490	Element Last Seen:	2017-04-15
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2017-04-15
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-04-05
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.14979 / -119.38789				Accuracy:	80 meters	
UTM:	Zone-11 N3892265 E282477				Elevation (ft):	1007	
PLSS:	T32S, R24E, Sec. 15, NW (M)				Acres:	5.0	
Location:	1.5 MILES NW OF THE INTERSECTION OF HONOLULU RD & GARDNER FIELD RD, ABOUT 4 MILES EAST OF TAFT.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES AND MAP FIGURE ASSOCIATED WITH INSTALLATION OF 8-INCH GAS PIPELINE. IN BUENA VISTA HILLS, FORMER NAVAL PETROLEUM RESERVE NO. 2 (NPR-2).						
Ecological:	ALLSCALE SALTBUUSH SCRUB (ATRIPLEX POLYCARPA) AND NON-NATIVE ANNUAL GRASSLAND DOMINATED BY BROME SPECIES (BROMUS MATRIDENSIS SSP. RUBENS AND B. DIANDRUS), PEPPERGRASS (LEPIDIUM NITIDUM), AND RED-STEMMED FILAREE (ERODIUM CICUTARUM).						
General:	1 ADULT SEEN ON 15 APR 2017 DURING PROTOCOL LEVEL SURVEYS CONDUCTED BETWEEN 2 FEB AND 10 JUL 2017.						
Owner/Manager:	PVT						

Occurrence No.	577	Map Index:	C0265	EO Index:	129491	Element Last Seen:	1979-XX-XX
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1979-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-04-05
Quad Summary:	Pentland (3511913), Maricopa (3511914)						
County Summary:	Kern						
Lat/Long:	35.08865 / -119.36455				Accuracy:	non-specific area	
UTM:	Zone-11 N3885432 E284443				Elevation (ft):	543	
PLSS:	T12N, R23W, Sec. 32 (S)				Acres:	738.0	
Location:	AREA S OF CADET RD AND ALONG SW SIDE OF CALIFORNIA AQUEDUCT, ABOUT 2.7 MILES NE OF MARICOPA, 6 MILES SE OF TAFT.						
Detailed Location:	MAPPED NON-SPECIFICALLY TO TOLLESTRUP (EXPERT) MAP WITH STARS INDICATING DETECTIONS IN 1978 AND SHADED AREAS SHOWING OCCUPIED HABITAT IN 1979. PRIMARILY SECTION 32 AND NORTH TO CADET RD.						
Ecological:	SALTBUUSH SCRUB HABITAT.						
General:	AT LEAST 2 DETECTED IN THIS AREA DURING 1978 SURVEYS. NOTED AS OCCUPIED HABITAT BY EXPERT TOLLESTRUP DURING 1979 SURVEYS.						
Owner/Manager:	BLM, PVT						



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Occurrence No.	578	Map Index:	C0266	EO Index:	129492	Element Last Seen:	1984-XX-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1984-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-04-05
Quad Summary:	Maricopa (3511914), Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.13192 / -119.41991				Accuracy:	non-specific area	
UTM:	Zone-11 N3890353 E279512				Elevation (ft):	758	
PLSS:	T32S, R24E, Sec. 20 (M)				Acres:	217.0	
Location:	JUST SOUTH OF SANDY CREEK AND GARDNER FIELD RD, AND NORTH OF PETROLEUM CLUB RD, 2 MILES ESE OF TAFT.						
Detailed Location:	MAPPED AS A 4-PART POLYGON TO PROVIDED MAP OF DETECTIONS IN SECTION 20, PRIMARILY ON BLM PROPERTY.						
Ecological:							
General:	13 DETECTED IN 1978. 4 DETECTED IN 1979. 6+ DETECTED IN 1984. SURVEY LOCATIONS/EFFORT LIKELY NOT CONSISTENT BETWEEN YEARS.						
Owner/Manager:	BLM, UNKNOWN						

Occurrence No.	579	Map Index:	C0267	EO Index:	129493	Element Last Seen:	1984-XX-XX
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1984-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2024-04-05
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.15443 / -119.48649				Accuracy:	non-specific area	
UTM:	Zone-11 N3892999 E273506				Elevation (ft):	1066	
PLSS:	T32S, R23E, Sec. 10 (M)				Acres:	49.0	
Location:	ALONG HIGHWAY 33 IN SECTION 10, 1.8 TO 2.8 MILES NW OF DOWNTOWN TAFT.						
Detailed Location:	MAPPED NON-SPECIFICALLY TO PROVIDED MAPS AND SECTION DESCRIPTION.						
Ecological:	KIT FOX ALSO DETECTED IN THIS AREA.						
General:	2 DETECTED IN THE SE 1/4 AND 1 DETECTED IN THE NW 1/4 OF SECTION 10 IN 1984.						
Owner/Manager:	BLM						

<i>Phrynosoma blainvillii</i>				Element Code: ARACF12100			
coast horned lizard							
Listing Status:	Federal:	None		CNDDDB Element Ranks:	Global:	G4	
	State:	None			State:	S4	
	Other:	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern					
Habitat:	General:	FREQUENTS A WIDE VARIETY OF HABITATS, MOST COMMON IN LOWLANDS ALONG SANDY WASHES WITH SCATTERED LOW BUSHES.					
	Micro:	OPEN AREAS FOR SUNNING, BUSHES FOR COVER, PATCHES OF LOOSE SOIL FOR BURIAL, AND ABUNDANT SUPPLY OF ANTS AND OTHER INSECTS.					



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Occurrence No.	661	Map Index:	69067	EO Index:	69839	Element Last Seen:	2006-05-09
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2006-05-09
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-04-25
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.25579 / -119.20657				Accuracy:	80 meters	
UTM:	Zone-11 N3903642 E299258				Elevation (ft):	300	
PLSS:	T31S, R26E, Sec. 05, SE (M)				Acres:	0.0	
Location:	SOUTH OF TEN SECTION OIL FIELD, ABOUT 1.3 MILES SE OF INTERSECTION OF I-5 AND TAFT HIGHWAY (HIGHWAY 119).						
Detailed Location:	MAPPED ACCORDING TO UTM COORDINATES PROVIDED BY SOURCE.						
Ecological:	VALLEY SINK SCRUB (ATRIPLEX SPINIFERA, SUAEDA MOQUINII), GREAT VALLEY MESQUITE SCRUB (PROSOPIS GLANDULOSA, ATRIPLEX POLYCARPA), VALLEY SALTBUSSH SCRUB (A. POLYCARPA, A. SPINIFERA). SURROUNDING AREA IS AGRICULTURE.						
General:	1 ADULT OBSERVED ON 9 MAY 2006.						
Owner/Manager:	PVT						

Occurrence No.	662	Map Index:	69068	EO Index:	69841	Element Last Seen:	2006-07-19
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2006-07-19
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-04-25
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.26197 / -119.20308				Accuracy:	specific area	
UTM:	Zone-11 N3904320 E299590				Elevation (ft):	320	
PLSS:	T31S, R26E, Sec. 05, NE (M)				Acres:	12.0	
Location:	SOUTH OF TEN SECTION OIL FIELD, ABOUT 1.3 MILES ESE OF INTERSECTION OF I-5 AND TAFT HIGHWAY (HIGHWAY 119).						
Detailed Location:	MAPPED ACCORDING TO UTM COORDINATES PROVIDED BY SOURCE.						
Ecological:	VALLEY SINK SCRUB (ATRIPLEX SPINIFERA, SUAEDA MOQUINII), GREAT VALLEY MESQUITE SCRUB (PROSOPIS GLANDULOSA, ATRIPLEX POLYCARPA), VALLEY SALTBUSSH SCRUB (A. POLYCARPA, A. SPINIFERA). SURROUNDING AREA IS AGRICULTURE.						
General:	1 ADULT OBSERVED ON 5 JUN AND ON 19 JUL 2006.						
Owner/Manager:	PVT						



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Occurrence No.	726	Map Index:	80543	EO Index:	81524	Element Last Seen:	2008-07-23
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		2008-07-23	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2010-10-28	
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.28121 / -119.21586				Accuracy:	80 meters	
UTM:	Zone-11 N3906480 E298475				Elevation (ft):	320	
PLSS:	T30S, R26E, Sec. 32, NW (M)				Acres:	0.0	
Location:	SOUTH-CENTRAL PART OF TEN SECTION OIL FIELD, 1 MI NNE OF I-5 AT TAFT HWY (119), 2.2 MI ESE OF I-5 AT S ENOS LN.						
Detailed Location:	MAPPED TO UTM COORDINATES PROVIDED.						
Ecological:	HABITAT CONSISTS OF A MIXTURE OF VALLEY SINK SCRUB, GREEN VALLEY MESQUITE SCRUB, AND VALLEY SALTBUSH SCRUB. NATIVE ANTS ARE ABUNDANT AT THE TEN SECTION OIL FIELD.						
General:	ONE ADULT WAS OBSERVED ON 23 JUL 2008 DURING HABITAT ASSESMENT SURVEY IN THE SOUTH CENTRAL PART OF THE TEN SECTION OIL FLIELD.						
Owner/Manager:	PVT						

Arizona elegans occidentalis

Element Code: ARADB01017

California glossy snake

Listing Status:	Federal:	None	CNDDDB Element Ranks:	Global:	G5T2
	State:	None		State:	S2
	Other:	CDFW_SSC-Species of Special Concern			
Habitat:	General:	PATCHILY DISTRIBUTED FROM THE EASTERN PORTION OF SAN FRANCISCO BAY, SOUTHERN SAN JOAQUIN VALLEY, AND THE COAST, TRANSVERSE, AND PENINSULAR RANGES, SOUTH TO BAJA CALIFORNIA.			
	Micro:	GENERALIST REPORTED FROM A RANGE OF SCRUB AND GRASSLAND HABITATS, OFTEN WITH LOOSE OR SANDY SOILS.			

Occurrence No.	47	Map Index:	A3293	EO Index:	104923	Element Last Seen:	2015-06-13
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2015-06-13
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2017-03-06
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.31531 / -119.6223				Accuracy:	1/5 mile	
UTM:	Zone-11 N3911166 E261604				Elevation (ft):	1050	
PLSS:	T30S, R22E, Sec. 16, SW (M)				Acres:	70.0	
Location:	HIGHWAY 58, ABOUT 0.75 MILE NORTH OF INTERSECTION WITH REWARD ROAD, NORTH OF MCKITTRICK.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES. ATTRIBUTED SPECIMEN COLLECTED FROM "MCKITTRICK," AND "1 MI N OF MCKITTRICK." FROM SWARTH'S FIELD NOTES, 1911 SPECIMEN COLLECTED FROM HILLS NORTH OF MCKITTRICK.						
Ecological:							
General:	SPECIMENS COLLECTED ON 18 MAY 1911 AND 30 MAY 1951. DETECTED ON 13 JUN 2015.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	48	Map Index:	A3294	EO Index:	104924	Element Last Seen:	1932-06-04
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1932-06-04
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2017-03-06
Quad Summary:	West Elk Hills (3511935), Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.35069 / -119.62388				Accuracy:	1 mile	
UTM:	Zone-11 N3915095 E261565				Elevation (ft):	650	
PLSS:	T30S, R22E, Sec. 4 (M)				Acres:	1987.0	
Location:	3 MILES NORTH OF MCKITTRICK.						
Detailed Location:							
Ecological:							
General:	SPECIMEN COLLECTED ON 4 JUN 1932.						
Owner/Manager:	UNKNOWN						

Occurrence No.	49	Map Index:	A3295	EO Index:	104925	Element Last Seen:	1997-05-07
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1997-05-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2017-03-13
Quad Summary:	Stevens (3511932), Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.26999 / -119.25269				Accuracy:	1/5 mile	
UTM:	Zone-11 N3905311 E295098				Elevation (ft):	300	
PLSS:	T30S, R25E, Sec. 35 (M)				Acres:	70.0	
Location:	HIGHWAY 43, ABOUT 0.15 MILE NORTH OF INTERSECTION WITH HIGHWAY 119, SW OF BAKERSFIELD.						
Detailed Location:	SPECIMENS FROM VAGUE LOCALITIES OF "7 MI W OF OLD KERN RIVER" (LIKELY THE COMMUNITY OF OLD RIVER) AND "5 MI SW OF STEVENS" ARE ALSO ATTRIBUTED HERE.						
Ecological:	NEARBY VEGETATION NOTED AS GRASS MESQUITE.						
General:	3 DEAD ON ROAD DETECTED AND SPECIMENS COLLECTED IN MAY 1939. COLLECTED ON 1 SEP 1995, AND ON 7 MAY 1997.						
Owner/Manager:	UNKNOWN						

Occurrence No.	55	Map Index:	15508	EO Index:	104933	Element Last Seen:	1932-06-19
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1932-06-19
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2017-03-13
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.23026 / -119.33144				Accuracy:	1 mile	
UTM:	Zone-11 N3901069 E287829				Elevation (ft):	300	
PLSS:	T31S, R25E, Sec. 18 (M)				Acres:	0.0	
Location:	BUENA VISTA LAKE (DRY), NORTH SHORE ALONG GOLF COURSE ROAD, SW OF BAKERSFIELD.						
Detailed Location:	MAPPED TO VICINITY OF NORTH BUENA VISTA LAKE ALONG ROAD, EXACT LOCATION UNKNOWN.						
Ecological:							
General:	1 COLLECTED DEAD ON THE ROAD ON 19 JUN 1932.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	170	Map Index:	A3863	EO Index:	105517	Element Last Seen:	1946-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1946-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2017-03-02
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.3142 / -119.27825				Accuracy:	1 mile	
UTM:	Zone-11 N3910269 E292885				Elevation (ft):	313	
PLSS:	T30S, R25E, Sec. 15 (M)				Acres:	1987.0	
Location:	5 MI W OF STEVENS.						
Detailed Location:							
Ecological:							
General:	KLAUBER 1946 ARTICLE LISTS 5 MI W OF STEVENS AS AN OCCURRENCE LOCALITY.						
Owner/Manager:	UNKNOWN						

Occurrence No.	252	Map Index:	15325	EO Index:	105455	Element Last Seen:	196X-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	196X-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2017-02-22
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.14218 / -119.45262				Accuracy:	1 mile	
UTM:	Zone-11 N3891564 E276558				Elevation (ft):	900	
PLSS:	T32S, R23E, Sec. 13 (M)				Acres:	0.0	
Location:	VICINITY OF TAFT.						
Detailed Location:							
Ecological:							
General:	SPECIMEN COLLECTED IN THE 1950S-1960S.						
Owner/Manager:	UNKNOWN						

Occurrence No.	253	Map Index:	A3804	EO Index:	105459	Element Last Seen:	1939-05-14
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1939-05-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2017-03-14
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.16658 / -119.53211				Accuracy:	1 mile	
UTM:	Zone-11 N3894453 E269385				Elevation (ft):	1373	
PLSS:	T32S, R23E, Sec. 5 (M)				Acres:	1987.0	
Location:	VICINITY OF FELLOWS AND MIDOIL.						
Detailed Location:							
Ecological:	NEARBY VEGETATION NOTED AS BARREN FIELDS.						
General:	KLAUBER 1946 ARTICLE NAMED FELLOWS AND MIDOIL AS OCCURRENCE LOCALITIES. 2 FOUND DOR ON 14 MAY 1939.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	254	Map Index:	97775	EO Index:	105460	Element Last Seen:	1939-05-17
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1939-05-17
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2017-03-14
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.30020 / -119.34921				Accuracy:	1 mile	
UTM:	Zone-11 N3908866 E286396				Elevation (ft):	340	
PLSS:	T30S, R24E, Sec. 24 (M)				Acres:	0.0	
Location:	VICINITY OF TUPMAN.						
Detailed Location:							
Ecological:	NEARBY VEGETATION NOTED AS BRUSH.						
General:	1 FOUND DOR ON 17 MAY 1939.						
Owner/Manager:	UNKNOWN						

<i>Masticophis flagellum ruddocki</i>				Element Code: ARADB21021			
San Joaquin coachwhip							
Listing Status:	Federal:	None		CNDDDB Element Ranks:	Global:	G5T2T3	
	State:	None			State:	S3	
	Other:	CDFW_SSC-Species of Special Concern					
Habitat:	General:	OPEN, DRY HABITATS WITH LITTLE OR NO TREE COVER. FOUND IN VALLEY GRASSLAND AND SALTBUSH SCRUB IN THE SAN JOAQUIN VALLEY.					
	Micro:	NEEDS MAMMAL BURROWS FOR REFUGE AND OVIPOSITION SITES.					

Occurrence No.	62	Map Index:	66197	EO Index:	66277	Element Last Seen:	1997-05-28
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1997-05-28
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-09-14
Quad Summary:	West Elk Hills (3511935), Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.29283 / -119.62668				Accuracy:	non-specific area	
UTM:	Zone-11 N3908683 E261139				Elevation (ft):	1250	
PLSS:	T30S, R22E, Sec. 29, NE (M)				Acres:	32.0	
Location:	HWY 33, 1.5 KILOMETERS (ABOUT 0.9 MI) SOUTH OF MCKITTRICK.						
Detailed Location:							
Ecological:							
General:	1 ADULT MALE COLLECTED BY G.B. RATHBUN VIA M.R. JENNINGS ON 28 MAY 1997, CAS #203180. SVL 1101 MM, TAIL 344 MM, 323 GM.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	64	Map Index:	66205	EO Index:	66285	Element Last Seen:	1995-04-27
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1995-04-27
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-09-15
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.22311 / -119.61233				Accuracy:	non-specific area	
UTM:	Zone-11 N3900913 E262241				Elevation (ft):	1640	
PLSS:	T31S, R22E, Sec. 21, NE (M)				Acres:	35.0	
Location:	MIDWAY SUNSET OIL FIELD, CROCKER SPRINGS RD, 1.0 MI FROM MOCAL RD.						
Detailed Location:	VAGUE LOCATION "CROCKER SPRINGS GRADE RD, 1.5 MI SW OF JCT WITH MOCAL RD" MAPPED IN NE1/4 SEC 21 ALONG CROCKER SPRINGS RD.						
Ecological:							
General:	1 ADULT COLLECTED BY D.J. GERMANO ON 11 APR 1994 AND 27 APR 1995, CAS #223725 & 223743, RESPECTIVELY. CALIFORNIA STATE UNIVERSITY BAKERSFIELD COLLECTION.						
Owner/Manager:	UNKNOWN						

Occurrence No.	65	Map Index:	66212	EO Index:	66286	Element Last Seen:	1996-03-31
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1996-03-31
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-09-15
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.21661 / -119.59819				Accuracy:	non-specific area	
UTM:	Zone-11 N3900158 E263509				Elevation (ft):	1510	
PLSS:	T31S, R22E, Sec. 22 (M)				Acres:	55.0	
Location:	MIDWAY SUNSET OIL FIELD, MOCAL RD, 500 FT (ABOUT 0.1 MI) S JUNCTION WITH CROCKER SPRINGS GRADE RD.						
Detailed Location:	INCLUDES LOCALITY "MIDWAY SUNSET OILFIELD, MOCAL RD, 2.5 MI W OF HWY 33."						
Ecological:							
General:	1 ADULT COLLECTED BY D.J. GERMANO ON 27 APR 1995, CAS #223726. 1 ADULT MALE COLLECTED BY D.J. GERMANO ON 31 MAR 1996, CAS #223748. CALIFORNIA STATE UNIVERSITY BAKERSFIELD COLLECTION.						
Owner/Manager:	UNKNOWN						

Occurrence No.	66	Map Index:	66207	EO Index:	66287	Element Last Seen:	2000-04-13
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2000-04-13
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-09-13
Quad Summary:	Stevens (3511932), Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.29616 / -119.19012				Accuracy:	non-specific area	
UTM:	Zone-11 N3908087 E300853				Elevation (ft):	104	
PLSS:	T30S, R26E, Sec. 28 (M)				Acres:	446.0	
Location:	PANAMA LANE BETWEEN HWY 43 AND BUENA VISTA RD.						
Detailed Location:							
Ecological:							
General:	1 ADULT MALE COLLECTED BY D.J. GERMANO ON 13 APR 2000, CAS #223727. CALIFORNIA STATE UNIVERSITY BAKERSFIELD COLLECTION.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	67	Map Index:	66209	EO Index:	66289	Element Last Seen:	2000-06-18
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2000-06-18
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-09-13
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.26722 / -119.23527				Accuracy:	non-specific area	
UTM:	Zone-11 N3904969 E296675				Elevation (ft):	310	
PLSS:	T30S, R25E, Sec. 36, SE (M)				Acres:	34.0	
Location:	HWY 119, 0.9 MI E ENOS LANE (HWY 43).						
Detailed Location:							
Ecological:							
General:	1 ADULT MALE COLLECTED BY D.J. GERMANO ON 18 JUN 2000, CAS #223728. CALIFORNIA STATE UNIVERSITY BAKERSFIELD COLLECTION.						
Owner/Manager:	UNKNOWN						

Occurrence No.	68	Map Index:	66210	EO Index:	66290	Element Last Seen:	1997-03-15
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1997-03-15
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-09-13
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.20587 / -119.45197				Accuracy:	non-specific area	
UTM:	Zone-11 N3898628 E276792				Elevation (ft):	700	
PLSS:	T31S, R23E, Sec. 25, NE (M)				Acres:	150.0	
Location:	TAFT LANDFILL.						
Detailed Location:							
Ecological:							
General:	1 MALE BETWEEN JUVENILE AND ADULT COLLECTED BY W. VANDERWEG ON 15 MAR 1997, CAS #223745. CALIFORNIA STATE UNIVERSITY BAKERSFIELD COLLECTION.						
Owner/Manager:	UNKNOWN						

Occurrence No.	73	Map Index:	68752	EO Index:	69235	Element Last Seen:	2006-07-11
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2006-07-11
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-04-02
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.26530 / -119.20683				Accuracy:	80 meters	
UTM:	Zone-11 N3904698 E299258				Elevation (ft):	315	
PLSS:	T31S, R26E, Sec. 05, NE (M)				Acres:	0.0	
Location:	0.1 MILE SOUTH OF TAFT HIGHWAY AND 1 MILE EAST OF I-5, 11 MILES SW OF BAKERSFIELD.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF VALLEY SINK SCRUB, DOMINATED BY ATRIPLEX SPINIFERA & SUAEDA MOQUINI, GREAT VALLEY MESQUITE SCRUB, DOMINATED BY PROSOPIS GLANDULOSA & A. POLYCARPA, AND VALLEY SALTBUSH SCRUB, DOMINATED BY A. POLYCARPA & A. SPINIFERA.						
General:	1 ADULT OBSERVED ON 11 JUL 2006.						
Owner/Manager:	PVT						



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Occurrence No.	74	Map Index:	68753	EO Index:	69236	Element Last Seen:	2006-07-11
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2006-07-11
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-04-02
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.26145 / -119.21307				Accuracy:	80 meters	
UTM:	Zone-11 N3904282 E298680				Elevation (ft):	315	
PLSS:	T31S, R26E, Sec. 05, NE (M)				Acres:	0.0	
Location:	0.4 MILE SOUTH OF TAFT HIGHWAY AND 0.3 MILE EAST OF I-5, 11 MILES SW OF BAKERSFIELD.						
Detailed Location:							
Ecological:	HABITAT CONSISTS OF VALLEY SINK SCRUB, DOMINATED BY ATRIPLEX SPINIFERA & SUAEDA MOQUINI, GREAT VALLEY MESQUITE SCRUB, DOMINATED BY PROSOPIS GLANDULOSA & A. POLYCARPA, AND VALLEY SALTBU SH SCRUB, DOMINATED BY A. POLYCARPA & A. SPINIFERA.						
General:	1 ADULT OBSERVED ON 3 JUN 2006.						
Owner/Manager:	PVT						

Occurrence No.	100	Map Index:	B1283	EO Index:	113180	Element Last Seen:	2017-05-11
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2017-05-11
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2018-10-31
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.29926 / -119.57029				Accuracy:	specific area	
UTM:	Zone-11 N3909262 E266288				Elevation (ft):	1052	
PLSS:	T30S, R22E, Sec. 24, SW (M)				Acres:	10.0	
Location:	VICINITY OF SKYLINE RD ABOUT 1.4 MILES NW OF THE RESERVE RD JUNCTION & 3.0 MILES ESE OF MCKITTRICK.						
Detailed Location:	MAPPED TO COORDINATES PROVIDED FOR SNAKE FOUND AT REMEDIATION SITE, AND LOCATION DESCRIPTION OF SECOND INDIVIDUAL "0.2 MILES EAST FROM THE OBSERVATION POINT," ON ROAD.						
Ecological:	OIL FIELD SUMP SITE, SURROUNDED BY EXCLUSION FENCING AND SURVEYED PRIOR TO REMEDIATION ACTIVITIES. IN ACTIVE OIL FELD WITH SALTBU SH SCRUB AND NON-NATIVE GRASSLAND.						
General:	1 ADULT OBSERVED MOVING ALONG INSIDE OF EXCLUSION FENCE & 1 ADULT OBSERVED BASKING ON ASPHALT ROAD ON 11 MAY 2017.						
Owner/Manager:	PVT						



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Occurrence No.	102	Map Index:	B2768	EO Index:	114701	Element Last Seen:	2017-05-18
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2017-05-18
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2019-03-27
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.27489 / -119.32093				Accuracy:	80 meters	
UTM:	Zone-11 N3905998 E288903				Elevation (ft):	315	
PLSS:	T30S, R25E, Sec. 32, SW (M)				Acres:	5.0	
Location:	TUPMAN RD AT THE SKYLINE RD JUNCTION, W OF THE CALIFORNIA AQUEDUCT AND ABOUT 2.2 MI SE OF TUPMAN.						
Detailed Location:	MAPPED TO PROVIDED COORDINATES. SURVEYOR STATED THE ANIMAL WAS OBSERVED CROSSING TUPMAN RD INTO THE COLES LEVEE ECOSYSTEM PRESERVE (CLEP).						
Ecological:	CLEP IS PRIVATELY-OWNED MITIGATION BANK. PAVED ROAD IN VALLEY SALTBUSH SCRUB WITH NONNATIVE ANNUAL GRASSLAND. SURROUNDING LAND USES INCLUDED CALIF AQUEDUCT, AND OIL & GAS PRODUCTION IN NORTH COLES LEVEE OILFIELD TO EAST.						
General:	1 ADULT OBSERVED CROSSING ROAD ON 18 MAY 2017.						
Owner/Manager:	PVT						

<i>Thamnophis gigas</i>	Element Code: ARADB36150						
giant gartersnake							
Listing Status:	Federal:	Threatened	CNDDDB Element Ranks:	Global:	G2	State:	S2
	State:	Threatened					
	Other:	IUCN_VU-Vulnerable					
Habitat:	General:	PREFERS FRESHWATER MARSH AND LOW GRADIENT STREAMS. HAS ADAPTED TO DRAINAGE CANALS AND IRRIGATION DITCHES.					
	Micro:	THIS IS THE MOST AQUATIC OF THE GARTERSNAKES IN CALIFORNIA.					

Occurrence No.	137	Map Index:	32433	EO Index:	1572	Element Last Seen:	XXXX-XX-XX
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		XXXX-XX-XX	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		1995-11-30	
Quad Summary:	Buttonwillow (3511944)						
County Summary:	Kern						
Lat/Long:	35.39175 / -119.47842				Accuracy:	1 mile	
UTM:	Zone-11 N3919308 E274900				Elevation (ft):	270	
PLSS:	T29S, R23E, Sec. 23 (M)				Acres:	0.0	
Location:	NEAR BUTTONWILLOW; PROBABLY IN SUDAN DITCH BETWEEN BUTTONWILLOW.						
Detailed Location:							
Ecological:							
General:	KNOWN LOCALITY OF GIANT GARTER SNAKES. SNAKE OBSERVED PRIOR TO, BUT NOT DURING 1986-87 STUDY BY G. HANSEN. LITERATURE CITED IS H. S. FITCH (1940).						
Owner/Manager:	UNKNOWN						



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Occurrence No.	138	Map Index:	32434	EO Index:	1550	Element Last Seen:	XXXX-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	XXXX-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1995-11-30
Quad Summary:	Tupman (3511933), East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.32602 / -119.38099				Accuracy:	1 mile	
UTM:	Zone-11 N3911799 E283575				Elevation (ft):	280	
PLSS:	T30S, R24E, Sec. 10 (M)				Acres:	0.0	
Location:	NORTHWEST OF TUPAN, NEAR ELK HILLS NAVAL PETROLEUM RESERVE.						
Detailed Location:							
Ecological:							
General:	GIANT GARTER SNAKE WERE SIGHTED HERE PRIOR TO BUT NOT DURING THE 1986-87 STUDY BY G. HANSEN.						
Owner/Manager:	UNKNOWN						

Occurrence No.	139	Map Index:	32435	EO Index:	1618	Element Last Seen:	1949-08-05
Occ. Rank:	None			Presence:	Possibly Extirpated	Site Last Seen:	1987-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2014-12-08
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.26803 / -119.30084				Accuracy:	1 mile	
UTM:	Zone-11 N3905194 E290712				Elevation (ft):	300	
PLSS:	T30S, R25E, Sec. 33 (M)				Acres:	0.0	
Location:	VICINITY OF HWY 119 AND TUPMAN RD INTERSECTION, JUST NORTH OF BUENA VISTA LAKE (HISTORIC), 3.4 MILES SE OF TUPMAN.						
Detailed Location:	MAPPED GENERALLY TO PROVIDED LOCATION DESCRIPTION OF "14.8 MI E FELLOWS ON U.S. 399." LOCATION TAKEN TO BE APPROXIMATELY 14.8 MILES FROM FELLOWS ALONG HWY 119. INTERNET SEARCH DETERMINED THAT HWY 119 WAS PREVIOUSLY KNOWN AS U.S. 399.						
Ecological:							
General:	1 COLLECTED ON 5 AUG 1949 BY J.B. GORMAN (MVZ #52254). NONE DETECTED DURING 1986-1987 SURVEYS CONDUCTED BY G. HANSEN.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	140	Map Index:	32436	EO Index:	14845	Element Last Seen:	1958-08-02
Occ. Rank:	None			Presence:	Possibly Extirpated	Site Last Seen:	2006-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2014-12-15
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.23000 / -119.30490				Accuracy:	1 mile	
UTM:	Zone-11 N3900985 E290245				Elevation (ft):	290	
PLSS:	T31S, R25E, Sec. 16 (M)				Acres:	0.0	
Location:	LAKE EVANS/BUENA VISTA LAKE BED (HISTORIC), MOUTH OF KERN RIVER, SW OF BAKERSFIELD.						
Detailed Location:	MAPPED GENERALLY TO LAKE EVANS (2006) LOCATION & DESCRIPTION OF "BUENA VISTA LAKE" & "ED'S BOAT LANDING." EXACT LOCATIONS UNK. J. BRODES NOTED A COLL MADE IN 1936 IN A GEOGRAPHIC REFERENCE CATALOG; COULD NOT FIND ORIGINAL SPECIMEN RECORD.						
Ecological:	AERIAL PHOTOS (1990-2013) SHOW THAT HISTORIC LAKEBED HAS BEEN USED FOR AGRICULTURE. LAKE DRIED AFTER THE CONSTRUCTION OF ISABELLA DAM IN THE MID 20TH CENTURY. 2006: OPEN WATER WITH SOME TULE, LITTLE BARE GROUND, TERRESTRIAL VEG, & RIPRAP.						
General:	5 COLLECTED BTWN 8-10 MAY 1917 BY J. VAN DENBURGH & J.R. SLEVIN (CAS# 43256-60). 7 COLL ON 24 SEP 1946 & 16 COLL ON 24 JUL 1947 BY COWLES & LOWE (21071-93). 2 COLL ON 2 AUG 1958 BY J. NOKES (SDNHM #19577-78). 0 DETECTED DURING 2006 SURVEY.						
Owner/Manager:	UNKNOWN						

Valley Sink Scrub

Element Code: CTT36210CA

Valley Sink Scrub

Listing Status: **Federal:** None
State: None
Other:
Habitat: **General:** ☐
Micro: ☐

CNDDB Element Ranks: **Global:** G1
State: S1.1

Occurrence No.	2	Map Index:	15529	EO Index:	16347	Element Last Seen:	1985-03-14
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1985-03-14
Occ. Type:	Natural/Native occurrence			Trend:	Decreasing	Record Last Updated:	1998-07-14
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.35130 / -119.31449				Accuracy:	specific area	
UTM:	Zone-11 N3914460 E289686				Elevation (ft):	300	
PLSS:	T30S, R25E, Sec. 06, N (M)				Acres:	225.2	
Location:	STOCKDALE HWY (=BELLEVUE AVE) AT JUNCTION WITH I-5.						
Detailed Location:							
Ecological:	SINK AREA HAS SUAEDA, SOME ALLENROLFEA, SPECIES DIVERSITY LOW; WEEDY, LOTS OF SALSOLA. ADJACENT TO DEGRADED SALTBUSH SCRUB.						
General:	SEE HTTPS://WILDLIFE.CA.GOV/DATA/VEGCAMP/NATURAL-COMMUNITIES TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.						
Owner/Manager:	PVT						



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Occurrence No.	9	Map Index:	15648	EO Index:	16343	Element Last Seen:	1985-03-15
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1985-03-15
Occ. Type:	Natural/Native occurrence			Trend:	Decreasing	Record Last Updated:	1998-07-14
Quad Summary:	Millux (3511922)						
County Summary:	Kern						
Lat/Long:	35.15407 / -119.21687				Accuracy:	specific area	
UTM:	Zone-11 N3892379 E298069				Elevation (ft):	295	
PLSS:	T32S, R26E, Sec. 07, S (M)				Acres:	252.8	
Location:	NORTH OF EAST-WEST TRENDING PART OF SOUTH LAKE ROAD, SOUTH OF BUENA VISTA LAKE BED.						
Detailed Location:							
Ecological:	SUAEDA IS A MAJOR COMPONENT OF THIS AREA; REMAINDER HAS ATRIPLEX POLYCARPA & A. LENTIFORMIS, SPECIES DIVERSITY LOW; DEPAUPERATE HERB LAYER. EXOTICS PRESENT.						
General:	SEE HTTPS://WILDLIFE.CA.GOV/DATA/VEGCAMP/NATURAL-COMMUNITIES TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.						
Owner/Manager:	PVT						

Occurrence No.	25	Map Index:	15624	EO Index:	25389	Element Last Seen:	1987-05-05
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1987-05-05
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-07-14
Quad Summary:	Millux (3511922), Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.23413 / -119.23712				Accuracy:	1 mile	
UTM:	Zone-11 N3901301 E296424				Elevation (ft):	295	
PLSS:	T31S, R25E, Sec. 13, NE (M)				Acres:	0.0	
Location:	VICINITY OF MOUTH OF BUENA VISTA AQUATIC RECREATION AREA CANAL NEAR COLES LEVEE ROAD.						
Detailed Location:	SIMILIAR VEGETATION ON ADJACENT SECTION.						
Ecological:	SCRUB W/MOSAIC OF HABITAT TYPES, DIVERSE PLANT SPECIES. SUAEDA MOQUINII DOMINANT IN SINK W/ALLENROLFEA OCCIDENTALIS, FRANKENIA GRANDIFOLIA, INTROD. GRASSES. SPARSE SPOROBOLUS AIROIDES NEAR CANAL. ACTIVE KIT FOX DEN, CALOCHORTUS STRIATUS.						
General:	WITHIN THE BUENA VISTA AQUATIC RECREATION AREA. SEE HTTPS://WILDLIFE.CA.GOV/DATA/VEGCAMP/NATURAL-COMMUNITIES TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.						
Owner/Manager:	STATE						



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Occurrence No.	30	Map Index:	20574	EO Index:	9786	Element Last Seen:	1988-03-25
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1988-03-25
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-07-14
Quad Summary:	Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.40858 / -119.55378				Accuracy:	non-specific area	
UTM:	Zone-11 N3921350 E268102				Elevation (ft):	275	
PLSS:	T29S, R23E, Sec. 18 (M)				Acres:	324.6	
Location:	NW OF HIGHWAY 58 WHERE ROAD BENDS AND INTERSECTS LOKERN ROAD.						
Detailed Location:	AREA SURROUNDS KERN RIVER FLOOD CONTROL LEVEE.						
Ecological:	ATRIPLEX SPINIFERA, A. POLYCARPA, SUAEDA MOQUINII WITH BROMUS RUBENS, VULPIA MYUROS, DISTICHLIS SPICATA. ATRIPLEX LENTIFORMIS AND BACCHARIS ALSO FOUND. SPARSE ANNUAL GRASSES. UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.						
General:	SEE HTTPS://WILDLIFE.CA.GOV/DATA/VEGCAMP/NATURAL-COMMUNITIES TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.						
Owner/Manager:	UNKNOWN						

Valley Saltbush Scrub

Element Code: CTT36220CA

Valley Saltbush Scrub

Listing Status: **Federal:** None
State: None
Other:

CNDDDB Element Ranks: **Global:** G2
State: S2.1

Habitat: **General:** ☐
Micro: ☐

Occurrence No.	6	Map Index:	15514	EO Index:	16328	Element Last Seen:	1985-03-14
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1985-03-14
Occ. Type:	Natural/Native occurrence			Trend:	Decreasing	Record Last Updated:	1998-07-14
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.35477 / -119.32572				Accuracy:	specific area	
UTM:	Zone-11 N3914869 E288674				Elevation (ft):	300	
PLSS:	T30S, R25E, Sec. 06, N (M)				Acres:	788.9	
Location:	STOCKDALE HWY (=BELLEVUE ROAD) AT JUNCTION WITH I-5.						
Detailed Location:	MAY EXTEND FURTHER WEST THAN BOUNDARY SHOWN.						
Ecological:	ATRIPLEX POLYCARPA & SOME A. SPINIFERA ON SANDY LOAM. INTEGRADES WITH VALLEY SINK SCRUB IN AREAS. FORMERLY SUPPORTED MESQUITE SCRUB & EXTENDED FURTHER EAST.						
General:	SEE HTTPS://WILDLIFE.CA.GOV/DATA/VEGCAMP/NATURAL-COMMUNITIES TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.						
Owner/Manager:	PVT						



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Occurrence No.	17	Map Index:	15648	EO Index:	16320	Element Last Seen:	1985-03-15
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1985-03-15
Occ. Type:	Natural/Native occurrence			Trend:	Decreasing	Record Last Updated:	1998-07-14
Quad Summary:	Millux (3511922)						
County Summary:	Kern						
Lat/Long:	35.15407 / -119.21687				Accuracy:	specific area	
UTM:	Zone-11 N3892379 E298069				Elevation (ft):	295	
PLSS:	T32S, R26E, Sec. 07, S (M)				Acres:	252.8	
Location:	NORTH OF EAST-WEST TRENDING PART OF SOUTH LAKE ROAD, SOUTH OF BUENA VISTA LAKE BED.						
Detailed Location:							
Ecological:	SCATTERED ATRIPLEX POLYCARPA IN MOSAIC W/ SUAEDA SCRUB, ATRIPLEX LENTIFORMIS IN WETTER SITES. TOTAL SCRUB COVER ABOUT 30%. LOW, WEEDY, INCLUDING TAMARIX. DEPAUPERATE HERB LAYER.						
General:	SEE HTTPS://WILDLIFE.CA.GOV/DATA/VEGCAMP/NATURAL-COMMUNITIES TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.						
Owner/Manager:	PVT						

Occurrence No.	19	Map Index:	20591	EO Index:	9746	Element Last Seen:	1989-02-15
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1989-02-15
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-07-14
Quad Summary:	Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.41534 / -119.59326				Accuracy:	specific area	
UTM:	Zone-11 N3922193 E264535				Elevation (ft):	340	
PLSS:	T29S, R22E, Sec. 15 (M)				Acres:	5675.7	
Location:	BOTH SIDES OF LOKERN ROAD, WEST OF WEST SIDE CANAL.						
Detailed Location:							
Ecological:	GRADIENT OF SALT BUSH SCRUB W/ATRIPLEX POLYCARPA & A. SPINIFERA TO VALLEY SINK SCRUB W/SUAEDA MOQUINII AT LOWER LEVEL TOWARD NE OF SITE. GRADES INTO COAST RANGE SALT BUSH SCRUB AT ABOUT 500 FT ELEV. RARE TAXA PRESENT.						
General:	GOOD COND, 1989. MAP UPDATED IN 92 FROM CEC90M0001. EXCERPT IS FILED IN NC ELF 36220. SEE HTTPS://WILDLIFE.CA.GOV/DATA/VEGCAMP/NATURAL-COMMUNITIES TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.						
Owner/Manager:	PVT						



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Occurrence No.	22	Map Index:	20588	EO Index:	9741	Element Last Seen:	1987-04-28
Occ. Rank:	Poor	Presence:	Presumed Extant	Site Last Seen:		1987-04-28	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		1998-07-14	

Quad Summary: Maricopa (3511914)

County Summary: Kern

Lat/Long:	35.10832 / -119.38944	Accuracy:	specific area
UTM:	Zone-11 N3887667 E282225	Elevation (ft):	1000
PLSS:	T32S, R24E, Sec. 34 (M)	Acres:	1093.3

Location: IMMEDIATELY SOUTH OF MIDWAY VALLEY, EAST OF HIGHWAY 33.

Detailed Location: PARALLELS VALLEY, LOW-LYING AREA.

Ecological: MODERATE TO HEAVILY DISTURBED SALTBUSH SCRUB WITH DENSE BROMUS MADRITENSIS SSP. RUBENS GROUNDCOVER.

General: PERTINENT EXCERPT FROM CEC90M0001 FILED IN NC ELF 36220. SEE [HTTPS://WILDLIFE.CA.GOV/DATA/VEGCAMP/NATURAL-COMMUNITIES](https://wildlife.ca.gov/Data/VegCamp/Natural-Communities) TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

Owner/Manager: PVT

Occurrence No.	23	Map Index:	20589	EO Index:	9751	Element Last Seen:	1988-04-13
Occ. Rank:	Good	Presence:	Presumed Extant	Site Last Seen:		1988-04-13	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		1998-07-14	

Quad Summary: East Elk Hills (3511934), West Elk Hills (3511935)

County Summary: Kern

Lat/Long:	35.36808 / -119.50521	Accuracy:	specific area
UTM:	Zone-11 N3916744 E272399	Elevation (ft):	525
PLSS:	T29S, R23E, Sec. 28, E (M)	Acres:	294.2

Location: 7 MILES NE OF MCKITTRICK, ADJACENT TO AND NORTH OF THE CALIFORNIA AQUEDUCT.

Detailed Location: NORTHEAST ASPECT.

Ecological: ATRIPLEX POLYCARPA, BROMUS RUBENS, VULPIA MYUROS, LEPIDIUM DICTYOTUM, L. NITIDUM, ERODIUM CICUTARIUM, HORDEUM LEPORINUM, LASTHENIA CALIFORNICA. CLAY SANDY LOAM SOILS. DENSE BROMUS MADRITENSIS SSP. RUBENS BORDERS.

General: PERTINENT EXCERPT FROM CEC90M0001 IN NC ELF 36220. SEE [HTTPS://WILDLIFE.CA.GOV/DATA/VEGCAMP/NATURAL-COMMUNITIES](https://wildlife.ca.gov/Data/VegCamp/Natural-Communities) TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

Owner/Manager: UNKNOWN



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Valley Sacaton Grassland

Element Code: CTT42120CA

Valley Sacaton Grassland

Listing Status: **Federal:** None

CNDDDB Element Ranks: **Global:** G1

State: None

State: S1.1

Other:

Habitat: **General:** ☐

Micro: ☐

Occurrence No. 14 **Map Index:** 20254 **EO Index:** 9594 **Element Last Seen:** 1988-09-21

Occ. Rank: Excellent **Presence:** Presumed Extant **Site Last Seen:** 1988-09-21

Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 1998-07-14

Quad Summary: Millux (3511922)

County Summary: Kern

Lat/Long: 35.24063 / -119.24006 **Accuracy:** non-specific area

UTM: Zone-11 N3902028 E296173 **Elevation (ft):** 300

PLSS: T31S, R25E, Sec. 12, SE (M) **Acres:** 80.6

Location: NORTH OF UNION ROAD; JUST WEST OF BEND WHERE THE LEVEE ROAD BECOMES UNION ROAD.

Detailed Location: MODERATELY DENSE STANDS OF ALKALI BUNCHGRASSES INTERSPERSED WITH PLAYAS AND VALLEY SINK SCRUB. COMMUNITY PROBABLY EXTENDS WEST AND NORTH.

Ecological: SPOROBOLUS AIROIDES IN LOW AREAS AND WITH SCATTERED ATRIPLEX SPINIFERA IN HIGHER SPOTS. GOOD PLAYA/HUMMOCK SYSTEM. ALSO INCLUDES DICHELOSTEMMA PULCHELLA, DELPHINIUM SPP., ERIASTRUM SPP. MORE COMPLETE LIST ON SOURCE DOCUMENT.

General: OWNER IS TENECO OR OCEANIC CALIFORNIA, INC. SEE [HTTPS://WILDLIFE.CA.GOV/DATA/VEGCAMP/NATURAL-](https://wildlife.ca.gov/Data/VegCamp/Natural-Communities) COMMUNITIES TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

Owner/Manager: PVT

Great Valley Mesquite Scrub

Element Code: CTT63420CA

Great Valley Mesquite Scrub

Listing Status: **Federal:** None

CNDDDB Element Ranks: **Global:** G1

State: None

State: S1.1

Other:

Habitat: **General:** ☐

Micro: ☐



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Occurrence No.	1	Map Index:	15663	EO Index:	28801	Element Last Seen:	1983-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1983-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-07-22
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.28884 / -119.20816				Accuracy:	1 mile	
UTM:	Zone-11 N3907311 E299195				Elevation (ft):	325	
PLSS:	T30S, R26E, Sec. 29 (M)				Acres:	0.0	
Location:	SOUTH SIDE OF PANAMA LANE FROM 1-3 MILES EAST OF ENOS LANE.						
Detailed Location:							
Ecological:	OPEN SAVANNAH OF MESQUITE & SALTBUSH ON SANDY ALLUVIUM.						
General:	MESQUITE HEALTHY IN UNNATURAL ECOSYSTEM PER GRIGGS, 1982. MARGINAL CONDITION AND POOR VIABILITY PER GRIGGS, 1983. SEE HTTPS://WILDLIFE.CA.GOV/DATA/VEGCAMP/NATURAL-COMMUNITIES TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.						
Owner/Manager:	UNKNOWN						

Occurrence No.	2	Map Index:	15664	EO Index:	15257	Element Last Seen:	1985-03-14
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1985-03-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-07-22
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.31957 / -119.21105				Accuracy:	specific area	
UTM:	Zone-11 N3910725 E299008				Elevation (ft):	335	
PLSS:	T30S, R26E, Sec. 17 (M)				Acres:	1926.5	
Location:	BOTH SIDES KERN RIVER, EAST OF CANAL OIL FIELD, NORTH OF TEN SECTION OIL FIELD, 10 MILES WEST OF BAKERSFIELD.						
Detailed Location:							
Ecological:	ON SANDY ALLUVIUM ADJ TO RIPARIAN WOODLAND W/POPULUS, SALIX. TAXA INCL PROSOPIS, ATRIPLEX POLYCARPA, A. LENTIFORMIS, A. CANESCENS, BACCHARIS, HAPLOPAPPUS.						
General:	GOOD-FAIR CONDITION, 1985. SEE HTTPS://WILDLIFE.CA.GOV/DATA/VEGCAMP/NATURAL-COMMUNITIES TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.						
Owner/Manager:	CITY OF BAKERSFIELD						



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Occurrence No.	4	Map Index:	15514	EO Index:	15256	Element Last Seen:	1985-03-14
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1985-03-14
Occ. Type:	Natural/Native occurrence			Trend:	Decreasing	Record Last Updated:	1998-07-22
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.35477 / -119.32572				Accuracy:	specific area	
UTM:	Zone-11 N3914869 E288674				Elevation (ft):	310	
PLSS:	T30S, R25E, Sec. 06, NE (M)				Acres:	788.9	
Location:	STOCKDALE HWY SOUTH SIDE OF ROAD, 0.5 TO 3 MILES EAST OF I-5.						
Detailed Location:	FEW REMAINING MESQUITES. SOME ALLSCALE SALTBUCH SCRUB REMAINS ALONG W/DEGRADED VALLEY SINK SCRUB.						
Ecological:	DEGRADED SITE. UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.						
General:	POOR CONDITION, 1985, PROBABLY BECAUSE OF LOWERED WATER TABLE AND OTHER DISTURBANCES. SEE HTTPS://WILDLIFE.CA.GOV/DATA/VEGCAMP/NATURAL-COMMUNITIES TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.						
Owner/Manager:	PVT						

Occurrence No.	5	Map Index:	15595	EO Index:	28799	Element Last Seen:	1983-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1983-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Decreasing	Record Last Updated:	1998-07-22
Quad Summary:	Millux (3511922), Mouth of Kern (3511923), Stevens (3511932), Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.25162 / -119.26177				Accuracy:	1 mile	
UTM:	Zone-11 N3903292 E294225				Elevation (ft):	300	
PLSS:	T31S, R25E, Sec. 11 (M)				Acres:	0.0	
Location:	NORTHEAST OF BUENA VISTA LAKE, SOUTH OF HWY 119 ALONG ENOS LANE.						
Detailed Location:	INCLUDES SECTIONS 1,2,3,10,11,12. 1500 ACRES.						
Ecological:	SANDY AREA. MOST MESQUITE DECADENT, APPARENTLY SLOWLY DYING AS WATER TABLE HAS DROPPED (GRIGGS, 1982).						
General:	POOR CONDITION, OIL FIELD ON SITE, 1983, PER GRIGGS. SEE HTTPS://WILDLIFE.CA.GOV/DATA/VEGCAMP/NATURAL-COMMUNITIES TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.						
Owner/Manager:	UNKNOWN						



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Lytta hoppingi

Element Code: IICOL4C010

Hopping's blister beetle

Listing Status: **Federal:** None

CNDDDB Element Ranks: **Global:** G1G2

State: None

State: S2

Other:

Habitat: **General:** INHABITS THE FOOTHILLS AT THE SOUTHERN END OF THE CENTRAL VALLEY.

Micro: ☐

Occurrence No. 4 **Map Index:** 15325 **EO Index:** 14398 **Element Last Seen:** 1978-04-29

Occ. Rank: Unknown **Presence:** Presumed Extant **Site Last Seen:** 1978-04-29

Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 2006-03-29

Quad Summary: Taft (3511924)

County Summary: Kern

Lat/Long: 35.14218 / -119.45262 **Accuracy:** 1 mile

UTM: Zone-11 N3891564 E276558 **Elevation (ft):** 900

PLSS: T32S, R23E, Sec. 13 (M) **Acres:** 0.0

Location: TAFT, 30 MILES SOUTHWEST OF BAKERSFIELD.

Detailed Location:

Ecological:

General: UNKNOWN NUMBER OF INDIVIDUALS COLLECTED AT SITE IN 1980'S BY TYSON, AND GIVEN TO J. PINTO OF UC RIVERSIDE WHO IDENTIFIED THE SPECIES.

Owner/Manager: UNKNOWN



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Bombus crotchii

Element Code: IIHYM24480

Crotch's bumble bee

Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: G2
	State: Candidate Endangered		State: S2
	Other: IUCN_EN-Endangered		
Habitat:	General: COASTAL CALIFORNIA EAST TO THE SIERRA-CASCADE CREST AND SOUTH INTO MEXICO.		
	Micro: FOOD PLANT GENERA INCLUDE ANTIRRHINUM, PHACELIA, CLARKIA, DENDROMECON, ESCHSCHOLZIA, AND ERIOGONUM.		

Occurrence No.	103	Map Index:	97540	EO Index:	98849	Element Last Seen:	1996-04-16
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:			1996-04-16
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:			2015-09-22

Quad Summary: Reward (3511936)

County Summary: Kern

Lat/Long:	35.30179 / -119.69199	Accuracy:	non-specific area
UTM:	Zone-11 N3909836 E255226	Elevation (ft):	1800
PLSS:	T30S, R21E, Sec. 23 (M)	Acres:	4236.0

Location: LITTLE SANTA MARIA VALLEY.

Detailed Location: EXACT LOCATION UNKNOWN. MAPPED BY CNDDDB NON-SPECIFICALLY ACROSS MUCH OF THE EXPANSE OF LITTLE SANTA MARIA VALLEY, ON THE NE SIDE OF THE TEBLOR RANGE.

Ecological:

General: A COLLECTION WAS MADE IN THIS VICINITY ON 16 APR 1996.

Owner/Manager: UNKNOWN

Occurrence No.	104	Map Index:	97543	EO Index:	98854	Element Last Seen:	1957-06-16
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:			1957-06-16
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:			2015-09-16

Quad Summary: East Elk Hills (3511934)

County Summary: Kern

Lat/Long:	35.27970 / -119.46348	Accuracy:	1 mile
UTM:	Zone-11 N3906844 E275947	Elevation (ft):	1300
PLSS:	T30S, R23E, Sec. 36 (M)	Acres:	0.0

Location: 10 MILES EAST OF MCKITTRICK.

Detailed Location: EXACT LOCATION UNKNOWN. MAPPED BY CNDDDB 10 ROAD MILES EAST OF MCKITTRICK, IN THE ELK HILLS.

Ecological:

General: A COLLECTION WAS MADE IN THIS VICINITY ON 16 JUN 1957.

Owner/Manager: UNKNOWN



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Protodufourea zavortinki

Element Code: IIHYM77020

Zavortink's protodufourea bee

Listing Status: **Federal:** None

CNDDDB Element Ranks: **Global:** G1

State: None

State: S1

Other:

Habitat: **General:** ☐

Micro: ☐

Occurrence No.	1	Map Index:	59953	EO Index:	59989	Element Last Seen:	1993-05-28
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		1993-05-28	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2005-02-10	

Quad Summary: West Elk Hills (3511935), Reward (3511936)

County Summary: Kern

Lat/Long:	35.30576 / -119.62332	Accuracy:	2/5 mile
UTM:	Zone-11 N3910108 E261483	Elevation (ft):	1050
PLSS:	T30S, R22E, Sec. 21 (M)	Acres:	0.0

Location: MCKITTRICK.

Detailed Location: 17.7 KM (11 MI) W HWY 58.

Ecological: TAKEN ON PHACELIA.

General: HOLOTYPE MALE AND TWO MALE PARATYPES, DEPOSITED AT USU (UTAH STATE UNIVERSITY, LOGAN).

Owner/Manager: UNKNOWN



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Cirsium crassicaule

Element Code: PDAST2E0U0

slough thistle

Listing Status: **Federal:** None

CNDDB Element Ranks: **Global:** G1

State: None

State: S1

Other: Rare Plant Rank - 1B.1, BLM_S-Sensitive

Habitat: **General:** CHENOPOD SCRUB, MARSHES AND SWAMPS, RIPARIAN SCRUB.

Micro: SLOUGHS, RIVERBANKS, AND MARSHY AREAS. 3-95 M.

Occurrence No.	4	Map Index:	15545	EO Index:	17114	Element Last Seen:	1968-07-09
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		1976-04-15	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2014-04-23	

Quad Summary: Tupman (3511933)

County Summary: Kern

Lat/Long:	35.26829 / -119.30512	Accuracy:	1/5 mile
UTM:	Zone-11 N3905232 E290323	Elevation (ft):	300
PLSS:	T30S, R25E, Sec. 33, SW (M)	Acres:	0.0

Location: E BANK OF KERN RIVER, N SIDE OF OLD RIVER-TAFT HWY (HWY 119), 3 MI SE OF TUPMAN.

Detailed Location: MAPPED AS BEST GUESS BY CNDDB BASED ON THE LOCALITY FROM A 1968 FULLER COLLECTION, NEAR THE COMMON CORNER OF SECTIONS 4, 5, 32, AND 33.

Ecological: ON RIVER BANK.

General: SEEN IN 1968; PLANTS DESCRIBED AS "9 FT TALL, LOCALLY ABUNDANT." SEARCHED FOR IN 1976; ONLY DRIED REMAINS OF PLANTS FROM PREVIOUS YEARS WERE FOUND.

Owner/Manager: DOD-COE

Occurrence No.	14	Map Index:	15455	EO Index:	6703	Element Last Seen:	2004-05-30
Occ. Rank:	Fair	Presence:	Presumed Extant	Site Last Seen:		2004-05-30	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2014-04-25	

Quad Summary: Tupman (3511933)

County Summary: Kern

Lat/Long:	35.31082 / -119.36026	Accuracy:	specific area
UTM:	Zone-11 N3910068 E285419	Elevation (ft):	290
PLSS:	T30S, R24E, Sec. 23, N (M)	Acres:	71.8

Location: EITHER SIDE OF OUTLET CANAL NORTHWEST OF TUPMAN, TULE ELK STATE RESERVE.

Detailed Location: MAPPED AS 3 COLONIES IN THE SE 1/4 OF SE 1/4 OF SEC 14, N 1/2 OF SEC 23, AND NW 1/4 OF SEC 24. A 2004 MOE COLLECTION FROM TULE ELK STATE RESERVE IS ATTRIBUTED HERE; "A LARGE COLONY ALONG W BANK OF OUTLET CANAL NEAR THE ADOBE" WAS OBSERVED.

Ecological: IN A PERIODICALLY FLOODED MARSHY AREA AND ALONG CANAL BANKS WITH SALIX, GRINDELIA CAMPORUM, BACCHARIS VIMINEA, AS WELL AS ARTEMISIA DOUGLASIANA, SCIRPUS ACUTUS, ASCLEPIAS FASCICULARIS, AND LIPPIA NODIFLORA.

General: ABOUT 40 PLANTS SEEN IN 1987. GOOD SITE QUALITY. 574 PLANTS OBSERVED IN 1989; SITE QUALITY DESCRIBED AS FAIR TO POOR DUE TO FLUCTUATING WATER SUPPLY. 54 PLANTS OBSERVED IN 1990, A REFLECTION OF LACK OF WATER DELIVERY TO THE AREA.

Owner/Manager: DPR-TULE ELK SNR



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Lasthenia chrysantha

Element Code: PDAST5L030

alkali-sink goldfields

Listing Status: **Federal:** None
State: None
Other: Rare Plant Rank - 1B.1
Habitat: **General:** VERNAL POOLS.
Micro: ALKALINE. 0-200 M.

CNDDDB Element Ranks: **Global:** G2
State: S2

Occurrence No.	1	Map Index:	B5479	EO Index:	118438	Element Last Seen:	19XX-XX-XX
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	19XX-XX-XX		
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:	2020-05-28		
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.31491 / -119.36034			Accuracy:	non-specific area		
UTM:	Zone-11 N3910522 E285423			Elevation (ft):	300		
PLSS:	T30S, R24E, Sec. 14, E (M)			Acres:	993.0		
Location:	TULE ELK STATE NATURAL RESERVE.						
Detailed Location:	EXACT LOCATION UNKNOWN. MAPPED BY CNDDDB AROUND TULE ELK SNR BASED ON 1985 CHECKLIST ENTERED IN CALFLORA.						
Ecological:							
General:	ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1985 WOODWARD AND BOYD CHECKLIST ON CALFLORA. DATE OF OBSERVATION IS UNKNOWN. NEEDS FIELDWORK.						
Owner/Manager:	DPR-TULE ELK SNR						



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Lasthenia glabrata ssp. coulteri

Element Code: PDAST5L0A1

Coulter's goldfields

Listing Status: **Federal:** None **CNDDB Element Ranks:** **Global:** G4T2
State: None **State:** S2
Other: Rare Plant Rank - 1B.1, BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_SBBG-Santa Barbara Botanic Garden
Habitat: **General:** COASTAL SALT MARSHES, PLAYAS, VERNAL POOLS.
Micro: USUALLY FOUND ON ALKALINE SOILS IN PLAYAS, SINKS, AND GRASSLANDS. 1-1375 M.

Occurrence No. 59 **Map Index:** 48231 **EO Index:** 48231 **Element Last Seen:** 1963-04-12
Occ. Rank: Unknown **Presence:** Presumed Extant **Site Last Seen:** 1963-04-12
Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 2002-07-12

Quad Summary: Millux (3511922)

County Summary: Kern

Lat/Long: 35.19440 / -119.23245 **Accuracy:** 1 mile
UTM: Zone-11 N3896884 E296750 **Elevation (ft):** 300
PLSS: T31S, R26E, Sec. 30 (M) **Acres:** 0.0

Location: COLES LEVEE AT PIERI ROAD, BUENA VISTA LAKE.

Detailed Location: EXACT LOCATION UNKNOWN. MAPPED BY CNDDB AT INTERSECTION OF COLES LEVEE ROAD AND PIERI ROAD NEAR BUENA VISTA LAKE BED.

Ecological: MOIST ALKALI SOIL.

General: ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1963 TWISSELMANN COLLECTION. NEEDS FIELDWORK.

Owner/Manager: UNKNOWN



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Layia heterotricha

Element Code: PDAST5N070

pale-yellow layia

Listing Status: **Federal:** None **CNDDB Element Ranks:** **Global:** G2
State: None **State:** S2
Other: Rare Plant Rank - 1B.1, BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_SBBG-Santa Barbara Botanic Garden, USFS_S-Sensitive
Habitat: **General:** CISMONTANE WOODLAND, COASTAL SCRUB, PINYON AND JUNIPER WOODLAND, VALLEY AND FOOTHILL GRASSLAND.
Micro: ALKALINE OR CLAY SOILS; OPEN AREAS. 90-1800 M.

Occurrence No. 93 **Map Index:** 99929 **EO Index:** 101475 **Element Last Seen:** 1905-04-28
Occ. Rank: Unknown **Presence:** Presumed Extant **Site Last Seen:** 1905-04-28
Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 2016-05-06

Quad Summary: Reward (3511936)

County Summary: Kern

Lat/Long: 35.29969 / -119.648 **Accuracy:** 1 mile
UTM: Zone-11 N3909495 E259221 **Elevation (ft):**
PLSS: T30S, R22E, Sec. 19 (M) **Acres:** 1987.0

Location: ON THE HIGH RIDGE WEST OF MCKITTRICK.

Detailed Location: EXACT LOCATION UNKNOWN, MAPPED AS BEST GUESS BY CNDDB AROUND RIDGES/HILLS JUST WEST OF MCKITTRICK. NO ELEVATION GIVEN, MAY HAVE BEEN COLLECTED FURTHER WEST ON THE RIDGE OF THE TEMBLOR RANGE, NEAR CNDDB OCCURRENCES 81-83.

Ecological:

General: ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1905 HELLER COLLECTION. NEEDS FIELDWORK.

Owner/Manager: UNKNOWN

Stylocline citroleum

Element Code: PDAST8Y070

oil neststraw

Listing Status: **Federal:** None **CNDDB Element Ranks:** **Global:** G3
State: None **State:** S3
Other: Rare Plant Rank - 1B.1, BLM_S-Sensitive
Habitat: **General:** CHENOPOD SCRUB, COASTAL SCRUB, VALLEY AND FOOTHILL GRASSLAND.
Micro: FLATS, CLAY SOILS IN OIL-PRODUCING AREAS. 50-400 M.



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Occurrence No.	3	Map Index:	15325	EO Index:	14399	Element Last Seen:	1935-04-02
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1935-04-02
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1995-06-16
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.14218 / -119.45262				Accuracy:	1 mile	
UTM:	Zone-11 N3891564 E276558				Elevation (ft):	930	
PLSS:	T32S, R23E, Sec. 13, SE (M)				Acres:	0.0	
Location:	FLATS AT TAFT.						
Detailed Location:	EXACT LOCATION UNKNOWN. MAPPED BY CNDDDB IN THE VICINITY OF TAFT.						
Ecological:							
General:	ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1935 COLLECTION BY MUNZ. NEEDS FIELDWORK.						
Owner/Manager:	UNKNOWN						

Occurrence No.	4	Map Index:	39261	EO Index:	34263	Element Last Seen:	1997-03-10
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1997-03-10
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-10-26
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.24829 / -119.48205				Accuracy:	specific area	
UTM:	Zone-11 N3903403 E274171				Elevation (ft):	900	
PLSS:	T31S, R23E, Sec. 11, NW (M)				Acres:	3.8	
Location:	NORTH OF TAFT, WEST OF ELK HILLS ROAD ABOUT 3.3 AIR MILES NW OF INTERSECTION WITH VALLEY WEST ROAD, ELK HILLS OIL FIELD.						
Detailed Location:	IN LEVEL AREAS AND IN FLATTER RIDGES, AND DRAINAGE BOTTOMS WITHIN HILLY AREAS. MAPPED WITHIN THE SW 1/4 OF THE NW 1/4 OF SECTION 11.						
Ecological:	VALLEY SALT BUSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. IN MICROHABITATS WITH REDUCED ANNUAL COVER.						
General:	IN 1997, ABOUT 100 PLANTS SEEN BETWEEN THIS OCCURRENCE AND OCCURRENCES #10 AND #30. 1893 COLLECTION BY EASTWOOD SN (UC) FROM "BUENA VISTA HILLS, NEAR TAFT" ATTRIBUTED TO THIS SITE.						
Owner/Manager:	DOE						



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Occurrence No.	5	Map Index:	31354	EO Index:	12754	Element Last Seen:	1995-03-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1995-03-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-07-29
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.33435 / -119.49415				Accuracy:	non-specific area	
UTM:	Zone-11 N3912977 E273310				Elevation (ft):	420	
PLSS:	T30S, R23E, Sec. 10, NW (M)				Acres:	39.5	
Location:	ELK HILLS NAVAL PETROLEUM RESERVE NO. 1, ABOUT 1.5 MI SW OF ELK HILLS ROAD AT THE CA AQUEDUCT, NORTH BASE OF ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE SE 1/4 NW 1/4 SECTION 10.						
Ecological:	OPEN, CLAY RICH SEDIMENTARY DEPOSITS ON SOUTH-FACING SLOPE, SET IN ATRIPLEX POLYCARPA-HYMENOCLEA SALSOLA SCRUB WITH BROMUS RUBENS, AND GILIA. COLLECTED WITH TWO SIMILAR TAXA; STYLOCLINE GNAPHALOIDES AND FILAGO CALIFORNICA.						
General:	FREQUENT IN 1988. UNKNOWN NUMBER SEEN IN 1995. NOT OCCURRING IN NEARBY AREAS WITH DENSE STANDS OF BROMUS RUBENS.						
Owner/Manager:	DOD-ELK HILLS NAVAL PETROL RES						
Occurrence No.	6	Map Index:	14957	EO Index:	15230	Element Last Seen:	1932-04-04
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1932-04-04
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-07
Quad Summary:	West Elk Hills (3511935), Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.30495 / -119.62429				Accuracy:	1 mile	
UTM:	Zone-11 N3910021 E261393				Elevation (ft):	1000	
PLSS:	T30S, R22E, Sec. 21 (M)				Acres:	0.0	
Location:	MCKITTRICK.						
Detailed Location:	EXACT LOCATION UNKNOWN, MAPPED IN GENERAL VICINITY OF MCKITTRICK.						
Ecological:	CLAY SOIL, BRUSHY COUNTRY.						
General:	ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1932 JEPSON COLLECTION. NEEDS FIELDWORK.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	7	Map Index:	39262	EO Index:	34264	Element Last Seen:	2001-04-06
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-04-06
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-07
Quad Summary:	East Elk Hills (3511934), West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.32598 / -119.51327				Accuracy:	specific area	
UTM:	Zone-11 N3912093 E271548				Elevation (ft):	600	
PLSS:	T30S, R23E, Sec. 09, S (M)				Acres:	24.4	
Location:	ELK HILLS NAVAL PETROLEUM RESERVE NO. 1, ~2 TO 3.5 MI SW OF ELK HILLS ROAD AT THE CA AQUEDUCT, NORTH BASE OF ELK HILLS.						
Detailed Location:	SCATTERED COLONIES MAPPED WITHIN THE S 1/2 OF SECTION 9, THE WESTERN EDGE OF THE SW 1/4 OF SECTION 10, AND THE NORTH AND WEST 1/2 OF SECTION 16.						
Ecological:	VALLEY SALTBUSH SCRUB COMMUNITY; GROWING IN SANDY WASH ON SANDY LOAM SOIL. GROWING WITH ATRIPLEX POLYCARPA, HYMENOCLEA SALSOLA, AND BROMUS RUBENS.						
General:	UNKNOWN NUMBER SEEN IN 1995 BY HINSHAW, THOUGH 3 PLANTS COLLECTED TO BE SUBMITTED TO JEPS. 1207 PLANTS OBSERVED IN 2001.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						
Occurrence No.	8	Map Index:	39263	EO Index:	34265	Element Last Seen:	1995-03-12
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1995-03-12
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-07-29
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.32752 / -119.44940				Accuracy:	non-specific area	
UTM:	Zone-11 N3912117 E277359				Elevation (ft):	440	
PLSS:	T30S, R23E, Sec. 12, SE (M)				Acres:	41.2	
Location:	ELK HILLS NAVAL PETROLEUM RESERVE NO. 1, ABOUT 1.7 MI SE OF ELK HILLS ROAD AT THE CA AQUEDUCT, NORTH BASE OF ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE SE 1/4 SE 1/4 SECTION 12.						
Ecological:	VALLEY SALTBUSH SCRUB COMMUNITY; GROWING IN SANDY LOAM SOIL. GROWING WITH ATRIPLEX POLYCARPA, HYMENOCLEA SALSOLA, BROMUS RUBENS, STYLOCLINE GNAPHALOIDES AND FILAGO CALIFORNICA.						
General:	UNKNOWN NUMBER SEEN IN 1995.						
Owner/Manager:	DOD-ELK HILLS NAVAL PETROL RES						



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Occurrence No.	9	Map Index:	39264	EO Index:	34266	Element Last Seen:	1995-03-20
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1995-03-20
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1998-07-29
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.32410 / -119.42746				Accuracy:	non-specific area	
UTM:	Zone-11 N3911689 E279345				Elevation (ft):	380	
PLSS:	T30S, R24E, Sec. 17, NW (M)				Acres:	38.5	
Location:	ELK HILLS NAVAL PETROLEUM RESERVE NO. 1, ABOUT 3 MI SE OF ELK HILLS ROAD AT THE CA AQUEDUCT, NORTH BASE OF ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE NW 1/4 NW 1/4 SECTION 17.						
Ecological:	VALLEY SALTBUSSH SCRUB COMMUNITY IN SANDY LOAM SOIL. GROWING WITHIN MIXED STAND WITH STYLOCLINE GNAPHALOIDES AND FILAGO CALIFORNICA.						
General:	UNKNOWN NUMBER SEEN IN 1995.						
Owner/Manager:	DOD-ELK HILLS NAVAL PETROL RES						

Occurrence No.	10	Map Index:	57337	EO Index:	57353	Element Last Seen:	1997-03-10
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1997-03-10
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-10-26
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.24311 / -119.47291				Accuracy:	specific area	
UTM:	Zone-11 N3902807 E274988				Elevation (ft):	935	
PLSS:	T31S, R23E, Sec. 11, SE (M)				Acres:	1.2	
Location:	NORTH OF TAFT, WEST OF ELK HILLS ROAD ABOUT 2.75 AIR MILES NW OF INTERSECTION WITH VALLEY WEST RD, ELK HILLS OIL FIELD.						
Detailed Location:	MAPPED WITHIN THE NW 1/4 OF THE SE 1/4 OF SECTION 11.						
Ecological:	VALLEY SALTBUSSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. IN MICROHABITATS WITH REDUCED ANNUAL COVER AND IN LEVEL AREAS OF THE SECTION AND IN FLATTER RIDGES, DRAINAGE BOTTOMS WITHIN HILLY AREAS.						
General:	IN 1997, ABOUT 100 PLANTS SEEN BETWEEN THIS OCCURRENCE AND OCCURRENCES #4 AND #30.						
Owner/Manager:	DOE						



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Occurrence No.	11	Map Index:	57340	EO Index:	57356	Element Last Seen:	1999-04-06
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-04-06
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-10-26
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.24445 / -119.43664				Accuracy:	specific area	
UTM:	Zone-11 N3902873 E278292				Elevation (ft):	775	
PLSS:	T31S, R24E, Sec. 07, SE (M)				Acres:	3.4	
Location:	NORTH OF TAFT, EAST OF ELK HILLS ROAD ABOUT 2.5 AIR MILES NNE OF INTERSECTION WITH VALLEY WEST RD, ELK HILLS OIL FIELD.						
Detailed Location:	EAST AND WEST OF UNNAMED ROAD. MAPPED WITHIN THE NW 1/4 OF THE SE 1/4 OF SECTION 7.						
Ecological:	VALLEY SALTBUSSH SCRUB HABITAT ON CLAY OR SANDY EXPOSED SOILS. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	UNKNOWN NUMBER OF PLANTS SEEN IN 1999.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						
Occurrence No.	12	Map Index:	57342	EO Index:	57358	Element Last Seen:	1997-04-18
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1997-04-18
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-29
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.23679 / -119.46608				Accuracy:	specific area	
UTM:	Zone-11 N3902090 E275592				Elevation (ft):	710	
PLSS:	T31S, R23E, Sec. 14, NE (M)				Acres:	2.1	
Location:	NORTH OF TAFT, WEST OF ELK HILLS ROAD ABOUT 2.1 AIR MILES NW OF INTERSECTION WITH VALLEY WEST ROAD, ELK HILLS OIL FIELD.						
Detailed Location:	NORTH OF BUENA VISTA CREEK. TWO SMALL COLONIES MAPPED WITHIN THE SE 1/4 OF THE NE 1/4 OF SECTION 14.						
Ecological:	VALLEY SALTBUSSH SCRUB WITH ATRIPLEX POLYCARPA, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, BROMUS SPP., AND VULPIA SPP. IN LEVEL AREAS WITH REDUCED ANNUAL COVER.						
General:	IN 1997, ABOUT 1000 PLANTS SEEN BETWEEN THIS OCCURRENCE AND OCCURRENCE #13.						
Owner/Manager:	DOE						



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Occurrence No.	13	Map Index:	57344	EO Index:	57360	Element Last Seen:	1997-04-18
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1997-04-18
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-29
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.22777 / -119.48204				Accuracy:	specific area	
UTM:	Zone-11 N3901126 E274115				Elevation (ft):	710	
PLSS:	T31S, R23E, Sec. 14, SW (M)				Acres:	5.3	
Location:	NORTH OF TAFT, WEST OF ELK HILLS ROAD ABOUT 2.35 AIR MILES NW OF INTERSECTION WITH VALLEY WEST RD, ELK HILLS OIL FIELD.						
Detailed Location:	SOUTH OF BUENA VISTA CREEK. 4 SMALL COLONIES MAPPED AS THREE POLYGONS IN THE SW 1/4 OF THE SW 1/4 OF SECTION 14.						
Ecological:	VALLEY SALT BUSH SCRUB WITH ATRIPLEX POLYCARPA, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, BROMUS SPP., AND VULPIA SPP. IN LEVEL AREAS WITH REDUCED ANNUAL COVER.						
General:	IN 1997, ABOUT 1000 PLANTS SEEN BETWEEN THIS OCCURRENCE AND OCCURRENCE #13.						
Owner/Manager:	DOE						

Occurrence No.	14	Map Index:	57345	EO Index:	57361	Element Last Seen:	1997-03-03
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1997-03-03
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-10-26
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.22559 / -119.46370				Accuracy:	specific area	
UTM:	Zone-11 N3900842 E275778				Elevation (ft):	775	
PLSS:	T31S, R23E, Sec. 13, SW (M)				Acres:	4.5	
Location:	BUENA VISTA CREEK, NORTH OF TAFT, WEST OF ELK HILLS ROAD ABOUT 1.5 AIR MILES NW OF INTERSECTION WITH VALLEY WEST ROAD.						
Detailed Location:	ALONG THE SOUTH EDGE OF THE BROAD-BOTTOMED WASH. MAPPED WITHIN THE SW 1/4 OF THE SW 1/4 OF SECTION 13.						
Ecological:	VALLEY SALT BUSH SCRUB WITH ATRIPLEX POLYCARPA, HYMENOCLEA SALSOLA, ISOMERIS ARBOREA, BROMUS SPP., AND VULPIA SPP. IN AREAS WITH REDUCED ANNUAL COVER AND LEVEL TERRAIN.						
General:	ABOUT 2000 PLANTS SEEN IN 1997.						
Owner/Manager:	DOE						



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Occurrence No.	15	Map Index:	57347	EO Index:	57363	Element Last Seen:	2013-04-17
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2013-04-17
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-07
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.23047 / -119.44660				Accuracy:	specific area	
UTM:	Zone-11 N3901345 E277348				Elevation (ft):	600	
PLSS:	T31S, R24E, Sec. 18, W (M)				Acres:	16.0	
Location:	BOTH SIDES OF ELK HILLS ROAD, 0.3 TO 0.75 MILE NORTH OF BUENA VISTA CREEK, NORTH OF TAFT, ELK HILLS OIL FIELD.						
Detailed Location:	6 POLYGONS MAPPED WITHIN THE CENTER OF THE WEST 1/2 OF SECTION 18 AND THE NE 1/4 OF THE SE 1/4 OF SECTION 13.						
Ecological:	VALLEY SALTBUUSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. RELATIVELY LEVEL AREAS, OFTEN NEAR OLD ROADS AND FIREBREAKS.						
General:	ABOUT 1000 PLANTS ESTIMATED IN 1997. 4 ADDITIONAL SITES REPORTED IN 2013.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						
Occurrence No.	16	Map Index:	57349	EO Index:	57365	Element Last Seen:	1998-04-24
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-10-12
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.18222 / -119.45058				Accuracy:	80 meters	
UTM:	Zone-11 N3896001 E276854				Elevation (ft):	810	
PLSS:	T31S, R23E, Sec. 36, SE (M)				Acres:	0.0	
Location:	SOUTH OF BEND IN HIGHWAY 119, ABOUT 2 MILES NORTH OF INTERSECTION WITH CEDAR STREET IN FORD CITY, NORTH OF TAFT.						
Detailed Location:	FOUND ON ROAD EDGES AND BARE AREAS. MAPPED WITHIN THE SE 1/4 OF THE SE 1/4 OF SECTION 36.						
Ecological:	VALLEY SALTBUUSH SCRUB WITH ERIA STRUM HOOVERI AND FILAGO.						
General:	MORE THAN 50 PLANTS SEEN IN 1998.						
Owner/Manager:	PVT						
Occurrence No.	17	Map Index:	57351	EO Index:	57367	Element Last Seen:	1998-04-08
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-10-26
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.17963 / -119.42352				Accuracy:	specific area	
UTM:	Zone-11 N3895654 E279311				Elevation (ft):	500	
PLSS:	T32S, R24E, Sec. 05, NW (M)				Acres:	2.1	
Location:	JUST NORTH OF STANDARD OIL CAMP 5-D, 0.33 MILE EAST OF AIRPORT ROAD, NORTHEAST OF TAFT.						
Detailed Location:	2 COLONIES MAPPED MOSTLY WITHIN THE NE 1/4 OF THE NW 1/4 OF SECTION 5.						
Ecological:	VALLEY SALTBUUSH SCRUB.						
General:	IN 1998, 200+ PLANTS SEEN BETWEEN THIS OCCURRENCE AND OCCURRENCE #18.						
Owner/Manager:	PVT, DOE						



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Occurrence No.	18	Map Index:	57352	EO Index:	57368	Element Last Seen:	1998-04-08
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-10-26
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.17951 / -119.41564				Accuracy:	specific area	
UTM:	Zone-11 N3895623 E280028				Elevation (ft):	625	
PLSS:	T32S, R24E, Sec. 05, NE (M)				Acres:	3.8	
Location:	0.5 MILE EAST OF STANDARD OIL CAMP 5-D, 0.8 MILE EAST OF AIRPORT ROAD, NORTHEAST OF TAFT.						
Detailed Location:	FOUND ON ROAD EDGES AND BARE AREAS. MAPPED MOSTLY WITHIN THE NE 1/4 OF THE NE 1/4 OF SECTION 5.						
Ecological:	VALLEY SALTBUSSH SCRUB.						
General:	IN 1998, 200+ PLANTS SEEN BETWEEN THIS OCCURRENCE AND OCCURRENCE #18.						
Owner/Manager:	PVT, DOE						

Occurrence No.	19	Map Index:	57355	EO Index:	57371	Element Last Seen:	1998-04-08
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-10-26
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.18106 / -119.40148				Accuracy:	specific area	
UTM:	Zone-11 N3895763 E281322				Elevation (ft):	565	
PLSS:	T31S, R24E, Sec. 33, S (M)				Acres:	7.2	
Location:	1 TO 1.3 MILES EAST OF STANDARD OIL CAMP 5-D, 1.9 MILES SOUTH OF VALLEY ACRES, NORTHEAST OF TAFT.						
Detailed Location:	6 COLONIES MAPPED WITHIN THE CENTER OF THE S 1/2 OF SECTION 33 AND THE NW 1/4 OF THE NW 1/4 OF SECTION 4.						
Ecological:	VALLEY SALTBUSSH SCRUB.						
General:	IN 1998, 600 PLANTS SEEN BETWEEN THIS OCCURRENCE AND OCCURRENCE #20.						
Owner/Manager:	PVT						

Occurrence No.	20	Map Index:	57356	EO Index:	57372	Element Last Seen:	1998-04-08
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-10-26
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.18083 / -119.38569				Accuracy:	specific area	
UTM:	Zone-11 N3895703 E282759				Elevation (ft):	490	
PLSS:	T31S, R24E, Sec. 34, S (M)				Acres:	17.6	
Location:	ONE MILE NORTH OF HONOLULU OIL MAIN CAMP AND 2.7 MILES SOUTH OF DUSTIN ACRES, NORTHEAST OF TAFT.						
Detailed Location:	FOUND ON ROAD EDGES AND BARE AREAS. MAPPED NEAR THE INTERSECTION OF SECTIONS 33, 34, 3, AND 4.						
Ecological:	VALLEY SALTBUSSH SCRUB.						
General:	IN 1998, 600 PLANTS SEEN BETWEEN THIS OCCURRENCE AND OCCURRENCE #19.						
Owner/Manager:	PVT						



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Occurrence No.	21	Map Index:	57357	EO Index:	57373	Element Last Seen:	1998-04-07
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-10-26
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.17925 / -119.37810				Accuracy:	specific area	
UTM:	Zone-11 N3895512 E283447				Elevation (ft):	420	
PLSS:	T32S, R24E, Sec. 03, NE (M)				Acres:	3.2	
Location:	1.2 MILES NNE OF HONOLULU OIL MAIN CAMP & 2.5 MILES EAST OF STANDARD OIL CAMP 5D, NORTHEAST OF TAFT.						
Detailed Location:	MAPPED WITHIN THE NE 1/4 OF THE NE 1/4 OF SECTION 3.						
Ecological:	VALLEY SALTBUUSH SCRUB WITH ERIASTRUM HOOVERI AND FILAGO.						
General:	IN 1998, 500 PLANTS SEEN BETWEEN THIS OCCURRENCE AND OCCURRENCE #20.						
Owner/Manager:	PVT						

Occurrence No.	22	Map Index:	57467	EO Index:	57483	Element Last Seen:	2013-04-16
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2013-04-16
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-28
Quad Summary:	Tupman (3511933), East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.28999 / -119.37038				Accuracy:	specific area	
UTM:	Zone-11 N3907779 E284444				Elevation (ft):	500	
PLSS:	T30S, R24E, Sec. 26 (M)				Acres:	152.0	
Location:	W AND SW OF TUPMAN, EXTENDING ABOUT 1 MILE NW TO 2.2 MILE SW OF ELK HILLS SCHOOL, ELK HILLS OIL FIELD.						
Detailed Location:	MANY POLYGONS MAPPED WITHIN THE SOUTH 1/2 OF SEC 23, THE SW 1/4 SW 1/4 SEC 24, WEST 1/2 SEC 25, THROUGHOUT SEC 26, NE 1/4 SEC 34, WEST 1/2 OF NW 1/4 SEC 35, AND NW 1/4 SEC 36.						
Ecological:	VALLEY SALTBUUSH SCRUB ON CLAY OR SANDY EXPOSED SOILS. ASSOCIATED WITH ATRIPLEX POLYCARPA, A. SPINIFERA, BOMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	POPULATION NUMBERS ARE FOR PARTS OF OCCURRENCE: APPROX 125,000 PLANTS ESTIMATED IN 1997, 10,000S OF PLANTS IN 1998, 475 PLANTS IN 1999, 920 PLANTS IN 2001, UNKNOWN NUMBER OF PLANTS IN 2013. INCLUDES FORMER OCCURRENCE #24.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	23	Map Index:	57475	EO Index:	57491	Element Last Seen:	1998-04-04
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-04
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-10-19
Quad Summary:	Tupman (3511933), East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.29411 / -119.37554				Accuracy:	specific area	
UTM:	Zone-11 N3908248 E283984				Elevation (ft):	500	
PLSS:	T30S, R24E, Sec. 26, NW (M)				Acres:	1.3	
Location:	WEST OF TUPMAN, 1.2 MILES WSW OF ELK HILLS SCHOOL, ELK HILLS OIL FIELD.						
Detailed Location:	MAPPED WITHIN THE NW 1/4 OF THE NW 1/4 OF SECTION 26.						
Ecological:	VALLEY SALTBUUSH SCRUB, WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES.						
General:	IN 1998 ABOUT 40 PLANTS SEEN BETWEEN THIS OCCURRENCE AND PART OF OCCURRENCES #22.						
Owner/Manager:	PVT						



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Occurrence No.	26	Map Index:	57560	EO Index:	57576	Element Last Seen:	2013-04-15
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2013-04-15
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-08
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.27333 / -119.34474			Accuracy:	specific area		
UTM:	Zone-11 N3905876 E286731			Elevation (ft):	500		
PLSS:	T30S, R24E, Sec. 36 (M)			Acres:	132.0		
Location:	SOUTH OF TUPMAN, EAST OF MAIN ROAD BETWEEN TUPMAN ROAD AND SKYLINE ROAD, NORTH OF SKYLINE ROAD.						
Detailed Location:	NUMEROUS COLONIES MAPPED IN SEC 36, W 1/2 SEC 31, NE 1/4 SEC 1, AND NW 1/4 SEC 6.						
Ecological:	VALLEY SALTBUSH SCRUB HABITAT ON CLAY OR SANDY EXPOSED SOILS. DOMINANT ASSOCIATES INCLUDE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	IN 1997, 100,000 PLANTS SEEN IN SECTION 36 (INCL PART OF EO#22); 1998, 10,000 PLANTS SEEN IN SECTION 1 (INCL PART OF EO#28 AND 29). AT LEAST 20 PLANTS SEEN IN 1999. UNKNOWN NUMBER OF PLANTS SEEN IN 2013.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	27	Map Index:	57590	EO Index:	57606	Element Last Seen:	2013-04-16
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2013-04-16
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-08
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.27563 / -119.36499			Accuracy:	specific area		
UTM:	Zone-11 N3906175 E284896			Elevation (ft):	670		
PLSS:	T30S, R24E, Sec. 35, NE (M)			Acres:	6.0		
Location:	SOUTHWEST OF TUPMAN, JUST SOUTH OF CAMP 35-S, NORTH OF SKYLINE ROAD, ELK HILLS OIL FIELDS.						
Detailed Location:	2 POLYGONS MAPPED IN THE SOUTH 1/2 OF THE NE 1/4 OF SECTION 35.						
Ecological:	VALLEY SALTBUSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. IN AREAS WITH REDUCED ANNUAL GRASS COVER.						
General:	IN 1998, MORE THAN 100 PLANTS SEEN BETWEEN THIS OCCURRENCE AND PORTIONS OF OCCURRENCES #22 AND #28. UNKNOWN NUMBER OF PLANTS SEEN IN EASTERN POLYGON IN 2013.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	28	Map Index:	57591	EO Index:	57607	Element Last Seen:	2013-04-24
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2013-04-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-08
Quad Summary:	Mouth of Kern (3511923), Taft (3511924), Tupman (3511933), East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.25329 / -119.38266				Accuracy:	specific area	
UTM:	Zone-11 N3903735 E283228				Elevation (ft):	630	
PLSS:	T31S, R24E, Sec. 10 (M)				Acres:	709.0	
Location:	SOUTH OF TUPMAN, MOSTLY SOUTH OF SKYLINE ROAD & NORTH OF HIGHWAY 119, ELK HILLS OIL FIELDS.						
Detailed Location:	MANY POLYGONS SCATTERED OVER A LARGE AREA. MAPPED IN T30S R24E SECTIONS 33-35, T31S R24E SECTIONS 1-4, 8-12, 16, & 17.						
Ecological:	VALLEY SALTBUSSH SCRUB HABITAT ON CLAY OR SANDY SOILS. DOMINANT PLANT ASSOCIATES INCLUDE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	POPULATION NUMBERS ARE FOR PARTS OF OCC: >130,000 PLANTS SEEN IN 1997 AND IN 1998, >3000 PLANTS SEEN IN 1999, >500 PLANTS SEEN IN 2000, >8500 PLANTS SEEN IN 2001. UNKNOWN NUMBER SEEN IN 2013. INCLUDES FORMER OCC #S 25 & 49.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	29	Map Index:	57592	EO Index:	57608	Element Last Seen:	2013-04-15
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2013-04-15
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-08
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.25654 / -119.34395				Accuracy:	specific area	
UTM:	Zone-11 N3904011 E286759				Elevation (ft):	630	
PLSS:	T31S, R24E, Sec. 01, SE (M)				Acres:	2.0	
Location:	SOUTH OF TUPMAN, 0.4 MILE SOUTH OF SKYLINE ROAD & 0.9 MILE EAST OF HWY 119, ELK HILLS OIL FIELD.						
Detailed Location:	JUST SOUTH OF PIPELINE. 2 POLYGONS MAPPED WITHIN THE SE 1/4 OF THE SE 1/4 OF SECTION 11.						
Ecological:	VALLEY SALTBUSSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. IN AREAS OF REDUCED ANNUAL GRASS COVER.						
General:	IN 1998, ABOUT 10,000 PLANTS SEEN IN SECTION 1 (INCLUDES PARTS OF OCCURRENCES 26 & 28). UNKNOWN NUMBER OF PLANTS SEEN IN NE POLYGON IN 2013.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	30	Map Index:	57659	EO Index:	57675	Element Last Seen:	1998-04-04
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-04
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-11-19
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.25288 / -119.46842				Accuracy:	specific area	
UTM:	Zone-11 N3903881 E275423				Elevation (ft):	950	
PLSS:	T31S, R23E, Sec. 11, NE (M)				Acres:	3.3	
Location:	WEST OF ELK HILLS ROAD, 1.8 MILES SOUTH OF SKYLINE ROAD, ELK HILLS.						
Detailed Location:	3 COLONIES MAPPED WITHIN THE NE 1/4 OF THE NE 1/4 OF SECTION 11.						
Ecological:	VALLEY SALTBUSSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. IN MICROHABITATS WITH REDUCED ANNUAL COVER AND IN LEVEL AREAS OF THE SECTION AND IN FLATTER RIDGES, DRAINAGE BOTTOMS WITHIN HILLY AREAS.						
General:	IN 1997, ABOUT 100 PLANTS SEEN BETWEEN THIS OCCURRENCE AND OCCURRENCES #4 AND #10. ABOUT 1000 PLANTS SEEN IN 1998 BETWEEN THIS OCCURRENCE AND OCCURRENCES #48, 51, 52, 60, AND 61.						
Owner/Manager:	DOE						

Occurrence No.	31	Map Index:	57668	EO Index:	57684	Element Last Seen:	2013-04-17
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2013-04-17
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-08
Quad Summary:	Taft (3511924), East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.24759 / -119.49846				Accuracy:	specific area	
UTM:	Zone-11 N3903362 E272675				Elevation (ft):	900	
PLSS:	T31S, R23E, Sec. 10 (M)				Acres:	21.0	
Location:	MOSTLY NORTH OF BUENA VISTA CREEK, ABOUT 5 TO 6 AIR MILES WNW OF VALLEY ACRES, ELK HILLS OIL FIELD.						
Detailed Location:	SCATTERED COLONIES MAPPED WITHIN THE W 1/2 OF THE NW 1/4 AND THE S 1/2 OF SECTION 10 AND IN THE SW1/4 SEC 3.						
Ecological:	VALLEY SALTBUSSH SCRUB HABITAT ON CLAY OR SANDY EXPOSED SOILS. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	UNKNOWN NUMBER OF PLANTS SEEN IN SECTION 10 IN 1997 AND 2013. 590 PLANTS SEEN IN SECTION 3 IN 2001.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	32	Map Index:	57712	EO Index:	57728	Element Last Seen:	1999-04-06
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1999-04-06
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-10-26
Quad Summary:	Taft (3511924), East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.24972 / -119.43812				Accuracy:	specific area	
UTM:	Zone-11 N3903462 E278172				Elevation (ft):	825	
PLSS:	T31S, R24E, Sec. 07, NE (M)				Acres:	1.7	
Location:	ABOUT 2.5 AIR MILES SOUTHEAST OF INTERSECTION OF SKYLINE & ELK HILLS ROADS, SOUTH OF THE CALIFORNIA AQUEDUCT, ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE NW 1/4 OF THE NE 1/4 OF SECTION 7.						
Ecological:	VALLEY SALTBUSH SCRUB HABITAT ON CLAY OR SANDY EXPOSED SOILS. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	UNKNOWN NUMBER OF PLANTS SEEN IN 1999.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	33	Map Index:	57758	EO Index:	57774	Element Last Seen:	2001-04-20
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-04-20
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-08
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.29958 / -119.34639				Accuracy:	specific area	
UTM:	Zone-11 N3908791 E286650				Elevation (ft):	290	
PLSS:	T30S, R24E, Sec. 24, SE (M)				Acres:	1.0	
Location:	EAST SIDE OF THE OUTLET CANAL, JUST EAST OF TUPMAN ROAD AND TUPMAN.						
Detailed Location:	MAPPED WITHIN THE SW 1/4 OF THE SE 1/4 OF SECTION 24.						
Ecological:	VALLEY SALTBUSH SCRUB HABITAT ON CLAY OR SANDY EXPOSED SOILS. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	500 PLANTS OBSERVED IN 2001.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	34	Map Index:	57814	EO Index:	57830	Element Last Seen:	1998-04-11
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-11
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-11-02
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.31725 / -119.48328				Accuracy:	80 meters	
UTM:	Zone-11 N3911056 E274251				Elevation (ft):	820	
PLSS:	T30S, R23E, Sec. 14, SW (M)				Acres:	0.0	
Location:	ABOUT 2.5 AIR MILES SOUTH OF THE BUTTONWILLOW KERN COUNTY AIRFIELD, WEST OF ELK HILLS ROAD, ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE NW 1/4 OF THE SW 1/4 OF SECTION 14.						
Ecological:	VALLEY SALTBUSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. GROWING IN AREAS OF REDUCED ANNUAL GRASS COVER.						
General:	UNKNOWN NUMBER OF PLANTS SEEN IN 1998.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	35	Map Index:	57818	EO Index:	57834	Element Last Seen:	1998-04-11
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-11
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-11-02
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.32125 / -119.47242				Accuracy:	80 meters	
UTM:	Zone-11 N3911474 E275248				Elevation (ft):	700	
PLSS:	T30S, R23E, Sec. 14, NE (M)				Acres:	0.0	
Location:	ABOUT 2.2 AIR MILES SSE OF THE BUTTONWILLOW KERN COUNTY AIRFIELD, WEST OF ELK HILLS ROAD, ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE SW 1/4 OF THE NE 1/4 OF SECTION 14.						
Ecological:	VALLEY SALTBUSSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. GROWING IN AREAS OF REDUCED ANNUAL GRASS COVER.						
General:	UNKNOWN NUMBER OF PLANTS SEEN IN 1998.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	36	Map Index:	57819	EO Index:	57835	Element Last Seen:	1998-04-11
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-11
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-11-02
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.31136 / -119.48008				Accuracy:	80 meters	
UTM:	Zone-11 N3910395 E274525				Elevation (ft):	700	
PLSS:	T30S, R23E, Sec. 14, SW (M)				Acres:	0.0	
Location:	ABOUT 2.9 AIR MILES SOUTH OF THE BUTTONWILLOW KERN COUNTY AIRFIELD, WEST OF ELK HILLS ROAD, ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE SW 1/4 OF THE SW 1/4 OF SECTION 14.						
Ecological:	VALLEY SALTBUSSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. GROWING IN AREAS OF REDUCED ANNUAL GRASS COVER.						
General:	UNKNOWN NUMBER OF PLANTS SEEN IN 1998.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	37	Map Index:	57821	EO Index:	57837	Element Last Seen:	1998-04-24
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-11-02
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.30729 / -119.46246				Accuracy:	specific area	
UTM:	Zone-11 N3909903 E276116				Elevation (ft):	900	
PLSS:	T30S, R23E, Sec. 24, NW (M)				Acres:	5.6	
Location:	JUST EAST OF ELK HILLS ROAD, 1.7 -2.5 MILES NORTH OF INTERSECTION WITH SKYLINE ROAD, EAST ELK HILLS.						
Detailed Location:	6 COLONIES MAPPED WITHIN THE W 1/2 OF THE NW 1/4 OF SECTION 24.						
Ecological:	VALLEY SALTBUSSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. GROWING IN AREAS OF REDUCED ANNUAL GRASS COVER.						
General:	IN 1998, 250 PLANTS SEEN BETWEEN THIS OCCURRENCE AND OCCURRENCES #38, 39, AND 43.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	38	Map Index:	57823	EO Index:	57839	Element Last Seen:	1998-04-24
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-11-02
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.30462 / -119.45630				Accuracy:	specific area	
UTM:	Zone-11 N3909593 E276669				Elevation (ft):	960	
PLSS:	T30S, R23E, Sec. 24, N (M)				Acres:	4.8	
Location:	JUST EAST OF ELK HILLS ROAD, 1.75 AIR MLES NNE OF CAMP 36-R, EAST ELK HILLS.						
Detailed Location:	JUST EAST OF WHERE PIPELINE CROSSES DIRT ROAD. MAPPED JUST NORTH OF THE CENTER OF SECTION 24.						
Ecological:	VALLEY SALTBUSSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. GROWING IN AREAS OF REDUCED ANNUAL GRASS COVER.						
General:	IN 1998, 250 PLANTS SEEN BETWEEN THIS OCCURRENCE AND OCCURRENCES #37, 39, AND 43.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	39	Map Index:	57828	EO Index:	57844	Element Last Seen:	1998-04-24
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-11-04
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.28880 / -119.43388				Accuracy:	specific area	
UTM:	Zone-11 N3907788 E278664				Elevation (ft):		
PLSS:	T30S, R24E, Sec. 30 (M)				Acres:	117.2	
Location:	AREA EAST OF ELK HILLS ROAD AND NORTH OF SKYLINE ROAD, ELK HILLS OIL FIELD.						
Detailed Location:	ALMOST 100 SCATTERED COLONIES, IN FLATTER AREAS ALONG ROADS, IN BROAD WASHES, AND ON SOME SOUTH-FACING SLOPES. MANY COLONIES IN SECTION 30 AND IN SURROUNDING SECTIONS.						
Ecological:	VALLEY SALTBUSSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. IN AREAS WITH REDUCED ANNUAL COVER.						
General:	ABOUT 2000 PLANTS SEEN IN 1997. THOUSANDS OF PLANTS SEEN IN 1998.						
Owner/Manager:	DOE						



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Occurrence No.	40	Map Index:	57829	EO Index:	57845	Element Last Seen:	1997-03-13
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1997-03-13
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-11-02
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.30865 / -119.41296				Accuracy:	specific area	
UTM:	Zone-11 N3909943 E280621				Elevation (ft):	450	
PLSS:	T30S, R24E, Sec. 20, NE (M)				Acres:	2.5	
Location:	ABOUT 3.1 AIR MILES SOUTH OF BELLEVUE ROAD AT DUNFORD ROAD, SOUTH OF THE CALIFORNIA AQUEDUCT, EAST ELK HILLS.						
Detailed Location:	IN FLATTER AREAS ALONG ROADS, IN BROAD WASHES, AND ON SOME SOUTH-FACING SLOPES. MAPPED WITHIN THE NE 1/4 OF THE NE 1/4 OF SECTION 20 AND THE NW 1/4 OF THE NW 1/4 OF SECTION 21.						
Ecological:	VALLEY SALTBUSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. IN AREAS WITH REDUCED ANNUAL COVER.						
General:	ABOUT 2000 PLANTS SEEN IN 1997 BETWEEN THIS OCCURRENCE AND OCCURRENCE #39.						
Owner/Manager:	DOE						
Occurrence No.	41	Map Index:	57830	EO Index:	57846	Element Last Seen:	2000-03-27
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2000-03-27
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-11-02
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.29196 / -119.39689				Accuracy:	80 meters	
UTM:	Zone-11 N3908056 E282037				Elevation (ft):	575	
PLSS:	T30S, R24E, Sec. 28, NE (M)				Acres:	0.0	
Location:	ABOUT 4.3 AIR MILES SOUTH OF BELLEVUE ROAD AT DAIRY ROAD, SOUTH OF THE CALIFORNIA AQUEDUCT, EAST ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE SE 1/4 OF THE NE 1/4 OF SECTION 28.						
Ecological:	VALLEY SALTBUSH SCRUB HABITAT ON CLAY OR SANDY EXPOSED SOILS. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	100 PLANTS SEEN IN 2000.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	42	Map Index:	57832	EO Index:	57848	Element Last Seen:	2000-03-24
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2000-03-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-11-02
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.29199 / -119.38153			Accuracy:	specific area		
UTM:	Zone-11 N3908026 E283435			Elevation (ft):	525		
PLSS:	T30S, R24E, Sec. 27, NE (M)			Acres:	2.0		
Location:	ABOUT 4.3 AIR MILES SSE OF BELLEVUE ROAD AT DAIRY ROAD, SOUTH OF THE CALIFORNIA AQUEDUCT, EAST ELK HILLS.						
Detailed Location:	TWO SMALL COLONIES MAPPED WITHIN THE W 1/2 OF THE NE 1/4 OF SECTION 27.						
Ecological:	VALLEY SALTBUSH SCRUB HABITAT ON CLAY OR SANDY EXPOSED SOILS. DOMINANTS INCLUDE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS AND VULPIA MYUROS.						
General:	ABOUT 70 PLANTS SEEN IN 2000.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	43	Map Index:	57833	EO Index:	57849	Element Last Seen:	1998-04-24
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-11-02
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.29387 / -119.45765			Accuracy:	specific area		
UTM:	Zone-11 N3908404 E276516			Elevation (ft):	1000		
PLSS:	T30S, R23E, Sec. 25, NW (M)			Acres:	6.9		
Location:	ABOUT 0.1 - 0.5 MILE EAST OF ELK HILLS ROAD, 0.9 TO 1.3 MILES NORTH OF SKYLINE ROAD, EAST ELK HILLS.						
Detailed Location:	ON MORE LEVEL AREAS OF RIDGES, SADDLES, AND ADJACENT TO WELL PONDS. IN AREAS WITH REDUCED ANNUAL GRASS COVER. MAPPED WITHIN THE SE 1/4 OF THE SW 1/4 AND THE SW 1/4 OF THE SE 1/4 OF SECTION 24 AND THE N 1/2 OF THE NW 1/4 OF SECTION 25.						
Ecological:	VALLEY SALTBUSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES.						
General:	ABOUT 50 PLANTS SEEN IN 1998 BETWEEN THIS OCCURRENCE AND OCCURRENCES #39, 44, AND 45. IN 1998, 250 PLANTS SEEN BETWEEN THIS OCCURRENCE AND OCCURRENCES #37 38, AND 39.						
Owner/Manager:	DOE						



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Occurrence No.	44	Map Index:	57868	EO Index:	57884	Element Last Seen:	1997-04-06
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1997-04-06
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-11-03
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.28814 / -119.45732				Accuracy:	specific area	
UTM:	Zone-11 N3907766 E276530				Elevation (ft):	1120	
PLSS:	T30S, R23E, Sec. 25, SW (M)				Acres:	1.4	
Location:	NORTH OF SKYLINE ROAD AND EAST OF ELK HILLS ROAD, ABOUT 0.6 AIR MILE NNE OF CAMP 36-R, EAST ELK HILLS.						
Detailed Location:	ON MORE LEVEL AREAS OF RIDGES, SADDLES, AND ADJACENT TO WELL PONDS. IN AREAS WITH REDUCED ANNUAL GRASS COVER. MAPPED JUST SOUTHWEST OF THE CENTER OF SECTION 25.						
Ecological:	VALLEY SALTBUSSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES.						
General:	ABOUT 50 PLANTS SEEN IN 1998 BETWEEN THIS OCCURRENCE AND OCCURRENCES #39, 43, AND 45.						
Owner/Manager:	DOE						

Occurrence No.	45	Map Index:	57869	EO Index:	57885	Element Last Seen:	1997-04-06
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1997-04-06
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-11-03
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.28774 / -119.46367				Accuracy:	specific area	
UTM:	Zone-11 N3907737 E275952				Elevation (ft):	1260	
PLSS:	T30S, R23E, Sec. 25, SW (M)				Acres:	1.8	
Location:	ABOUT 0.1 MILE EAST OF ELK HILLS ROAD, 0.4 TO 0.65 MILE NORTH OF SKYLINE ROAD, EAST ELK HILLS.						
Detailed Location:	ON MORE LEVEL AREAS OF RIDGES, SADDLES, AND ADJACENT TO WELL PONDS. IN AREAS WITH REDUCED ANNUAL GRASS COVER. MAPPED WITHIN THE W 1/2 OF THE SW 1/4 OF SECTION 25.						
Ecological:	VALLEY SALTBUSSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES.						
General:	ABOUT 50 PLANTS SEEN IN 1998 BETWEEN THIS OCCURRENCE AND OCCURRENCES #39, 43, AND 44.						
Owner/Manager:	DOE						

Occurrence No.	46	Map Index:	57870	EO Index:	57886	Element Last Seen:	1998-03-28
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-03-28
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-11-03
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.26968 / -119.43835				Accuracy:	specific area	
UTM:	Zone-11 N3905676 E278206				Elevation (ft):	1260	
PLSS:	T30S, R24E, Sec. 31, SW (M)				Acres:	4.9	
Location:	SOUTH OF SKYLINE ROAD, ABOUT 1.5 -1.9 MILES EAST OF ELK HILLS ROAD, EAST ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE CENTER OF THE S 1/2 OF SECTION 31.						
Ecological:	VALLEY SALTBUSSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. IN AREAS WITH REDUCED ANNUAL GRASS COVER.						
General:	UNKNOWN NUMBER OF PLANTS SEEN IN 1998.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	47	Map Index:	57915	EO Index:	57931	Element Last Seen:	1998-02-28
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1998-02-28
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-11-08
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.30235 / -119.38684				Accuracy:	80 meters	
UTM:	Zone-11 N3909186 E282979				Elevation (ft):	425	
PLSS:	T30S, R24E, Sec. 22, SW (M)				Acres:	0.0	
Location:	WEST OF TUPMAN, ABOUT 4.3 AIR MILES SSE OF POPLAR GROVE RANCH, EAST ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE NE 1/4 OF THE SW 1/4 OF SECTION 22.						
Ecological:	VALLEY SALTBUSSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES.						
General:	UNKNOWN NUMBER OF PLANTS SEEN IN 1998.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	48	Map Index:	57949	EO Index:	57965	Element Last Seen:	2001-03-09
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-03-09
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-08
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.26537 / -119.48709				Accuracy:	specific area	
UTM:	Zone-11 N3905309 E273759				Elevation (ft):	1170	
PLSS:	T31S, R23E, Sec. 03, NE (M)				Acres:	2.7	
Location:	WEST OF ELK HILLS ROAD & SOUTH OF SKYLINE ROAD, ABOUT 1.2 AIR MILES SOUTHWEST OF 35-R GAS PLANT, EAST ELK HILLS.						
Detailed Location:	TWO COLONIES MAPPED WITHIN THE NW 1/4 OF THE NW 1/4 OF SECTION 2 AND THE NE 1/4 OF THE NE 1/4 OF SECTION 3.						
Ecological:	VALLEY SALTBUSSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. IN AREAS OF REDUCED ANNUAL GRASS COVER.						
General:	ABOUT 1000 PLANTS SEEN IN SECTION 2 (INCLUDES PARTS OF OCCURRENCES 51, 52, 60, & 61) IN 1998. 5 PLANTS OBSERVED IN WESTERN POLYGON IN 2001.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	50	Map Index:	57951	EO Index:	57967	Element Last Seen:	2001-03-09
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2001-03-09
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-08
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.25675 / -119.48493			Accuracy:	80 meters		
UTM:	Zone-11 N3904347 E273932			Elevation (ft):	1000		
PLSS:	T31S, R23E, Sec. 03, SE (M)			Acres:	0.0		
Location:	1.8 AIR MILES SOUTHWEST OF INTERSECTION OF SKYLINE AND ELK HILLS ROADS, ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE EAST 1/2 OF THE SE 1/4 OF SECTION 3.						
Ecological:	VALLEY SALTBUSSH SCRUB HABITAT ON CLAY OR SANDY EXPOSED SOILS. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	2 PLANTS OBSERVED IN 2001.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						
Occurrence No.	51	Map Index:	57953	EO Index:	57969	Element Last Seen:	1998-04-04
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-04
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-11-08
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.26046 / -119.47593			Accuracy:	80 meters		
UTM:	Zone-11 N3904738 E274761			Elevation (ft):	1056		
PLSS:	T31S, R23E, Sec. 02, W (M)			Acres:	0.0		
Location:	1.4 AIR MILES SSW OF INTERSECTION OF SKYLINE AND ELK HILLS ROADS, ELK HILLS.						
Detailed Location:	MAPPED JUST WEST OF THE CENTER OF SECTION 2.						
Ecological:	VALLEY SALTBUSSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. IN AREAS OF REDUCED ANNUAL GRASS COVER.						
General:	ABOUT 1000 PLANTS SEEN IN 1998 BETWEEN THIS OCCURRENCE AND OCCURRENCES #30, 48, 52, 60, AND 61.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						
Occurrence No.	52	Map Index:	57954	EO Index:	57970	Element Last Seen:	1998-04-04
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-04
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-28
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.25650 / -119.47200			Accuracy:	80 meters		
UTM:	Zone-11 N3904290 E275108			Elevation (ft):	1000		
PLSS:	T31S, R23E, Sec. 02, SE (M)			Acres:	0.0		
Location:	1.6 AIR MILES SSW OF INTERSECTION OF SKYLINE AND ELK HILLS ROADS, ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE SW 1/4 OF THE SE 1/4 OF SECTION 2.						
Ecological:	VALLEY SALTBUSSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. IN AREAS OF REDUCED ANNUAL GRASS COVER.						
General:	ABOUT 1000 PLANTS SEEN IN 1998 BETWEEN THIS OCCURRENCE AND OCCURRENCES #30, 48, 51, 60, AND 61.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	53	Map Index:	57955	EO Index:	57971	Element Last Seen:	1998-03-07
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-03-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-11-08
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.26602 / -119.46315				Accuracy:	specific area	
UTM:	Zone-11 N3905327 E275939				Elevation (ft):	1200	
PLSS:	T31S, R23E, Sec. 01, NW (M)				Acres:	1.4	
Location:	EAST SIDE OF ELK HILLS ROAD, ABOUT 1 MILE SOUTH OF SKYLINE ROAD, ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE NW 1/4 OF THE NW 1/4 OF SECTION 1.						
Ecological:	VALLEY SALTBUSSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. IN AREAS OF REDUCED ANNUAL GRASS COVER.						
General:	THOUSANDS OF PLANTS SEEN IN 1998 BETWEEN THIS OCCURRENCE AND OCCURRENCE #54 AND #55.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	54	Map Index:	57956	EO Index:	57972	Element Last Seen:	1998-02-28
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-02-28
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-11-08
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.26184 / -119.45422				Accuracy:	specific area	
UTM:	Zone-11 N3904842 E276741				Elevation (ft):	1100	
PLSS:	T31S, R23E, Sec. 01, NE (M)				Acres:	4.0	
Location:	ABOUT 0.25 TO 0.75 MILE EAST OF ELK HILLS ROAD AND ABOUT 1 MILE SOUTH OF SKYLINE ROAD, ELK HILLS.						
Detailed Location:	5 COLONIES ALON UNNAMED ROAD; MAPPED MOSTLY WITHIN THE S 1/2 OF THE NE 1/4 OF SECTION 1.						
Ecological:	VALLEY SALTBUSSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. IN AREAS OF REDUCED ANNUAL GRASS COVER.						
General:	THOUSANDS OF PLANTS SEEN IN 1998 BETWEEN THIS OCCURRENCE AND OCCURRENCE #53 AND #55.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	55	Map Index:	57957	EO Index:	57973	Element Last Seen:	2013-04-19
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2013-04-19
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-08
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.25724 / -119.45126				Accuracy:	specific area	
UTM:	Zone-11 N3904325 E276997				Elevation (ft):	1000	
PLSS:	T31S, R23E, Sec. 01, SE (M)				Acres:	5.0	
Location:	1.8 AIR MILES SOUTHEAST OF INTERSECTION OF SKYLINE AND ELK HILLS ROADS, ELK HILLS.						
Detailed Location:	3 POLYGONS MAPPED WITHIN THE SOUTH 1/2 OF THE SE 1/4 OF SECTION 22.						
Ecological:	VALLEY SALTBUSSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. IN AREAS OF REDUCED ANNUAL GRASS COVER.						
General:	THOUSANDS OF PLANTS SEEN IN 1998 BETWEEN THIS OCCURRENCE AND OCCURRENCES #53 AND #54. UNKNOWN NUMBER OF PLANTS OBSERVED IN 2013.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	56	Map Index:	57958	EO Index:	57974	Element Last Seen:	2000-03-17
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2000-03-17
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-11-08
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.25872 / -119.44304				Accuracy:	80 meters	
UTM:	Zone-11 N3904471 E277749				Elevation (ft):	970	
PLSS:	T31S, R24E, Sec. 06, SW (M)				Acres:	0.0	
Location:	EAST OF SKYLINE ROAD, ABOUT 1.9 AIR MILES SOUTHEAST OF 36-R GAS PLANT, EAST ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE NE 1/4 OF THE SW 1/4 OF SECTION 6. PLANTS MAY HAVE ALSO BEEN FOUND IN THE SW 1/4 OF THE NW 1/ 4 OF SECTION 6, BUT LOCATION NOT MARKED ON MAP.						
Ecological:	VALLEY SALTBUSH SCRUB HABITAT ON CLAY OR SANDY EXPOSED SOILS. DOMINANT PLANT ASSOCIATES INCLUDE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	ABOUT 10 PLANTS SEEN IN 2000.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	57	Map Index:	57959	EO Index:	57975	Element Last Seen:	2000-03-17
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2000-03-17
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-11-08
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.26230 / -119.43145				Accuracy:	specific area	
UTM:	Zone-11 N3904842 E278813				Elevation (ft):	425	
PLSS:	T31S, R24E, Sec. 06, NE (M)				Acres:	4.6	
Location:	EAST OF SKYLINE ROAD, ABOUT 2.2 AIR MILES SOUTHEAST OF 36-R GAS PLANT, EAST ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE NW 1/4 OF THE NW 1/4 OF SECTION 5 AND THE SE 1/4 OF THE NE 1/4 OF SECTION 6.						
Ecological:	VALLEY SALTBUSH SCRUB HABITAT ON CLAY OR SANDY EXPOSED SOILS. DOMINANT PLANT ASSOCIATES INCLUDE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	MORE THAN 100 PLANTS SEEN IN 2000.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	58	Map Index:	57965	EO Index:	57981	Element Last Seen:	2000-03-22
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2000-03-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-11-08
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.25891 / -119.41471				Accuracy:	80 meters	
UTM:	Zone-11 N3904429 E280327				Elevation (ft):	975	
PLSS:	T31S, R24E, Sec. 05, SE (M)				Acres:	0.0	
Location:	EAST OF SKYLINE ROAD, ABOUT 3.3 AIR MILES SOUTHEAST OF 36-R GAS PLANT, EAST ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE NE 1/4 OF THE SE 1/4 OF SECTION 5.						
Ecological:	VALLEY SALTBUSH SCRUB HABITAT ON CLAY OR SANDY EXPOSED SOILS. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	30+ PLANTS SEEN IN 2000. IDENTITY NEEDS CONFIRMATION.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	59	Map Index:	57967	EO Index:	57983	Element Last Seen:	2000-03-17
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2000-03-17
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-11-08
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.25682 / -119.43254			Accuracy:	80 meters		
UTM:	Zone-11 N3904237 E278699			Elevation (ft):	1000		
PLSS:	T31S, R24E, Sec. 06, SE (M)			Acres:	0.0		
Location:	EAST OF SKYLINE ROAD, ABOUT 2.4 AIR MILES SOUTHEAST OF 36-R GAS PLANT, EAST ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE SE 1/4 OF THE SE 1/4 OF SECTION 6.						
Ecological:	VALLEY SALTBUSSH SCRUB HABITAT ON CLAY OR SANDY SOILS. DOMINANT PLANT ASSOCIATES INCLUDE ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	MORE THAN 100 PLANTS SEEN IN 2000.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						
Occurrence No.	60	Map Index:	57968	EO Index:	57984	Element Last Seen:	1998-04-04
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-04
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-11-08
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.26254 / -119.46800			Accuracy:	80 meters		
UTM:	Zone-11 N3904951 E275489			Elevation (ft):	1130		
PLSS:	T31S, R23E, Sec. 02, NE (M)			Acres:	0.0		
Location:	ABOUT 0.3 MILE WEST OF ELK HILLS ROAD, 1.25 MILES SOUTH OF SKYLINE ROAD, ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE SE 1/4 OF THE NE 1/4 OF SECTION 2.						
Ecological:	VALLEY SALTBUSSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES.						
General:	ABOUT 1000 PLANTS SEEN IN 1998 BETWEEN THIS OCCURRENCE AND OCCURRENCES #30, 48, 51, 52, AND 61.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						
Occurrence No.	61	Map Index:	57969	EO Index:	57985	Element Last Seen:	1998-04-04
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-04-04
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-11-08
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.25315 / -119.47696			Accuracy:	80 meters		
UTM:	Zone-11 N3903929 E274647			Elevation (ft):	940		
PLSS:	T31S, R23E, Sec. 02, SW (M)			Acres:	0.0		
Location:	ABOUT 0.7 MILE WEST OF ELK HILLS ROAD, 2 AIR MILES SSW OF INTERSECTION WITH SKYLINE ROAD, ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE SE 1/4 OF THE SW 1/4 OF SECTION 2.						
Ecological:	VALLEY SALTBUSSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. FOUND IN AREAS OF REDUCED ANNUAL GRASS COVER.						
General:	ABOUT 1000 PLANTS SEEN IN 1998 BETWEEN THIS OCCURRENCE AND OCCURRENCES #30, 48, 51, 52, AND 60.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	62	Map Index:	57970	EO Index:	57986	Element Last Seen:	2011-04-18
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2011-04-18
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-08
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.32544 / -119.58849				Accuracy:	specific area	
UTM:	Zone-11 N3912208 E264707				Elevation (ft):	800	
PLSS:	T30S, R22E, Sec. 11, W (M)				Acres:	29.0	
Location:	ALONG WASH ON BOTH SIDES OF PIPELINE, 1.25 TO 3.2 AIR MILES NNE OF THE JCT OF SKYLINE RD AND RESERVE RD, ELK HILLS.						
Detailed Location:	18 POLYGONS MAPPED IN THE WEST 1/2 OF SECTION 11 AND THE WEST 1/2 OF SECTION 14.						
Ecological:	EPHEMERAL DRY WASH IN VALLEY SALTBUH SCRUB HABITAT. ERIA STRUM HOOVERI ALSO LOCATED IN THE AREA, ALONG WITH ATRIPLEX POLYCARPA AND ISOMERIS ARBOREA. DISSECTED ALLUVIAL GRAVEL DERIVED FROM MOSTLY MONTEREY SHALE.						
General:	246+ PLANTS OBSERVED IN SECTION 14 IN 2001. 1200 PLANTS OBSERVED IN SECTION 11 (INCLUDES PART OF EO#63 AND EO#86) IN 2011.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	63	Map Index:	58033	EO Index:	58069	Element Last Seen:	2011-04-18
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2011-04-18
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-08
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.32526 / -119.57508				Accuracy:	specific area	
UTM:	Zone-11 N3912157 E265926				Elevation (ft):	900	
PLSS:	T30S, R22E, Sec. 11, S (M)				Acres:	7.0	
Location:	HILLS NORTH OF MCKITTRICK VALLEY, 3.2 AIR MILES ENE OF MCKITTRICK, WEST ELK HILLS.						
Detailed Location:	7 POLYGONS MAPPED IN THE SOUTH 1/2 OF SECTION 11 AND THE EAST 1/2 OF THE NE 1/4 OF SECTION 14.						
Ecological:	EPHEMERAL DRY WASH IN VALLEY SALTBUH SCRUB HABITAT. ERIA STRUM HOOVERI ALSO LOCATED IN THE AREA, ALONG WITH ATRIPLEX POLYCARPA AND ISOMERIS ARBOREA. DISSECTED ALLUVIAL GRAVEL DERIVED FROM MOSTLY MONTEREY SHALE.						
General:	122 PLANTS OBSERVED IN SECTION 14 IN 2001. 1200 PLANTS OBSERVED IN SECTION 11 (INCLUDES PART OF EO#62 AND EO#86) IN 2011.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	64	Map Index:	58034	EO Index:	58070	Element Last Seen:	2001-04-11
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2001-04-11
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-09
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.31332 / -119.55627				Accuracy:	specific area	
UTM:	Zone-11 N3910788 E267602				Elevation (ft):	1000	
PLSS:	T30S, R22E, Sec. 13, SE (M)				Acres:	4.3	
Location:	HILLS NORTH OF MCKITTRICK VALLEY, 3.75 AIR MILES ENE OF MCKITTRICK, WEST ELK HILLS.						
Detailed Location:	3 POLYGONS MAPPED MOSTLY WITHIN THE S 1/2 OF THE SE 1/4 OF SECTION 13.						
Ecological:	VALLEY SALTBUSH SCRUB HABITAT ON CLAY OR SANDY EXPOSED SOILS. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	23+ PLANTS OBSERVED IN 2001.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	65	Map Index:	58035	EO Index:	58071	Element Last Seen:	2001-03-22
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-03-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-09
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.32301 / -119.53507				Accuracy:	specific area	
UTM:	Zone-11 N3911813 E269557				Elevation (ft):	900	
PLSS:	T30S, R23E, Sec. 17 (M)				Acres:	24.9	
Location:	NORTH OF SKYLINE ROAD FOR ABOUT 2 MILES, ABOUT 5 AIR MILES EAST OF MCKITTRICK, WEST ELK HILLS.						
Detailed Location:	MANY POLYGONS MAPPED WITH THE SOUTH 1/2 OF SECTION 8, THE NW 1/4 AND SOUTH 1/2 OF SECTION 17, AND THE WEST 1/2 OF SECTION 20.						
Ecological:	VALLEY SALTBUSH SCRUB HABITAT ON CLAY OR SANDY EXPOSED SOILS. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	ABOUT 50 PLANTS SEEN IN SECTION 8 IN 1997. IN 2001, 366+ PLANTS SEEN IN SECTION 17 AND 13+ PLANTS SEEN IN SECTION 20.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	66	Map Index:	58036	EO Index:	58072	Element Last Seen:	2001-03-26
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-03-26
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-09
Quad Summary:	East Elk Hills (3511934), West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.31377 / -119.49590			Accuracy:	non-specific area		
UTM:	Zone-11 N3910698 E273093			Elevation (ft):	1000		
PLSS:	T30S, R23E, Sec. 15, S (M)			Acres:	86.0		
Location:	3 AIR MILES NORTHWEST OF INTERSECTION OF SKYLINE AND EAST ELK HILLS ROAD, NORTH OF HILLCREST POINT, ELK HILLS.						
Detailed Location:	7 POLYGONS MAPPED BASED ON 2001 QUAD KNOPF DATA. 6 N POLYGONS ARE SPECIFIC, WITHIN THE SOUTH 1/2 OF SEC 15 AND THE SE 1/4 SE 1/4 SEC 16. POLYGON IN NORTH 1/2 NW 1/4 OF SEC 22 IS NONSPECIFIC; BASED ON SURVEY FORM TRS, BUT NO FEATURES ON MAP.						
Ecological:	VALLEY SALTBUSSH SCRUB HABITAT ON CLAY OR SANDY EXPOSED SOILS. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	1-10 PLANTS SEEN IN SECTION 16, 147+ PLANTS SEEN IN SECTION 15, AND 6 PLANTS SEEN IN SECTION 22 IN 2001.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	67	Map Index:	58037	EO Index:	58073	Element Last Seen:	2001-03-19
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2001-03-19
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-09
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.30877 / -119.51584			Accuracy:	80 meters		
UTM:	Zone-11 N3910189 E271266			Elevation (ft):	1115		
PLSS:	T30S, R23E, Sec. 21, NW (M)			Acres:	0.0		
Location:	1.5 AIR MILES NNW OF HILLCREST POINT, EAST OF MCKITTRICK, ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE NW 1/4 OF THE NW 1/4 OF SECTION 21.						
Ecological:	VALLEY SALTBUSSH SCRUB HABITAT ON CLAY OR SANDY EXPOSED SOILS. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	1 PLANT OBSERVED IN 2001.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	68	Map Index:	58038	EO Index:	58074	Element Last Seen:	2001-03-19
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2001-03-19
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-09
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.30555 / -119.52140				Accuracy:	specific area	
UTM:	Zone-11 N3909845 E270751				Elevation (ft):	1200	
PLSS:	T30S, R23E, Sec. 20, NE (M)				Acres:	5.0	
Location:	1.3 AIR MILES NNW OF HILLCREST POINT, EAST OF MCKITTRICK, ELK HILLS.						
Detailed Location:	2 POLYGONS MAPPED WITHIN THE SE 1/4 OF THE NE 1/4 OF SECTION 20 AND THE NW 1/4 OF THE SW 1/4 OF SECTION 21.						
Ecological:	VALLEY SALTBUSSH SCRUB HABITAT ON CLAY OR SANDY EXPOSED SOILS. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	FEWER THAN 10 PLANTS OBSERVED IN NORTHWESTERN POLYGON AND 10 PLANTS OBSERVED IN SOUTHEASTERN POLYGON IN 2001.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	69	Map Index:	58039	EO Index:	58075	Element Last Seen:	2001-03-16
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2001-03-16
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-09
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.29832 / -119.52266				Accuracy:	80 meters	
UTM:	Zone-11 N3909046 E270616				Elevation (ft):	1225	
PLSS:	T30S, R23E, Sec. 20, SE (M)				Acres:	0.0	
Location:	1 AIR MILE NORTHWEST OF HILLCREST POINT, EAST OF MCKITTRICK, ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE SE 1/4 OF THE SE 1/4 OF SECTION 20.						
Ecological:	VALLEY SALTBUSSH SCRUB HABITAT ON CLAY OR SANDY EXPOSED SOILS. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	35 PLANTS OBSERVED IN 2001.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	70	Map Index:	58040	EO Index:	58076	Element Last Seen:	2001-03-13
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-03-13
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-12
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.30324 / -119.54732				Accuracy:	specific area	
UTM:	Zone-11 N3909648 E268387				Elevation (ft):	1160	
PLSS:	T30S, R23E, Sec. 19, W (M)				Acres:	12.3	
Location:	NORTH OF SKYLINE ROAD, ABOUT 2.5 AIR MILES WNW OF HILLCREST POINT, EAST OF MCKITTRICK, ELK HILLS.						
Detailed Location:	3 POLYGONS MAPPED MOSTLY WITHIN THE EAST 1/2 OF THE NW 1/4 AND THE NE 1/4 OF THE SW 1/4 OF SECTION 19.						
Ecological:	VALLEY SALTBUSSH SCRUB HABITAT ON CLAY OR SANDY EXPOSED SOILS. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	44 PLANTS OBSERVED IN 2001.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	71	Map Index:	58041	EO Index:	58077	Element Last Seen:	2001-03-30
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2001-03-30
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-12
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.29597 / -119.53952				Accuracy:	80 meters	
UTM:	Zone-11 N3908824 E269076				Elevation (ft):	1375	
PLSS:	T30S, R23E, Sec. 30, NE (M)				Acres:	0.0	
Location:	JUST NORTH OF SKYLINE ROAD, 1.7 AIR MILES WNW OF HILLCREST POINT, ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE NE 1/4 OF THE NE 1/4 OF SECTION 30.						
Ecological:	VALLEY SALTBUSH SCRUB HABITAT ON CLAY OR SANDY EXPOSED SOILS. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	50 PLANTS OBSERVED IN 2001.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	72	Map Index:	58042	EO Index:	58078	Element Last Seen:	2001-03-12
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-03-12
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-12
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.29856 / -119.55836				Accuracy:	specific area	
UTM:	Zone-11 N3909155 E267370				Elevation (ft):	1200	
PLSS:	T30S, R22E, Sec. 24, S (M)				Acres:	7.0	
Location:	JUST SOUTH OF SKYLINE ROAD, ABOUT 3.4 - 4 MILES EAST OF MCKITTRICK, WEST ELK HILLS.						
Detailed Location:	5 POLYGONS MAPPED WITHIN THE SOUTH 1/2 OF SECTION 24 AND THE SW 1/4 OF THE SW 1/4 OF SECTION 19.						
Ecological:	IN VALLEY SALTBUSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. GROWING IN AREAS OF REDUCED ANNUAL COVER.						
General:	ABOUT 100 PLANTS SEEN IN 4 WESTERN POLYGONS IN 1997. 8+ PLANTS SEEN IN EASTERNMOST POLYGON IN 2001.						
Owner/Manager:	DOE, PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	73	Map Index:	58053	EO Index:	58089	Element Last Seen:	2001-04-13
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-04-13
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-12
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.29511 / -119.57693				Accuracy:	specific area	
UTM:	Zone-11 N3908816 E265670				Elevation (ft):	960	
PLSS:	T30S, R22E, Sec. 26, NE (M)				Acres:	2.0	
Location:	MCKITTRICK VALLEY, 2.75 AIR MILES ESE OF MCKITTRICK, JUST SOUTH OF SKYLINE ROAD, ELK HILLS.						
Detailed Location:	TWO COLONIES MAPPED WITHIN THE NORTH 1/2 OF THE NE 1/4 OF SECTION 26.						
Ecological:	VALLEY SALTBUSH SCRUB HABITAT ON CLAY OR SANDY EXPOSED SOILS. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	46 PLANTS OBSERVED IN 2001.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	74	Map Index:	58054	EO Index:	58090	Element Last Seen:	2001-03-26
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2001-03-26
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-12
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.28659 / -119.55311				Accuracy:	80 meters	
UTM:	Zone-11 N3907815 E267813				Elevation (ft):	1225	
PLSS:	T30S, R23E, Sec. 30, SW (M)				Acres:	0.0	
Location:	MCKITTRICK VALLEY, 4.1 AIR MILES ESE OF MCKITTRICK, ABOUT 1 MILE SOUTH OF SKYLINE ROAD, ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE NW 1/4 OF THE SW 1/4 OF SECTION 30.						
Ecological:	VALLEY SALTBUSSH SCRUB HABITAT ON CLAY OR SANDY EXPOSED SOILS. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	98 PLANTS OBSERVED IN 2001.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	75	Map Index:	58057	EO Index:	58093	Element Last Seen:	2001-03-28
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-03-28
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-27
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.29423 / -119.50789				Accuracy:	80 meters	
UTM:	Zone-11 N3908557 E271947				Elevation (ft):	1300	
PLSS:	T30S, R23E, Sec. 28, NE (M)				Acres:	0.0	
Location:	NORTH OF SKYLINE ROAD, ABOUT 0.45 AIR MILE NNE OF HILLCREST POINT, ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE NW 1/4 OF THE NE 1/4 OF SECTION 28.						
Ecological:	VALLEY SALTBUSSH SCRUB HABITAT ON CLAY OR SANDY EXPOSED SOILS. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	15 PLANTS OBSERVED IN 2001.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	76	Map Index:	58058	EO Index:	58094	Element Last Seen:	2001-03-28
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2001-03-28
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-12
Quad Summary:	East Elk Hills (3511934), West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.29331 / -119.50180				Accuracy:	80 meters	
UTM:	Zone-11 N3908441 E272499				Elevation (ft):	1225	
PLSS:	T30S, R23E, Sec. 28, NE (M)				Acres:	0.0	
Location:	NORTH OF SKYLINE ROAD, ABOUT 0.6 AIR MILE NORTHEAST OF HILLCREST POINT, ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE NE 1/4 OF THE NE 1/4 OF SECTION 28.						
Ecological:	VALLEY SALTBUSSH SCRUB HABITAT ON CLAY OR SANDY EXPOSED SOILS. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	1 PLANT OBSERVED IN 2001.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	77	Map Index:	58059	EO Index:	58095	Element Last Seen:	2001-03-28
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-03-28
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-12
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.28800 / -119.50756				Accuracy:	80 meters	
UTM:	Zone-11 N3907866 E271960				Elevation (ft):	1500	
PLSS:	T30S, R23E, Sec. 28, SE (M)				Acres:	0.0	
Location:	NORTH SIDE OF SKYLINE ROAD, 0.2 MILE EAST OF HILLCREST POINT, ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE NW 1/4 OF THE SE 1/4 OF SECTION 28.						
Ecological:	VALLEY SALTBUH SCRUB HABITAT ON CLAY OR SANDY EXPOSED SOILS. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	20 PLANTS OBSERVED IN 2001.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	78	Map Index:	58060	EO Index:	58096	Element Last Seen:	2001-03-27
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-03-27
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-12
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.28489 / -119.51680				Accuracy:	80 meters	
UTM:	Zone-11 N3907542 E271111				Elevation (ft):	1400	
PLSS:	T30S, R23E, Sec. 28, SW (M)				Acres:	0.0	
Location:	SOUTH OF SKYLINE ROAD, 0.4 MILE SOUTHWEST OF HILLCREST POINT, ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE SW 1/4 OF THE SW 1/4 OF SECTION 28.						
Ecological:	VALLEY SALTBUH SCRUB HABITAT ON CLAY OR SANDY EXPOSED SOILS. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	10 PLANTS OBSERVED IN 2001.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	79	Map Index:	58061	EO Index:	58097	Element Last Seen:	1997-03-21
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1997-03-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-11-10
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.26637 / -119.50877				Accuracy:	80 meters	
UTM:	Zone-11 N3905469 E271789				Elevation (ft):	1140	
PLSS:	T31S, R23E, Sec. 04, NE (M)				Acres:	0.0	
Location:	HILLS EAST OF BUENA VISTA VALLEY, ABOUT 1.5 MILES SOUTH OF HILLCREST POINT, WEST ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE NW 1/4 OF THE NE 1/4 OF SECTION 4.						
Ecological:	VALLEY SALTBUH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES.						
General:	ABOUT 100 PLANTS SEEN IN 1997 BETWEEN THIS OCCURRENCE AND OCCURRENCES #80 AND #81.						
Owner/Manager:	DOE						



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Occurrence No.	80	Map Index:	58062	EO Index:	58098	Element Last Seen:	1997-03-21
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1997-03-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-11-10
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.26082 / -119.50857			Accuracy:	80 meters		
UTM:	Zone-11 N3904853 E271793			Elevation (ft):	1140		
PLSS:	T31S, R23E, Sec. 04, NE (M)			Acres:	0.0		
Location:	HILLS EAST OF BUENA VISTA VALLEY, ABOUT 1.9 MILES SOUTH OF HILLCREST POINT, WEST ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE SW 1/4 OF THE NE 1/4 OF SECTION 4.						
Ecological:	VALLEY SALTBUCH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES.						
General:	ABOUT 100 PLANTS SEEN IN 1997 BETWEEN THIS OCCURRENCE AND OCCURRENCES #79 AND #81.						
Owner/Manager:	DOE						
Occurrence No.	81	Map Index:	58063	EO Index:	58099	Element Last Seen:	1997-03-21
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1997-03-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-11-10
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.25571 / -119.50512			Accuracy:	80 meters		
UTM:	Zone-11 N3904278 E272092			Elevation (ft):	1140		
PLSS:	T31S, R23E, Sec. 04, SE (M)			Acres:	0.0		
Location:	HILLS EAST OF BUENA VISTA VALLEY, ABOUT 2.2 MILES SSE OF HILLCREST POINT, WEST ELK HILLS.						
Detailed Location:	MAPPED IN THE S 1/2 OF THE SE 1/4 OF SECTION 4.						
Ecological:	VALLEY SALTBUCH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES.						
General:	ABOUT 100 PLANTS SEEN IN 1997 BETWEEN THIS OCCURRENCE AND OCCURRENCES #79 AND #80.						
Owner/Manager:	DOE						
Occurrence No.	82	Map Index:	94836	EO Index:	95955	Element Last Seen:	2013-04-16
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2013-04-16
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-12
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.29356 / -119.34583			Accuracy:	specific area		
UTM:	Zone-11 N3908122 E286685			Elevation (ft):	350		
PLSS:	T30S, R24E, Sec. 25, NE (M)			Acres:	4.0		
Location:	NEAR JUNCTION OF TUPMAN ROAD AND N ACCESS ROAD, JUST SOUTHEAST OF TUPMAN, ELK HILLS.						
Detailed Location:	3 POLYGONS MAPPED NEAR THE CENTER OF THE NE 1/4 OF SECTION 25.						
Ecological:	DESERT SALTBUCH SCRUB (ATRIPLEX POLYCARPA) INTERMIXED CALIFORNIA ANNUAL GRASSLANDS.						
General:	22 SITES REPORTED IN 2013; UNKNOWN HOW MANY PLANTS WERE OBSERVED AT EACH SITE.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	83	Map Index:	94837	EO Index:	95956	Element Last Seen:	2013-04-15
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2013-04-15
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-12
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.28834 / -119.35060				Accuracy:	specific area	
UTM:	Zone-11 N3907554 E286238				Elevation (ft):	400	
PLSS:	T30S, R24E, Sec. 25, SW (M)				Acres:	1.0	
Location:	SOUTHWEST OF TUPMAN ROAD, ABOUT 0.7 AIR MILE SSE OF ELK HILL ELEMENTARY SCHOOL, ELK HILLS.						
Detailed Location:	MAPPED IN THE NE 1/4 OF THE SW 1/4 OF SECTION 25.						
Ecological:	DESERT SALTBUSH SCRUB (ATRIPLEX POLYCARPA) INTERMIXED CALIFORNIA ANNUAL GRASSLANDS.						
General:	2 SITES REPORTED IN 2013; UNKNOWN HOW MANY PLANTS WERE OBSERVED AT EACH SITE.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	84	Map Index:	94839	EO Index:	95957	Element Last Seen:	2013-04-19
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2013-04-19
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-12
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.29799 / -119.40991				Accuracy:	specific area	
UTM:	Zone-11 N3908753 E280869				Elevation (ft):	575	
PLSS:	T30S, R24E, Sec. 21, SW (M)				Acres:	1.0	
Location:	APPROXIMATELY 3.3 AIR MILES WEST OF TUPMAN, ELK HILLS.						
Detailed Location:	MAPPED IN THE SW 1/4 OF THE SW 1/4 OF SECTION 21.						
Ecological:	DESERT SALTBUSH SCRUB (ATRIPLEX POLYCARPA) INTERMIXED CALIFORNIA ANNUAL GRASSLANDS.						
General:	4 SITES REPORTED IN 2013; UNKNOWN HOW MANY PLANTS WERE OBSERVED AT EACH SITE.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	85	Map Index:	94840	EO Index:	95958	Element Last Seen:	2001-03-12
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-03-12
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-12
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.32189 / -119.48971				Accuracy:	specific area	
UTM:	Zone-11 N3911585 E273679				Elevation (ft):	775	
PLSS:	T30S, R23E, Sec. 15, NE (M)				Acres:	1.0	
Location:	WEST OF ELK HILLS ROAD, ABOUT 2.6 AIR MILES NNE OF HILLCREST POINT, ELK HILLS.						
Detailed Location:	MAPPED IN THE NW 1/4 OF THE NE 1/4 OF SECTION 15.						
Ecological:	VALLEY SALTBUSH SCRUB HABITAT ON CLAY OR SANDY EXPOSED SOILS. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	50+ PLANTS OBSERVED IN 2001.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	86	Map Index:	94841	EO Index:	95959	Element Last Seen:	2011-04-18
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2011-04-18
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-12
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.33573 / -119.57674				Accuracy:	specific area	
UTM:	Zone-11 N3913322 E265805				Elevation (ft):	700	
PLSS:	T30S, R22E, Sec. 11, NE (M)				Acres:	2.0	
Location:	APPROXIMATELY 3.3 AIR MILES NORTHEAST OF MCKITTRICK, WEST ELK HILLS.						
Detailed Location:	2 POLYGONS MAPPED NEAR THE CENTER OF THE NE 1/4 OF SECTION 11.						
Ecological:	EPHEMERAL DRY WASH IN VALLEY SALTBUSH SCRUB HABITAT. ERIASTRUM HOOVERI ALSO LOCATED IN THE AREA, ALONG WITH ATRIPLEX POLYCARPA AND ISOMERIS ARBOREA. DISSECTED ALLUVIAL GRAVEL DERIVED FROM MOSTLY MONTEREY SHALE.						
General:	1200 PLANTS OBSERVED IN SECTION 11 (INCLUDES PARTS OF EO#62 AND EO#63) IN 2011.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	87	Map Index:	94842	EO Index:	95960	Element Last Seen:	2001-03-19
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2001-03-19
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-01-12
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.30442 / -119.50943				Accuracy:	specific area	
UTM:	Zone-11 N3909692 E271836				Elevation (ft):	1200	
PLSS:	T30S, R23E, Sec. 21, NE (M)				Acres:	1.0	
Location:	NORTH OF SKYLINE ROAD, APPROXIMATELY 1.1 AIR MILES NORTH OF HILLCREST POINT, ELK HILLS.						
Detailed Location:	MAPPED IN THE SW 1/4 OF THE NE 1/4 OF SECTION 21.						
Ecological:	VALLEY SALTBUSH SCRUB HABITAT ON CLAY OR SANDY EXPOSED SOILS. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	FEWER THAN 10 PLANTS OBSERVED IN 2001.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Monolopia congdonii

Element Code: PDASTA8010

San Joaquin woollythreads

Listing Status: **Federal:** Endangered

CNDDDB Element Ranks: **Global:** G2

State: None

State: S2

Other: Rare Plant Rank - 1B.2, SB_UCBG-UC Botanical Garden at Berkeley

Habitat: **General:** CHENOPOD SCRUB, VALLEY AND FOOTHILL GRASSLAND.

Micro: ALKALINE OR LOAMY PLAINS; SANDY SOILS, OFTEN WITH GRASSES AND WITHIN CHENOPOD SCRUB. 55-840 M.

Occurrence No.	61	Map Index:	31422	EO Index:	2767	Element Last Seen:	2013-XX-XX
Occ. Rank:	Good	Presence:	Presumed Extant	Site Last Seen:		2013-XX-XX	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2016-02-16	

Quad Summary: Stevens (3511932)

County Summary: Kern

Lat/Long:	35.33694 / -119.24011	Accuracy:	specific area
UTM:	Zone-11 N3912712 E296409	Elevation (ft):	330
PLSS:	T30S, R25E, Sec. 12, NE (M)	Acres:	9.0

Location: STRAND OIL FIELD; 0.8 MILE EAST OF ENOS LANE (HWY 43), 1.2 MILES SOUTH OF JUNCTION OF RAILROAD AND BELLEVUE ROAD.

Detailed Location: MAPPED BY CNDDDB AS 2 POLYGONS; EAST POLYGON BASED ON A 1992 HAND-DRAWN MAP, WEST POLYGON BASED ON 2009 GPS COORDINATES.

Ecological: OPEN DISTURBED GRASSLAND/SALTBUSH SCRUB W/ ATRIPLEX POLYCARPA, HORDEUM LEPORINUM, OENOTHERA CAMPESTRIS, BROMUS MADRITENSIS RUBENS, AND ORTHOCARPUS PURPURASCENS. PLANTS IN W POLY ARE LOCATED ON A SMALL SANDY RISE W/ AMSINCKIA MENZIESII, ETC.

General: EAST POLYGON: 250 PLANTS IN 1992, PLANTS LARGE AND HEALTHY. WEST POLYGON: 100 PLANTS IN 2009, 500 PLANTS IN 2013.

Owner/Manager: KERN WATER BANK AUTHORITY

Occurrence No.	117	Map Index:	B3576	EO Index:	115497	Element Last Seen:	1988-03-07
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		1988-03-07	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2019-07-26	

Quad Summary: Fellows (3511925), West Elk Hills (3511935)

County Summary: Kern

Lat/Long:	35.23606 / -119.55163	Accuracy:	1 mile
UTM:	Zone-11 N3902206 E267805	Elevation (ft):	
PLSS:	T31S, R23E, Sec. 18 (M)	Acres:	1987.0

Location: ELK HILLS PRISON SITE.

Detailed Location: EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS CENTERED ON TRS PROVIDED ON A NEARBY JOKERST COLLECTION (JOKERST #2958) BUT NO TRS INFORMATION WAS PROVIDED ON JOKERST #2956 FOR MONOLOPIA CONGDONII.

Ecological: BARREN SANDY MINIATURE HILLOCKS IN ANNUAL GRASSLAND OF BROMUS RUBENS, VULPIA, AND ERODIUM.

General: ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1988 JOKERST COLLECTION. NEEDS FIELDWORK.

Owner/Manager: UNKNOWN



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Caulanthus californicus

Element Code: PDBRA31010

California jewelflower

Listing Status:	Federal: Endangered	CNDDDB Element Ranks:	Global: G1
	State: Endangered		State: S1
	Other: Rare Plant Rank - 1B.1, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_SBBG-Santa Barbara Botanic Garden, SB_UCBG-UC Botanical Garden at Berkeley		
Habitat:	General: CHENOPOD SCRUB, VALLEY AND FOOTHILL GRASSLAND, PINYON AND JUNIPER WOODLAND.		
	Micro: SANDY SOILS. 65-1860 M.		

Occurrence No.	18	Map Index:	15429	EO Index:	23135	Element Last Seen:	1935-04-02
Occ. Rank:	None	Presence:	Possibly Extirpated	Site Last Seen:			1986-03-XX
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:			1991-07-11

Quad Summary: Mouth of Kern (3511923), Taft (3511924)

County Summary: Kern

Lat/Long:	35.22856 / -119.37789	Accuracy:	1 mile
UTM:	Zone-11 N3900981 E283597	Elevation (ft):	400
PLSS:	T31S, R24E, Sec. 15, SE (M)	Acres:	0.0

Location: 8 MILES NORTHEAST OF TAFT.

Detailed Location: EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDDB 8 MILES NE OF TAFT ALONG HIGHWAY 119.

Ecological: OPEN FLAT. NATIVE VEGETATION PERSISTS ABOUT 1 MILE NORTH OF DUSTIN ACRES ON WEST SIDE OF HIGHWAY 119 (1986). ERIASTRUM HOOVERI WAS FOUND AT THIS SITE.

General: AREA SEARCHED IN 1986; NO PLANTS SEEN. HABITAT MOSTLY MODIFIED OR ELIMINATED.

Owner/Manager: PVT

Atriplex cordulata var. cordulata

Element Code: PDCHE040B0

heartscale

Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: GNRT2
	State: None		State: S2
	Other: Rare Plant Rank - 1B.2, BLM_S-Sensitive		
Habitat:	General: CHENOPOD SCRUB, VALLEY AND FOOTHILL GRASSLAND, MEADOWS AND SEEPS.		
	Micro: ALKALINE FLATS AND SCALDS IN THE CENTRAL VALLEY, SANDY SOILS. 3-275 M.		



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Occurrence No.	37	Map Index:	25128	EO Index:	22675	Element Last Seen:	1992-05-16
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1992-05-16
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2009-11-02
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.23220 / -119.33625				Accuracy:	specific area	
UTM:	Zone-11 N3901295 E287397				Elevation (ft):	300	
PLSS:	T31S, R25E, Sec. 18, NW (M)				Acres:	21.0	
Location:	NE EDGE OF BUENA VISTA LAKEBED, ALONG THE NORTH SIDE OF THE CALIFORNIA AQUEDUCT NEAR MILEPOST 245.						
Detailed Location:	INSIDE AND OUTSIDE OF THE AQUEDUCT RIGHT-OF-WAY BETWEEN MILEPOSTS 244.65 R AND 245.09 R.						
Ecological:	DISTURBED SALTBUSH SCRUB/ALKALI SINK ON SANDY LOAM SOIL. ASSOCIATED WITH ATRIPLEX POLYCARPA, A. PHYLLOSTEGIA, A. CORONATA, BASSIA HYSSOPIFOLIA, BROMUS SP, MESEMBRYANTHEMUM NODIFLORUM, SUAEDA SP., AND NITROPHILA OCCIDENTALIS.						
General:	100'S OF PLANTS OBSERVED IN SCATTERED STANDS BY STEBBINS IN 1992. REFERRED TO IN STEBBINS' REPORT AS POPULATION #1. ID OF THIS SITE SHOULD ALSO BE CHECKED; PRESTON (2009) THINK THIS MAY BE A. VALLICOLA.						
Owner/Manager:	DWR, PVT						

Occurrence No.	38	Map Index:	25129	EO Index:	6123	Element Last Seen:	2003-07-15
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2003-07-15
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2009-11-02
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.20440 / -119.35752				Accuracy:	specific area	
UTM:	Zone-11 N3898256 E285388				Elevation (ft):	300	
PLSS:	T31S, R24E, Sec. 24 (M)				Acres:	594.2	
Location:	WEST EDGE OF BUENA VISTA LAKEBED, WEST SIDE OF THE CALIFORNIA AQUEDUCT BETWEEN MILEPOSTS 246 AND 249. SECS 23-26, 35.						
Detailed Location:	3 LARGE SUBPOPULATIONS MAPPED; ONE BETWEEN MILEPOSTS 246.0 R AND 248.0 R, SECOND, FROM 350 M S OF MILEPOST 248.0 R TO MILEPOST 249.0 R (BOTH INSIDE AND OUTSIDE OF THE AQUEDUCT RIGHT-OF-WAY). 3RD COLONY JUST MORE W OF AQUEDUCT IN SEC 35.						
Ecological:	DISTURBED SALTBUSH SCRUB/ALKALI SINK ON DRY POWDERY SOIL. ASSOC: ATRIPLEX POLYCARPA, A. PHYLLOSTEGIA, A. CORONATA (HYBRID), BASSIA HYSSOPIFOLIA, BROMUS SP., SUAEDA SP., ALLENROLFEA OCCIDENTALIS, CHENOPODIUM ALBUM, AND OLIGOMERIS LINIFOLIA.						
General:	100'S OF PLANTS IN SCATTERED STANDS IN 1992, STEBBINS POPS #2 AND 3. 1000+ IN 1999. W-MOST COLONY OBS IN 2003 BETWEEN THIS AND EO #72, DENSITY VARIED FROM 1 PLANT IN 2 ACRES TO 50 IN 1 ACRE. POSSIBLY A. VALLICOLA; ID SHOULD BE CHECKED.						
Owner/Manager:	DWR, PVT						



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Occurrence No.	39	Map Index:	25125	EO Index:	20751	Element Last Seen:	1971-XX-XX
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:	1971-XX-XX		
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:	2009-11-02		
Quad Summary:	Maricopa (3511914), Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.10308 / -119.41794			Accuracy:	non-specific area		
UTM:	Zone-11 N3887149 E279613			Elevation (ft):	900		
PLSS:	T32S, R24E (M)			Acres:	1012.7		
Location:	TAFT-MARICOPA ROAD, SOUTH END OF TEMBLOR RANGE.						
Detailed Location:	MAPPED ALONG HIGHWAY 33 BETWEEN TAFT AND MARICOPA.						
Ecological:							
General:	ONLY SOURCE OF INFO IS LIST OF KNOWN LOCATIONS IN STEBBINS REPORT. COLLECTOR ETC. IS UNK. AREA SHOULD BE FIELD CHECKED FOR PRESENCE OF SUITABLE HABITAT. ID OF THIS SITE SHOULD ALSO BE CHECKED; PRESTON (2009) THINKS THIS MAY BE A. VALLICOLA.						
Owner/Manager:	UNKNOWN						

Occurrence No.	62	Map Index:	49720	EO Index:	49720	Element Last Seen:	1999-05-20
Occ. Rank:	Good	Presence:	Presumed Extant	Site Last Seen:	1999-05-20		
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:	2009-11-02		
Quad Summary:	Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.37766 / -119.51622			Accuracy:	non-specific area		
UTM:	Zone-11 N3917832 E271426			Elevation (ft):	300		
PLSS:	T29S, R23E, Sec. 28, NW (M)			Acres:	42.3		
Location:	WEST OF THE LEVEE, APPROXIMATELY 2 AIR MILES SOUTH OF CORN CAMP.						
Detailed Location:	SITE MAPPED BASED ON TRS PROVIDED BY VANHERWEG IN THE SW 1/4 NW 1/4 SECTION 28.						
Ecological:	VALLEY SINK SCRUB HABITAT.						
General:	200+ INDIVIDUALS SEEN IN 1999. PRESTON (2009) MENTIONS THAT THIS OCCURRENCE IS VERY PROBABLY A. VALLICOLA; ID NEEDS TO BE CHECKED AT THIS SITE.						
Owner/Manager:	PVT						



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Occurrence No.	72	Map Index:	54759	EO Index:	54759	Element Last Seen:	2003-07-15
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2003-07-15
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2009-11-02
Quad Summary:	Mouth of Kern (3511923), Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.24665 / -119.34596				Accuracy:	specific area	
UTM:	Zone-11 N3902919 E286550				Elevation (ft):	525	
PLSS:	T31S, R24E, Sec. 12 (M)				Acres:	36.4	
Location:	NAVAL PETROLEUM RESERVE NO 1, APPROXIMATELY 3.5 AIR MILES NE OF DUSTIN ACRES.						
Detailed Location:	MAPPED AS A SERIES OF SEVEN POLYGONS ALONG SOUTH-FACING ROAD CUTS ALONG HIGHWAY 119 RIGHT-OF-WAY. DENSEST STANDS (50 PLANTS PER ACRE) ON ROAD CUTS EAST OF BUENA VISTA ROAD. IN PARTS OF SECTIONS 6, 7, 12, AND 14.						
Ecological:	PRESENT IN UNCUT SOILS OF RIDGES AND BARREN SLOPED AREAS WITHIN THE ROAD RIGHT-OF-WAY AS WELL AS IN ALKALI SINK SCRUB. FOUND WITH ATRIPLEX CORONATA VAR. CORONATA HYBRIDS.						
General:	PLANT DENSITY BETWEEN THIS SITE AND THE W-MOST POLYGON OF OCCURRENCE #38 VARIED FROM 1 PLANT FOR EVERY TWO ACRES TO 50 PLANTS PER ACRE IN 2003. PRESTON (2009) MENTIONS THAT THIS OCCURRENCE IS PROBABLY A. VALLICOLA; ID NEEDS TO BE CHECKED.						
Owner/Manager:	PVT-CHEVRON						

<i>Atriplex subtilis</i>	Element Code:	PDCHE042T0
subtle orache		
Listing Status:	Federal:	None
	State:	None
	Other:	Rare Plant Rank - 1B.2, BLM_S-Sensitive
Habitat:	General:	VALLEY AND FOOTHILL GRASSLAND.
	Micro:	ALKALINE SOILS. 20-100 M.
CNDDDB Element Ranks: Global: G1		
State: S1		

Occurrence No.	18	Map Index:	31276	EO Index:	56541	Element Last Seen:	1999-10-12
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-10-12
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2011-05-24
Quad Summary:	Buttonwillow (3511944)						
County Summary:	Kern						
Lat/Long:	35.40487 / -119.38979				Accuracy:	specific area	
UTM:	Zone-11 N3920566 E282986				Elevation (ft):	285	
PLSS:	T29S, R24E, Sec. 15, SW (M)				Acres:	44.1	
Location:	NE OF HIGHWAY 58 AND I-5 INTERSECTION, EAST OF BUTTONWILLOW.						
Detailed Location:	MAPPED ACCORDING TO MAP PROVIDED BY SOURCE 0.2-0.6 MILE NORTH OF HIGHWAY 58 (MCKITTRICK HIGHWAY) AND 0.8-1.1 MILES EAST OF I-5. MOSTLY IN THE SW 1/4 OF SECTION 15.						
Ecological:	IN ALKALINE LOAMY SOIL WITH SUAEDA MOQUINII, HEMIZONIA PUNGENS SSP. PUNGENS, SPOROBOLUS AIROIDES, ISOCOMA ACRADENIA VAR. BRACTEOSA, HORDEUM MURINUM SSP. GLAUCUM, MACHAERANTHERA CARNOSA, SESUVIUM VERRUCOSUM, AND DISTICHLIS SPICATA.						
General:	1200 PLANTS IN 1993. 200-300 PLANTS IN 1999. ORIGINALLY IDENTIFIED AS ATRIPLEX MINUSCULA BY WILSON AND DETERMINED TO BE A. SUBTILIS BY PRESTON IN 1999. ANNOTATED TO A. SUBTILIS BY ZACHARIAS IN 2010. FORMER A. MINUSCULA OCCURRENCE #1.						
Owner/Manager:	PVT?						

<i>Atriplex coronata var. vallicola</i>	Element Code:	PDCHE04371
Lost Hills crownscale		
Listing Status:	Federal:	None
CNDDDB Element Ranks: Global: G4T3		



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Habitat:	State:	None	State:	S3
	Other:	Rare Plant Rank - 1B.2, BLM_S-Sensitive		
	General:	CHENOPOD SCRUB, VALLEY AND FOOTHILL GRASSLAND, VERNAL POOLS.		
	Micro:	IN POWDERY, ALKALINE SOILS THAT ARE VERNALLY MOIST WITH FRANKENIA, ATRIPLEX SPP. AND DISTICHLIS. 45-885 M.		

Occurrence No.	16	Map Index:	15174	EO Index:	21155	Element Last Seen:	1986-04-14
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		1986-04-14	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		1993-12-23	

Quad Summary:	Lokern (3511945)						
County Summary:	Kern						

Lat/Long:	35.39468 / -119.52845	Accuracy:	1/5 mile
UTM:	Zone-11 N3919749 E270363	Elevation (ft):	265
PLSS:	T29S, R23E, Sec. 20, NW (M)	Acres:	0.0

Location:	BELRIDGE PLAIN, APPROXIMATELY 3 MILES WEST OF BUTTONWILLOW, JUST WEST OF KERN RIVER FLOOD CANAL, SOUTH OF HWY 58.						
Detailed Location:							
Ecological:	FOUND ON ALKALINE CLAY SOIL.						
General:	FEWER THAN 1000 PLANTS SEEN IN 1986.						
Owner/Manager:	PVT						

Occurrence No.	18	Map Index:	15203	EO Index:	21156	Element Last Seen:	1987-09-17
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		1987-09-17	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2009-11-03	

Quad Summary:	Lokern (3511945)						
County Summary:	Kern						

Lat/Long:	35.37972 / -119.52110	Accuracy:	specific area
UTM:	Zone-11 N3918072 E270988	Elevation (ft):	270
PLSS:	T29S, R23E, Sec. 29, NE (M)	Acres:	5.8

Location:	BETWEEN THE CALIFORNIA AQUEDUCT AND WEST SIDE CANAL, ABOUT 1.5 MI SE OF HWY 58 AT JUNCTION WITH LOKERN RD, SE OF LOKERN.						
Detailed Location:	MAPPED BY CNDDDB AS 2 POLYGONS IN THE NE1/4 OF SECTION 29 AND THE NW1/4 OF SECTION 28.						
Ecological:	ON SPARSELY VEGETATED SITE WITH SUAEDA FRUITICOSA AND ALLENROLFEA OCCIDENTALIS. ALKALINE FINE SANDY CLAY.						
General:	2 POPULATIONS SEEN DURING BIOLOGICAL SURVEY ALONG POWERLINE FOR COGENERATION PROJECT SOMETIME BEFORE 1986. PLANTS COLLECTED IN THIS VICINITY BY TAYLOR IN 1987.						
Owner/Manager:	PVT						



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Occurrence No.	19	Map Index:	14948	EO Index:	2704	Element Last Seen:	1999-05-24
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-05-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2013-07-08
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.28818 / -119.62456				Accuracy:	non-specific area	
UTM:	Zone-11 N3908161 E261318				Elevation (ft):	1400	
PLSS:	T30S, R22E, Sec. 28, W (M)				Acres:	70.0	
Location:	ROUGHLY ONE MILE SOUTH OF MCKITTRICK, EAST OF HIGHWAY 33.						
Detailed Location:	MAPPED AS 3 POLYGONS. NE-MOST POLYGON (SQUARES) MAPPED NON-SPECIFICALLY ACCORDING TO T-R-S INFORMATION BY JOKERST. THE OTHER TWO POLYGONS ARE FROM FIELD SURVEY FORM MAPS.						
Ecological:	S COLONY ON BARREN, WHITE ALKALINE CLAYS (PH 9.5) ASSOCIATED WITH ATRIPLEX POLYCARPA, ERIOGONUM INDICTUM AND E. GOSSYPINUM. N COLONY GROWING IN ALKALI SINK IN ASSOCIATION WITH SUAEDA MOQUINII, PLAGIOBOTHRYIS, CHENOPODIUM, HUTCHINSIA, ET AL.						
General:	SW-MOST POLYGON: 1000 PLANTS SEEN IN 1987. NE-MOST POLYGON (SQUARES): ABOUT 150 PLANTS SEEN IN 1988. SMALL NW-MOST POLYGON: 200 PLANTS IN 1999; THIS WAS ONCE IDENTIFIED AS A. CORDULATA. INCL FORMER EO #32 AND FORMER A. CORDULATA EO #61.						
Owner/Manager:	BLM, PVT-PGE, UNKNOWN						

Occurrence No.	34	Map Index:	44125	EO Index:	44125	Element Last Seen:	1999-XX-XX
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	1999-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2018-10-09
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.28258 / -119.42131				Accuracy:	specific area	
UTM:	Zone-11 N3907069 E279791				Elevation (ft):	950	
PLSS:	T30S, R24E, Sec. 29, NW (M)				Acres:	2.2	
Location:	ELK HILLS, ABOUT 2.5 MILES EAST OF ELK HILLS ROAD AND 0.8 MILE NORTH OF SKYLINE ROAD, NORTH OF TAFT.						
Detailed Location:	SINGLE COLONY MAPPED ALONG SECTION LINE IN THE NE 1/4 OF THE NW 1/4 SECTION 32.						
Ecological:	VALLEY SALTBUSSH SCRUB HABITAT ON CLAY SOILS, DOMINATED BY ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	8 PLANTS OBSERVED IN 1999.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	35	Map Index:	44126	EO Index:	44126	Element Last Seen:	1999-04-23
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1999-04-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2018-10-09
Quad Summary:	Taft (3511924), East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.24885 / -119.42386				Accuracy:	specific area	
UTM:	Zone-11 N3903333 E279468				Elevation (ft):	850	
PLSS:	T31S, R24E, Sec. 08, NW (M)				Acres:	5.3	
Location:	ELK HILLS, ABOUT 2.7 MILES NORTH OF VALLEY WEST ROAD AND 1.5 MILES ENE OF BEND IN ELK HILLS ROAD, NORTH OF TAFT.						
Detailed Location:	3 COLONIES MAPPED IN 2 POLYGONS WITHIN THE NW 1/4 OF THE NW 1/4 OF SECTION 8 AND THE SE 1/4 OF NW 1/4 SECTION 8.						
Ecological:	VALLEY SALTBUSH SCRUB HABITAT ON CLAY SOILS, DOMINATED BY ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	160 PLANTS OBSERVED IN 1999. THE RARE ERIOGONUM GOSSYPINUM OCCURS NEARBY IN SIMILAR HABITAT.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	36	Map Index:	44132	EO Index:	44132	Element Last Seen:	2001-04-19
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-04-19
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2018-10-09
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.23819 / -119.41223				Accuracy:	non-specific area	
UTM:	Zone-11 N3902124 E280497				Elevation (ft):	675	
PLSS:	T31S, R24E, Sec. 17, NE (M)				Acres:	40.0	
Location:	ELK HILLS; NORTH OF WESTERN EDGE OF STANDARD OIL TANK FARM, ABOUT 2.2 AIR MILES NORTH OF VALLEY ACRES, NNE OF TAFT.						
Detailed Location:	3 POLYGONS. WESTERN POLYGON IS NON-SPECIFIC, MAPPED ACCORDING TO GIVEN TRS: SW 1/4 OF THE SE 1/4 OF SECTION 8. 2 EASTERN POLYGONS ARE SPECIFIC, MAPPED ACCORDING TO A 2001 MAP BY QUAD KNOPF.						
Ecological:	VALLEY SALTBUSH SCRUB HABITAT ON CLAY SOILS, DOMINATED BY ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS. THE RARE ERIOGONUM GOSSYPINUM OCCURS NEARBY IN SIMILAR HABITAT.						
General:	30 PLANTS OBSERVED IN WESTERN POLYGON IN 1999. MORE THAN 50 PLANTS SEEN IN 2 EASTERN POLYGONS IN 2001. INCLUDES FORMER OCCURRENCE #43.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	37	Map Index:	44133	EO Index:	44133	Element Last Seen:	1999-04-21
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-04-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2018-10-09
Quad Summary:	Taft (3511924), East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.24791 / -119.44142				Accuracy:	specific area	
UTM:	Zone-11 N3903268 E277867				Elevation (ft):	900	
PLSS:	T31S, R24E, Sec. 07, NW (M)				Acres:	44.9	
Location:	ELK HILLS, ABOUT 2.2-3 MILES NORTH OF VALLEY WEST ROAD AND JUST NE OF BEND IN ELK HILLS ROAD, NORTH OF TAFT.						
Detailed Location:	NUMEROUS COLONIES ACROSS SECTION 7.						
Ecological:	VALLEY SALTBUSH SCRUB HABITAT ON CLAY SOILS, DOMINATED BY ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	700+ PLANTS OBSERVED IN 1999. THE RARE ERIOGONUM GOSSYPINUM AND ERIASTRUM HOOVERI OCCUR NEARBY IN SIMILAR HABITAT.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	38	Map Index:	44134	EO Index:	44134	Element Last Seen:	1999-03-29
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-03-29
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2018-10-09
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.26562 / -119.33461				Accuracy:	non-specific area	
UTM:	Zone-11 N3904999 E287633				Elevation (ft):	600	
PLSS:	T31S, R25E, Sec. 06, W (M)				Acres:	334.0	
Location:	ELK HILLS; ALONG BOTH SIDES OF SKYLINE RD, SOUTHWEST OF TUPMAN RD AND NORTH OF HWY 119, 1.5-3 AIR MI SOUTH OF TUPMAN.						
Detailed Location:	SEVERAL COLONIES. POLYS IN THE WEST HALF OF SEC 6 AND THE WEST HALF OF SEC 31 ARE SPECIFIC, MAPPED ACCORDING TO A 2000 QUAD KNOPF MAP. LARGE POLY IN THE EAST HALF OF SEC 31 IS NONSPECIFIC; 6 SITES REPORTED BUT NO MAP PROVIDED.						
Ecological:	VALLEY SALTBUSH SCRUB HABITAT ON CLAY SOILS, DOMINATED BY ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 1999. INCLUDES FORMER OCCURRENCE #S 39-41.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	42	Map Index:	44138	EO Index:	44138	Element Last Seen:	1999-04-30
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1999-04-30
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2018-10-09
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.28243 / -119.35057				Accuracy:	specific area	
UTM:	Zone-11 N3906897 E286226				Elevation (ft):	520	
PLSS:	T30S, R24E, Sec. 25, S (M)				Acres:	5.2	
Location:	ELK HILLS, ALONG ROAD ABOUT 1 MILE SOUTH OF TUPMAN.						
Detailed Location:	TWO POLYGONS MAPPED, ON BOTH SIDES OF THE ROAD, NEAR THE SOUTHERN EDGE OF SECTION 25.						
Ecological:	VALLEY SALTBUSSH SCRUB HABITAT ON CLAY SOILS, DOMINATED BY ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	65 PLANTS OBSERVED IN 1999.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	44	Map Index:	58332	EO Index:	58368	Element Last Seen:	2000-03-17
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	2000-03-17
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2018-10-09
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.26491 / -119.43641				Accuracy:	80 meters	
UTM:	Zone-11 N3905143 E278369				Elevation (ft):	1100	
PLSS:	T31S, R24E, Sec. 06, NE (M)				Acres:	0.0	
Location:	SOUTH OF SKYLINE ROAD, ABOUT 1.5 MILES EAST OF ELK HILLS ROAD, EAST ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE NW 1/4 OF THE NE 1/4 OF SECTION 6.						
Ecological:	IN VALLEY SALTBUSSH SCRUB HABITAT ON CLAY SOILS. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AND VULPIA MYUROS.						
General:	45 PLANTS OBSERVED IN 2000.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	76	Map Index:	89652	EO Index:	90651	Element Last Seen:	2011-06-30
Occ. Rank:	Fair	Presence:	Presumed Extant	Site Last Seen:		2011-06-30	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2013-07-10	

Quad Summary: West Elk Hills (3511935)

County Summary: Kern

Lat/Long:	35.25587 / -119.57990	Accuracy:	80 meters
UTM:	Zone-11 N3904470 E265288	Elevation (ft):	1230
PLSS:	T31S, R22E, Sec. 02, S (M)	Acres:	0.0

Location: WEST OF MIDWAY VALLEY, APPROXIMATELY 1 AIR MILE NORTHEAST OF DERBY ACRES.

Detailed Location: BERRY PETROLEUM FEDERAL MINERALS LEASE SITE. MAPPED NEAR THE CENTER OF THE SOUTH HALF OF SECTION 2 ACCORDING TO 2011 WILKEN COORDINATES.

Ecological: FINE SALINE SOIL OF SLOPE BELOW RECENTLY CONSTRUCTED OIL PAD AND PARKING AREA. ASSOCIATED WITH ATRIPLEX POLYCARPA, A. ARGENTEA VAR. MOHAVENSIS, MONOLOPIA LANCEOLATA, AND BROMUS MADRITENSIS SSP. RUBENS.

General: 1000+ PLANTS OBSERVED IN 2011.

Owner/Manager: BLM

Astragalus hornii* var. *hornii

Element Code: PDFAB0F421

Horn's milk-vetch

Listing Status:	Federal: None	CNDDDB Element Ranks:	Global: GUT1
	State: None		State: S1
	Other: Rare Plant Rank - 1B.1, BLM_S-Sensitive		
Habitat:	General: MEADOWS AND SEEPS, PLAYAS.		
	Micro: LAKE MARGINS, ALKALINE SITES. 75-350 M.		

Occurrence No.	7	Map Index:	69671	EO Index:	70409	Element Last Seen:	1998-04-XX
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		2003-XX-XX	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2019-12-19	

Quad Summary: Tupman (3511933)

County Summary: Kern

Lat/Long:	35.26759 / -119.30213	Accuracy:	non-specific area
UTM:	Zone-11 N3905148 E290593	Elevation (ft):	900
PLSS:	T31S, R25E, Sec. 04, NW (M)	Acres:	50.0

Location: ALONG HIGHWAY 119 JUST NE OF THE INTERSECTION WITH TUPMAN ROAD, NE OF TAFT.

Detailed Location: BETWEEN THE HIGHWAY AND THE RETENTION BASIN.

Ecological: ON A DIRT BANK AT THE EDGE OF SALTBUSH FLATS. SURROUNDED BY ALLSCALE SCRUB WITH BACCHARIS SALICIFOLIA, ATRIPLEX LENTIFORMIS, DISTICHLIS SPICATA, HELIOTROPIUM CURASSAVICIUM, SUAEDA MOQUINII, VARIOUS ATRIPLEX SPP, PLENTY OF WEEDS.

General: 10 TO 15 PLANTS OBSERVED IN 1998. PLANTS "CAME UP 4-5 TIMES IN THE LAST 30 YEARS." NONE FOUND DURING 2002 OR 2003. A 1929 HOFFMANN COLLECTION FROM "NEAR BUENA VISTA LAKE" IS ALSO ATTRIBUTED TO THIS SITE.

Owner/Manager: UNKNOWN



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Occurrence No.	8	Map Index:	64519	EO Index:	70410	Element Last Seen:	1988-03-07
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		1988-03-07	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2007-07-13	
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.23589 / -119.55124			Accuracy:	non-specific area		
UTM:	Zone-11 N3902186 E267839			Elevation (ft):	1150		
PLSS:	T31S, R23E, Sec. 18, NW (M)			Acres:	54.5		
Location:	ELK HILLS PRISON PROJECT SITE JUST N OF BUENA VISTA HILLS, E SIDE OF HWY 33, 1.5 MI E OF MIDWAY PUMPING STATION.						
Detailed Location:	MAPPED BY CNDDB ACCORDING TO T-R-S PROVIDED BY JOKERST & FOSTER: T31S R23E NW 1/4 OF THE NW 1/4 OF SECTION 18.						
Ecological:	LOW FLAT OF ANNUAL GRASSLAND.						
General:	ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1988 COLLECTION BY JOKERST & FOSTER.						
Owner/Manager:	UNKNOWN						

Occurrence No.	12	Map Index:	69637	EO Index:	70415	Element Last Seen:	1958-05-21
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		1958-05-21	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2019-12-19	
Quad Summary:	Stevens (3511932), Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.30756 / -119.25179			Accuracy:	non-specific area		
UTM:	Zone-11 N3909477 E295273			Elevation (ft):	300		
PLSS:	T30S, R25E, Sec. 24, NW (M)			Acres:	19.0		
Location:	EAST SIDE OF ENOS ROAD (FROM BUENA VISTA LAKE TO SHAFTER) CIRCA 1/4 MILE NORTH OF KERN RIVER BRIDGE.						
Detailed Location:							
Ecological:	AT ROADSIDE. IN VERY LIGHT ALKALINE SOIL. PROSOPIS JULIFLORA V. TORREYANA ASSOCIATION.						
General:	SITE BASED ON A 1958 COLLECTION BY TUCKER; "SMALL COLONY OF ROBUST PLANTS JUST BEGINNING TO BLOOM." A 1955 TWISSELMANN COLLECTION FROM "KERN RIVER, 6.4 MILES NORTH OF BUENA VISTA LAKE" IS ALSO ATTRIBUTED TO THIS SITE.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	19	Map Index:	B4577	EO Index:	117513	Element Last Seen:	2013-11-06
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2013-11-06
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2019-12-18
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.31199 / -119.22934				Accuracy:	specific area	
UTM:	Zone-11 N3909922 E297328				Elevation (ft):	328	
PLSS:	T30S, R26E, Sec. 18, SW (M)				Acres:	16.0	
Location:	KERN FAN WATER RECHARGE BASINS; APPROXIMATELY 2 AIR MILES ENE OF WHERE THE KERN RIVER CROSSES I-5, SW BAKERSFIELD.						
Detailed Location:	WATER RECHARGE BASIN #6. MAPPED ACCORDING TO A 2013 KRAMER MAP.						
Ecological:	IN SHALLOW DEPRESSIONS OR SWALES WITHIN THE RECHARGE BASINS ON FINE SANDY OR FINE SANDY LOAM SOILS. PLANT ASSOCIATES INCLUDE VERBENA BRACTEATA, GRINDELIA CAMPORUM, HELIOTROPIUM CURASSAVICUM, PERSICARIA LAPATHIFOLIA, ETC.						
General:	1000+ PLANTS OBSERVED IN 2013.						
Owner/Manager:	CITY OF BAKERSFIELD						

Occurrence No.	20	Map Index:	B4579	EO Index:	117514	Element Last Seen:	2013-11-06
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2013-11-06
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2019-12-18
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.31852 / -119.21212				Accuracy:	specific area	
UTM:	Zone-11 N3910612 E298909				Elevation (ft):	335	
PLSS:	T30S, R26E, Sec. 17, NW (M)				Acres:	4.0	
Location:	KERN FAN WATER RECHARGE BASINS; APPROXIMATELY 3-3.3 AIR MILES ENE OF WHERE THE KERN RIVER CROSSES I-5, SW BAKERSFIELD.						
Detailed Location:	WATER RECHARGE BASIN #4. MAPPED AS 2 POLYGONS ACCORDING TO A 2013 KRAMER MAP.						
Ecological:	IN SHALLOW DEPRESSIONS OR SWALES WITHIN THE RECHARGE BASINS ON FINE SANDY OR FINE SANDY LOAM SOILS. PLANT ASSOCIATES INCLUDE VERBENA BRACTEATA, GRINDELIA CAMPORUM, HELIOTROPIUM CURASSAVICUM, PERSICARIA LAPATHIFOLIA, ETC.						
General:	IN 2013, WESTERN POLYGON HAD ~300 PLANTS AND EASTERN POLYGON HAD 22 PLANTS.						
Owner/Manager:	CITY OF BAKERSFIELD						

<i>Eremalche parryi ssp. kernensis</i>					Element Code: PDMAL0C031		
Kern mallow							
Listing Status:	Federal:	Endangered			CNDDB Element Ranks:	Global:	G3G4T3
	State:	None				State:	S3
	Other:	Rare Plant Rank - 1B.2, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_SBBG-Santa Barbara Botanic Garden					
Habitat:	General:	CHENOPOD SCRUB, VALLEY AND FOOTHILL GRASSLAND, PINYON AND JUNIPER WOODLANDS.					
	Micro:	ON DRY, OPEN, SANDY TO CLAY SOILS; USUALLY WITHIN VALLEY SALTBUH SCRUB; OFTEN AT EDGE OF BALDS. 60-1295 M.					



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Occurrence No.	1	Map Index:	14962	EO Index:	2734	Element Last Seen:	2016-03-13
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2016-03-13
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2021-05-06
Quad Summary:	West Elk Hills (3511935), Reward (3511936), Lokern (3511945), Belridge (3511946)						
County Summary:	Kern						
Lat/Long:	35.40062 / -119.6051				Accuracy:	non-specific area	
UTM:	Zone-11 N3920589 E263418				Elevation (ft):	400	
PLSS:	T29S, R22E, Sec. 15 (M)				Acres:	3413.0	
Location:	BETWEEN WEST SIDE CANAL AND LOST HILLS RD, FROM ABOUT 3 MILES NORTH TO ABOUT 2 MILES SOUTH OF LOKERN RD, WEST OF LOKERN.						
Detailed Location:	THIS OCCURRENCE MAY BE THE ONLY "TRUE" E. KERNENSIS. MAPPED AS MANY NON-SPECIFIC POLYS BASED ON VARYING DEGREES OF MAP DETAIL. POLYS ALONG LOKERN RD, AQUEDUCT, & TRANSMISSION/PIPELINES WELL-MAPPED; BLOCKY POLYS BASED ON 1/4 SECTION DETAIL.						
Ecological:	VALLEY SALTBUSSH SCRUB WITH GRAVELLY-SANDY CLAY LOAM SOILS. ASSOCIATED WITH ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS RUBENS, VULPIA MYUROS, LEPIDIUM DICTYOTUM, L. NITIDUM, ERODIUM CICUTARIUM, HORDEUM LEPORINUM, HEMIZONIA PALLIDA, STIPA, ETC.						
General:	10,000+ IN 1986. 1000S IN 1988, 1989, & 1992. >50,000 IN 2004 BETW THIS OCC AND #28, 47, 48, 82, & 83 COMBINED. 100,000+ ALONG LOKERN RD IN 2009. 1000S IN W PORTION OF SITE IN 2010. SEEN IN 2013, 2015, 2016. INCL FRMR OCCS #3, 29, 40 & 41.						
Owner/Manager:	PVT, DFG, CNLM, DWR						

Occurrence No.	2	Map Index:	14930	EO Index:	2874	Element Last Seen:	2008-03-26
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2009-03-27
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2012-04-30
Quad Summary:	West Elk Hills (3511935), Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.35215 / -119.62232				Accuracy:	specific area	
UTM:	Zone-11 N3915252 E261710				Elevation (ft):	700	
PLSS:	T30S, R22E, Sec. 04 (M)				Acres:	563.0	
Location:	APPROXIMATELY 2-4 AIR MILES NORTH OF MCKITTRICK, MOSTLY BETWEEN HIGHWAY 33 AND HIGHWAY 58, WEST OF THE ELK HILLS.						
Detailed Location:	PLANTS OCCUR IN VARYING DENSITIES THROUGHOUT T30S R22E SEC 4, MUCH OF T29S R22E SEC 32; 2 COLONIES IN SE 1/4 SEC 33; 1 COLONY IN THE SE CORNER OF SEC. 5; 1 COLONY IN THE NW 1/4 SEC 8.						
Ecological:	VALLEY SALTBUSSH SCRUB COMMUNITY WITH ATRIPLEX POLYCARPA AND OPEN GRASSY AREAS WITH BROMUS RUBENS AND SCHISMUS ARABICUS. OPEN AREAS A MOSAIC OF IRREGULAR CRYPTOGAMIC "BALDS" AND DENSE ANNUAL GRASSLAND. EREMACHE PREFERS EDGES OF BALDS.						
General:	500-1000 PLANTS OBSERVED IN W 1/2 SEC 32 IN 1986, 1991, 1993. 10,000+ IN SEC 4 IN 1989. 1 PLANT IN SE CORNER OF SEC 5 IN 2008. S-MOST POLY & W-MOST POLY NEED ID CONFIRMED; ONLY E. EXILIS OBSERVED IN '08/'09. INCL FORMER EO #34, 35, 36, 38.						
Owner/Manager:	BLM, PVT						



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Occurrence No.	25	Map Index:	14949	EO Index:	20683	Element Last Seen:	1986-04-17
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	1986-04-17
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2012-04-13
Quad Summary:	Fellows (3511925), Panorama Hills (3511926)						
County Summary:	Kern						
Lat/Long:	35.23611 / -119.62608				Accuracy:	80 meters	
UTM:	Zone-11 N3902388 E261027				Elevation (ft):	1750	
PLSS:	T31S, R22E, Sec. 17, NE (M)				Acres:	0.0	
Location:	BUENA VISTA CREEK, APPROXIMATELY 1.8 AIR MILES WEST OF DERBY ACRES, TELEPHONE HILLS.						
Detailed Location:	ALONG POWERLINE. MAPPED BY CNDDDB ACCORDING TO A 1986 CEC MAP IN THE NE 1/4 OF THE NE 1/4 OF SECTION 17.						
Ecological:	AT BASE OF A SOUTH-FACING SLOPE NEAR THE MOUTH OF A CANYON. VEGETATION IN THE AREA CONSISTS OF GRASSLAND/SCRUB WITH BROMUS RUBENS, ERODIUM CICUTARIUM, AND ATRIPLEX POLYCARPA.						
General:	1 PLANT OBSERVED IN 1986.						
Owner/Manager:	PVT						

Occurrence No.	26	Map Index:	85717	EO Index:	86742	Element Last Seen:	1986-04-17
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1986-04-17
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2012-04-16
Quad Summary:	West Elk Hills (3511935), Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.26281 / -119.62410				Accuracy:	specific area	
UTM:	Zone-11 N3905346 E261286				Elevation (ft):	1550	
PLSS:	T31S, R22E, Sec. 04, W (M)				Acres:	44.0	
Location:	APPROXIMATELY 2 AIR MILES NW OF DERBY ACRES, TELEPHONE HILLS.						
Detailed Location:	MAPPED BY CNDDDB AS 9 POLYGONS ACCORDING TO A 1986 CEC MAP.						
Ecological:	ALONG TRANSMISSION LINE. SOUTH-FACING SLOPES. LOOSE, WHITISH-GRAY LOAMY SOIL. GRASSLAND/SCRUB VEGETATION WITH ATRIPLEX SPINIFERA, BROMUS RUBENS, ERODIUM CICUTARIUM, ISOMERIS ARBOREA, LEPIDIUM NITIDUM, AND MENTZELIA VEATCHIANA.						
General:	9 COLONIES OBSERVED IN 1986; HUNDREDS OF PLANTS IN TOTAL.						
Owner/Manager:	BLM, PVT						



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Occurrence No.	28	Map Index:	15161	EO Index:	2879	Element Last Seen:	2015-03-20
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2015-03-20
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2016-07-26
Quad Summary:	West Elk Hills (3511935), Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.38067 / -119.53287			Accuracy:	specific area		
UTM:	Zone-11 N3918205 E269922			Elevation (ft):	300		
PLSS:	T29S, R23E, Sec. 29 (M)			Acres:	92.0		
Location:	BOTH SIDES OF CALIFORNIA AQUEDUCT, 0.4-1.5 MILES SOUTHEAST OF HIGHWAY 58, NORTH OF ELK HILLS.						
Detailed Location:	MAPPED BY CNDDDB AS FIVE POLYGONS NEAR AQUEDUCT AND TRANSMISSION LINE.						
Ecological:	DISTURBED SALTBUSH SCRUB AND GRASSLAND. ASSOCIATED WITH LASTHENIA CHRYSOSTOMA, ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MOLLIS, B. MADRITENSIS SSP. RUBENS, ORTHOCARPUS PURPURESCENS, AND ERODIUM CIRCUTARIUM.						
General:	POPULATION NUMBERS FOR PARTS OF OCC: >600 PLANTS IN 1986, 100S IN 1992, >100 IN 2000, >50,000 IN 2004 BETWEEN THIS OCC AND OCCS #1, 47, 48, 82 & 83, 100S IN 2008, UNKNOWN NUMBER IN 2015. INCLUDES FORMER OCC #49.						
Owner/Manager:	PVT, DFG-LOKERN ER						

Occurrence No.	37	Map Index:	31395	EO Index:	12750	Element Last Seen:	2008-03-26
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2008-03-26
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2009-03-27
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.34563 / -119.60141			Accuracy:	specific area		
UTM:	Zone-11 N3914479 E263591			Elevation (ft):	650		
PLSS:	T30S, R22E, Sec. 03, SW (M)			Acres:	17.0		
Location:	ABOUT 3 AIR MILES NNE OF MCKITTRICK ALONG HIGHWAY 58, EAST OF HIGHWAY ALONG PIPELINE ROUTE.						
Detailed Location:	FROM SOUTH SIDE OF PIPELINE TO SOUTH SIDE OF HIGHWAY 58. MAPPED WITHIN THE NE 1/4 OF THE SW 1/4 OF SECTION 3.						
Ecological:	OPEN, FLAT AREA OF GRASSLAND/SCRUB WITH ATRIPLEX SPINIFERA, BROMUS RUBENS, ERODIUM CIRCUTARIUM, AND VULPIA MYUROS.						
General:	1 PLANT IN VEGETATIVE STATE OBSERVED IN 1986. APPROX. 30 PLANTS OBSERVED IN 2008. 1998 HRUSA COLLECTION FROM "S SIDE OF HWY 58 ON RECENTLY BURNED FLATS 4 MI. SW OF LOKERN/HWY 58 INTERSECTION" ATTRIBUTED TO THIS OCCURRENCE.						
Owner/Manager:	PVT						



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Occurrence No.	39	Map Index:	31398	EO Index:	12749	Element Last Seen:	1986-03-XX
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2008-03-26
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2009-03-24
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.36959 / -119.53878				Accuracy:	80 meters	
UTM:	Zone-11 N3916989 E269353				Elevation (ft):	350	
PLSS:	T29S, R23E, Sec. 30, SE (M)				Acres:	0.0	
Location:	ABOUT 1 MILE EAST OF LOKERN PUMPING PLANT, WEST OF CALIFORNIA AQUEDUCT AND NORTHEAST OF MCKITTRICK.						
Detailed Location:	MAPPED ALONG SOUTH SIDE OF TRANSMISSION LINE IN THE SE 1/4 OF THE SE 1/4 OF SECTION 30.						
Ecological:							
General:	ORIGINAL SOURCE OF INFORMATION FOR THIS SITE WAS MAP DETAIL FROM CEC. NO PLANTS OBSERVED IN 2008, POSSIBLY DUE TO LACK OF RAIN; VERY DRY (<2").						
Owner/Manager:	PVT						

Occurrence No.	42	Map Index:	31392	EO Index:	2880	Element Last Seen:	1988-03-25
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2008-03-26
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2009-03-27
Quad Summary:	Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.40128 / -119.54042				Accuracy:	non-specific area	
UTM:	Zone-11 N3920509 E269294				Elevation (ft):	275	
PLSS:	T29S, R23E, Sec. 18, SE (M)				Acres:	156.6	
Location:	LOKERN, NEAR JUNCTION OF LOKERN ROAD AND HIGHWAY 58.						
Detailed Location:							
Ecological:	VALLEY SINK SCRUB WITH ATRIPLEX SPINIFERA, A. POLYCARPA, SUAEDA MOQUINII, BROMUS RUBENS, VULPIA MYUROS, DISTICHLIS SPICATA, AND ERODIUM CICUTARIUM. ATRIPLEX LENTIFORMIS AND BACCHARIS NEARBY. EREMALCHE IS FOUND IN SPARSE ANNUAL GRASSES.						
General:	50 PLANTS OBSERVED IN 1988. NO PLANTS OBSERVED IN 2008; SEARCHED AREA WITHIN 200 M OF HWY 58 ALONG NORTH SIDE OF ROAD.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	44	Map Index:	64519	EO Index:	64598	Element Last Seen:	1988-03-07
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1988-03-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-04-19
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.23589 / -119.55124				Accuracy:	non-specific area	
UTM:	Zone-11 N3902186 E267839				Elevation (ft):	275	
PLSS:	T31S, R23E, Sec. 18, NW (M)				Acres:	54.5	
Location:	ELK HILLS PRISON SITE JUST NORTH OF BUENA VISTA HILLS, EAST SIDE OF HWY 33, 1.5 MILES EAST OF MIDWAY PUMPING STATION.						
Detailed Location:	MAPPED ACCORDING TO T-R-S PROVIDED BY JOKERST: T31S R23E S18 NW 1/4 OF NW 1/4.						
Ecological:	LOW FLAT ANNUAL GRASSLAND.						
General:	ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1988 COLLECTION BY JOKERST.						
Owner/Manager:	UNKNOWN						

Occurrence No.	45	Map Index:	64520	EO Index:	64599	Element Last Seen:	2009-03-27
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2009-03-27
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2012-04-16
Quad Summary:	West Elk Hills (3511935), Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.28484 / -119.62478				Accuracy:	specific area	
UTM:	Zone-11 N3907791 E261288				Elevation (ft):	1350	
PLSS:	T30S, R22E, Sec. 28, W (M)				Acres:	42.0	
Location:	ON THE EAST SIDE OF HIGHWAY 33 APPROXIMATELY 1.5 MILES SOUTH OF MCKITTRICK.						
Detailed Location:	MAPPED BY CNDDB AS 2 POLYGONS ACCORDING TO A 2009 PRESTON MAP. ON THE SECTION 28/SECTION 29 LINE.						
Ecological:	SALTBUSH SCRUB AND ANNUAL GRASSLAND. ASSOCIATES INCLUDE AMSINCKIA DOUGLASIANA, ATRIPLEX POLYCARPA, BROMUS RUBENS, ERODIUM CICUTARIUM, LUPINUS SUBVEXUS, LASTHENIA CHRYSOSTOMA, AND SUAEDA MOQUINII.						
General:	HUNDREDS (POSSIBLY THOUSANDS) OF PLANTS OBSERVED IN 1986. OBSERVED BY JOKERST IN THE SW 1/4 OF THE SW 1/4 OF SECTION 28 IN 1989. 1000S OF GYNODIOECIOUS PLANTS PRESENT IN 2009; BUT PLANTS COULD BE E. PARRYI. INCLUDES FORMER OCCURRENCE #27.						
Owner/Manager:	PVT, BLM						



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Occurrence No.	46	Map Index:	64523	EO Index:	64602	Element Last Seen:	1991-05-08
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1991-05-08
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-04-19
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.16441 / -119.42086				Accuracy:	1/10 mile	
UTM:	Zone-11 N3893959 E279512				Elevation (ft):	950	
PLSS:	T32S, R24E, Sec. 08, NE (M)				Acres:	0.0	
Location:	FBOP PRISON SITE ALONG PIPELINE ROUTE E & ADJACENT TO AIRPORT RD, 250 M N OF 4-WAY JUNCTION SUMMIT OF BUENA VISTA HILLS.						
Detailed Location:	MAPPED ALONG CENTER WEST EDGE OF THE NW 1/4 OF THE NE 1/4 OF SECTION 8.						
Ecological:							
General:	ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1991 COLLECTION BY JOKERST. NEEDS FIELDWORK.						
Owner/Manager:	BLM						

Occurrence No.	48	Map Index:	64610	EO Index:	64689	Element Last Seen:	2004-03-31
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2004-03-31
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2006-05-03
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.35324 / -119.59891				Accuracy:	80 meters	
UTM:	Zone-11 N3915317 E263841				Elevation (ft):	600	
PLSS:	T30S, R22E, Sec. 03, NW (M)				Acres:	0.0	
Location:	LOKERN NATURAL AREA, JUST NORTH OF HIGHWAY 58, ABOUT 3.5 MILES NORTH OF MCKITTRICK.						
Detailed Location:	MAPPED WITHIN THE NE 1/4 OF THE NW 1/4 OF SECTION 29. PLANTS ONLY OCCUR ON KIMBERLINA FINE SANDY LOAM, KIMBERLINA SANDY LOAM, PANOCHE CLAY LOAM, AND PANOCHE CLAY LOAM SALINE-ALKALI SOILS ON 0.5% SLOPES.						
Ecological:	SALTBUSH SCRUB DOMINATED BY ATRIPLEX SPINIFERA AND A. POLYCARPA. ANNUAL GRASSLAND BETWEEN SHRUBS AND WHERE IT HAS BURNED. GRASSLAND DOMINATED BY BROMUS MADRITENSIS SSP. RUBENS AND ERODIUM CICUTARIUM.						
General:	MORE THAN 50,000 PLANTS OBSERVED IN 2004 BETWEEN THIS OCCURRENCE AND OCCURRENCES 1, 28, 47, 82, AND 83 COMBINED.						
Owner/Manager:	PVT						



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Occurrence No.	68	Map Index:	85753	EO Index:	86783	Element Last Seen:	1993-05-04
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1993-05-04
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2012-04-30
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.14136 / -119.33000			Accuracy:	specific area		
UTM:	Zone-11 N3891205 E287729			Elevation (ft):	330		
PLSS:	T32S, R25E, Sec. 18, SE (M)			Acres:	17.0		
Location:	SOUTH OF BUENA VISTA LAKEBED; APPROX 1 AIR MILE SSE OF RICHFIELD OIL PUMPING STATION, JUST EAST OF BUENA VISTA HILLS.						
Detailed Location:	APPROXIMATELY 100 METERS NORTH OF "ATRIPLEX LENTIFORMIS FOREST." MAPPED BY CNDDDB ACCORDING TO A 1993 ANDERSON ET AL. MAP IN THE WEST HALF OF THE SE 1/4 OF SECTION 18.						
Ecological:	FLAT AREA WITH BROMUS RUBENS, SUAEDA FRUTICOSA, AMSINCKIA INTERMEDIA, SONCHUS OLERACEUS, ERODIUM CICUTARIUM, AND ATRIPLEX LENTIFORMIS.						
General:	200 PLANTS OBSERVED IN 1993.						
Owner/Manager:	BLM						
Occurrence No.	69	Map Index:	85754	EO Index:	86784	Element Last Seen:	1993-05-09
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1993-05-09
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2012-04-30
Quad Summary:	Mouth of Kern (3511923)						
County Summary:	Kern						
Lat/Long:	35.24799 / -119.34873			Accuracy:	specific area		
UTM:	Zone-11 N3903073 E286302			Elevation (ft):	500		
PLSS:	T31S, R24E, Sec. 12, NE (M)			Acres:	6.0		
Location:	NORTH OF BUENA VISTA LAKEBED; NORTH SIDE OF HIGHWAY 119 APPROXIMATELY 1 AIR MILE SOUTH OF BM "PLATEAU TANK," ELK HILLS.						
Detailed Location:	MAPPED BY CNDDDB AS 2 POLYGONS ACCORDING TO A 1993 ANDERSON ET AL. MAP IN THE SW 1/4 OF THE NE 1/4 OF SECTION 12.						
Ecological:	ASSOCIATED WITH ATRIPLEX PHYLLOSTEGIA, A. CORONATA, AND A. POLYCARPA.						
General:	FEWER THAN 10 PLANTS OBSERVED IN 1993.						
Owner/Manager:	DOD						



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Occurrence No.	70	Map Index:	85757	EO Index:	86785	Element Last Seen:	2019-04-16
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2019-04-16
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2021-04-20
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.24035 / -119.39431				Accuracy:	specific area	
UTM:	Zone-11 N3902325 E282135				Elevation (ft):	670	
PLSS:	T31S, R24E, Sec. 9, SE (M)				Acres:	4.0	
Location:	APPROXIMATELY 2 AIR MILES WEST OF THE NAVAL PETROLEUM RESERVE NO 1 SOUTHERN BOUNDARY AND HIGHWAY 119, ELK HILLS.						
Detailed Location:	MAPPED BY CNDDB AS 2 POLYGONS ACCORDING TO A 1993 ANDERSON ET AL. MAP AND 2019 NUNEZ COORDINATES, IN THE SE 1/4 OF THE SE 1/4 OF SECTION 9 AND THE SW 1/4 OF THE SW 1/4 OF SECTION 10.						
Ecological:	ALKALINE, POWDERY, WHITISH SOILS. SOUTH-FACING SLOPES, EXPOSED. VALLEY SALT BUSH SCRUB HABITAT AND NON-NATIVE GRASSLAND HABITAT ASSOCIATED WITH ATRIPLEX PHYLLOSTEGIA, A. CORONATA, AND A. POLYCARPA.						
General:	FEWER THAN 50 PLANTS OBSERVED IN SW POLYGON IN 1993. ~80 PLANTS OBSERVED IN NE POLYGON IN 2019.						
Owner/Manager:	PVT						

Occurrence No.	75	Map Index:	31596	EO Index:	86804	Element Last Seen:	1992-03-28
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1992-03-28
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2012-04-19
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.33861 / -119.43930				Accuracy:	80 meters	
UTM:	Zone-11 N3913325 E278308				Elevation (ft):	300	
PLSS:	T30S, R24E, Sec. 07, NW (M)				Acres:	0.0	
Location:	APPROX 2.5 AIR MILES ESE OF ELK HILLS-BUTTONWILLOW AIRFIELD; NORTH SIDE OF CALIFORNIA AQUEDUCT, SOUTH OF BUTTONWILLOW.						
Detailed Location:	AT MILEPOST 231.73 L. MAPPED BY CNDDB ACCORDING TO A 1992 STEBBINS MAP IN THE NE 1/4 OF THE NW 1/4 OF SECTION 7.						
Ecological:	DISTURBED SALT BUSH SCRUB. ASSOCIATED SPECIES: LASTHENIA CHRYSOSTOMA, ATRIPLEX POLYCARPA, BROMUS MOLLIS, ERODIUM CICUTARIUM, AND DELPHINIUM RECURVATUM.						
General:	HUNDREDS OF PLANTS OBSERVED IN 1992, MOSTLY ADJACENT TO RIGHT-OF-WAY.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	81	Map Index:	85785	EO Index:	86817	Element Last Seen:	1986-05-30
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	1986-05-30
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2012-04-19
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.31279 / -119.60691				Accuracy:	80 meters	
UTM:	Zone-11 N3910850 E262995				Elevation (ft):	1030	
PLSS:	T30S, R22E, Sec. 16, SE (M)				Acres:	0.0	
Location:	APPROXIMATELY 1 AIR MILE NE OF MCKITTRICK, NORTH SIDE OF THE ELK HILLS.						
Detailed Location:	ALONG TRANSMISSION LINE. MAPPED BY CNDDDB ACCORDING TO A LOCATION DESCRIPTION IN A 1986 CEC REPORT; NO MAP PROVIDED FOR THIS SITE BUT IT WAS FOUND "500 FEET SOUTH OF" A KNOWN DELPHINIUM POPULATION.						
Ecological:	WEST-FACING, GENTLE SLOPE. IN ASSOCIATION WITH BROMUS RUBENS AND ATRIPLEX POLYCARPA.						
General:	A SINGLE FLOWERING PLANT WAS OBSERVED IN 1986.						
Owner/Manager:	PVT						

Occurrence No.	83	Map Index:	87013	EO Index:	87980	Element Last Seen:	2004-03-31
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2004-03-31
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2012-10-24
Quad Summary:	West Elk Hills (3511935), Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.37549 / -119.59780				Accuracy:	80 meters	
UTM:	Zone-11 N3917783 E264007				Elevation (ft):	475	
PLSS:	T29S, R22E, Sec. 27 (M)				Acres:	0.0	
Location:	2.6 AIR MILES SW OF THE POINT WHERE LOKERN ROAD CROSSES THE CALIFORNIA AQUEDUCT, ABOUT 7 MILES WEST OF BUTTONWILLOW.						
Detailed Location:	NEAR THE CENTER OF SECTION 27.						
Ecological:	SALTBUSH SCRUB DOMINATED BY ATRIPLEX SPINIFERA AND A. POLYCARPA. ANNUAL GRASSLAND BETWEEN SHRUBS AND WHERE IT HAS BURNED. GRASSLAND DOMINATED BY BROMUS MADRITENSIS SSP. RUBENS AND ERODIUM CICUTARIUM.						
General:	OVER 50,000 PLANTS WERE OBSERVED IN 2004 BETWEEN THIS OCCURRENCE AND OCCURRENCES #1, 28, 47, 48, AND 82 COMBINED.						
Owner/Manager:	PVT						



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Occurrence No.	102	Map Index:	87047	EO Index:	88007	Element Last Seen:	1950-03-29
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1950-03-29
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2012-10-25
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.25596 / -119.30772				Accuracy:	non-specific area	
UTM:	Zone-11 N3903870 E290055				Elevation (ft):	600	
PLSS:	T31S, R25E, Sec. 05, SE (M)				Acres:	47.0	
Location:	1.0 MILE WEST OF KERN RIVER BRIDGE, HIGHWAY 399 BETWEEN BAKERSFIELD AND TAFT.						
Detailed Location:	EXACT LOCATION UNKNOWN. MAPPED BY CNDDDB NON-SPECIFICALLY ALONG GOLF COURSE RD/TUPMAN RD (WHICH REPRESENTS THE OLD ROUTING OF US HIGHWAY 399, WHICH LATER BECAME CA HIGHWAY 119) APPROXIMATELY 1.0 ROAD MILE SW OF THE BRIDGE OVER KERN RIVER.						
Ecological:	HARD, GRAVELLY SLOPES. ASSOCIATED WITH MONOLOPIA.						
General:	ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1950 COLLECTION BY BALLS AND LENZ. ELEVATION ON COLLECTION LABEL OF 600 FEET IS HIGHER THAN ELEVATION IN MAPPED AREA (~300 FEET). NEEDS FIELDWORK.						
Owner/Manager:	UNKNOWN						

Occurrence No.	129	Map Index:	97741	EO Index:	99114	Element Last Seen:	2013-03-24
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2013-03-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-10-06
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.34973 / -119.32726				Accuracy:	80 meters	
UTM:	Zone-11 N3914314 E288522				Elevation (ft):	305	
PLSS:	T30S, R25E, Sec. 6, NE (M)				Acres:	5.0	
Location:	EAST SIDE OF INTERSTATE 5, ABOUT 1/2 MILE SOUTHEAST OF THE STOCKDALE HWY/INTERSTATE 5 JUNCTION.						
Detailed Location:	MAPPED IN THE SOUTH 1/2 OF THE NE 1/4 OF SECTION 6.						
Ecological:	ALKALINE FLATS, SILTY LOAM SOIL. WITH ATRIPLEX POLYCARPA, PROSOPIS GLANDULOSA, LASTHENIA MINOR, SCHISMUS SP., AMSINCKIA MENZIESII, AND ERODIUM CICUTARIUM.						
General:	100+ PLANTS OBSERVED IN 2013.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	132	Map Index:	97761	EO Index:	99139	Element Last Seen:	2013-03-21
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2013-03-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2015-10-08
Quad Summary:	Buttonwillow (3511944)						
County Summary:	Kern						
Lat/Long:	35.39972 / -119.40722				Accuracy:	80 meters	
UTM:	Zone-11 N3920033 E281389				Elevation (ft):	300	
PLSS:	T29S, R24E, Sec. 16, SW (M)				Acres:	5.0	
Location:	0.4 MILE WEST OF THE EXIT/ENTRANCE RAMP TO I-5 ON CA HIGHWAY 58.						
Detailed Location:	LARGE VERNAL POOL ON THE NORTH SIDE OF THE HIGHWAY. MAPPED ACCORDING TO 2013 FREUND COORDINATES IN THE SOUTH 1/2 OF THE SW 1/4 OF SECTION 16.						
Ecological:	ALKALINE VERNAL POOL VEGETATION (ALKALI SCALD). WITH ATRIPLEX CORONATA, A. ERECTICAULIS, A. SERENANA, CENTROMADIA PUNGENS, STUTZIA COVILLEI, GILIA TRICOLOR SSP. DIFFUSA, LASTHENIA CALIFORNICA, LAYIA GLANDULOSA SSP. GLANDULOSA, ETC.						
General:	SITE IS BASED ON A 2013 FREUND & PORTER COLLECTION.						
Owner/Manager:	UNKNOWN						

Occurrence No.	136	Map Index:	A1297	EO Index:	102869	Element Last Seen:	2016-03-24
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	2016-03-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2016-07-26
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.16196 / -119.45259				Accuracy:	80 meters	
UTM:	Zone-11 N3893758 E276616				Elevation (ft):	850	
PLSS:	T32S, R23E, Sec. 12, NE (M)				Acres:	5.0	
Location:	HIGHWAY 119 ABOUT 0.6 MILE NORTH OF CEDAR STREET, FORD CITY.						
Detailed Location:	MAPPED NEAR THE CENTER OF THE NE 1/4 OF SECTION 12.						
Ecological:	SPARSE ALLSCALE SCRUB.						
General:	100+ PLANTS OBSERVED IN 2016.						
Owner/Manager:	BLM						

Occurrence No.	138	Map Index:	A1300	EO Index:	102872	Element Last Seen:	2015-02-23
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2015-02-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2017-08-01
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.26784 / -119.22731				Accuracy:	specific area	
UTM:	Zone-11 N3905021 E297401				Elevation (ft):	317	
PLSS:	T30S, R26E, Sec. 31, SW (M)				Acres:	1.0	
Location:	NORTHWEST CORNER OF THE JUNCTION OF TAFT HIGHWAY AND INTERSTATE 5.						
Detailed Location:	2 POLYGONS MAPPED IN THE SE 1/4 OF THE SW 1/4 OF SECTION 31.						
Ecological:	HEAVILY DISTURBED ALKALINE FLATS. ASSOCIATED WITH ERODIUM CICUTARIUM, HORDEUM MURINUM, LASTHENIA MINOR, AMSINCKIA MENZIESII, SCHISMUS SP., BROMUS SP., AND LEPIDIUM NITIDUM.						
General:	50+ PLANTS OBSERVED IN 2015.						
Owner/Manager:	PVT						



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Occurrence No.	139	Map Index:	A1304	EO Index:	102876	Element Last Seen:	2016-03-17
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2016-03-17
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2016-07-26
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.26803 / -119.59843				Accuracy:	specific area	
UTM:	Zone-11 N3905863 E263637				Elevation (ft):	1350	
PLSS:	T30S, R22E, Sec. 34, S (M)				Acres:	13.0	
Location:	ABOUT 0.75 MILE EAST OF HIGHWAY 33 AND 0.9 TO 1.6 AIR MILES NORTH OF DERBY ACRES.						
Detailed Location:	7 POLYGONS MAPPED ACCORDING TO 2015 NOEL COORDINATES AND A 2016 PARRISH MAP, WITHIN THE NW 1/4 NE 1/4 OF SECTION 3 AND THE SOUTH 1/2 OF SECTION 34.						
Ecological:	VALLEY SALTBRUSH SCRUB HABITAT AND NON-NATIVE GRASSLANDS, DOMINATED BY FIDDLENECK, LONDON ROCKET, AND RED-STEMMED FILAREE. SOILS ARE SANDY LOAM. GENTLY ROLLING HILLS.						
General:	UNKNOWN NUMBER OF PLANTS SEEN IN 5 SOUTHERN POLYGONS IN 2015. 50 PLANTS OBSERVED IN 2 NORTHERN POLYGONS IN 2016.						
Owner/Manager:	PVT						

Occurrence No.	140	Map Index:	A1305	EO Index:	102877	Element Last Seen:	2015-05-04
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2015-05-04
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2016-07-26
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.26303 / -119.57478				Accuracy:	specific area	
UTM:	Zone-11 N3905253 E265774				Elevation (ft):	1175	
PLSS:	T31S, R22E, Sec. 2, NE (M)				Acres:	1.0	
Location:	MIDWAY VALLEY, ABOUT 1.5 AIR MILES NORTHEAST OF DERBY ACRES.						
Detailed Location:	MAPPED IN THE SE 1/4 OF THE NE 1/4 OF SECTION 2.						
Ecological:	VALLEY SALTBRUSH SCRUB IN A MODERATE DENSITY OIL FIELD.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 2015.						
Owner/Manager:	UNKNOWN						

Occurrence No.	142	Map Index:	A1308	EO Index:	102882	Element Last Seen:	2016-04-03
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2016-04-03
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2017-08-03
Quad Summary:	Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.32943 / -119.63747				Accuracy:	specific area	
UTM:	Zone-11 N3912769 E260267				Elevation (ft):	900	
PLSS:	T30S, R22E, Sec. 8, SW (M)				Acres:	8.0	
Location:	ABOUT 0.8 MILE EAST OF FRANCO WESTERN RD AND 0.6 MILE WEST OF HWY 33, ~1.5 AIR MILES NORTHWEST OF MCKITTRICK.						
Detailed Location:	6 POLYGONS MAPPED IN THE SW 1/4 OF SECTION 8.						
Ecological:	VALLEY SALTBRUSH SCRUB IN AN AREA WITH MODERATE DENSITY OIL INDUSTRY USE.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 2015 AND 2016.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	144	Map Index:	A1312	EO Index:	102884	Element Last Seen:	2016-05-13
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2016-05-13
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2017-08-01
Quad Summary:	Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.31093 / -119.63683				Accuracy:	specific area	
UTM:	Zone-11 N3910715 E260270				Elevation (ft):	1030	
PLSS:	T30S, R22E, Sec. 17, SW (M)				Acres:	3.0	
Location:	ABOUT 0.05 TO 0.1 MILE NORTH OF REWARD ROAD AND 1 AIR MILE WNW OF MCKITTRICK.						
Detailed Location:	3 POLYGONS MAPPED NEAR THE BORDER BETWEEN THE SW 1/4 OF SECTION 17 AND THE NW 1/4 OF SECTION 20.						
Ecological:	VALLEY SALTBRUSH SCRUB IN AN AREA WITH MODERATE DENSITY OIL USE.						
General:	SEEN IN WESTERN POLYGON IN 2015. SEEN IN 2 EASTERN POLYGONS IN 2016.						
Owner/Manager:	UNKNOWN						

Occurrence No.	164	Map Index:	A5670	EO Index:	107412	Element Last Seen:	2016-03-25
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2016-03-25
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2017-08-03
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.2453 / -119.61974				Accuracy:	specific area	
UTM:	Zone-11 N3903393 E261632				Elevation (ft):	1700	
PLSS:	T31S, R22E, Sec. 9, W (M)				Acres:	2.0	
Location:	NORTH OF BUENA VISTA CREEK, ABOUT 1.3 AIR MILES WEST OF DERBY ACRES.						
Detailed Location:	2 POLYGONS MAPPED NEAR THE CENTER OF THE WEST 1/2 OF SECTION 9.						
Ecological:	NON-NATIVE GRASSLAND WITH PATCHES OF VALLEY SALTBUH SCRUB, IN AN AREA WITH HISTORIC GRAZING.						
General:	UNKNOWN NUMBER OF PLANTS SEEN IN 2016.						
Owner/Manager:	BLM						

Occurrence No.	165	Map Index:	A5671	EO Index:	107413	Element Last Seen:	2016-05-31
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2016-05-31
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2017-08-03
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.20829 / -119.56959				Accuracy:	specific area	
UTM:	Zone-11 N3899167 E266090				Elevation (ft):	1300	
PLSS:	T31S, R22E, Sec. 25, NW (M)				Acres:	6.0	
Location:	BOTH SIDES OF SHALE ROAD, FROM 0.6 TO 1 MILE SOUTH OF ITS INTERSECTION WITH HIGHWAY 33, BETWEEN FELLOWS AND DERBY ACRES.						
Detailed Location:	4 POLYGONS MAPPED IN THE SW 1/4 OF SECTION 24 AND THE NW 1/4 OF SECTION 25.						
Ecological:	VALLEY SALTBUH SCRUB IN AN AREA WITH MODERATE DENSITY OIL USE.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 2016.						
Owner/Manager:	PVT						



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Occurrence No.	166	Map Index:	A5672	EO Index:	107414	Element Last Seen:	2016-03-24
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2016-03-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2017-08-03
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.15718 / -119.54138				Accuracy:	specific area	
UTM:	Zone-11 N3893432 E268513				Elevation (ft):	1600	
PLSS:	T32S, R23E, Sec. 7, NE (M)				Acres:	1.0	
Location:	HALE MCLEOD CANYON, ABOUT 1.3 AIR MILES SOUTH OF FELLOWS.						
Detailed Location:	2 POLYGONS MAPPED IN THE APPROXIMATE SOUTH 1/2 OF THE NE 1/4 OF SECTION 7.						
Ecological:	VALLEY SALTBUSSH SCRUB WITH PATCHES OF NON-NATIVE GRASSLAND, IN AN AREA WITH MODERATE DENSITY OIL USE.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 2016.						
Owner/Manager:	BLM, PVT						

Occurrence No.	173	Map Index:	A5689	EO Index:	107430	Element Last Seen:	2017-03-14
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2017-03-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2017-08-03
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.26726 / -119.34191				Accuracy:	80 meters	
UTM:	Zone-11 N3905196 E286974				Elevation (ft):	700	
PLSS:	T31S, R24E, Sec. 1, NE (M)				Acres:	5.0	
Location:	EASTERN END OF ELK HILLS, ABOUT 1.3 AIR MILES WSW OF THE INTERSECTION OF SKYLINE ROAD AND TUPMAN ROAD.						
Detailed Location:	MAPPED IN THE FAR NE 1/4 OF SECTION 1.						
Ecological:	SOUTH-FACING EXPOSED SLOPE WITHIN AREA CONTAINING STEEP HILLS. MIX OF VALLEY SALTBUSSH SCRUB AND ANNUAL (NON-NATIVE) GRASSLANDS.						
General:	ABOUT 30 PLANTS OBSERVED IN 2017.						
Owner/Manager:	PVT						

Occurrence No.	174	Map Index:	A5690	EO Index:	107432	Element Last Seen:	2016-04-25
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2016-04-25
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2017-08-03
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.2536 / -119.58804				Accuracy:	specific area	
UTM:	Zone-11 N3904238 E264541				Elevation (ft):	1430	
PLSS:	T31S, R22E, Sec. 2, SW (M)				Acres:	6.0	
Location:	JUST NORTHEAST OF DERBY ACRES, ABOUT 0.3 AIR MILE NORTHEAST OF THE INTERSECTION OF DERBY AVE AND 4TH STREET.						
Detailed Location:	2 POLYGONS MAPPED IN THE SW 1/4 OF THE SW 1/4 OF SECTION 2 AND THE NW 1/4 OF THE NW 1/4 OF SECTION 11.						
Ecological:	VALLEY SALTBUSSH SCRUB IN AN AREA WITH MODERATE DENSITY OIL INDUSTRY USE.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 2016.						
Owner/Manager:	BLM, PVT						



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Occurrence No.	175	Map Index:	A5695	EO Index:	107437	Element Last Seen:	2016-04-01
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2016-04-01
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2017-08-03
Quad Summary:	Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.33575 / -119.6355				Accuracy:	specific area	
UTM:	Zone-11 N3913465 E260465				Elevation (ft):	820	
PLSS:	T30S, R22E, Sec. 8, NW (M)				Acres:	1.0	
Location:	ABOUT 0.4 AIR MILE WEST OF HIGHWAY 33 AND 1.6 AIR MILES NORTHEAST OF OLIG SCHOOL.						
Detailed Location:	MAPPED IN THE EAST 1/2 OF THE NW 1/4 OF SECTION 8.						
Ecological:	VALLEY SALTBUSH SCRUB IN AN AREA WITH MODERATE DENSITY OIL INDUSTRY USE.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 2016.						
Owner/Manager:	UNKNOWN						

Occurrence No.	178	Map Index:	A5699	EO Index:	107441	Element Last Seen:	2016-04-03
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2016-04-03
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2017-08-03
Quad Summary:	Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.32631 / -119.63069				Accuracy:	specific area	
UTM:	Zone-11 N3912407 E260874				Elevation (ft):	950	
PLSS:	T30S, R22E, Sec. 8, SE (M)				Acres:	1.0	
Location:	WEST OF HIGHWAY 33, ABOUT 1.5 AIR MILES NNW OF THE INTERSECTION OF HIGHWAY 33 AND REWARD RD IN MCKITTRICK.						
Detailed Location:	MAPPED IN THE SW 1/4 OF THE SE 1/4 OF SECTION 8.						
Ecological:	VALLEY SALTBUSH SCRUB IN AN AREA WITH MODERATE DENSITY OIL INDUSTRY USE.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 2016.						
Owner/Manager:	UNKNOWN						

Occurrence No.	180	Map Index:	A5701	EO Index:	107443	Element Last Seen:	2016-05-06
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2016-05-06
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2017-08-03
Quad Summary:	Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.30535 / -119.64661				Accuracy:	specific area	
UTM:	Zone-11 N3910119 E259364				Elevation (ft):	1300	
PLSS:	T30S, R22E, Sec. 19, NE (M)				Acres:	1.0	
Location:	SOUTH OF REWARD ROAD, ABOUT 1.3 AIR MILES WEST OF MCKITTRICK.						
Detailed Location:	MAPPED IN THE SE 1/4 OF THE NE 1/4 OF SECTION 19.						
Ecological:	VALLEY SALTBUSH SCRUB IN AN AREA WITH MODERATE DENSITY OIL INDUSTRY USE.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 2016.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	189	Map Index:	B1711	EO Index:	113626	Element Last Seen:	2019-04-18
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	2019-04-18
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2019-08-06
Quad Summary:	Pentland (3511913)						
County Summary:	Kern						
Lat/Long:	35.11107 / -119.32581				Accuracy:	specific area	
UTM:	Zone-11 N3887836 E288034				Elevation (ft):	419	
PLSS:	T32S, R25E, Sec. 30, SE (M)				Acres:	8.0	
Location:	ABOUT 0.9 AIR MILE NORTHWEST OF THE INTERSECTION OF GARDNER FIELD ROAD AND BASIC SCHOOL ROAD, NORTHEAST OF MARICOPA.						
Detailed Location:	MARICOPA WEST SOLAR SITE. 4 POLYGONS MAPPED IN THE SE 1/4 OF THE SE 1/4 OF SECTION 30.						
Ecological:							
General:	AT LEAST 3 PLANTS OBSERVED IN 2018. 69 PLANTS OBSERVED IN 2019. BASED ON AERIAL IMAGE HISTORY, SOLAR PANELS WERE BUILT HERE IN 2015 OR 2016. UNKNOWN IF PLANTS OCCURED HERE BEFORE SOLAR PANEL DEVELOPMENT.						
Owner/Manager:	PVT						

Occurrence No.	211	Map Index:	B7240	EO Index:	120307	Element Last Seen:	2020-05-06
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2020-05-06
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2021-04-20
Quad Summary:	Stevens (3511932), Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.26763 / -119.24707				Accuracy:	specific area	
UTM:	Zone-11 N3905038 E295604				Elevation (ft):	308	
PLSS:	T30S, R25E, Sec. 36, SW (M)				Acres:	10.0	
Location:	JUST NORTH AND EAST OF THE JUNCTION OF TAFT HIGHWAY/CA-119 AND ENOS LANE/CA-43.						
Detailed Location:	MAPPED AS TWO POLYGONS ACCORDING TO 2020 KEMPTON COORDINATES. EASTERN POLYGON: PLANTS FOUND ALONG FENCE LINE ON THE NORTH SIDE OF TAFT HIGHWAY (119). WESTERN POLYGON: AT BASE OF SIGN ALONG EAST SIDE OF ENOS LANE.						
Ecological:	DISTURBED ROADSIDE HABITAT, LOCATED IN ALKALINE SOILS ADJACENT TO HONEY MESQUITE AND SALTBUSH SCRUBS.						
General:	IN 2020, EASTERN POLYGON HAD HUNDREDS OF PLANTS AND WESTERN POLYGON HAD 1 PLANT BUT THERE WERE LIKELY HUNDREDS IN ADJACENT HABITAT WITHIN KERN RIVER BANK PROPERTY.						
Owner/Manager:	CALTRANS, OTHERS						



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Occurrence No.	212	Map Index:	B7241	EO Index:	120308	Element Last Seen:	2020-05-06
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	2020-05-06
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2021-04-22
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.32072 / -119.25231				Accuracy:	specific area	
UTM:	Zone-11 N3910937 E295261				Elevation (ft):	324	
PLSS:	T30S, R25E, Sec. 13, NW (M)				Acres:	1.0	
Location:	EAST SIDE OF ENOS LANE, APPROXIMATELY 0.4 MILE SOUTH OF INTERSECTION AT MUNZER ROAD.						
Detailed Location:	MAPPED ACCORDING TO 2020 KEMPTON COORDINATES, IN THE SW 1/4 OF THE NW 1/4 OF SECTION 13.						
Ecological:	WITHIN DISTURBED VEGETATION, IMMEDIATELY ADJACENT TO HONEY MESQUITE SCRUB.						
General:	1 PLANT OBSERVED IN 2020 BUT THERE WERE LIKELY HUNDREDS IN ADJACENT HABITAT WITHIN KERN RIVER BANK PROPERTY.						
Owner/Manager:	CALTRANS						

Occurrence No.	213	Map Index:	B7242	EO Index:	120309	Element Last Seen:	2020-02-04
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2020-02-04
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2021-05-14
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.28845 / -119.41014				Accuracy:	specific area	
UTM:	Zone-11 N3907696 E280824				Elevation (ft):	757	
PLSS:	T30S, R24E, Sec. 28, SW (M)				Acres:	1.0	
Location:	APPROXIMATELY 3.4 AIR MILES WSW OF TUPMAN.						
Detailed Location:	WITHIN A HIGHLY DEVELOPED OIL FIELD. MAPPED ACCORDING TO 2020 FIEHLER COORDINATES, IN THE NW 1/4 OF THE SW 1/4 OF SECTION 28.						
Ecological:	VALLEY SALTBUCH SCRUB HABITAT AND NON-NATIVE GRASSLAND HABITAT.						
General:	1 CLUSTER OBSERVED IN 2020.						
Owner/Manager:	PVT						

<i>Eschscholzia lemmonii ssp. kernensis</i>					Element Code: PDPAP0A071		
Tejon poppy							
Listing Status:	Federal:	None			CNDDB Element Ranks:	Global:	G4T2
	State:	None				State:	S2
	Other:	Rare Plant Rank - 1B.1, BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_SBBG-Santa Barbara Botanic Garden, SB_USDA-US Dept of Agriculture					
Habitat:	General:	VALLEY AND FOOTHILL GRASSLAND, CHENOPOD SCRUB.					
	Micro:	LITTLE INFORMATION AVAILABLE ON HABITAT. 135-1355 M.					



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Occurrence No.	1	Map Index:	31273	EO Index:	21454	Element Last Seen:	1998-03-21
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-03-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-06
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.29456 / -119.53151				Accuracy:	80 meters	
UTM:	Zone-11 N3908648 E269801				Elevation (ft):	1225	
PLSS:	T30S, R23E, Sec. 29, NW (M)				Acres:	0.0	
Location:	ABOUT 0.35 MILE NORTH OF SKYLINE ROAD 5.35 MILES EAST OF HIGHWAY 58, WEST ELK HILLS.						
Detailed Location:	500 FEET ESE OF WELL 321-29R. MAPPED WITHIN THE NE 1/4 OF THE NW 1/4 OF SECTION 29.						
Ecological:	VALLEY SALTBUSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. ON SOUTH-FACING SLOPE.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 1998. 1937 COLLECTION BY JOHANNSEN FROM SECTION 29 IS ATTRIBUTED TO THIS SITE.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	6	Map Index:	47748	EO Index:	47748	Element Last Seen:	1997-03-24
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	1997-03-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-02
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.24099 / -119.39017				Accuracy:	80 meters	
UTM:	Zone-11 N3902387 E282513				Elevation (ft):	675	
PLSS:	T31S, R24E, Sec. 10, SW (M)				Acres:	0.0	
Location:	ELK HILLS OIL FIELDS, 1.5 MILES NORTH OF DUSTIN ACRES, NNE OF TAFT.						
Detailed Location:	MAPPED WITHIN THE SW 1/4 OF THE SW 1/4 OF SECTION 10.						
Ecological:	IN VALLEY SALTBUSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. ON A STEEP SOUTHEAST-FACING SLOPE.						
General:	1 PLANT OBSERVED IN 1997.						
Owner/Manager:	DOE						

Occurrence No.	7	Map Index:	47749	EO Index:	47749	Element Last Seen:	1997-03-05
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	1997-03-05
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-02
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.22557 / -119.48282				Accuracy:	80 meters	
UTM:	Zone-11 N3900883 E274038				Elevation (ft):	925	
PLSS:	T31S, R23E, Sec. 14, SW (M)				Acres:	0.0	
Location:	SOUTHERN EDGE OF BUENA VISTA VALLEY, 5.2 MILES WNW OF DUSTIN ACRES, NORTH OF TAFT.						
Detailed Location:	MAPPED WITHIN THE SW 1/4 OF THE SW 1/4 OF SECTION 14.						
Ecological:	IN VALLEY SALTBUSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. ON A STEEP SOUTHEAST-FACING SLOPE.						
General:	ABOUT 10 PLANTS OBSERVED IN 1997.						
Owner/Manager:	DOE						



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Occurrence No.	8	Map Index:	49512	EO Index:	49512	Element Last Seen:	1999-04-21
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-04-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-02
Quad Summary:	Fellows (3511925), Panorama Hills (3511926)						
County Summary:	Kern						
Lat/Long:	35.23878 / -119.62535				Accuracy:	specific area	
UTM:	Zone-11 N3902682 E261102				Elevation (ft):	1725	
PLSS:	T31S, R22E, Sec. 08, SE (M)				Acres:	2.8	
Location:	TELEPHONE HILLS, NORTH OF CROCKER CANYON, 1.8 AIR MILES WSW OF DERBY ACRES, NORTHWEST OF TUPMAN.						
Detailed Location:	TWO COLONIES: NORTHERN COLONY MAPPED WITHIN THE SE 1/4 OF THE SE 1/4 OF SECTION 8. SOUTHERN COLONY MAPPED WITHIN THE NE 1/4 OF THE NE 1/4 OF SECTION 17.						
Ecological:	IN HILLY FOOTHILL GRASSLAND ON SOUTH FACING SLOPE.						
General:	IN 1999, 250 PLANTS SEEN AT NORTHERN COLONY AND 40 PLANTS SEEN AT SOUTHERN COLONY.						
Owner/Manager:	PVT						

Occurrence No.	9	Map Index:	49513	EO Index:	49513	Element Last Seen:	1998-04-25
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1998-04-25
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-02
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.18964 / -119.57681				Accuracy:	specific area	
UTM:	Zone-11 N3897115 E265378				Elevation (ft):	1600	
PLSS:	T31S, R22E, Sec. 35, NE (M)				Acres:	1.0	
Location:	SOUTH OF MOCAL ROAD, 1.4 AIR MILES WNW OF MIDWAY OIL CAMP, WNW OF FELLOWS.						
Detailed Location:	MAPPED WITHIN THE SW 1/4 OF THE NE 1/4 OF SECTION 35.						
Ecological:	IN VALLEY SALTBUSH SCRUB. WITH DELPHINIUM GYPSOPHILUM GYPSOPHILUM, LOGGERHEAD SHRIKE, ANTELOPE SQUIRREL AND ERIASTRUM HOOVERI.						
General:	12 PLANTS ON SLOPE IN 1998.						
Owner/Manager:	BLM						

Occurrence No.	10	Map Index:	49514	EO Index:	49514	Element Last Seen:	2001-04-30
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-04-30
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-05
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.18056 / -119.57851				Accuracy:	specific area	
UTM:	Zone-11 N3896112 E265198				Elevation (ft):	1650	
PLSS:	T31S, R22E, Sec. 35, SE (M)				Acres:	1.2	
Location:	SOUTH OF MORGAN SUBSTATION, 2 MILES WEST OF FELLOWS, BASE OF EASTERN SLOPE OF TEMBLOR RANGE.						
Detailed Location:	TWO COLONIES MAPPED WITHIN THE SW 1/4 OF THE SE 1/4 OF SECTION 35.						
Ecological:	VALLEY SALTBUSH SCRUB.						
General:	25 PLANTS OBSERVED IN 2001.						
Owner/Manager:	BLM						



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Occurrence No.	11	Map Index:	49515	EO Index:	49515	Element Last Seen:	2001-05-03
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	2001-05-03
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-05
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.15685 / -119.54362				Accuracy:	specific area	
UTM:	Zone-11 N3893399 E268308				Elevation (ft):	1650	
PLSS:	T32S, R23E, Sec. 07, NE (M)				Acres:	0.6	
Location:	HALE MCLEOD CANYON, 1.2 AIR MILES WEST OF MIDOIL, SOUTH OF FELLOWS.						
Detailed Location:	IN STREAMBED OF HALE MCLEOD CANYON. MAPPED WITHIN THE SW 1/4 OF THE NE 1/4 OF SECTION 7.						
Ecological:	VALLEY SALTBUSSH SCRUB IN STREAMBED.						
General:	1 PLANT OBSERVED IN 2001.						
Owner/Manager:	BLM						

Occurrence No.	12	Map Index:	49516	EO Index:	49516	Element Last Seen:	2001-05-07
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-05-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-05
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.14414 / -119.52922				Accuracy:	specific area	
UTM:	Zone-11 N3891956 E269584				Elevation (ft):	1450	
PLSS:	T32S, R23E, Sec. 17, SW (M)				Acres:	0.7	
Location:	SEVENTEEN CANYON, 1 AIR MILE SSW OF MIDOIL, SOUTH OF FELLOWS.						
Detailed Location:	MAPPED WITHIN THE NE 1/4 OF THE SW 1/4 OF SECTION 17.						
Ecological:	VALLEY SALTBUSSH SCRUB.						
General:	100 PLANTS SEEN IN 2001.						
Owner/Manager:	PVT						

Occurrence No.	13	Map Index:	49519	EO Index:	49519	Element Last Seen:	2001-05-07
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-05-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-02
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.14401 / -119.53500				Accuracy:	specific area	
UTM:	Zone-11 N3891955 E269057				Elevation (ft):	1700	
PLSS:	T32S, R23E, Sec. 18, SE (M)				Acres:	1.5	
Location:	UNNAMED CANYON JUST NORTH OF SEVENTEEN CANYON, 1.25 AIR MILES SOUTHWEST OF MIDOIL, SOUTH OF FELLOWS.						
Detailed Location:	TWO COLONIES MAPPED WITHIN THE NW 1/4 OF THE SW 1/4 OF SECTION 17 AND THE NE 1/4 OF THE SE 1/4 OF SECTION 18.						
Ecological:	VALLEY SALTBUSSH SCRUB.						
General:	23 PLANTS SEEN IN 2001.						
Owner/Manager:	PVT						



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Occurrence No.	14	Map Index:	49520	EO Index:	49520	Element Last Seen:	2001-05-07
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	2001-05-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-05
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.14034 / -119.52568				Accuracy:	specific area	
UTM:	Zone-11 N3891526 E269896				Elevation (ft):	1650	
PLSS:	T32S, R23E, Sec. 17, SE (M)				Acres:	1.1	
Location:	SOUTH OF SEVENTEEN CANYON, 1.2 AIR MILES SSW OF MIDOIL, SOUTH OF FELLOWS.						
Detailed Location:	MAPPED WITHIN THE NW 1/4 OF THE SE 1/4 OF SECTION 17.						
Ecological:	VALLEY SALTBUSSH SCRUB.						
General:	1 PLANT SEEN IN 2001.						
Owner/Manager:	PVT						

Occurrence No.	15	Map Index:	49521	EO Index:	49521	Element Last Seen:	2001-05-03
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2001-05-03
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-05
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.14868 / -119.54220				Accuracy:	specific area	
UTM:	Zone-11 N3892490 E268414				Elevation (ft):	1500	
PLSS:	T32S, R23E, Sec. 18, NE (M)				Acres:	2.0	
Location:	1.6 AIR MILES SOUTH OF MIDWAY SCHOOL, BETWEEN HALE MCLEOD AND SEVENTEEN CANYONS, SOUTH OF FELLOWS.						
Detailed Location:	MAPPED WITHIN THE NORTH 1/2 OF THE NE 1/4 OF SECTION 18.						
Ecological:	VALLEY SALTBUSSH SCRUB.						
General:	16 PLANTS SEEN IN 2001.						
Owner/Manager:	PVT						

Occurrence No.	16	Map Index:	49522	EO Index:	49522	Element Last Seen:	1999-04-20
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-04-20
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-05
Quad Summary:	Panorama Hills (3511926)						
County Summary:	Kern						
Lat/Long:	35.23271 / -119.63359				Accuracy:	specific area	
UTM:	Zone-11 N3902029 E260334				Elevation (ft):	1850	
PLSS:	T31S, R22E, Sec. 17, NE (M)				Acres:	1.2	
Location:	TELEPHONE HILLS, 2.3 AIR MILES NORTHEAST OF CROCKER FLAT, NORTH OF CROCKER CANYON.						
Detailed Location:	MAPPED WITHIN THE SW 1/4 OF THE NE 1/4 OF SECTION 17.						
Ecological:	FOOTHILL GRASSLAND HABITAT.						
General:	50 PLANTS OBSERVED IN 1999.						
Owner/Manager:	PVT						



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Occurrence No.	17	Map Index:	49523	EO Index:	49523	Element Last Seen:	1999-04-16
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-04-16
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-02
Quad Summary:	Panorama Hills (3511926)						
County Summary:	Kern						
Lat/Long:	35.24485 / -119.63192				Accuracy:	specific area	
UTM:	Zone-11 N3903372 E260522				Elevation (ft):	1850	
PLSS:	T31S, R22E, Sec. 08, NE (M)				Acres:	1.6	
Location:	JUST SOUTH OF BUENA VISTA CREEK, 3 AIR MILES NNE OF CROCKER FLAT, TELEPHONE HILLS, NORTHWEST OF FELLOWS.						
Detailed Location:	MAPPED WITHIN THE SW 1/4 OF THE NE 1/4 OF SECTION 8.						
Ecological:	FOOTHILL GRASSLAND HABITAT.						
General:	400 PLANTS OBSERVED IN 1999.						
Owner/Manager:	PVT						

Occurrence No.	18	Map Index:	49524	EO Index:	49524	Element Last Seen:	1998-05-09
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-05-09
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-02
Quad Summary:	Panorama Hills (3511926)						
County Summary:	Kern						
Lat/Long:	35.21803 / -119.62854				Accuracy:	specific area	
UTM:	Zone-11 N3900388 E260751				Elevation (ft):	1800	
PLSS:	T31S, R22E, Sec. 20, NE (M)				Acres:	3.7	
Location:	SOUTH OF CROCKER CANYON & CROCKER SPRINGS ROAD, 1.8 AIR MILES NORTHEAST OF CROCKER FLAT, NORTHWEST OF FELLOWS.						
Detailed Location:	FOUR COLONIES SOUTH OF CROCKER SPRING ROAD. MAPPED WITHIN THE NE 1/4 OF SECTION 20.						
Ecological:	FOOTHILL GRASSLAND HABITAT.						
General:	150 PLANTS OBSERVED IN 1998.						
Owner/Manager:	PVT						

Occurrence No.	19	Map Index:	49535	EO Index:	49535	Element Last Seen:	1998-03-07
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1998-03-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-03
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.28017 / -119.36964				Accuracy:	80 meters	
UTM:	Zone-11 N3906688 E284485				Elevation (ft):	590	
PLSS:	T30S, R24E, Sec. 35, NW (M)				Acres:	0.0	
Location:	SOUTHWEST OF TUPMAN, 0.3 AIR MILE NORTHWEST OF CAMP 35-S, ELK HILLS.						
Detailed Location:	300 FEET WEST OF WELL 342X-35S. MAPPED WITHIN THE NE 1/4 OF THE NW 1/4 OF SECTION 35.						
Ecological:	IN VALLEY SALTBUSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES.						
General:	UNKNOWN NUMBER OF PLANTS SEEN IN 1998.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	20	Map Index:	49536	EO Index:	49536	Element Last Seen:	1998-03-07
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1998-03-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-03
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.25876 / -119.36286				Accuracy:	non-specific area	
UTM:	Zone-11 N3904298 E285045				Elevation (ft):	775	
PLSS:	T31S, R24E, Sec. 02, E (M)				Acres:	160.5	
Location:	SOUTH OF SKYLINE ROAD ABOUT 2.5 TO 3.5 MILES SSW OF TUPMAN, ELK HILLS.						
Detailed Location:	EXACT LOCATION UNKNOWN, MAPPED BY CNDDDB BASED ON THE FOLLOWING T-R-S PROVIDED BY VERSTEEG: T31S R24E NORTH 1/2 OF SE 1/4, SW 1/4 OF SE 1/4, AND SW 1/4 OF NE 1/4 OF SECTION 2.						
Ecological:	IN VALLEY SALTBUSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. ON SOUTH-FACING SLOPES.						
General:	UNKNOWN NUMBER OF PLANTS SEEN IN 1998.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	21	Map Index:	49537	EO Index:	49537	Element Last Seen:	1998-03-21
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1998-03-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-03
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.26196 / -119.35176				Accuracy:	specific area	
UTM:	Zone-11 N3904629 E286063				Elevation (ft):	800	
PLSS:	T31S, R24E, Sec. 01, NW (M)				Acres:	1.8	
Location:	SOUTH OF SKYLINE ROAD ABOUT 2.5 AIR MILES DUE SOUTH OF TUPMAN, ELK HILLS.						
Detailed Location:	JUST SOUTH OF PLATEAU TANK. 2 POPULATION CLUSTERS: 200 FEET NW OF WELL 7E-1G AND 300 FEET ESE OF WELL 24-1G. MAPPED AS ONE POLYGON BY CNDDDB WITHIN THE SE 1/4 OF THE NW 1/4 OF SECTION 1.						
Ecological:	IN VALLEY SALTBUSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. ON SOUTH-FACING SLOPES.						
General:	UNKNOWN NUMBER OF PLANTS SEEN IN 1998.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	22	Map Index:	49548	EO Index:	49548	Element Last Seen:	1998-04-11
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1998-04-11
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-04
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.32147 / -119.47235				Accuracy:	specific area	
UTM:	Zone-11 N3911498 E275256				Elevation (ft):	720	
PLSS:	T30S, R23E, Sec. 14, NE (M)				Acres:	1.3	
Location:	1.9 AIR MI SOUTH OF ELK HILLS ROAD AT THE CALIFORNIA AQUEDUCT, SOUTH OF BUTTONWILLOW KERN COUNTY AIRFIELD, ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE SW 1/4 OF THE NE 1/4 OF SECTION 14.						
Ecological:	IN VALLEY SALTBUSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. ON SOUTH-FACING SLOPES.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 1998.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	23	Map Index:	49549	EO Index:	49549	Element Last Seen:	1998-04-11
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1998-04-11
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-04
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.31583 / -119.47633				Accuracy:	specific area	
UTM:	Zone-11 N3910881 E274878				Elevation (ft):	850	
PLSS:	T30S, R23E, Sec. 14, SW (M)				Acres:	6.9	
Location:	1.4 AIR MI SOUTH OF THE BUTTONWILLOW KERN COUNTY AIRFIELD, WEST OF ELK HILLS ROAD, ELK HILLS.						
Detailed Location:	1 CLUSTER OF PLANTS ALONG EAST SIDE OF ROAD BETWEEN WELLS 255-14R AND 5-337-14R AT MANY LOCATIONS ON STEEP SOUTH FACING SLOPES. MAPPED WITHIN THE NE 1/4 OF THE SW 1/4 OF SECTION 14.						
Ecological:	IN VALLEY SALTBUSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. ON SOUTH-FACING SLOPES.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 1998.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	24	Map Index:	49550	EO Index:	49550	Element Last Seen:	1998-04-11
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1998-04-11
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-04
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.31683 / -119.46651				Accuracy:	80 meters	
UTM:	Zone-11 N3910970 E275775				Elevation (ft):	800	
PLSS:	T30S, R23E, Sec. 14, SE (M)				Acres:	0.0	
Location:	WEST SIDE OF ELK HILLS ROAD, 2.35 MILES SOUTH OF THE CALIFORNIA AQUEDUCT, ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE NE 1/4 OF THE SE 1/4 OF SECTION 14.						
Ecological:	IN VALLEY SALTBUSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. ON SOUTH-FACING SLOPES.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 1998.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	25	Map Index:	49551	EO Index:	49551	Element Last Seen:	1998-04-30
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1998-04-30
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-04
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.31303 / -119.45525				Accuracy:	80 meters	
UTM:	Zone-11 N3910523 E276787				Elevation (ft):	750	
PLSS:	T30S, R23E, Sec. 13, SE (M)				Acres:	0.0	
Location:	2.4 AIR MILES NNE OF INTERSECTION OF SKYLINE AND ELK HILLS ROADS, SOUTH OF THE CALIFORNIA AQUEDUCT, ELK HILLS.						
Detailed Location:	EAST OF PIPELINE. 800 FEET NORTH AND 250 EAST OF QUARTER SECTION MARKER ON SOUTH SECTION LINE. MAPPED WITHIN THE SW 1/4 OF THE SE 1/4 OF SECTION 13.						
Ecological:	IN VALLEY SALTBUSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 1998.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	26	Map Index:	49552	EO Index:	49552	Element Last Seen:	1999-03-18
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1999-03-18
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-04
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.30584 / -119.46772				Accuracy:	specific area	
UTM:	Zone-11 N3909753 E275634				Elevation (ft):	950	
PLSS:	T30S, R23E, Sec. 23, NE (M)				Acres:	3.0	
Location:	WEST OF ELK HILLS ROAD ABOUT 1.7 TO 2.2 MILES NORTH OF SKYLINE ROAD, SOUTH OF THE CALIFORNIA AQUEDUCT, ELK HILLS.						
Detailed Location:	3 COLONIES MAPPED WITHIN THE EAST 1/2 OF THE NE 1/4 OF SECTION 23.						
Ecological:	IN VALLEY SALTBUSH SCRUB WITH VALLEY AND FOOTHILL GRASSLAND HABITATS ON SANDY OR CLAY SLOPES. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AVENA FATUA, AND VULPIA MYUROS.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 1999.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	27	Map Index:	49553	EO Index:	49553	Element Last Seen:	1998-04-24
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1998-04-24
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-04
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.30102 / -119.45382				Accuracy:	specific area	
UTM:	Zone-11 N3909188 E276885				Elevation (ft):	900	
PLSS:	T30S, R23E, Sec. 24 (M)				Acres:	19.0	
Location:	SCATTERED BETWEEN 0.2 AND 1.5 MILES EAST OF ELK HILLS ROAD AND 1.3 TO 2.3 MILES NORTH OF SKYLINE ROAD, ELK HILLS.						
Detailed Location:	MULTIPLE COLONIES MAPPED AS 13 POLYGONS BY CNDDDB. MAPPED WITHIN THE NW 1/4 OF SECTION 19 AND THE EAST 1/2 AND SW 1/4 OF SECTION 24.						
Ecological:	IN VALLEY SALTBUSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. PRIMARILY ON SOUTH-FACING SLOPES.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 1998.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	28	Map Index:	49554	EO Index:	49554	Element Last Seen:	1998-04-18
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1998-04-18
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-04
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.30520 / -119.43817				Accuracy:	80 meters	
UTM:	Zone-11 N3909616 E278319				Elevation (ft):	660	
PLSS:	T30S, R24E, Sec. 19, N (M)				Acres:	0.0	
Location:	2.5 AIR MILES NORTHEAST OF INTERSECTION OF SKYLINE AND ELK HILLS ROADS, SOUTH OF THE CALIFORNIA AQUEDUCT, ELK HILLS.						
Detailed Location:	NORTH OF DIRT ROAD. MAPPED JUST NORTH OF THE CENTER OF SECTION 19.						
Ecological:	IN VALLEY SALTBUSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 1998.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	29	Map Index:	49555	EO Index:	49555	Element Last Seen:	1998-04-18
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1998-04-18
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-04
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.29936 / -119.44540				Accuracy:	specific area	
UTM:	Zone-11 N3908984 E277646				Elevation (ft):	840	
PLSS:	T30S, R24E, Sec. 19, SW (M)				Acres:	2.6	
Location:	1.9 AIR MILES NORTHEAST OF INTERSECTION OF SKYLINE AND ELK HILLS ROADS, SOUTH OF THE CALIFORNIA AQUEDUCT, ELK HILLS.						
Detailed Location:	TWO COLONIES MAPPED WITHIN THE EAST 1/2 OF THE SW 1/4 OF SECTION 19.						
Ecological:	IN VALLEY SALTBUSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 1998.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	30	Map Index:	49557	EO Index:	49557	Element Last Seen:	1997-03-13
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1997-03-13
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-04
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.29893 / -119.41981				Accuracy:	specific area	
UTM:	Zone-11 N3908880 E279972				Elevation (ft):	650	
PLSS:	T30S, R24E, Sec. 20, S (M)				Acres:	2.1	
Location:	3 AIR MILES ENE OF INTERSECTION OF SKYLINE AND ELK HILLS ROADS, SOUTH OF THE CALIFORNIA AQUEDUCT, ELK HILLS.						
Detailed Location:	TWO COLONIES MAPPED WITHIN THE SE 1/4 OF THE SW 1/4 AND THE SW 1/4 OF THE SE 1/4 OF SECTION 20.						
Ecological:	IN VALLEY SALTBUSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. ON STEEP SOUTH-FACING SLOPES AND IN NARROW DRAINAGE.						
General:	ABOUT 1000 PLANTS ESTIMATED IN 1997.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	31	Map Index:	49559	EO Index:	49559	Element Last Seen:	1998-04-04
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1998-04-04
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-04
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.29273 / -119.44331				Accuracy:	80 meters	
UTM:	Zone-11 N3908244 E277817				Elevation (ft):	1000	
PLSS:	T30S, R24E, Sec. 30, NW (M)				Acres:	0.0	
Location:	1.65 AIR MILES NORTHEAST OF INTERSECTION OF SKYLINE AND ELK HILLS ROADS, SOUTH OF THE CALIFORNIA AQUEDUCT, ELK HILLS.						
Detailed Location:	200 FEET EAST OF WELL 323-30S. MAPPED WITHIN THE NW 1/4 OF THE NW 1/4 OF SECTION 30.						
Ecological:	IN VALLEY SALTBUSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 1998.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	32	Map Index:	49560	EO Index:	49560	Element Last Seen:	1998-04-04
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1998-04-04
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-04
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.28569 / -119.43136				Accuracy:	specific area	
UTM:	Zone-11 N3907436 E278886				Elevation (ft):	1040	
PLSS:	T30S, R24E, Sec. 30, SE (M)				Acres:	1.3	
Location:	2.1 AIR MILES ENE OF INTERSECTION OF SKYLINE AND ELK HILLS ROADS, SOUTH OF THE CALIFORNIA AQUEDUCT, ELK HILLS.						
Detailed Location:	300 FEET WEST OF WELL 87-30S. MAPPED WITHIN THE SE 1/4 OF THE SE 1/4 OF SECTION 30.						
Ecological:	IN VALLEY SALTBUSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 1998.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	33	Map Index:	49561	EO Index:	49561	Element Last Seen:	2000-03-29
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	2000-03-29
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-04
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.28512 / -119.42332			Accuracy:	80 meters		
UTM:	Zone-11 N3907355 E279616			Elevation (ft):	925		
PLSS:	T30S, R24E, Sec. 29, SW (M)			Acres:	0.0		
Location:	2.5 AIR MILES ENE OF INTERSECTION OF SKYLINE AND ELK HILLS ROADS, SOUTH OF THE CALIFORNIA AQUEDUCT, ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE SE 1/4 OF THE SW 1/4 OF SECTION 29.						
Ecological:	VALLEY SALTBUSSH SCRUB AND VALLEY AND FOOTHILL GRASSLAND HABITATS ON SANDY OR CLAY SLOPES. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AVENA FATUA, AND VULPIA MYUROS.						
General:	1 PLANT OBSERVED IN 2000.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						
Occurrence No.	34	Map Index:	49562	EO Index:	49562	Element Last Seen:	1999-03-09
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1999-03-09
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2016-06-09
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.27496 / -119.42625			Accuracy:	80 meters		
UTM:	Zone-11 N3906235 E279322			Elevation (ft):	1150		
PLSS:	T30S, R24E, Sec. 32, SW (M)			Acres:	0.0		
Location:	2.35 AIR MILES ESE OF INTERSECTION OF SKYLINE AND ELK HILLS ROADS, SOUTH OF THE CALIFORNIA AQUEDUCT, ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE NW 1/4 OF THE SW 1/4 OF SECTION 29.						
Ecological:	VALLEY SALTBUSSH SCRUB AND VALLEY AND FOOTHILL GRASSLAND HABITATS ON SANDY OR CLAY SLOPES. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AVENA FATUA, AND VULPIA MYUROS.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 1999.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	35	Map Index:	49563	EO Index:	49563	Element Last Seen:	1998-03-07
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1998-03-07
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-04
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.25843 / -119.45616				Accuracy:	specific area	
UTM:	Zone-11 N3904468 E276555				Elevation (ft):	1110	
PLSS:	T31S, R23E, Sec. 01, E (M)				Acres:	6.0	
Location:	ABOUT 0.5 MILE WEST OF ELK HILLS ROAD AND FROM 0.9 TO 1. 6 MILES SOUTH OF SKYLINE ROAD, ELK HILLS.						
Detailed Location:	5 COLONIES MAPPED WITHIN THE WEST 1/2 OF THE EAST 1/2 OF SECTION 1.						
Ecological:	VALLEY SALTBUH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. ON SOUTH-FACING SLOPES.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 1998.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	36	Map Index:	58345	EO Index:	49564	Element Last Seen:	2000-03-22
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2000-03-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2016-05-26
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.26765 / -119.41410				Accuracy:	80 meters	
UTM:	Zone-11 N3905397 E280406				Elevation (ft):	1200	
PLSS:	T31S, R24E, Sec. 05, NE (M)				Acres:	0.0	
Location:	SOUTH OF SKYLINE ROAD ABOUT 3 MILES EAST OF ELK HILLS ROAD, ELK HILLS.						
Detailed Location:	MAPPED IN THE NE 1/4 OF THE NE 1/4 OF SECTION 5.						
Ecological:	VALLEY SALTBUH SCRUB AND VALLEY AND FOOTHILL GRASSLAND HABITATS ON SANDY OR CLAY SLOPES. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AVENA FATUA, AND VULPIA MYUROS.						
General:	10 PLANTS OBSERVED IN 2000.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	37	Map Index:	49566	EO Index:	49566	Element Last Seen:	2001-04-05
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-04-05
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-06
Quad Summary:	East Elk Hills (3511934), West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.32949 / -119.50708				Accuracy:	specific area	
UTM:	Zone-11 N3912467 E272121				Elevation (ft):	675	
PLSS:	T30S, R23E, Sec. 09, S (M)				Acres:	13.2	
Location:	2.8 MILES NORTH OF HILLCREST POINT AT SKYLINE ROAD, EAST OF MCKITTRICK, ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE EAST 1/2 OF THE SW 1/4 AND THE NORTH 1/2 OF THE SE 1/4 OF SECTION 9.						
Ecological:	VALLEY SALTBUSSH SCRUB AND VALLEY AND FOOTHILL GRASSLAND HABITATS ON SANDY OR CLAY SLOPES. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AVENA FATUA, AND VULPIA MYUROS.						
General:	IN 2001, 1850+ PLANTS OBSERVED AT 8 SITES.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						
Occurrence No.	38	Map Index:	49567	EO Index:	49567	Element Last Seen:	1998-03-21
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1998-03-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-04
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.25867 / -119.40611				Accuracy:	specific area	
UTM:	Zone-11 N3904383 E281109				Elevation (ft):	1125	
PLSS:	T31S, R24E, Sec. 04, SW (M)				Acres:	2.5	
Location:	3.7 AIR MILES ESE OF INTERSECTION OF SKYLINE AND ELK HILLS ROADS, SOUTH OF THE CALIFORNIA AQUEDUCT, ELK HILLS.						
Detailed Location:	TWO COLONIES: 500 FEET NNE OF WELL 32-4G AND 300 FEET NE OF WELL 33-4G. MAPPED WITHIN THE NE 1/4 OF THE SW 1/4 OF SECTION 4.						
Ecological:	VALLEY SALTBUSSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. ON STEEP SOUTH-FACING SLOPES.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 1998.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	39	Map Index:	49568	EO Index:	49568	Element Last Seen:	1998-03-14
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1998-03-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-04
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.26433 / -119.38372				Accuracy:	specific area	
UTM:	Zone-11 N3904962 E283162				Elevation (ft):	1125	
PLSS:	T31S, R24E, Sec. 03, NE (M)				Acres:	2.3	
Location:	JUST SOUTH OF SKYLINE ROAD 5.4 MILES EAST OF ELK HILLS ROAD, ELK HILLS.						
Detailed Location:	TWO COLONIES: 400 FEET NORTHWEST OF WELL 352 AND 200 FEET SOUTHEAST OF WELL 352. MAPPED WITHIN THE NW 1/4 OF THE NE 1/4 OF SECTION 39.						
Ecological:	VALLEY SALTBUSSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. ON SOUTH-FACING SLOPES, OFTEN STEEP.						
General:	UNKNOWN NUMBER OF PLANTS OBSERVED IN 1998.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	40	Map Index:	49569	EO Index:	49569	Element Last Seen:	1999-04-06
Occ. Rank:	Poor			Presence:	Presumed Extant	Site Last Seen:	1999-04-06
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-04
Quad Summary:	Taft (3511924), East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.25156 / -119.43611				Accuracy:	non-specific area	
UTM:	Zone-11 N3903661 E278360				Elevation (ft):	925	
PLSS:	T31S, R24E, Sec. 07, NE (M)				Acres:	40.8	
Location:	ABOUT 2.5 AIR MILES SOUTHEAST OF INTERSECTION OF SKYLINE & ELK HILLS ROADS, SOUTH OF THE CALIFORNIA AQUEDUCT, ELK HILLS.						
Detailed Location:	EXACT LOCATION UNKNOWN. MAPPED BY CNDDDB WITHIN THE NW 1/4 OF THE NE 1/4 OF SECTION 7.						
Ecological:	IN VALLEY SALTBUSSH SCRUB AND VALLEY AND FOOTHILL GRASSLAND HABITATS ON SANDY OR CLAY SLOPES. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AVENA FATUA, AND VULPIA MYUROS.						
General:	1 PLANT OBSERVED IN 1999.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	41	Map Index:	49576	EO Index:	49576	Element Last Seen:	2001-04-02
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2001-04-02
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-06
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.31523 / -119.58924				Accuracy:	80 meters	
UTM:	Zone-11 N3911077 E264610				Elevation (ft):	875	
PLSS:	T30S, R22E, Sec. 15, SE (M)				Acres:	0.0	
Location:	NORTH OF MCKITTRICK VALLEY, 2 AIR MILES ENE OF JUNCTION OF SKYLINE ROAD AND HIGHWAY 58, WEST END OF ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE SW 1/4 OF THE SW 1/4 OF SECTION 14 AND THE SE 1/4 OF THE SE 1/4 OF SECTION 15.						
Ecological:	IN VALLEY SALTBUSSH SCRUB AND VALLEY AND FOOTHILL GRASSLAND HABITATS ON SANDY OR CLAY SLOPES. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AVENA FATUA, AND VULPIA MYUROS.						
General:	29 PLANTS OBSERVED IN 2001.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	42	Map Index:	49577	EO Index:	49577	Element Last Seen:	2001-03-21
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2001-03-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-06
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.32289 / -119.53441				Accuracy:	specific area	
UTM:	Zone-11 N3911798 E269618				Elevation (ft):	800	
PLSS:	T30S, R23E, Sec. 17, NW (M)				Acres:	3.8	
Location:	2.8 MILES NNW OF HILLCREST POINT AT SKYLINE ROAD, EAST OF MCKITTRICK, ELK HILLS.						
Detailed Location:	3 COLONIES MAPPED WITHIN THE SE 1/4 OF THE SW 1/4 OF SECTION 8, THE NW 1/4 OF THE NW 1/4 AND THE SW 1/4 OF THE NW 1/4 OF SECTION 17.						
Ecological:	IN VALLEY SALTBUSSH SCRUB AND VALLEY AND FOOTHILL GRASSLAND HABITATS ON SANDY OR CLAY SLOPES. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AVENA FATUA, AND VULPIA MYUROS.						
General:	1 PLANT SEEN IN 1997 AND 5 PLANTS OBSERVED IN 2001.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM, DOE						



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Occurrence No.	43	Map Index:	49578	EO Index:	49578	Element Last Seen:	2001-03-22
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2001-03-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-06
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.31769 / -119.52785				Accuracy:	specific area	
UTM:	Zone-11 N3911206 E270199				Elevation (ft):	900	
PLSS:	T30S, R23E, Sec. 17, SW (M)				Acres:	1.3	
Location:	2.3 MILES NNW OF HILLCREST POINT AT SKYLINE ROAD, EAST OF MCKITTRICK, ELK HILLS.						
Detailed Location:	MAPPED JUST SOUTHWEST OF THE CENTER OF SECTION 17.						
Ecological:	IN VALLEY SALTBUSH SCRUB AND VALLEY AND FOOTHILL GRASSLAND HABITATS ON SANDY OR CLAY SLOPES. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AVENA FATUA, AND VULPIA MYUROS.						
General:	80 PLANTS OBSERVED IN 2001.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	44	Map Index:	49580	EO Index:	49580	Element Last Seen:	2001-03-21
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2001-03-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-06
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.31119 / -119.53619				Accuracy:	specific area	
UTM:	Zone-11 N3910504 E269423				Elevation (ft):	1025	
PLSS:	T30S, R23E, Sec. 17, SW (M)				Acres:	1.4	
Location:	2.2 MILES NORTHWEST OF HILLCREST POINT AT SKYLINE ROAD, EAST OF MCKITTRICK, WEST ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE SW 1/4 OF THE SW 1/4 OF SECTION 17.						
Ecological:	IN VALLEY SALTBUSH SCRUB AND VALLEY AND FOOTHILL GRASSLAND HABITATS ON SANDY OR CLAY SLOPES. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AVENA FATUA, AND VULPIA MYUROS.						
General:	100 PLANTS OBSERVED IN 2001.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	45	Map Index:	49581	EO Index:	49581	Element Last Seen:	2001-03-26
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-03-26
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-06
Quad Summary:	East Elk Hills (3511934), West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.32202 / -119.50135				Accuracy:	specific area	
UTM:	Zone-11 N3911625 E272621				Elevation (ft):	750	
PLSS:	T30S, R23E, Sec. 16, NE (M)				Acres:	6.0	
Location:	2.5 MILES NNE OF HILLCREST POINT AT SKYLINE ROAD, EAST OF MCKITTRICK, WEST ELK HILLS.						
Detailed Location:	5 COLONIES MAPPED AS FOUR POLYGONS WITHIN THE EAST 1/2 OF THE NE 1/4 OF SECTION 16.						
Ecological:	IN VALLEY SALTBUSH SCRUB AND VALLEY AND FOOTHILL GRASSLAND HABITATS ON SANDY OR CLAY SLOPES. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AVENA FATUA, AND VULPIA MYUROS.						
General:	625+ PLANTS OBSERVED IN 2001.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	46	Map Index:	49582	EO Index:	49582	Element Last Seen:	2001-03-26
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2001-03-26
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-06
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.31435 / -119.51338				Accuracy:	specific area	
UTM:	Zone-11 N3910802 E271505				Elevation (ft):	1040	
PLSS:	T30S, R23E, Sec. 16, S (M)				Acres:	2.9	
Location:	1.9 MILES NORTH OF HILLCREST POINT AT SKYLINE ROAD, EAST OF MCKITTRICK, WEST ELK HILLS.						
Detailed Location:	2 COLONIES MAPPED WITHIN THE NW 1/4 OF THE SE 1/4 AND THE SE 1/4 OF THE SW 1/4 OF SECTION 16.						
Ecological:	IN VALLEY SALTBUSH SCRUB AND VALLEY AND FOOTHILL GRASSLAND HABITATS ON SANDY OR CLAY SLOPES. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AVENA FATUA, AND VULPIA MYUROS.						
General:	45 PLANTS OBSERVED IN 2001 IN TWO PATCHES.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	47	Map Index:	49583	EO Index:	49583	Element Last Seen:	2001-03-28
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2001-03-28
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-06
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.30008 / -119.50675				Accuracy:	specific area	
UTM:	Zone-11 N3909204 E272068				Elevation (ft):	1200	
PLSS:	T30S, R23E, Sec. 21, E (M)				Acres:	24.6	
Location:	EXTENDING FROM 0.3 TO 1.75 MILES NORTH OF HILLCREST POINT AND SKYLINE ROAD, WEST ELK HILLS.						
Detailed Location:	SEVERAL COLONIES IN THIS VICINITY. MAPPED WITHIN THE SE 1/4 OF THE SE 1/4 OF SECTION 16, THE EAST 1/2 OF SECTION 21, AND THE NW 1/4 OF THE NE 1/4 OF SECTION 23.						
Ecological:	IN VALLEY SALTBUSSH SCRUB AND VALLEY AND FOOTHILL GRASSLAND HABITATS ON SANDY OR CLAY SLOPES. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AVENA FATUA, AND VULPIA MYUROS.						
General:	IN 2001 3610+ PLANTS OBSERVED IN SEVERAL COLONIES.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						
Occurrence No.	48	Map Index:	49589	EO Index:	49589	Element Last Seen:	2001-03-28
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2001-03-28
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-06
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.29402 / -119.50278				Accuracy:	specific area	
UTM:	Zone-11 N3908522 E272413				Elevation (ft):	1300	
PLSS:	T30S, R23E, Sec. 28, NE (M)				Acres:	5.6	
Location:	0.5 MILE NORTHEAST OF HILLCREST POINT AT SKYLINE ROAD, EAST OF MCKITTRICK, WEST ELK HILLS.						
Detailed Location:	FOUR COLONIES MAPPED WITHIN THE EAST 1/2 OF THE NE 1/4 OF SECTION 28.						
Ecological:	IN VALLEY SALTBUSSH SCRUB AND VALLEY AND FOOTHILL GRASSLAND HABITATS ON SANDY OR CLAY SLOPES. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AVENA FATUA, AND VULPIA MYUROS.						
General:	336 PLANTS OBSERVED IN 2001.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	49	Map Index:	49590	EO Index:	49590	Element Last Seen:	1999-04-09
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1999-04-09
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-06
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.29252 / -119.61600				Accuracy:	specific area	
UTM:	Zone-11 N3908622 E262110				Elevation (ft):	1250	
PLSS:	T30S, R22E, Sec. 28, NE (M)				Acres:	0.8	
Location:	SOUTH OF MCKITTRICK VALLEY, 1 AIR MILE SSE OF MCKITTRICK, WEST OF ELK HILLS.						
Detailed Location:	TWO COLONIES MAPPED WITHIN THE WEST 1/2 OF THE NE 1/4 OF SECTION 28.						
Ecological:	HILLY SALTBUSH SCRUB, ON SOUTH-FACING SLOPE.						
General:	50+ PLANTS OBSERVED IN 1999.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						

Occurrence No.	50	Map Index:	49591	EO Index:	49591	Element Last Seen:	1997-03-21
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1997-03-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-06
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.26683 / -119.51598				Accuracy:	specific area	
UTM:	Zone-11 N3905536 E271135				Elevation (ft):	1125	
PLSS:	T31S, R23E, Sec. 04, NW (M)				Acres:	2.9	
Location:	NORTH OF BUENA VISTA VALLEY, 1.5 MILES SSW OF HILLCREST POINT ALONG SKYLINE ROAD, SOUTH ELK HILLS.						
Detailed Location:	3 COLONIES MAPPED AS TWO POLYGONS WITHIN THE NW 1/4 OF THE NW 1/4 OF SECTION 4.						
Ecological:	IN VALLEY SALTBUSH SCRUB AND VALLEY AND FOOTHILL GRASSLAND HABITATS ON SANDY OR CLAY SLOPES. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AVENA FATUA, AND VULPIA MYUROS.						
General:	ABOUT 50 PLANTS OBSERVED IN 1997.						
Owner/Manager:	DOE						

Occurrence No.	51	Map Index:	49592	EO Index:	49592	Element Last Seen:	XXXX-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	XXXX-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-06
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.31363 / -119.49552				Accuracy:	80 meters	
UTM:	Zone-11 N3910681 E273127				Elevation (ft):	1100	
PLSS:	T30S, R23E, Sec. 15, SW (M)				Acres:	0.0	
Location:	2. 7 MILES SSW OF ELK HILLS ROAD AT THE CALIFORNIA AQUEDUCT, SOUTH OF THE BUTTONWILLOW KERN COUNTY AIRFIELD.						
Detailed Location:	MAPPED WITHIN THE SE 1/4 OF THE SW 1/4 OF SECTION 15.						
Ecological:							
General:	ONLY SOURCE OF INFORMATION FOR THIS SITE IS MAP FROM QUAD KNOPF. SEEN BETWEEN 1999 AND 2001.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	52	Map Index:	49593	EO Index:	49593	Element Last Seen:	1998-03-14
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1998-03-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-06
Quad Summary:	Tupman (3511933), East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.25935 / -119.37663			Accuracy:	80 meters		
UTM:	Zone-11 N3904394 E283794			Elevation (ft):	950		
PLSS:	T31S, R24E, Sec. 03, SE (M)			Acres:	0.0		
Location:	ABOUT 5.3 AIR MILES ESE OF INTERSECTION OF SKYLINE & ELK HILLS ROADS, SOUTH OF THE CALIFORNIA AQUEDUCT, ELK HILLS.						
Detailed Location:	300 FEET EAST OF WELL 85. MAPPED WITHIN THE NE 1/4 OF THE SE 1/4 OF SECTION 3.						
Ecological:	IN VALLEY SALTBUSH SCRUB WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES. ON SOUTH-FACING SLOPES, OFTEN STEEP.						
General:	UNKNOWN NUMBER OF PLANTS SEEN IN 1998.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						
Occurrence No.	53	Map Index:	49595	EO Index:	49595	Element Last Seen:	1999-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1999-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-06
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.27923 / -119.33535			Accuracy:	80 meters		
UTM:	Zone-11 N3906510 E287602			Elevation (ft):	450		
PLSS:	T30S, R25E, Sec. 31, NW (M)			Acres:	0.0		
Location:	0.9 AIR MILE WNW OF JUNCTION OF SKYLINE AND TUPMAN ROADS, SOUTH OF TUPMAN, EAST ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE NE 1/4 OF THE NW 1/4 OF SECTION 31.						
Ecological:							
General:	ONLY SOURCE OF INFORMATION FOR THIS SITE IS MAP FROM QUAD KNOPF 1999 FLORISTIC SURVEY OF ELK HILLS.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						
Occurrence No.	54	Map Index:	49596	EO Index:	49596	Element Last Seen:	1999-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1999-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-06
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.27403 / -119.33544			Accuracy:	80 meters		
UTM:	Zone-11 N3905933 E287580			Elevation (ft):	600		
PLSS:	T30S, R25E, Sec. 31, SW (M)			Acres:	0.0		
Location:	0.8 AIR MILE WEST OF JUNCTION OF SKYLINE AND TUPMAN ROADS, SOUTH OF TUPMAN, EAST ELK HILLS.						
Detailed Location:	MAPPED WITHIN THE NE 1/4 OF THE SW 1/4 OF SECTION 31.						
Ecological:							
General:	ONLY SOURCE OF INFORMATION FOR THIS SITE IS MAP FROM QUAD KNOPF 1999 FLORISTIC SURVEY OF ELK HILLS.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	55	Map Index:	49597	EO Index:	49597	Element Last Seen:	1999-04-14
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1999-04-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-09
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.25105 / -119.62239				Accuracy:	80 meters	
UTM:	Zone-11 N3904036 E261407				Elevation (ft):	1700	
PLSS:	T31S, R22E, Sec. 09, NW (M)				Acres:	0.0	
Location:	WEST OF DERBY ACRES, 3.75 MILES DUE SOUTH OF SKYLINE ROAD AT HIGHWAY 58, SOUTH OF MCKITTRICK.						
Detailed Location:	MAPPED WITHIN THE NW 1/ OF THE NW 1/4 OF SECTION 9.						
Ecological:	FOOTHILL GRASSLAND AND SALTBUSH SCRUB HABITAT.						
General:	50 PLANTS OBSERVED BETWEEN THIS SITE AND OCCURRENCE #56 IN 1999.						
Owner/Manager:	BLM						

Occurrence No.	56	Map Index:	49598	EO Index:	49598	Element Last Seen:	1999-04-14
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1999-04-14
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2002-12-09
Quad Summary:	West Elk Hills (3511935), Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.25752 / -119.62670				Accuracy:	80 meters	
UTM:	Zone-11 N3904764 E261034				Elevation (ft):	1700	
PLSS:	T31S, R22E, Sec. 05, SE (M)				Acres:	0.0	
Location:	EAST OF THE TELEPHONE HILLS, 2.6 MILES DUE SOUTH OF JUNCTION OF HIGHWAY 33 WITH HIGHWAY 58, SOUTH OF MCKITTRICK.						
Detailed Location:	MAPPED WITHIN THE NE 1/ OF THE SE 1/4 OF SECTION 5.						
Ecological:	FOOTHILL GRASSLAND AND SALTBUSH SCRUB HABITAT.						
General:	50 PLANTS OBSERVED BETWEEN THIS SITE AND OCCURRENCE #56 IN 1999.						
Owner/Manager:	BLM						



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Occurrence No.	79	Map Index:	A0188	EO Index:	101751	Element Last Seen:	2015-03-10
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2015-03-10
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2016-05-27
Quad Summary:	Fellows (3511925)						
County Summary:	San Luis Obispo						
Lat/Long:	35.15284 / -119.56179			Accuracy:	specific area		
UTM:	Zone-11 N3892998 E266641			Elevation (ft):	1850		
PLSS:	T32S, R22E, Sec. 12 (M)			Acres:	14.0		
Location:	CANYON JUST NORTH OF HALE MCLEOD CANYON, ABOUT 2 AIR MILES SOUTHWEST OF FELLOWS, TEMBLOR RANGE.						
Detailed Location:	4 POLYGONS MAPPED BASED ON MANY GPS POINTS FROM GROSSO. BOTH E. LEMMONII SSP. KERNENSIS AND SSP. LEMMONII OBSERVED HERE; SOME INDIVIDUALS COULD NOT BE DIFFERENTIATED, SO POINTS REPRESENT ALL INDIVIDUALS OF E. LEMMONII.						
Ecological:	VALLEY SALTBUSSH SCRUB, NON-NATIVE ANNUAL GRASSLAND AND RUDERAL COMMUNITIES. BED OF INTERMITTENT STREAM TRENDING NE. ASSOCIATED WITH PHACELIA TANACETIFOLIA, CAULANTHUS INFLATUS, MONOLOPIA LANCEOLATA, AND E. LEMMONII SSP. LEMMONII.						
General:	~25 INDIVIDUALS KEYED TO E. LEMMONII SSP. KERNENSIS IN 2015; SOME ADDITIONAL INDIVIDUALS SHOWED CHARACTERISTICS THAT COULD NOT DIFFERENTIATE THEM TO THE SUBSPECIES LEVEL.						
Owner/Manager:	BLM						

Occurrence No.	80	Map Index:	A0189	EO Index:	101752	Element Last Seen:	2000-03-22
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	2000-03-22
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2016-05-27
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.25706 / -119.41545			Accuracy:	specific area		
UTM:	Zone-11 N3904226 E280256			Elevation (ft):	950		
PLSS:	T31S, R24E, Sec. 5, SE (M)			Acres:	10.0		
Location:	SOUTH OF SKYLINE ROAD, ABOUT 1.9 AIR MILES WSW OF THREE-G GAS PLANT, ELK HILLS.						
Detailed Location:	2 POLYOGNS MAPPED IN THE SE 1/4 OF SECTION 5.						
Ecological:	VALLEY SALTBUSSH SCRUB AND VALLEY AND FOOTHILL GRASSLAND HABITATS ON SANDY OR CLAY SLOPES. DOMINANT PLANT ASSOCIATES ARE ATRIPLEX POLYCARPA, A. SPINIFERA, BROMUS MADRITENSIS RUBENS, AVENA FATUA, AND VULPIA MYUROS.						
General:	9 PLANTS IN NORTHERN POLYGON AND 15 PLANTS IN SOUTHERN POLYGON IN 2000.						
Owner/Manager:	PVT-OCCIDENTAL PETROLEUM						



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Occurrence No.	81	Map Index:	A0190	EO Index:	101753	Element Last Seen:	2015-04-10
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2015-04-10
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2016-05-27
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.28048 / -119.62483				Accuracy:	specific area	
UTM:	Zone-11 N3907307 E261272				Elevation (ft):	1340	
PLSS:	T30S, R22E, Sec. 33, NW (M)				Acres:	1.0	
Location:	ABOUT 2 MILES SOUTH OF MCKITTRICK AND 0.1 MILE WEST OF HIGHWAY 33.						
Detailed Location:	MAPPED ON THE BORDER BETWEEN THE NE 1/4 NE 1/4 OF SECTION 32 AND THE NW 1/4 NW 1/4 SECTION 33.						
Ecological:	VALLEY SALTBRUSH SCRUB WITH NON-NATIVE GRASS IN AN AREA OF HISTORIC GRAZING, ZONED FOR RESIDENTIAL WITH LIVESTOCK.						
General:	UNKNOWN NUMBER OF PLANTS SEEN IN 2015.						
Owner/Manager:	PVT						

Occurrence No.	82	Map Index:	A0191	EO Index:	101754	Element Last Seen:	2015-04-10
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	2015-04-10
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2016-05-27
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.25174 / -119.6046				Accuracy:	specific area	
UTM:	Zone-11 N3904071 E263029				Elevation (ft):	1450	
PLSS:	T31S, R22E, Sec. 10, NW (M)				Acres:	1.0	
Location:	ABOUT 0.5 MILE NORTHWEST OF DERBY ACRES AND 0.25 MILE WEST OF HIGHWAY 33.						
Detailed Location:	MAPPED IN THE NW 1/4 OF THE NW 1/4 OF SECTION 10.						
Ecological:	VALLEY SALTBRUSH SCRUB WITH NON-NATIVE GRASS IN AREA ZONED FOR RESIDENTIAL WITH LIVESTOCK.						
General:	UNKNOWN NUMBER OF PLANTS SEEN IN 2015.						
Owner/Manager:	BLM						

Occurrence No.	85	Map Index:	B1730	EO Index:	113646	Element Last Seen:	2016-03-29
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2016-03-29
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2018-12-19
Quad Summary:	Fellows (3511925)						
County Summary:	Kern						
Lat/Long:	35.16555 / -119.52887				Accuracy:	80 meters	
UTM:	Zone-11 N3894331 E269677				Elevation (ft):	1362	
PLSS:	T32S, R23E, Sec. 5, SW (M)				Acres:	5.0	
Location:	EAST SIDE OF MIDOIL ROAD AT MOUTH OF HALE MCLEOD CANYON, JUST SOUTH OF FELLOWS.						
Detailed Location:	MAPPED ACCORDING TO 2016 STUTZ COORDINATES, ON THE BORDER BETWEEN THE SE 1/4 SW 1/4 OF SECTION 5 AND THE NE 1/4 NW 1/4 OF SECTION 8.						
Ecological:	SALTBUSH (ATRIPLEX POLYCARPA) HABITAT AND ANNUAL NON-NATIVE GRASSLAND (BROMUS MADRITENSIS SSP. RUBENS). DRY WASH.						
General:	1 PLANT OBSERVED IN 2016.						
Owner/Manager:	UNKNOWN						



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Eriogonum temblorense

Element Code: PDPGN085P0

Temblor buckwheat

Listing Status: **Federal:** None

CNDDB Element Ranks: **Global:** G2

State: None

State: S2

Other: Rare Plant Rank - 1B.2, BLM_S-Sensitive

Habitat: **General:** VALLEY AND FOOTHILL GRASSLAND.

Micro: BARREN CLAY OR SANDSTONE SUBSTRATES. 230-840 M.

Occurrence No.	15	Map Index:	A2751	EO Index:	104356	Element Last Seen:	2011-04-11
Occ. Rank:	Good	Presence:	Presumed Extant	Site Last Seen:		2011-04-11	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2016-12-01	

Quad Summary: West Elk Hills (3511935)

County Summary: Kern

Lat/Long:	35.33107 / -119.57921	Accuracy:	specific area
UTM:	Zone-11 N3912811 E265568	Elevation (ft):	760
PLSS:	T30S, R22E, Sec. 11, S (M)	Acres:	4.0

Location: ABOUT 3 AIR MILES NORTHEAST OF MCKITTRICK, ELK HILLS.

Detailed Location: 3 POLYGONS MAPPED IN THE NW 1/4 SE 1/4 AND THE NE 1/4 SW 1/4 OF SECTION 11.

Ecological: FOUND ON SOUTH FACING SLOPES WITH EXPOSED SOILS AND GYPSUM PARTICLES. SLOPES VARIED FROM 15 TO 55 DEGREES. COTTONY BUCKWHEAT ALSO FOUND GROWING IN AREA.

General: 450 PLANTS OBSERVED BETWEEN OCCURRENCES #15 AND 16 IN 2011.

Owner/Manager: UNKNOWN

Occurrence No.	16	Map Index:	A2754	EO Index:	104358	Element Last Seen:	2011-04-11
Occ. Rank:	Unknown	Presence:	Presumed Extant	Site Last Seen:		2011-04-11	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2016-12-01	

Quad Summary: West Elk Hills (3511935)

County Summary: Kern

Lat/Long:	35.32723 / -119.56721	Accuracy:	specific area
UTM:	Zone-11 N3912356 E266648	Elevation (ft):	910
PLSS:	T30S, R22E, Sec. 12, SW (M)	Acres:	1.0

Location: ABOUT 3.5 AIR MILES NORTHEAST OF MCKITTRICK, ELK HILLS.

Detailed Location: MAPPED IN THE SOUTH 1/2 OF THE SW 1/4 OF SECTION 12.

Ecological: FOUND ON SOUTH FACING SLOPES WITH EXPOSED SOILS AND GYPSUM PARTICLES. SLOPES VARIED FROM 15 TO 55 DEGREES. COTTONY BUCKWHEAT ALSO FOUND GROWING IN AREA.

General: 450 PLANTS OBSERVED BETWEEN OCCURRENCES #15 AND 16 IN 2011.

Owner/Manager: UNKNOWN

Eriastrum hooveri

Element Code: PDPLM03070

Hoover's eriastrum

Listing Status: **Federal:** Delisted

CNDDB Element Ranks: **Global:** G3

State: None

State: S3

Other: Rare Plant Rank - 4.2, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

Habitat: **General:** CHENOPOD SCRUB, VALLEY AND FOOTHILL GRASSLAND, PINYON AND JUNIPER WOODLAND.

Micro: ON SPARSELY VEGETATED ALKALINE ALLUVIAL FANS; ALSO IN THE TEMBLOR RANGE ON SANDY SOILS. 50-915 M.



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Occurrence No.	17	Map Index:	15133	EO Index:	13747	Element Last Seen:	1986-03-27
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1986-03-27
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-12-18
Quad Summary:	Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.39473 / -119.54734				Accuracy:	specific area	
UTM:	Zone-11 N3919798 E268647				Elevation (ft):	300	
PLSS:	T29S, R23E, Sec. 19, N (M)				Acres:	39.1	
Location:	NEAR JUNCTION LOKERN RD AND HWY 58.						
Detailed Location:	3 COLONIES MAPPED IN N1/2 SEC 19.						
Ecological:	FINE CLAY SOIL WITH ATRIPLEX SPINIFERA AND ANNUAL GRASSES. PLANT DOES BEST WHERE THERE ARE LESS ANNUAL GRASSES.						
General:	FEWER THAN 10000 PLANTS IN 1986.						
Owner/Manager:	UNKNOWN						

Occurrence No.	18	Map Index:	15194	EO Index:	18399	Element Last Seen:	1983-04-20
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1986-03-27
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-12-19
Quad Summary:	Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.38858 / -119.52227				Accuracy:	80 meters	
UTM:	Zone-11 N3919058 E270906				Elevation (ft):	270	
PLSS:	T29S, R23E, Sec. 20, SE (M)				Acres:	0.0	
Location:	NEAR WEST SIDE CANAL, S OF HWY 58. ABOUT 1 AIR MI SE OF LOKERN.						
Detailed Location:							
Ecological:	FINE CLAY SOIL WITH ATRIPLEX SPINIFERA AND ANNUAL GRASSES. ERIASTRUM PREFERS AREAS WHERE BROMUS IS IN LOWER COVER.						
General:	REPORTED BY DAMES AND MOORE IN 1983. NOT SEEN IN 1986 SURVEY.						
Owner/Manager:	UNKNOWN						

Occurrence No.	21	Map Index:	15513	EO Index:	13746	Element Last Seen:	1986-03-XX
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1986-03-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-12-18
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.27090 / -119.32869				Accuracy:	specific area	
UTM:	Zone-11 N3905572 E288186				Elevation (ft):	450	
PLSS:	T30S, R25E, Sec. 31, SE (M)				Acres:	50.7	
Location:	EASTERN BASE OF ELK HILLS ALONG TUPMAN RD. 300 YDS W OF JCT WITH SKYLINE RD.						
Detailed Location:							
Ecological:	IN VALLEY SALTBUSSH SCRUB, DOMINATED BY ATRIPLEX POLYCARPA AND A. SPINIFERA. MOSTLY WITH SOIL CRYPTOGAMS AND AVOIDS HIGH COVER OF BROMUS.						
General:	ABOUT 800 PLANTS IN THREE SUBPOPULATIONS.						
Owner/Manager:	PVT						



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Occurrence No.	22	Map Index:	15261	EO Index:	13744	Element Last Seen:	1986-03-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1986-03-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-12-18
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.35047 / -119.48709				Accuracy:	specific area	
UTM:	Zone-11 N3914749 E273997				Elevation (ft):	420	
PLSS:	T30S, R23E, Sec. 03, NE (M)				Acres:	70.1	
Location:	APPROX 0.5 MI SW OF W END OF BUTTONWILLOW-KERN COUNTY AIRFIELD.						
Detailed Location:							
Ecological:	MODERATELY OPEN VALLEY SALTBUH SCRUB; MOSTLY IN AREAS OF REDUCED ANNUAL GRASSES, WITH ATRIPLEX SPINIFERA-A. POLYCARPA DOMINATED SCRUB. SANDY SOILS.						
General:	ABOUT 40,000 PLANTS WITH SEVERAL SMALLER SUBPOPULATIONS.						
Owner/Manager:	UNKNOWN						

Occurrence No.	23	Map Index:	15258	EO Index:	18397	Element Last Seen:	1986-03-XX
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	1986-03-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-12-18
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.33889 / -119.49131				Accuracy:	80 meters	
UTM:	Zone-11 N3913474 E273580				Elevation (ft):	500	
PLSS:	T30S, R23E, Sec. 10, NE (M)				Acres:	0.0	
Location:	NORTH BASE OF ELK HILLS, ABOUT 1.2 MI SW OF BUTTONWILLOW; KERN COUNTY AIRFIELD.						
Detailed Location:	NW1/4 OF NE1/4 SEC 10, NEAR BM 526.						
Ecological:	ON GRAVELLY LOW TERRACE ADJACENT TO DRY WASH. HYMENOCLEA SALSOLA IS DOMINANT.						
General:	1000 PLANTS IN SINGLE LARGE COLONY.						
Owner/Manager:	UNKNOWN						

Occurrence No.	24	Map Index:	15423	EO Index:	18396	Element Last Seen:	1986-03-XX
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1986-03-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-12-18
Quad Summary:	Taft (3511924)						
County Summary:	Kern						
Lat/Long:	35.23057 / -119.37948				Accuracy:	80 meters	
UTM:	Zone-11 N3901208 E283457				Elevation (ft):	425	
PLSS:	T31S, R24E, Sec. 15, SE (M)				Acres:	0.0	
Location:	ALONG HWY 119, 0.5 MI NE OF NORTH END OF DUSTIN ACRES; WEST SIDE OF ROAD.						
Detailed Location:	MAPPED IN NE1/4 OF SE1/4 SEC 15.						
Ecological:	UNDISTURBED VALLEY SINK VEGETATION DOMINATED BY ATRIPLEX POLYCARPA AND HYMENOCLEA SALSOLA.						
General:	250 PLANTS IN LOW DENSITY.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	28	Map Index:	15395	EO Index:	18393	Element Last Seen:	1986-04-17
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1988-03-23
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-12-19
Quad Summary:	Buttonwillow (3511944)						
County Summary:	Kern						
Lat/Long:	35.40033 / -119.40340			Accuracy:	80 meters		
UTM:	Zone-11 N3920093 E281737			Elevation (ft):	290		
PLSS:	T29S, R24E, Sec. 16, SW (M)			Acres:	0.0		
Location:	BOWERBANK SIDING, ABOUT 4 MI W OF BUTTONWILLOW, ALONG HWY 58, NEAR JCT W/HWY 5.						
Detailed Location:	MAPPED IN SE1/4 OF SW1/4 SEC 16.						
Ecological:	RELATIVELY UNDISTURBED VALLEY SALT BUSH SCRUB DOMINATED BY ATRIPLEX POLYCARPA. STRONG MICRORELIEF; PLANTS ON MOUND TOPS.						
General:	ABOUT 500 PLANTS IN 1986; NONE IN 1988. MORE HABITAT EXISTS.						
Owner/Manager:	PVT						
Occurrence No.	29	Map Index:	15577	EO Index:	18392	Element Last Seen:	1986-04-16
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1986-04-16
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-12-18
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.26630 / -119.27511			Accuracy:	80 meters		
UTM:	Zone-11 N3904948 E293048			Elevation (ft):	300		
PLSS:	T31S, R25E, Sec. 03, NE (M)			Acres:	0.0		
Location:	SOUTH OF HWY 119, 1.3 MILES WEST OF ENOS LANE.						
Detailed Location:	MAPPED IN NE1/4 OF NE1/4 SEC 3.						
Ecological:	VALLEY SALT BUSH SCRUB DOMINATED BY ATRIPLEX POLYCARPA.						
General:	10,000 PLANTS IN MANY COLONIES.						
Owner/Manager:	PVT						
Occurrence No.	30	Map Index:	15611	EO Index:	18391	Element Last Seen:	1986-03-XX
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	1986-03-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-12-18
Quad Summary:	Stevens (3511932), Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.26604 / -119.25094			Accuracy:	80 meters		
UTM:	Zone-11 N3904870 E295246			Elevation (ft):	300		
PLSS:	T31S, R25E, Sec. 01, NW (M)			Acres:	0.0		
Location:	SE CORNER OF HWY 119 & ENOS ROAD, NEAR SOUTH COLES LEVEE OIL FIELD.						
Detailed Location:	MAPPED IN NW1/4 OF NW1/4 SEC 1.						
Ecological:	RELATIVELY UNDISTURBED VALLEY SALT BUSH SCRUB DOMINATED BY ATRIPLEX POLYCARPA; STRONG MICRORELIEF.						
General:	ABOUT 5000 PLANTS IN MANY COLONIES.						
Owner/Manager:	PVT						



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Occurrence No.	38	Map Index:	15298	EO Index:	18384	Element Last Seen:	1986-06-06
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1986-06-06
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-12-19
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.34847 / -119.46813				Accuracy:	80 meters	
UTM:	Zone-11 N3914484 E275714				Elevation (ft):	295	
PLSS:	T30S, R23E, Sec. 02, NE (M)				Acres:	0.0	
Location:	ELK HILLS RD (BUTTONWILLOW RD) ON NE CORNER OF JCT W/CALIF AQUEDUCT.						
Detailed Location:	MAPPED IN SE1/4 OF NE1/4 SEC 2.						
Ecological:	RELATIVELY UNDISTURBED VALLEY SALTBUSH SCRUB DOMINATED BY ATRIPLEX POLYCARPA WITH DIVERSE ANNUAL FLORA.						
General:	ABOUT 300 PLANTS IN 1986.						
Owner/Manager:	PVT						

Occurrence No.	41	Map Index:	15660	EO Index:	18382	Element Last Seen:	1986-06-30
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1986-06-30
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-12-19
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.25414 / -119.20885				Accuracy:	80 meters	
UTM:	Zone-11 N3903464 E299046				Elevation (ft):	310	
PLSS:	T31S, R26E, Sec. 05, SW (M)				Acres:	0.0	
Location:	E SIDE OF HWY 5, ABOUT ONE MI S OF TAFT HWY.						
Detailed Location:	MAPPED IN SE1/4 OF SW1/4 SEC 5.						
Ecological:	MODERATELY DISTURBED VALLEY MESQUITE SCRUB WITH ATRIPLEX AND PROSOPIS. MORE HABITAT IN REST OF SECTION 5.						
General:	ABOUT 200 PLANTS IN 1986.						
Owner/Manager:	PVT						

Occurrence No.	44	Map Index:	15337	EO Index:	18379	Element Last Seen:	1986-04-17
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1986-04-17
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-12-19
Quad Summary:	Buttonwillow (3511944)						
County Summary:	Kern						
Lat/Long:	35.40041 / -119.44544				Accuracy:	80 meters	
UTM:	Zone-11 N3920195 E277919				Elevation (ft):	275	
PLSS:	T29S, R24E, Sec. 18, SW (M)				Acres:	0.0	
Location:	KILOWATT; NE CORNER OF WASCO AVE AND HWY 58, E OF BUTTONWILLOW.						
Detailed Location:							
Ecological:	VALLEY SINK SCRUB ON SANDY SUBSALINE SOILS. HIGH COVER OF BROMUS RUBENS. ERIASTRUM ON LEAST DISTURBED PERT OF THE SITE.						
General:	ABOUT 1000 PLANTS IN 300 SQUARE METER AREA.						
Owner/Manager:	PVT						



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Occurrence No.	45	Map Index:	15134	EO Index:	13743	Element Last Seen:	1986-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1986-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1993-12-23
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.36764 / -119.54583				Accuracy:	specific area	
UTM:	Zone-11 N3916789 E268707				Elevation (ft):	375	
PLSS:	T29S, R23E, Sec. 31, N (M)				Acres:	77.4	
Location:	E OF HWY 58, APPROX 0.75 AIR MI SE OF LOKERN PUMPING STATION, W OF CALIFORNIA AQUEDUCT.						
Detailed Location:	ALONG POWERLINE ASSOCIATED WITH MIDWAY-SUNSET COGENERATION PROJECT.						
Ecological:							
General:							
Owner/Manager:	PVT						

Occurrence No.	46	Map Index:	15183	EO Index:	18376	Element Last Seen:	1986-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1986-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2007-12-19
Quad Summary:	Lokern (3511945)						
County Summary:	Kern						
Lat/Long:	35.37785 / -119.52411				Accuracy:	non-specific area	
UTM:	Zone-11 N3917872 E270709				Elevation (ft):	280	
PLSS:	T29S, R23E, Sec. 29, NE (M)				Acres:	25.0	
Location:	E OF CALIFORNIA AQUEDUCT, APPROX 1.75 AIR MI SE OF LOKERN.						
Detailed Location:	ALONG POWERLINE ASSOCIATED WITH MIDWAY-SUNSET COGENERATION PROJECT.						
Ecological:							
General:							
Owner/Manager:	PVT						

<i>Delphinium recurvatum</i>					Element Code: PDRAN0B1J0		
recurved larkspur							
Listing Status:	Federal:	None			CNDDB Element Ranks:	Global:	G2?
	State:	None				State:	S2
	Other:	Rare Plant Rank - 1B.2, BLM_S-Sensitive, SB_SBBG-Santa Barbara Botanic Garden					
Habitat:	General:	CHENOPOD SCRUB, VALLEY AND FOOTHILL GRASSLAND, CISMONTANE WOODLAND.					
	Micro:	ON ALKALINE SOILS; OFTEN IN VALLEY SALTBUH OR VALLEY CHENOPOD SCRUB. 3-790 M.					



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Occurrence No.	20	Map Index:	15613	EO Index:	2424	Element Last Seen:	2009-03-30
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2009-03-30
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2011-04-04
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.27011 / -119.24122				Accuracy:	specific area	
UTM:	Zone-11 N3905300 E296140				Elevation (ft):	310	
PLSS:	T30S, R25E, Sec. 36, S (M)				Acres:	33.0	
Location:	NORTH SIDE OF TAFT HIGHWAY (SR 119) ABOUT 0.6 TO 1.2 MILES WEST OF INTERSTATE 5, 16 MILES EAST OF TAFT.						
Detailed Location:	SOUTHERN COLES LEVEE OILFIELD. MAPPED BY CNDDB AS 3 POLYGONS TO ENCOMPASS 1992 AND 2009 DATA.						
Ecological:	OPEN SALT BUSH SCRUB WITH ATRIPLEX POLYCARPA, LASTHENIA CHRYSOSTOMA, TILLAEA ERECTA, BROMUS RUBENS, AND HEMIZONIA SP. NEAR SCALD AREA IN BOTH HEAVY AND LIGHTLY VEGETATED AREAS. PLANTS ROBUST - UP TO 20 FLOWERS PER INFLORESCENCE.						
General:	IN 1992, WEST-MOST POLYGON HAD 150-200 PLANTS AND EAST-MOST POLYGON HAD 200 PLANTS. 13 PLANTS OBSERVED IN THE VICINITY IN 1999. 50 PLANTS OBSERVED IN THE MIDDLE POLYGON IN 2009. INCLUDES FORMER EO #32.						
Owner/Manager:	DWR						
Occurrence No.	27	Map Index:	31594	EO Index:	2393	Element Last Seen:	1987-04-28
Occ. Rank:	None			Presence:	Extirpated	Site Last Seen:	1987-04-28
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2019-10-08
Quad Summary:	Millux (3511922)						
County Summary:	Kern						
Lat/Long:	35.24178 / -119.23971				Accuracy:	non-specific area	
UTM:	Zone-11 N3902155 E296208				Elevation (ft):	300	
PLSS:	T31S, R25E, Sec. 12, SE (M)				Acres:	164.3	
Location:	SOUTH COLES LEVEE OIL FIELD, NORTHWEST OF THE JUNCTION OF UNION ROAD AND COLES LEVEE ROAD.						
Detailed Location:	MAP DETAIL DESCRIBES LOCATION AS THE SE 1/4 OF SECTION 12.						
Ecological:	NON-NATIVE ANNUAL GRASSLANDS WITH BROMUS RUBENS DOMINANT. NATIVE SHRUBS INCLUDE SUAEDA FRUTICOSA, ATRIPLEX SPECIES; HAPLOPAPPUS ACRADENIUS, SPOROBOLUS AIROIDES, ATRIPLEX LENTIFORMIS IN SWALES.						
General:	MAIN SOURCE OF INFORMATION FOR THIS SITE IS NON-SPECIFIC MAP DETAIL PROVIDED BY THE CALIFORNIA ENERGY COMMISSION. SITE PRESUMED EXTIRPATED FROM AGRICULTURAL CONVERSION.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	31	Map Index:	31572	EO Index:	2422	Element Last Seen:	1992-03-26
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1992-03-26
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1995-08-04
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.28424 / -119.19162				Accuracy:	80 meters	
UTM:	Zone-11 N3906767 E300688				Elevation (ft):	330	
PLSS:	T30S, R26E, Sec. 28, SW (M)				Acres:	0.0	
Location:	WEST SIDE OF JANES CANAL BETWEEN TAFT HIGHWAY (HWY 116) AND PANAMA LANE, ABOUT 10 MILES SOUTHWEST OF BAKERSFIELD.						
Detailed Location:	SITE IS ABOUT 1.9 MILES EAST OF I-5 ON THE TAFT HWY, THEN 1.25 MILES NORTH. MAPPED IN THE SE 1/4 OF THE SW 1/4 OF SECTION 28.						
Ecological:	OPEN AREA IN VERY DISTURBED MESQUITE PLAYA, WITH LASTHENIA CHRYSOSTOMA, SCHISMUS BARBATUS, BROMUS RUBENS, LEPIDIUM NITIDUM, AND ERIASTRUM HOOVERI.						
General:	1 PLANT OBSERVED IN 1992. SITE SHOULD BE PROTECTED BY KERN WATER BANK HABITAT CONSERVATION PLAN.						
Owner/Manager:	DWR						

Occurrence No.	33	Map Index:	31568	EO Index:	2530	Element Last Seen:	1994-04-04
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	1994-04-04
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1995-08-02
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.36854 / -119.35474				Accuracy:	specific area	
UTM:	Zone-11 N3916459 E286074				Elevation (ft):	295	
PLSS:	T29S, R24E, Sec. 36, NW (M)				Acres:	4.9	
Location:	EAST SIDE OF INTERSTATE 5 ABOUT 0.75-1.09 MILE NORTH OF STOCKDALE HIGHWAY.						
Detailed Location:	MAPPED ALONG THE EAST SIDE OF THE HIGHWAY IN THE NE 1/4 OF THE NW 1/4 OF SECTION 36.						
Ecological:	VALLEY SALT BUSH SCRUB WITH SANDY LOAM SOILS AND LOW RELIEF. ASSOCIATED WITH ATRIPLEX POLYCARPA, A. SPINIFERA, SUAEDA MOQUINII, ERIASTRUM HOOVERI, E. PLURIFLORUM, HEMIZONIA PUNGENS, SPOROBOLUS AIROIDES, BROMUS, HORDEUM, AND VULPIA.						
General:	5 PLANTS OBSERVED IN 1994. SITE IS WITHIN SMALL AREA OF NATURAL HABITAT NEXT TO I-5.						
Owner/Manager:	PVT?						



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Occurrence No.	34	Map Index:	31569	EO Index:	2529	Element Last Seen:	198X-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	198X-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1995-08-02
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.35487 / -119.32771				Accuracy:	non-specific area	
UTM:	Zone-11 N3914884 E288494				Elevation (ft):	300	
PLSS:	T30S, R25E, Sec. 06, S (M)				Acres:	646.7	
Location:	INTERSTATE 5 AT STOCKDALE HIGHWAY (BELLEVUE ROAD).						
Detailed Location:	MAP DETAIL DESCRIBES LOCATION AS T29S R25E S 1/2 OF SECTION 31, T30S R25E NW 1/4 OF SECTION 5 AND NE 1/4 SECTION 6.						
Ecological:							
General:	ONLY SOURCE OF INFORMATION FOR THIS SITE IS NON-SPECIFIC MAP DETAIL PROVIDED BY THE CALIFORNIA ENERGY COMMISSION.						
Owner/Manager:	UNKNOWN						

Occurrence No.	35	Map Index:	31570	EO Index:	2528	Element Last Seen:	1999-04-21
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1999-04-21
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2011-04-06
Quad Summary:	Tupman (3511933)						
County Summary:	Kern						
Lat/Long:	35.30552 / -119.37284				Accuracy:	1/10 mile	
UTM:	Zone-11 N3909507 E284261				Elevation (ft):	320	
PLSS:	T30S, R24E, Sec. 23, NW (M)				Acres:	0.0	
Location:	JUST WEST OF WHERE TUPMAN ROAD CROSSES THE CALIFORNIA AQUEDUCT, APPROXIMATELY 1.3 MILES NW OF TUPMAN.						
Detailed Location:	EXACT LOCATION UNKNOWN. JUST BEFORE TUPMAN RD CROSSES AQUEDUCT, TURN LEFT ONTO DIRT ROAD. IMMEDIATELY CROSS CATTLE GUARD. WALK TO THE NORTH OVER HILL; PLANTS ARE ON HILLSIDES FACING THE AQUEDUCT. MAPPED WITHIN SW 1/4 NW 1/4 SECTION 23.						
Ecological:	VALLEY SALTBUUSH SCRUB. WITH ATRIPLEX POLYCARPA AND NON-NATIVE ANNUAL GRASSES.						
General:	500-600 PLANTS SEEN BY VERSTEEG IN SPRING 1995. 5 PLANTS SEEN BY KOONTZ IN 1999. A 1952 ROBBINS AND BACIGALUPI COLLECTION FROM "TUPMAN, WEST EDGE OF TOWN" IS ALSO ATTRIBUTED TO THIS SITE. INCLUDES FORMER EO #86.						
Owner/Manager:	PVT						



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Occurrence No.	36	Map Index:	31596	EO Index:	2421	Element Last Seen:	1998-03-17
Occ. Rank:	Excellent			Presence:	Presumed Extant	Site Last Seen:	1998-03-17
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2004-11-07
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.33861 / -119.43930			Accuracy:	80 meters		
UTM:	Zone-11 N3913325 E278308			Elevation (ft):	300		
PLSS:	T30S, R24E, Sec. 07, NW (M)			Acres:	0.0		
Location:	ALONG THE NORTH SIDE OF CALIFORNIA AQUEDUCT, ABOUT 1.5 AIR MILES EAST OF ELK HILLS ROAD, ABOUT 6 MILES NW OF TUPMAN.						
Detailed Location:	ABOUT 50 YARDS SOUTH OF AQUEDUCT MILEPOST 231.73, INSIDE AND OUTSIDE OF THE AQUEDUCT RIGHT-OF-WAY. MAPPED WITHIN THE NE 1/4 OF THE NW 1/4 OF SECTION 7.						
Ecological:	GROWING IN RECOVERING SALTBUSH SCRUB INSIDE OF THE RIGHT-OF-WAY AND IN SALTBUSH SCRUB OUTSIDE OF ROW. ASSOCIATED WITH ATRIPLEX POLYCARPA, LASTHENIA CHRYSOSTOMA, BROMUS MOLLIS, ERODIUM CICUTARIUM, AND EREMALCHE KERNENSIS.						
General:	50 PLANTS OBSERVED IN 1992. 150 PLANTS SEEN IN 1998 BY KAREN BROWN AS REPORTED TO KOONTZ; SHE SAID IT WAS THE BEST YEAR SINCE 1992.						
Owner/Manager:	DWR-CALIFORNIA AQUEDUCT						

Occurrence No.	37	Map Index:	31597	EO Index:	2420	Element Last Seen:	1998-03-17
Occ. Rank:	Good			Presence:	Presumed Extant	Site Last Seen:	1998-03-17
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2011-04-06
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.32580 / -119.41525			Accuracy:	80 meters		
UTM:	Zone-11 N3911850 E280459			Elevation (ft):	300		
PLSS:	T30S, R24E, Sec. 08, SE (M)			Acres:	0.0		
Location:	ALONG THE NORTH SIDE OF THE CALIFORNIA AQUEDUCT, 1.5 MI SW OF THE JCT OF DAIRY RD AND ADOHR RD, ABOUT 4 MI NW OF TUPMAN.						
Detailed Location:	OUTSIDE OF THE AQUEDUCT RIGHT OF WAY AT AQUEDUCT MILEPOST 233.60. MAPPED WITHIN THE SE 1/4 OF THE SE 1/4 OF SECTION 8, ALONG THE BORDER OF SECTION 17.						
Ecological:	GROWING IN SALTBUSH SCRUB ON SANDY LOAM SOIL. ASSOCIATED WITH ATRIPLEX POLYCARPA, LASTHENIA CHRYSOSTOMA, BROMUS MOLLIS, AND ERODIUM CICUTARIUM.						
General:	100 PLANTS OBSERVED IN 1992. OBSERVED IN SECTION 17 IN 1995. 40-50 PLANTS SEEN IN 1998 BY KAREN BROWN AS REPORTED TO KOONTZ.						
Owner/Manager:	DWR?						



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Occurrence No.	38	Map Index:	14963	EO Index:	2428	Element Last Seen:	1957-04-20
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1957-04-20
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	1995-07-14
Quad Summary:	West Elk Hills (3511935), Reward (3511936)						
County Summary:	Kern						
Lat/Long:	35.33746 / -119.62124				Accuracy:	1 mile	
UTM:	Zone-11 N3913620 E261766				Elevation (ft):	1200	
PLSS:	T30S, R22E, Sec. 09, NW (M)				Acres:	0.0	
Location:	2 MILES NORTH OF MCKITTRICK.						
Detailed Location:							
Ecological:	LOW BARREN HILLS.						
General:	ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1957 COLLECTION BY SHARSMITH. NEEDS FIELDWORK.						
Owner/Manager:	UNKNOWN						

Occurrence No.	93	Map Index:	82158	EO Index:	83126	Element Last Seen:	2006-05-05
Occ. Rank:	Fair			Presence:	Presumed Extant	Site Last Seen:	2006-05-05
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2011-04-05
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.25899 / -119.20740				Accuracy:	specific area	
UTM:	Zone-11 N3903998 E299190				Elevation (ft):	300	
PLSS:	T31S, R26E, Sec. 05, S (M)				Acres:	1.0	
Location:	APPROXIMATELY 1 AIR MI SE OF THE JUNCTION OF I-5 AND SR 119, SOUTH OF TEN SECTION OIL FIELD.						
Detailed Location:	MAPPED BY CNDDB AS 2 POLYGONS ACCORDING TO 2006 LAEGER COORDINATES.						
Ecological:	VALLEY SINK SCRUB (ATRIPLEX SPINIFERA, SUAEDA MOQUINII), VALLEY SALTBUSH SCRUB (A. POLYCARPA, A. SPINIFERA), GREAT VALLEY MESQUITE SCRUB (PROSOPIS GLANDULOSA, A. POLYCARPA). THE RARE CALOCHORTUS STRIATUS AND GOODMANIA LUTEOLA ALSO AT SITE.						
General:	3 PLANTS OBSERVED IN 2006.						
Owner/Manager:	PVT						

Occurrence No.	102	Map Index:	82171	EO Index:	83148	Element Last Seen:	198X-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	198X-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2011-04-08
Quad Summary:	Stevens (3511932)						
County Summary:	Kern						
Lat/Long:	35.26557 / -119.23653				Accuracy:	1/10 mile	
UTM:	Zone-11 N3904788 E296556				Elevation (ft):	305	
PLSS:	T31S, R25E, Sec. 01, NE (M)				Acres:	0.0	
Location:	SOUTH SIDE OF SR 119 BETWEEN SR 43 AND I-5, SOUTH COLES LEVEE OIL FIELD.						
Detailed Location:							
Ecological:							
General:	ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1990 CALIFORNIA ENERGY COMMISSION MAP. NEEDS FIELDWORK.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	106	Map Index:	82182	EO Index:	83184	Element Last Seen:	1995-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1995-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2011-04-06
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.30415 / -119.40294				Accuracy:	non-specific area	
UTM:	Zone-11 N3909422 E281519				Elevation (ft):	500	
PLSS:	T30S, R24E, Sec. 21 (M)				Acres:	636.0	
Location:	ELK HILLS OIL FIELD; APPROXIMATELY 3 AIR MILES WNW OF TUPMAN.						
Detailed Location:	MAPPED BY CNDDDB ACCORDING TO A SURVEY OF THE SPECIAL STATUS PLANT SPECIES AT ELK HILLS OIL FIELD. DELPHINIUM RECURVATUM WAS OBSERVED SOMEWHERE WITHIN SECTION 21.						
Ecological:							
General:	OBSERVED WITHIN SECTION 21 IN 1995.						
Owner/Manager:	UNKNOWN						

Occurrence No.	107	Map Index:	82183	EO Index:	83185	Element Last Seen:	1995-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1995-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2011-04-06
Quad Summary:	East Elk Hills (3511934)						
County Summary:	Kern						
Lat/Long:	35.31870 / -119.43748				Accuracy:	non-specific area	
UTM:	Zone-11 N3911113 E278419				Elevation (ft):	500	
PLSS:	T30S, R24E, Sec. 18 (M)				Acres:	634.0	
Location:	ELK HILLS OIL FIELD; APPROXIMATELY 5 AIR MILES WNW OF TUPMAN.						
Detailed Location:	MAPPED BY CNDDDB ACCORDING TO A SURVEY OF THE SPECIAL STATUS PLANT SPECIES AT ELK HILLS OIL FIELD. DELPHINIUM RECURVATUM WAS OBSERVED SOMEWHERE WITHIN SECTION 18.						
Ecological:							
General:	OBSERVED WITHIN SECTION 18 IN 1995.						
Owner/Manager:	UNKNOWN						

Occurrence No.	108	Map Index:	82184	EO Index:	83186	Element Last Seen:	1995-XX-XX
Occ. Rank:	Unknown			Presence:	Presumed Extant	Site Last Seen:	1995-XX-XX
Occ. Type:	Natural/Native occurrence			Trend:	Unknown	Record Last Updated:	2011-04-06
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.33250 / -119.54515				Accuracy:	non-specific area	
UTM:	Zone-11 N3912890 E268668				Elevation (ft):	750	
PLSS:	T30S, R23E, Sec. 07 (M)				Acres:	633.0	
Location:	ELK HILLS OIL FIELD; APPROXIMATELY 5 AIR MILES ENE OF MCKITTRICK.						
Detailed Location:	MAPPED BY CNDDDB ACCORDING TO A SURVEY OF THE SPECIAL STATUS PLANT SPECIES AT ELK HILLS OIL FIELD. DELPHINIUM RECURVATUM WAS OBSERVED SOMEWHERE WITHIN SECTION 7.						
Ecological:							
General:	OBSERVED WITHIN SECTION 7 IN 1995.						
Owner/Manager:	UNKNOWN						



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Occurrence No.	110	Map Index:	83660	EO Index:	84688	Element Last Seen:	2011-04-11
Occ. Rank:	Fair	Presence:	Presumed Extant	Site Last Seen:		2011-04-11	
Occ. Type:	Natural/Native occurrence	Trend:	Unknown	Record Last Updated:		2011-09-16	
Quad Summary:	West Elk Hills (3511935)						
County Summary:	Kern						
Lat/Long:	35.33030 / -119.57704				Accuracy:	80 meters	
UTM:	Zone-11 N3912721 E265763				Elevation (ft):	800	
PLSS:	T30S, R22E, Sec. 11, SE (M)				Acres:	0.0	
Location:	ELK HILLS OIL FIELD; ABOUT 3 AIR MILES NORTHEAST OF MCKITTRICK.						
Detailed Location:	MAPPED WITHIN THE NW 1/4 OF THE SE 1/4 OF SECTION 11.						
Ecological:	FOUND ON NORTH FACING SLOPE, ABOUT 45 DEGREE ANGLE IN ANNUAL (NON-NATIVE) GRASSLAND. THE RARE DELPHINIUM GYPSOPHILUM SSP. GYPSOPHILUM ALSO OCCURS AT THIS SITE.						
General:	1 PLANT OBSERVED IN 2011.						
Owner/Manager:	PVT						



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Calochortus striatus

Element Code: PMLIL0D190

alkali mariposa-lily

Listing Status: **Federal:** None **CNDDB Element Ranks:** **Global:** G3
State: None **State:** S2S3
Other: Rare Plant Rank - 1B.2, BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, USFS_S-Sensitive
Habitat: **General:** CHAPARRAL, CHENOPOD SCRUB, MOJAVEAN DESERT SCRUB, MEADOWS AND SEEPS.
Micro: ALKALINE MEADOWS AND EPHEMERAL WASHES. 70-1600M.

Occurrence No. 33 **Map Index:** 15625 **EO Index:** 16477 **Element Last Seen:** 1989-04-29
Occ. Rank: Fair **Presence:** Presumed Extant **Site Last Seen:** 1989-04-29
Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 2010-07-15

Quad Summary: Millux (3511922)

County Summary: Kern

Lat/Long: 35.23674 / -119.23577 **Accuracy:** specific area
UTM: Zone-11 N3901588 E296554 **Elevation (ft):** 300
PLSS: T31S, R25E, Sec. 13, NE (M) **Acres:** 6.2

Location: BUENA VISTA AQUATIC RECREATION AREA, NEAR JUNCTION OF UNION ROAD AND COLES LEVEE ROAD.

Detailed Location: TWO SUBPOPULATIONS; ONE NORTH OF UNION ROAD AND WEST OF THE CANAL AND THE OTHER SOUTH OF THE ROAD AND EAST OF THE CANAL. INCLUDES NE 1/4 OF NE 1/4 OF SECTION 13 AND SE 1/4 OF SE 1/4 OF SECTION 12.

Ecological: FOUND IN VALLEY SINK SCRUB PLANT COMMUNITY ASSOCIATED WITH SPOROBOLUS AIROIDES, SUAEDA FRUTICOSA, DELPHINIUM RECURVATUM, AND ALLENROLFEA OCCIDENTALIS ON ALKALINE, CHINO LOAM SOIL.

General: 6 PLANTS SEEN IN 1987, 28 OBSERVED IN 1989. SITE IS BEING CONSIDERED FOR INCLUSION IN THE BAKERSFIELD HCP.

Owner/Manager: KRN COUNTY-BUENA VISTA LAKE RA

Occurrence No. 104 **Map Index:** 75568 **EO Index:** 76573 **Element Last Seen:** 2006-05-06
Occ. Rank: Good **Presence:** Presumed Extant **Site Last Seen:** 2006-05-06
Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 2009-06-24

Quad Summary: Stevens (3511932)

County Summary: Kern

Lat/Long: 35.26031 / -119.20891 **Accuracy:** specific area
UTM: Zone-11 N3904148 E299056 **Elevation (ft):** 300
PLSS: T31S, R26E, Sec. 05 (M) **Acres:** 32.0

Location: ROUGHLY 0.7 TO 1.2 AIR MILES SE OF THE JUNCTION OF INTERSTATE 5 AND HIGHWAY 119, SOUTH OF KERN RIVER.

Detailed Location: MAPPED AS 26 POLYGONS, ACROSS MUCH OF SECTION 5.

Ecological: SITE CONSISTS OF ALKALI SINK SCRUB (ATRIPLEX SPINIFERA, SUAEDA MOQUINII), GREAT VALLEY MESQUITE SCRUB (PROSOPIS GLANDULOSA, ATRIPLEX POLYCARPA), AND VALLEY SALT BUSH SCRUB (ATRIPLEX POLYCARPA, A. SPINIFERA).

General: 500 PLANTS OBSERVED IN 2006, PRIMARILY NEAR ALKALI POOLS WITHIN ALKALI SINK SCRUB COMMUNITY.

Owner/Manager: PVT



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Puccinellia simplex

Element Code: PMPOA53110

California alkali grass

Listing Status: **Federal:** None

CNDDB Element Ranks: **Global:** G2

State: None

State: S2

Other: Rare Plant Rank - 1B.2, BLM_S-Sensitive

Habitat: **General:** MEADOWS AND SEEPS, CHENOPOD SCRUB, VALLEY AND FOOTHILL GRASSLANDS, VERNAL POOLS.

Micro: ALKALINE, VERNALLY MESIC. SINKS, FLATS, AND LAKE MARGINS. 1-915 M.

Occurrence No. 10 **Map Index:** 98681 **EO Index:** 100146 **Element Last Seen:** 1937-04-01

Occ. Rank: Unknown **Presence:** Presumed Extant **Site Last Seen:** 1937-04-01

Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 2016-01-06

Quad Summary: West Elk Hills (3511935), Reward (3511936)

County Summary: Kern

Lat/Long: 35.29411 / -119.63246 **Accuracy:** 3/5 mile

UTM: Zone-11 N3908838 E260619 **Elevation (ft):**

PLSS: T30S, R22E, Sec. 29 (M) **Acres:** 776.0

Location: 1 MILE SOUTHWEST OF MCKITTRICK.

Detailed Location: EXACT LOCATION UNKNOWN, MAPPED BY CNDDB AS A BEST GUESS.

Ecological: AROUND ALKALINE VERNAL POOLS.

General: ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1937 YATES COLLECTION CITED IN 1967 FLORA OF KERN COUNTY. NEEDS FIELDWORK.

Owner/Manager: UNKNOWN

Occurrence No. 11 **Map Index:** 98694 **EO Index:** 100153 **Element Last Seen:** 1983-03-30

Occ. Rank: Unknown **Presence:** Presumed Extant **Site Last Seen:** 1983-03-30

Occ. Type: Natural/Native occurrence **Trend:** Unknown **Record Last Updated:** 2016-01-06

Quad Summary: Lokern (3511945)

County Summary: Kern

Lat/Long: 35.39966 / -119.54442 **Accuracy:** non-specific area

UTM: Zone-11 N3920339 E268927 **Elevation (ft):** 270

PLSS: T29S, R23E, Sec. 18, S (M) **Acres:** 69.0

Location: ALONG LOKERN ROAD, 3.5 MILES WEST OF BUTTONWILLOW, WESTERN SAN JOAQUIN VALLEY.

Detailed Location: MAPPED AS BEST GUESS BY CNDDB ALONG LOKERN ROAD JUST WEST OF ITS JUNCTION WITH HIGHWAY 33, AROUND 3.5 ROAD MILES WEST OF BUTTONWILLOW.

Ecological: LEVEL ALKALINE CLAY SOIL, WITH SUAEDA TORREYANA AND SCATTERED ATRIPLEX POLYCARPA.

General: ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1983 STEELE COLLECTION, PLANTS NOTED AS "LOCALLY COMMON" IN 1983. NEEDS FIELDWORK.

Owner/Manager: UNKNOWN



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

Phone: (916) 414-6600 Fax: (916) 414-6713



In Reply Refer To:

05/18/2026 22:00:50 UTC

Project Code: 2026-0091695

Project Name: CalCapture Carbon Capture and Sequestration (CCS) Project

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2))

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

PROJECT SUMMARY

Project Code: 2026-0091695
Project Name: CalCapture Carbon Capture and Sequestration (CCS) Project
Project Type: Power Gen - Other
Project Description: The Project would capture carbon dioxide (CO₂) generated as a by-product by CRC's 550-megawatt equivalent (MWe) Elk Hills Power Plant (EHPP), located in the EHOFF near Tupman, Kern County, CA. The EHPP was commissioned in 2003 and powered by two General Electric 7FA gas turbines (GTs), with two heat recovery steam generators (HRSGs) providing steam to a General Electric D11 steam turbine (ST). The Carbon Capture Unit (CCU), not including pipelines and equipment and staging areas, would be located south of the EHPP in a 7.64-acre existing disturbed area.

The Project will require approval of a Petition for Modification Application from the California Energy Commission (CEC), with authority for licensing thermal power plants ≥ 50 MW, as well as transmission lines, fuel supply lines, and other facilities. The CCU would utilize Fluor's Econamine FG PlusSM (EFG+) process to capture and concentrate CO₂. The EFG+ process is designed to capture 95% of the CO₂ from the total flue gas feed to the unit. The EFG+ CCU can be divided into seven primary subsystems or sections: Flue Gas Cooling, CO₂ Absorption, Solvent Regeneration, Solvent Maintenance, Chemical Storage and Supply, CO₂ Compression, and Utility Support Systems. The treated flue gas is vented to the atmosphere directly from the EFG+ CCU plant absorber. The concentrated CO₂ would then be compressed, dehydrated, and stripped of O₂ prior to conveyance to the permitted manifold pad, permitted as part of the approved Carbon TerraVault I (CTV I) project (State Clearinghouse No. 2022030180), which will direct the CO₂ to the U.S. EPA approved Class VI Underground Injection Control (UIC) wells to be injected into a depleted oil and gas reservoir located on CRC property and approved as part of the CTV I project.

A new, 0.5-mile, 8- to 10-inch pipeline, installed primarily below ground utilizing either trenching or horizontal directional drilling (HDD) techniques, would transport the CO₂ from the CCU to the tie-in with the Carbon TerraVault I (CTV I) permitted 35R manifold facility (pad). The proposed Project would capture ~4,400 metric tons of CO₂ per day (MTPD) (1.6 million metric tons of CO₂ per year [MMTPY]) and would be in operation for up to 26 years.

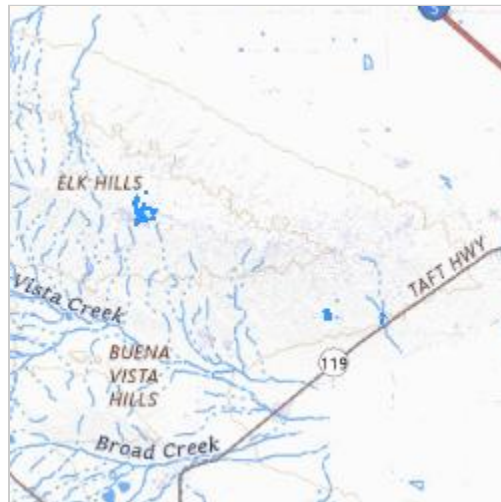
Water use during operation would be minimized by the inclusion of a hybrid cooling system - Wet Surface Air Coolers [WSAC], air coolers, secondary glycol cooling, and water cooling. The CCU would be

equipped with a water treatment system, consisting of a reverse osmosis (RO) Unit that is designed to recover and reuse water from the Cooling Tower blowdown. The recovered water is utilized as make-up to the CO₂ absorption system and the Wash Water WSAC Basin. A wastewater stream (less than 10 gallons per minute) would be collected at the CalCapture CCU and transferred by a new surface pipeline to the EHPP for disposal via an existing UIC Class I injection well. The proposed Project includes a single connection to the CRC Power System and would include a connection of a new 115-kilovolt (kV) transmission line to a new CRC electrical substation. The proposed Project would require a new transmission tie line to connect the Project switching station to the existing CRC substation. Electrical power would be supplied to the CalCapture Substation with a new dedicated electrical transformer. The new 115-kV transmission tie line is expected to be built using pre-engineered steel poles with anchor bolt foundation designs.

During construction, temporary offices and existing parking areas would be used by construction personnel. Temporary office and parking areas have been designated on previously disturbed areas to the south and northeast of the Project site. Two additional areas are located ~5.5 miles southeast of the Project site. There are no permanent new buildings proposed for the Project, and no grading would occur within temporary office and parking areas. Total temporary staging and parking area would be approximately 30.74 ac.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@35.2777004,-119.46936095210768,14z>



Counties: Kern County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 14 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Buena Vista Lake Shrew <i>Sorex ornatus relictus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1610 General project design guidelines: https://ipac.ecosphere.fws.gov/project/W7FLJXD4RJARPMLK5TBZYZ4CVI/documents/generated/11271.pdf	Endangered
Giant Kangaroo Rat <i>Dipodomys ingens</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6051 General project design guidelines: https://ipac.ecosphere.fws.gov/project/W7FLJXD4RJARPMLK5TBZYZ4CVI/documents/generated/11271.pdf	Endangered
San Joaquin Kit Fox <i>Vulpes macrotis mutica</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2873 General project design guidelines: https://ipac.ecosphere.fws.gov/project/W7FLJXD4RJARPMLK5TBZYZ4CVI/documents/generated/11271.pdf	Endangered
Tipton Kangaroo Rat <i>Dipodomys nitratoideis nitratoideis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7247 General project design guidelines: https://ipac.ecosphere.fws.gov/project/W7FLJXD4RJARPMLK5TBZYZ4CVI/documents/generated/11271.pdf	Endangered

BIRDS

NAME	STATUS
California Condor <i>Gymnogyps californianus</i> Population: Wherever found, except where listed as an experimental population There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8193 General project design guidelines: https://ipac.ecosphere.fws.gov/project/W7FLJXD4RJARPMLK5TBZYZ4CVI/documents/generated/11271.pdf	Endangered
Western Snowy Plover <i>Charadrius nivosus nivosus</i> Population: Pacific Coast population DPS-U.S.A. (CA, OR, WA), Mexico (within 50 miles of Pacific coast) There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8035 General project design guidelines: https://ipac.ecosphere.fws.gov/project/W7FLJXD4RJARPMLK5TBZYZ4CVI/documents/generated/11271.pdf	Threatened

NAME	STATUS
Yellow-billed Cuckoo <i>Coccyzus americanus</i> Population: Western U.S. DPS There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911 General project design guidelines: https://ipac.ecosphere.fws.gov/project/W7FLJXD4RJARPMLK5TBZYZ4CVI/documents/generated/11271.pdf	Threatened

REPTILES

NAME	STATUS
Blunt-nosed Leopard Lizard <i>Gambelia silus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/625 General project design guidelines: https://ipac.ecosphere.fws.gov/project/W7FLJXD4RJARPMLK5TBZYZ4CVI/documents/generated/11271.pdf	Endangered
Northwestern Pond Turtle <i>Actinemys marmorata</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1111 General project design guidelines: https://ipac.ecosphere.fws.gov/project/W7FLJXD4RJARPMLK5TBZYZ4CVI/documents/generated/11271.pdf	Proposed Threatened

AMPHIBIANS

NAME	STATUS
Western Spadefoot <i>Spea hammondi</i> Population: Northern DPS No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5425 General project design guidelines: https://ipac.ecosphere.fws.gov/project/W7FLJXD4RJARPMLK5TBZYZ4CVI/documents/generated/11271.pdf	Proposed Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743 General project design guidelines: https://ipac.ecosphere.fws.gov/project/W7FLJXD4RJARPMLK5TBZYZ4CVI/documents/generated/11271.pdf	Proposed Threatened

CRUSTACEANS

NAME	STATUS
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498 General project design guidelines: https://ipac.ecosphere.fws.gov/project/W7FLJXD4RJARPMLK5TBZYZ4CVI/documents/generated/11271.pdf	Threatened

FLOWERING PLANTS

NAME	STATUS
California Jewelflower <i>Caulanthus californicus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4599	Endangered
Kern Mallow <i>Eremalche kernensis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1731	Endangered

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

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LEAD AGENCY CONTACT INFORMATION

Lead Agency: Environmental Protection Agency

Appendix C

Biological Resources Technical Documentation

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C.1 Biological Analysis Report

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BIOLOGICAL ANALYSIS REPORT

CALIFORNIA RESOURCES CORPORATION CARBON TERRAVALT 1



JUNE 1, 2024



BIOLOGICAL ANALYSIS REPORT

CARBON TERRA**V**AULT 1 – CARBON CAPTURE AND SEQUESTRATION PROJECT

Prepared for:

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June 2024

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ACRONYMS AND ABBREVIATIONS

AMSL	Above Mean Sea Level
BAR	Biological Analysis Report
BIOS	Biogeography Information and Observation System
BMPs	Best Management Practices
BSA	Biological Study Area
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGF	California Fish and Game Code
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO ₂	Carbon dioxide
CRC	California Resources Corporation, LLC
CRPR	California Rare Plant Rank
CWHR	California Wildlife Habitat Relationships
EIR	Environmental Impact Report
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
IPaC	Information for Planning and Consultation
HCP	Habitat Conservation Plan
MBTA	Migratory Bird Treaty Act
NEPA	National Environmental Policy Act
NHD	National Hydrography Dataset
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
RWQCB	Regional Water Quality Control Board
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

EXECUTIVE SUMMARY

The Biological Analysis Report (BAR) evaluates the potential for sensitive biological resources to be impacted by the proposed California Resources Corporation, LLC (CRC) Carbon TerraVault 1 – Carbon Capture and Sequestration Project (Project).

Carbon TerraVault (CTV) 1, a wholly owned subsidiary of California Resources Corporation (CRC/Applicant), proposes to develop a carbon dioxide (CO₂) capture and storage facility with associated capture facilities and pipelines, as well as injection and monitoring wells (the Project). CRC is applying for U.S. Environmental Protection Agency (EPA) Safe Drinking Water Act (SDWA) Class VI Underground Injection Control (UIC) permits for the injection wells (the Action). The Project would be developed in two phases: first, four (4) injection wells in the 26R Reservoir, including three (3) new wells and one (1) modified existing well, would be installed to store CO₂ from CRC's existing Elk Hills field gas operation, together with associated capture, compression, and transportation pipelines; second, two (2) existing wells would be modified in the A1-A2 Reservoir. Additionally, ten (10) existing wells will be converted to monitoring wells and six (6) existing wells would be converted into seismic monitoring wells. Approximately eleven (11) miles of new 16-inch CO₂ pipelines will be installed primarily underground in total, with approximately 4.82 miles in the first phase (26R) and approximately 6.38 miles in the second phase (A1-A2), using traditional cut-and-cover techniques. Most of the new pipelines will be collocated with existing pipelines along established rights-of-way. Trenchless installations such as horizontal directional drilling (HDD) may be utilized if necessary.

The California Natural Diversity Database (CNDDB), the California Native Plant Society (CNPS) database, the USFWS Information for Planning and Conservation (IPaC) database and internal company records were reviewed to determine the potential for special-status species and other sensitive biological resources to occur on-site that may be impacted by the Project. These reviews resulted in 23 special-status plant species and 40 special-status wildlife species having the potential to be on or near the Project and the twelve United States Geological Service (USGS) 7.5-minute topographic quadrangles surrounding the project area.

Based on these database reviews, extensive biological survey and monitoring data covering the past 40 years in the Elk Hills Oil field, and project level field surveys in 2022, 2023 and 2024, as well as environmental conditions such as soil types, elevation, historical range, and other factors, it was determined that ten (10) special-status plant species have the potential to occur onsite; heartscale (*Atriplex cordulata* var. *cordulata*), Lost Hills crownscale (*Atriplex coronata* var. *vallicola*), California jewelflower (*Caulanthus californicus*), recurved larkspur (*Delphinium recurvatum*), Kern mallow (*Eremalche parryi* ssp. *kernensis*), Temblor buckwheat (*Eriogonum temblorense*), Tejon poppy (*Eschscholzia lemmonii* ssp. *kernensis*), showy golden madia (*Madia radiata*), San Joaquin woollythreads (*Monolopia congdonii*), and oil neststraw (*Stylocline citroleum*).

Based on the database reviews and field surveys, it was determined that 18 special-status wildlife species have the potential to occur on-site; Crotch's bumblebee (*Bombus crotchii*),

California glossy snake (*Arizona elegans occidentalis*), blunt-nosed leopard lizard (*Gambelia sila*) a State and federal endangered species, San Joaquin coachwhip (*Masticophis flagellum ruddocki*), coast horned lizard (*Phrynosoma blainvillii*), burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*) a State threatened species, prairie falcon (*Falco mexicanus*), loggerhead shrike (*Lanius ludovicianus*), Nelson's (=San Joaquin) antelope squirrel (*Ammospermophilus nelsoni*) a State threatened species, LeConte's thrasher (*Toxostoma lecontei*), giant kangaroo rat (*Dipodomys ingens*) a State and federal endangered species, short-nosed kangaroo rat (*Dipodomys nitratoides brevinasus*), Tulare grasshopper mouse (*Onychomys torridus tularensis*), San Joaquin pocket mouse (*Perognathus inornatus*), American badger (*Taxidea taxus*), temblor legless lizard (*Anniella alexanderae*) a State candidate species, and San Joaquin kit fox (*Vulpes macrotis mutica*) a State threatened and federal endangered species. Migratory birds have been observed and are likely to nest on or near the Project site during the nesting season.

As noted, qualified biologists conducted surveys in 2022, 2023 and 2024. These surveys were conducted to document site conditions, evaluate biological resources on-site, and determine the suitability of the existing habitat to support special-status plant and wildlife species described in the database search that may occur on or near the Project site. Direct observations of burrowing owl and San Joaquin antelope squirrels occurred during the surveys.

SECTION 1 - INTRODUCTION

QK prepared this Biological Analysis Report (BAR) to evaluate the potential for sensitive biological resources to be impacted by the proposed Carbon TerraVault 1 Project. The Project, as proposed by California Resources Corporation, LLC (CRC), would include the construction of a carbon dioxide (CO₂) capture and storage facility with associated pipelines, as well as necessary injection and monitoring wells. The Project would inject the captured CO₂ into these well sites for sequestration into the ground for importunity as part of the goal to reduce CO₂ emissions for the State of California. Project Location

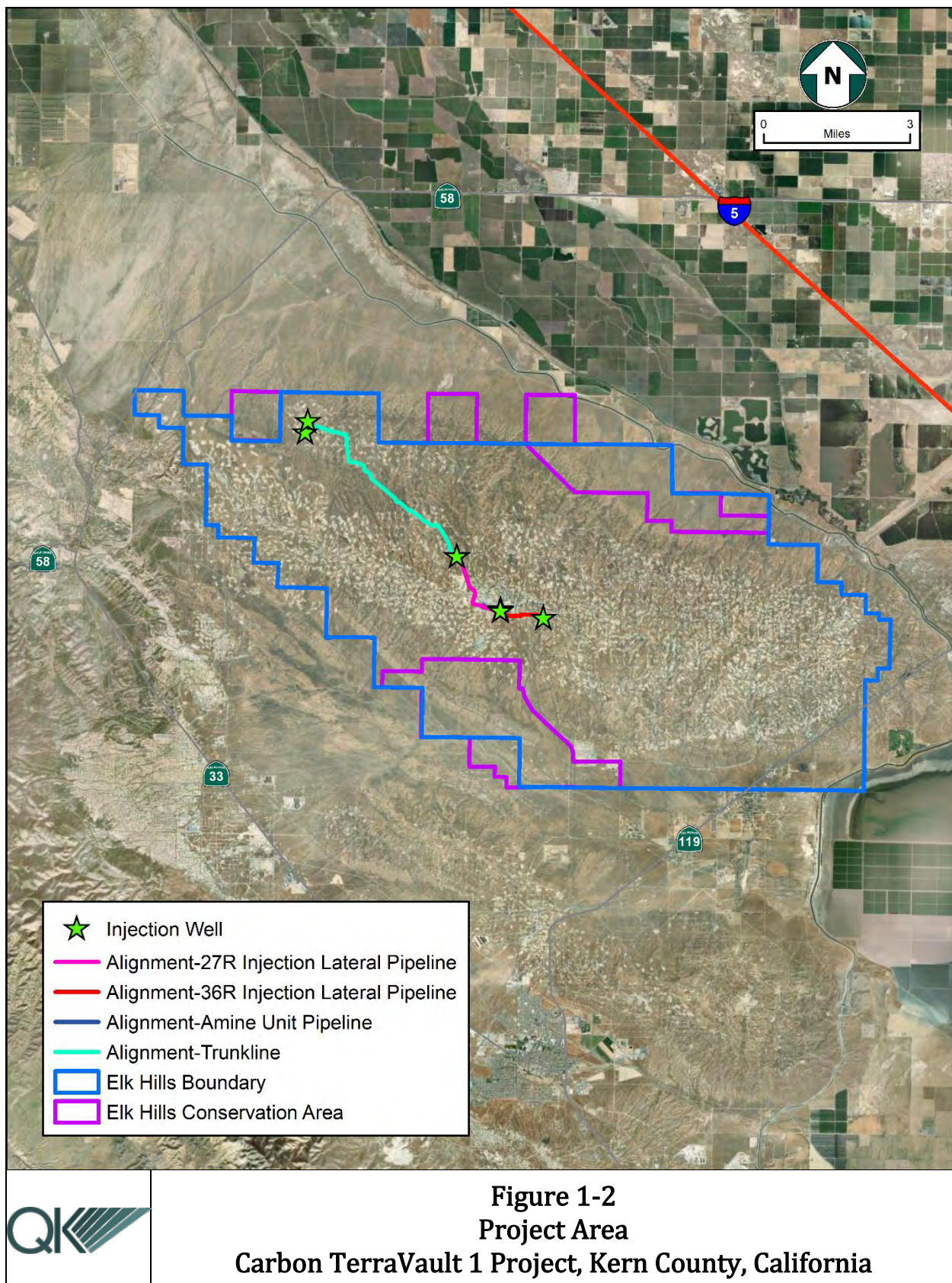
The Project area is located generally within western Kern County, California (Figure 1-1). It is entirely within the boundary of the Elk Hills Oil Field, an approximately 75-square-mile complex with surface and mineral rights privately held by CRC in the San Joaquin Valley of unincorporated Kern County. The Project area extends east of the intersection of Skyline Road and Elk Hills Road, approximately 0.50 miles, and west of the intersection, approximately 5.5 miles. The majority of the Project area follows existing and maintained pipeline rights-of-way. The Project area is approximately 12.75 miles west of Interstate 5 and five miles south of State Route 58. It can be accessed via CRC's gated and guarded entrance to the oil field located at the western intersection of Skyline Road and Elk Hills Road (Figure 1-2).

The Project area is bordered on all sides by existing oil and gas exploration and production. Existing land use outside of the Project area generally includes agricultural lands, current, past, and abandoned oil and gas exploration and production land, and undeveloped land owned by CRC and other oil and gas operators. The City of McKittrick is approximately four miles west of the Project area, and the City of Taft is approximately nine miles to the south. The Project area is located within two U.S. Geological Survey (USGS) 7.5-minute topographic quadrangles (see Table 1-1). All the Sections, Townships, and Ranges are in the Mount Diablo Base Meridian.

Table 1-1
U.S. Geological Survey 7.5-Minute Topographic Quadrangles
Within Project Site, Carbo TerraVault 1 Project, Kern County, California

Quadrangle	Township/ Range	Section (s)
East Elk Hills	30 South 23 East	26, 27, 34, 35, 36
West Elk Hills	30 South 22 East	13, 14
	30 South 23 East	7, 18, 19, 27, 28, 29,30





1.1 - Project Description

The Project will include the construction of up to three new CO₂ injection wells and two USDW monitoring wells, conversion of three existing oil and gas wells for CO₂ injection, the conversion of ten (10) existing oil wells to be used for CO₂ storage reservoir monitoring and 9.93 miles of associated pipelines within the existing Elk Hills Oil Field located in western Kern County, California.

The new pipeline will consist of four (4) segments; the approximately 6.38-mile pipeline that connects the two reservoirs, the approximately 1.77- mile 27R injection lateral section that connects to the injection wells in Section 27R to the main CO₂ distribution system, the 1.11-mile 36R injection lateral section that connects to the injection wells in Section 36R to the main CO₂ distribution system, and the 0.47-mile Amine Unit Pipeline alignment (see Figure 1-2).

The pipelines will be installed primarily underground using traditional cut-and-cover techniques. Most of the new pipelines will be collocated with existing pipelines along established rights-of-way. Limited trenchless installations such as horizontal directional drilling (HDD) may be required for special crossings. Connection to injection wells and distribution headers will require a short section of above ground piping at the connection point. Drainages intersecting the pipeline will be spanned. All pipelines will be equipped with cathodic protection to prevent corrosion. After installation, the pipeline will be hydrotested to verify its integrity.

The Project may include utilization of a temporary construction corridor of up to 25 feet wide in areas of the pipeline route not accessible via established roads or other existing disturbance to allow for off-road construction equipment and a travel path. This will be overland travel only and will not require creating new roads. Temporary storage and laydown areas will be used as necessary to store or stage equipment, pipe, and other construction materials. Laydown will occur only in areas that have been previously disturbed and require no new disturbance, such as along existing access roads, well pads, parking lots, tank facilities or other developed areas.

The CO₂ source for this Project is from an existing Amine unit located within a fenced area of the Cryogenic Gas Plant 1 (CGP1) at Elk Hills. The Amine unit currently sits on a poured concrete pad covering an area of approximately 146 feet by 152 feet (0.51 acres). Compression is provided by two existing compressors that are situated approximately 100 feet west of the amine pad and are also within the CGP1 facility footprint. As part of future work at the site, an identical duplicate CO₂ capture facility (Amine unit) will be constructed on one of three alternate sites covering an area of approximately 116 feet by 141 feet (0.55 acres) in size. All the proposed additional sites are located on previously disturbed areas.

The facility will be accessed via existing surfaced roads northward from Skyline Road within the CRC Elk Hills Oil Field, west of Gate 4. The Project site is accessed via a combination of private paved and dirt roads.

During construction water will be used for dust suppression, fire protection, and pipeline hydrotesting. Construction activities will occur during daylight hours only; however, crews may arrive before daylight and leave the site after dark. Traffic control will be provided for street encroachments and crossings as necessary.

Construction Schedule:

- Overall Project construction is expected take 18-24 months. It is anticipated that there will be concurrent construction activities taking place during this timeframe. Idling and purging will occur after the new pipeline for each phase of construction is operational. Construction duration may vary based on factors such as weather, seasonal environmental constraints, resource availability, number of contractor spreads, permit acquisition, site conditions and other issues encountered in the field. Implementation of the Project would require permits from the Federal Environmental Protection Agency (EPA) for four to six Class VI injection wells in compliance with the UIC program Class VI geologic sequestration regulations. The location of the proposed Class VI injection wells will be within the proposed CUP boundary of 5,332.34 acres. All employee facilities needed to manage the Project will be provided by the existing Elk Hills oil field facilities. Implementation of the Project as proposed includes the following requests: Zone Change Case (ZCC No. 5, Map No. 118; ZCC No. 5, Map No. 119; ZCC No 4, Map No. 120); from A-1 (Limited Agriculture) to A (Exclusive Agriculture) on approximately 3,208 acres.
- Issuance of three Conditional Use Permits (CUP No. 13, Map No. 118; CUP No. 5, Map 119; CUP No. 3, Map No. 120) to allow for the construction and operation of a 5,332.34-acre carbon capture and sequestration field and accessory infrastructure with a CO₂ storage capacity of 48 million metric tons, within the A (Exclusive Agriculture) Zone District. Carbon Capture and Sequestration (CCS) has been determined to be a storage operation and not a manufacturing operation under the Kern County Zoning Ordinance, Section 19.08.085, and under the authority of Section 19.06.020. Storage of CCS in either existing formations or tanks is an allowed use with a Conditional Use Permit (CUP) in the following districts: A District (Exclusive Agriculture), M-2 District (Medium Industrial), and M-3 (Heavy Industrial).

Restoration:

Pre-construction conditions will dictate post-construction restoration activities along the construction corridor. Restoration methods may include broadcast reseeding or hydroseeding with a mix of native grass and forb seed in undeveloped natural areas (e.g., Valley Scrub). Best management practices (BMPs) will be followed to prevent soil erosion and off-site sediment transport until vegetation is re-established.

1.2 - Purpose, Goals, and Objectives

The purpose of this BAR is to identify where potential special-status biological resources may occur within the Project site, determine how those resources may be impacted by the proposed Project, and recommend avoidance, minimization, and mitigation measures to reduce the potential for impact to a less-than-significant level. This BAR has been prepared

to support an analysis of biological conditions as required by the California Environmental Quality Act (CEQA). Information contained in this BAR would, at least partially, support an analysis of Project effects required by the National Environmental Policy Act (NEPA) and support regulatory permit applications, if needed.

SECTION 2 - METHODS

2.1 - Definition of Biological Study Area

The Biological Study Area (BSA) used for this BAR includes everything within the limits of the Project boundaries and a 250-foot survey buffer, where feasible (Figure 2-1).

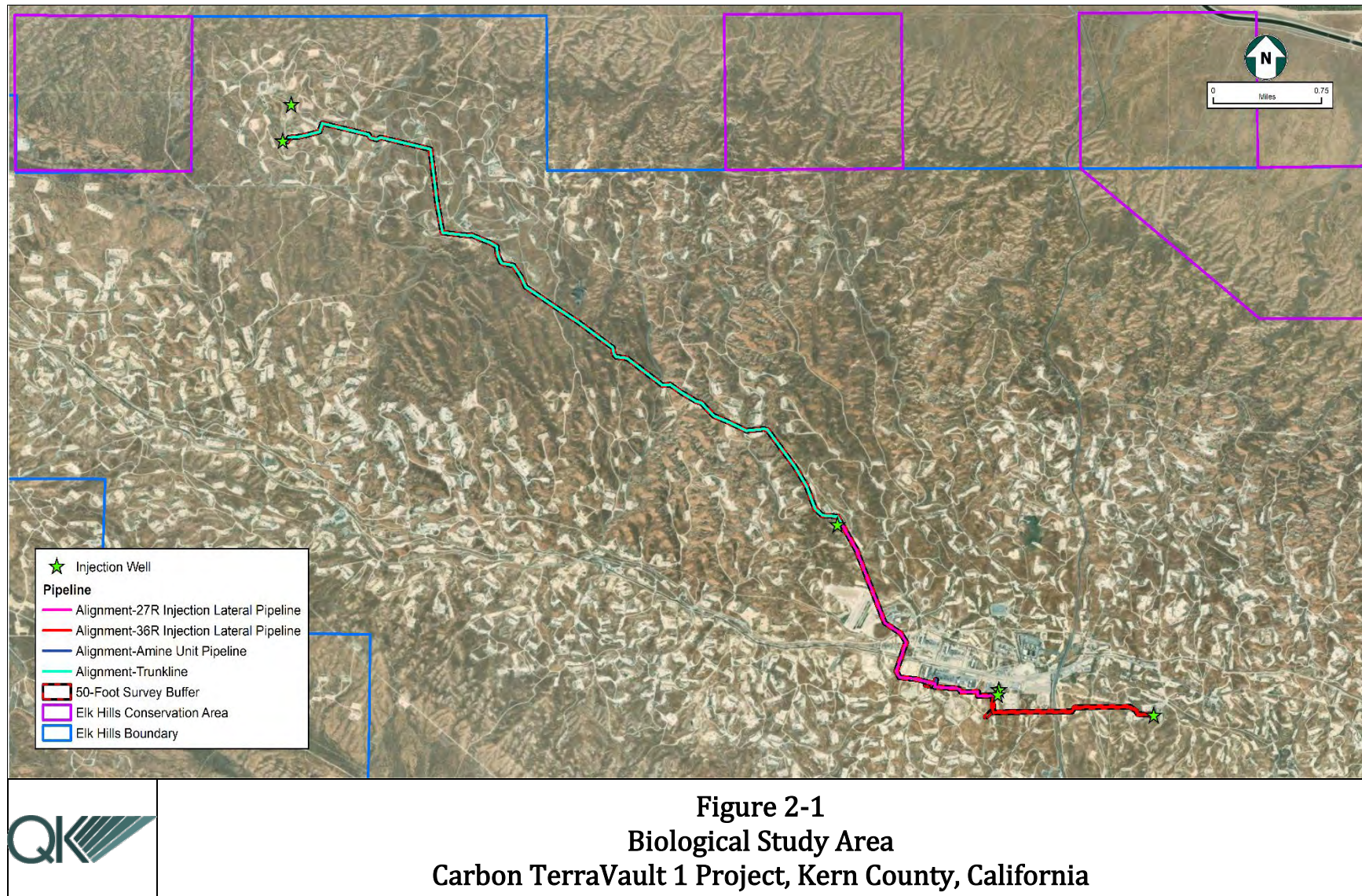
2.2 - Definition of Special-Status Species

For the purpose of this report, special-status species include:

- Species listed as threatened or endangered under the Federal Endangered Species Act (FESA); species that are under review may be included if there is a reasonable expectation of listing within the life of the Project.
- Species listed as candidate, threatened, or endangered under the California Endangered Species Act (CESA).
- Species designated as Fully Protected, Species of Special Concern, or Watch List by the California Department of Fish and Wildlife (CDFW).
- Other species included on the CDFW's Special Animals List.
- Plant species with a California Rare Plant Rank (CRPR) in categories 1 or 2.
- Species designated as locally important by the Local Agency and/or otherwise protected through ordinance or local policy.

The potential for each special-status species to occur in the Study Area was evaluated according to the following criteria:

- **No Potential.** Habitat on and adjacent to the Project is clearly unsuitable to meet the needs of the species (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime), and species would have been identifiable on-site if present.
- **Potential.** Conditions on the Project may, in some way, support a portion of the species' ecology (foraging, reproduction, movement/migration). Negative survey results do not exclude the potential for a species to occur.
- **Present.** Species or diagnostic sign of the species was observed on the Project or has been recorded (e.g., databases, other reports) on the Project recently (within the last five years).



2.3 - Literature Review and Database Analysis

The following sources were reviewed for information on sensitive biological resources in the Project vicinity:

- CDFW's California Natural Diversity Database (CNDDDB; CDFW, 2023a; CDFW, 2023b).
- CDFW's Biogeographic Information and Observation System (BIOS; CDFW, 2023c).
- CDFW's California Wildlife Habitat Relationships (CWHR) System (Mayer and Laudenslayer, 1988).
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (CNPS, 2023).
- Calflora (Calflora, 2023).
- U.S. Fish and Wildlife Service's (USFWS) Information for Planning and Consultation (IPaC) system (USFWS, 2023a).
- USFWS Critical Habitat Mapper (USFWS, 2023b).
- USFWS National Wetlands Inventory (NWI; USFWS, 2023c).
- United States Geological Survey (USGS) National Hydrography Dataset (NHD; USGS, 2023).
- Federal Emergency Management Agency (FEMA) flood zone maps (FEMA, 2023).
- U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS, 2023a).
- NRCS Lists of Hydric Soils (NRCS, 2023b).
- eBird Explore (eBird, 2023).
- VertNet (VertNet, 2023).
- Current and historical aerial imagery from Google Earth (Google LLC, 2023).

All State and federal data sources listed above focused on the California USGS 7.5-minute quadrangles *East Elk Hills* and *West Elk Hills*, in which the Project is located, and the surrounding 10 quadrangles: *Belridge*, *Lokern*, *Buttonwillow*, *Rio Bravo*, *Tupman*, *Mouth of Kern*, *Taft*, *Fellows*, *Panorama Hills*, and *Reward*.

The CNDDDB provides element spatial information on the individually documented occurrence of special-status species and sensitive natural communities. Some of the information available for review in the CNDDDB is still undergoing review by the CDFW; these records are identified as unprocessed data. The CNPS database and Calflora provide similar information as the CNDDDB but at a much lower spatial resolution. Much of the information in these databases is obtained opportunistically and is often focused on protected lands or on lands where development has been proposed. Neither database represents a comprehensive survey of special-status resources in the region. As such, the absence of recorded occurrence in these databases at any specific location does not preclude the possibility that a special-status resource may be present, which is why site-specific surveys were undertaken. The IPaC and CDFW's special-status animals list provide only lists of species that could occur in the region, with no specific records of occurrence. The NWI, NDH,

and Web Soil Survey provide comprehensive spatial data but at a low resolution that requires confirmation in the field.

The results of the database inquiries were reviewed to develop a comprehensive list of sensitive biological resources that may be present on or in the vicinity of the Project site (see Table A-1 in Appendix A). This list was then evaluated against existing site conditions observed during the biological field surveys of the BSA to determine which special-status resources have the potential to occur and then the potential for impacts to those resources as a result of the implementation of the Project.

2.4 - Reconnaissance-Level Field Surveys

Reconnaissance surveys of the BSA were conducted from September 20 to December 15, 2022, by QK Biologists (Table 2-1). The surveys consisted of walking meandering pedestrian transects spaced 50 to 100 feet apart throughout the BSA. One hundred percent survey coverage of the BSA was achieved. No protocol surveys were conducted for this report.

Table 2-1
Field Survey Personnel and Dates

Date	Personnel	Time	Condition	Weather	
				Temperature (F)	Wind Speed (mph)
09/20/2022	CC, EM, LF, MW	0800 -1400	clear	65 - 84	0 - 5
09/21/2022	EM, JE, KD, MW, CC, LF	0800 -1400	clear	65 - 84	0 - 5
10/03/2022	CC, JE, LF, MW	0845 -1400	clear	64 - 82	0 - 5
10/11/2022	CC, EM, LF, MW	0730 -1245	clear	70 - 84	0 - 1
10/12/2022	CC, EM, LF, MW	0730 -1335	clear	69 - 84	0 - 5
12/14/2022	EM, JE	1000 - 1340	clear	47 - 54	0 - 2
12/15/2022	EM, JE	0900 - 1320	overcast	46 - 52	0 - 1

Surveyors: CC = Courtney Chaney; EM = Eric Madueno; JE = Jeffrey Erway; KD = Karissa Denney; LF = Lauren Fah; MW = Mitch Wayman

Tasks completed during the survey included developing an inventory of plant and wildlife species observed, characterizing vegetation associations and habitat conditions, assessing the potential for federally and State listed special-status plant and wildlife species to occur, assessing the potential for bat usage habitat, and assessing the potential for migratory bird and raptor nesting within the BSA. All locational data were recorded using ESRI Collector for ArcGIS software installed on an iPad, and site conditions were documented with representative photographs.

Additional surveys were conducted by biologists from California Resources Corporation (CRC) on October 4, 2023 and by West Kern Environmental Consulting (WKE) on April 1-3, 2024

SECTION 3 - REGULATORY SETTING

Regulated or sensitive resources that were studied and analyzed include special-status plant and animal species, nesting birds and raptors, sensitive plant communities, jurisdictional waters and wetlands, wildlife movement areas, and locally protected resources such as protected trees. Regulatory authority over biological resources is shared by federal, State, and local authorities. Primary authority for the regulation of general biological resources lies within the land use control and planning authority of local jurisdictions (in this instance, the Kern County General Plan).

Regulation of biological resources on the site derives from the following list of statutes. Summaries of these statutes are provided in Appendix B. The significance of impacts to biological resources for purposes of CEQA was determined in the context of the Public Resources Code Section 21000 *et seq.*

- California Environmental Quality Act (CEQA)
- Federal Endangered Species Act (FESA)
- California Endangered Species Act (CESA)
- Federal Clean Water Act
- California Fish and Game Code (CFGF)
- Migratory Bird Treaty Act (MBTA)
- The Bald and Golden Eagle Protection Act
- Porter-Cologne Water Quality Control Act
- San Joaquin Valley Upland Species Recovery Plan
- Kern County General Plan

SECTION 4 - ENVIRONMENTAL SETTING

This section identifies the regional and local environmental setting of the Project and describes existing baseline conditions. The environmental setting of the Project area was obtained from various sources of literature, databases, and aerial photographs. Site conditions were verified and refined based on observations made during the biological surveys described in Section 3.

4.1 - Physical Characteristics

This section identifies the regional environmental setting of the Project and describes baseline conditions. Representative photographs of the Project area are included in Appendix C.

4.1.1 - TOPOGRAPHY

The Project is situated in the eastern section of Kern County near the floor of the San Joaquin Valley. The southern Sierra Nevada foothills are east of the Project, while the Temblor Range of the Southern Coast Range lies to the west. The topography of the Project area consists of variable terrain, from gentle slopes to steep hill slopes. Elevations range from 750 feet above mean sea level (AMSL) to 1,550 feet AMSL.

4.1.2 - CLIMATE

The region in which the Project is located is characterized by a typical Mediterranean climate of hot summers and mild, wet winters. Average high temperatures range from 57°F in January to 100°F in July, with daily temperatures exceeding 100°F several days in the summer (WWRC, 2023). Average low temperatures range from 41°F in December to 67°F in July. Precipitation occurs primarily as rain, most of which falls from December to April, with an average of 5.4 inches of rainfall per year. Precipitation may also occur as a dense fog known as Tule fog during the winter months. Rain rarely falls during the summer months.

4.1.3 - LAND USE

The entirety of the Project area lies within the Elk Hills Oil Field. The Project area is characterized by heavy oil and gas exploration and production, including existing well pads, processing facilities, pipeline routes, and access roads. Most of the Project's new pipeline infrastructure follows established pipeline routes. Development in the surrounding area is predominantly oil and gas production, agricultural, and municipalities such as the towns of McKittrick, Tupman, Taft, and Buttonwillow.

The Project area boundaries encompass a mix of parcels that have been owned and used for oil and gas production or on which the Project proponent has acquired leases.

4.1.4 - SOILS

Habitat types and special-status plant species are partially dependent on soil types. The BSA is underlain by five soil types: Elkhills sandy loam, Kimberlina sandy loam, and three variations of the Elkhills-Torriorthents stratified complex (NRCS, 2023a). The most prevalent soil type within the BSA is Elkhills-Torriorthents stratified, eroded complex (Table 4-1).

Table 4-1
Soil Types Occurring Within the BSA

Soil Type	Acreage
Elkhills sandy loam, 9 to 50 percent slopes, eroded	107.5
Elkhills- Torriorthents stratified complex, 9 to 15 percent slopes	88.1
Elkhills-Torriorthents stratified, eroded complex, 15 to 50 percent slopes	536.8
Kimberlina sandy loam, 5 to 9 percent slopes	2.5
Torriorthents stratified, eroded-Elkhills complex, 9 to 50 percent slopes	47.6

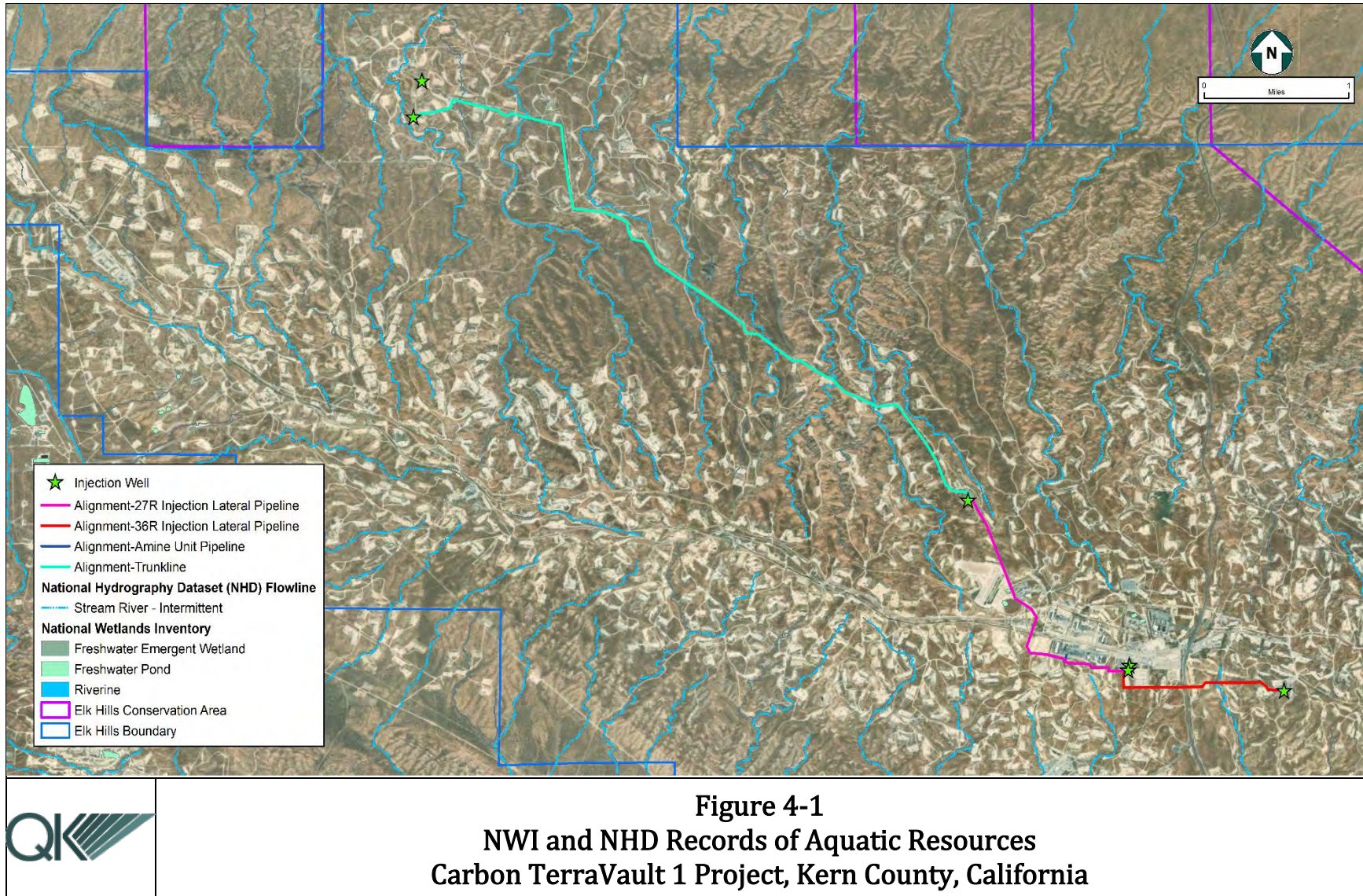
4.1.5 - HYDROLOGY

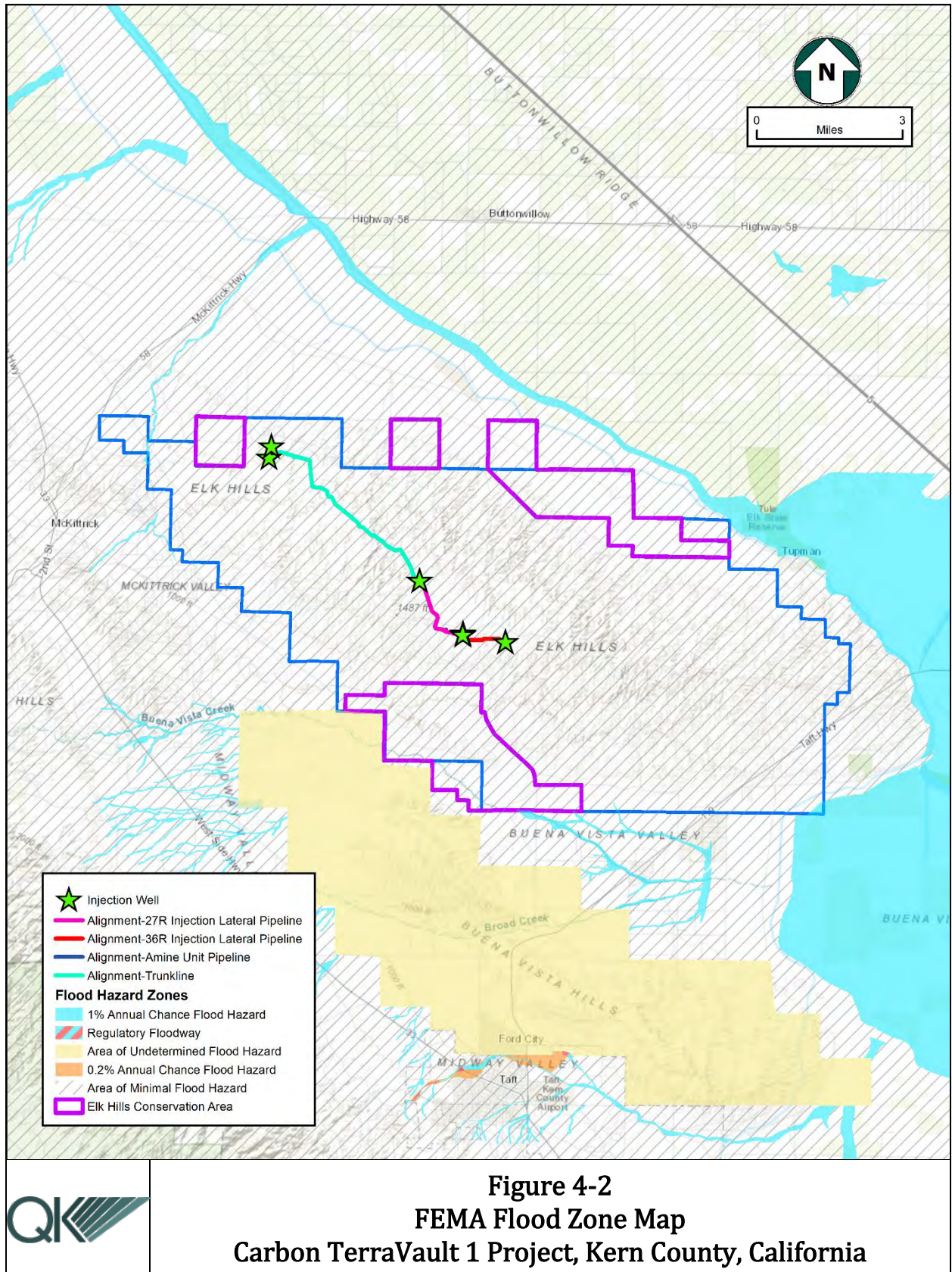
A query of the NHD and NWI databases indicated seven wetland features might intersect the BSA (Figure 4-1). No formal wetland delineations were conducted for this BAR; however, many of the identified water features appeared to be ephemeral drainages during the site surveys. Federal Emergency Management Agency flood zones for which the BSA is within are shown in Figure 4-2.

4.2 - Vegetation and Other Land Cover

Based on descriptions of the habitat classification system in the CWHR (Mayer and Laudenslayer, 1988), two habitat types, Valley Saltbush Scrub and Urban, were present within the BSA (Table 4-2, Figures 4-3 through 4-5). The most prevalent habitat type within the BSA was Valley Saltbush Scrub. The Valley Saltbush Scrub habitat was comprised of isolated fragments of *Atriplex polycarpa* and *A. spinifera* shrubs, with an understory of forbs and non-native grasses, interspersed with dirt access roads, established pipeline routes, and well pads. The urban habitat is restricted to the southeastern end of the BSA and is comprised of oil and gas facilities and associated paved areas. A complete list of plant species observed during the reconnaissance surveys is included in Appendix D.

The habitats observed on-site have been described in the context of the CWHR (Mayer and Laundeslayer, 1988). Note that in some areas, the Valley Saltbush Scrub habitat was intermixed with annual grassland habitat at a scale too small to capture via mapping, and so a description of that habitat type has also been included below for reference.





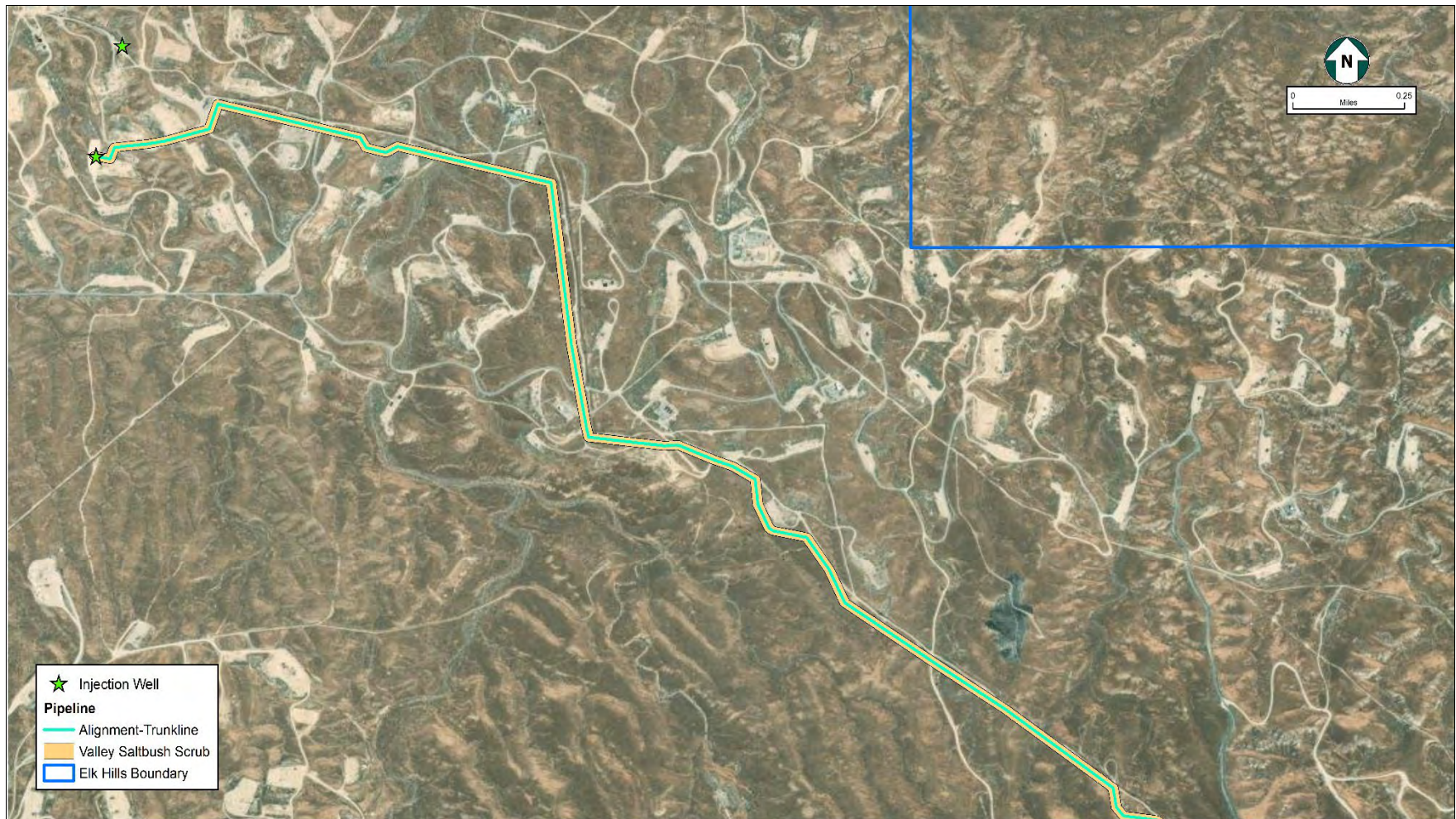
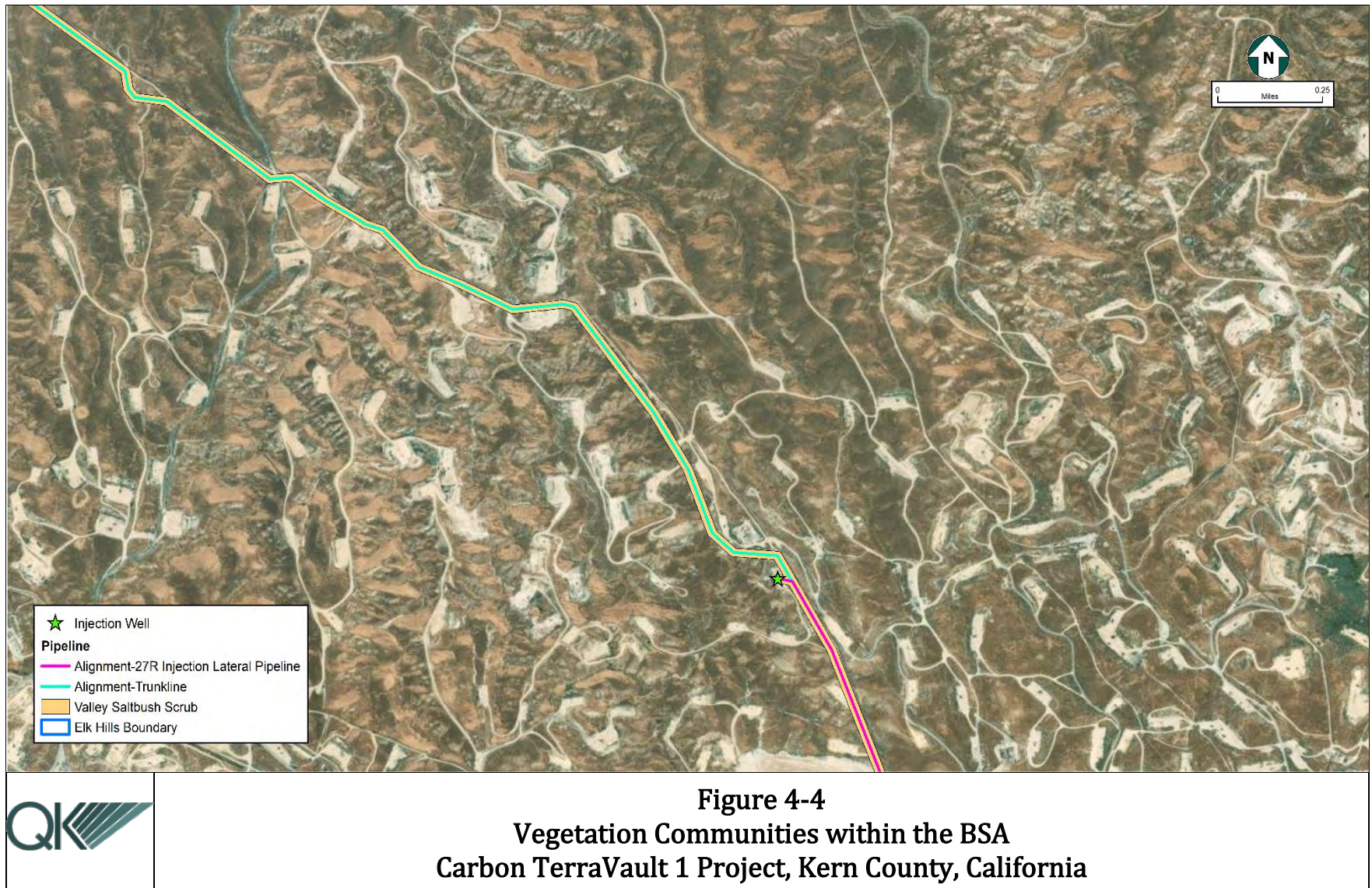


Figure 4-3
Vegetation Communities within the BSA
Carbon TerraVault 1 Project, Kern County, California





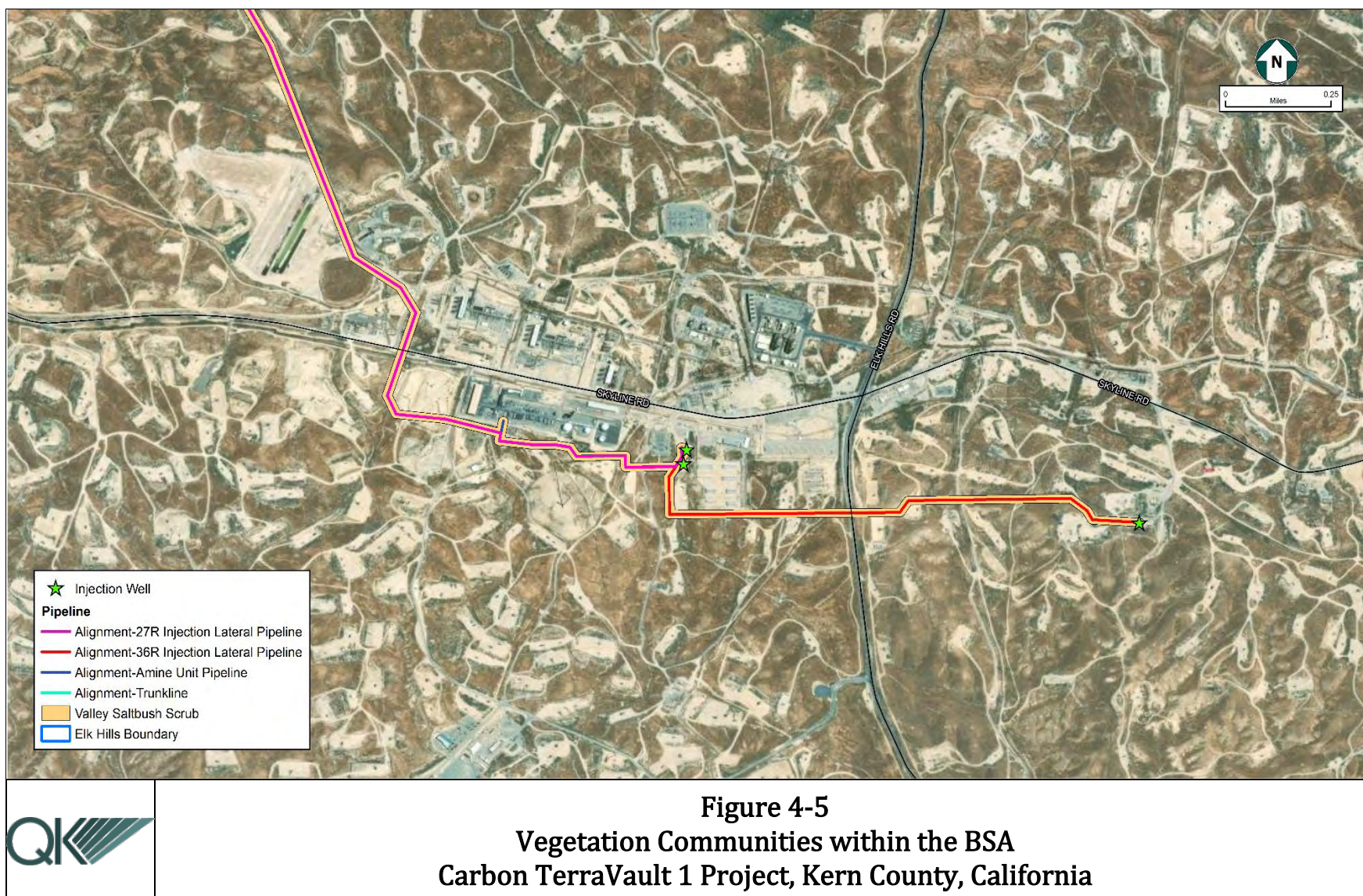


Table 4-2
Habitat Acreages Observed On-Site

Habitat Type	BSA (acres)
Valley Saltbush Scrub	642.15
Urban	140.33

4.2.1 - VALLEY SALTBUSH SCRUB

This community consists of open, gray or blue-green chenopod scrubs, usually over a low herbaceous annual understory. Areas dominated by *Atriplex polycarpa* or *A. spinifera* may be differentiable from one another. Typically found on sandy to loamy soils without surface alkalinity, largely on rolling, dissected alluvial fans. Found in areas with long, arid summers and short, damp winters, and tule fog is often present during the winters.

4.2.2 - URBAN

The structure of urban vegetation varies, with five types of vegetative structure defined: tree grove, street strip, shade tree/lawn, lawn, and shrub cover. Tree groves, common in city parks, green belts, and cemeteries, vary in height, tree spacing, crown shape, and understory conditions, depending upon the species planted and the planting design. Shade trees and lawns are typical of residential areas and reminiscent of natural savannas. Species composition in urban habitats varies with planting design and climate. Monoculture is commonly observed in tree groves and street tree strips. A distinguishing feature of the urban wildlife habitat is the mixture of native and exotic species. Both native and exotic species are valuable, with exotic species providing a good source of additional food in the form of fruits and berries. For the purposes of the Urban habitat type for this analysis, Urban is bare ground on well pads and roads, no green belts other than ruderal grasses and forbs, and no planted vegetation.

4.3 - General Wildlife Observations

Wildlife occurring within the Project area was typical of developed oilfields of western Kern County. Bird species included common raven (*Corvus corax*), white-crowned sparrow (*Zonotrichia leucophrys*), and red-tailed hawk (*Buteo jamaicensis*). Reptile species included common side-blotched lizard (*Uta stansburiana*) and coastal whiptail (*Aspidoscelis tigris*). Mammal species included San Joaquin antelope squirrel (*Ammospermophilus nelsoni*), black-tailed jackrabbit (*Lepus californicus*), and coyote (*Canis latrans*). A complete list of wildlife observed is included in Appendix D.

SECTION 5 - SENSITIVE BIOLOGICAL RESOURCES

Local, State, and federal agencies regulate special-status species and other sensitive biological resources and require an assessment of their presence or potential for presence to be on-site prior to the approval of proposed development on a property. This section discusses sensitive biological resources observed within the BSA and evaluates the potential for the BSA to support other sensitive biological resources. Assessments for the potential occurrence of special-status species are based upon known ranges, species habitat preferences, species occurrence records from the CNDDB, CNPS, IPaC, eBird, VertNet, and species occurrence records from other studies in the survey area, and the results of the surveys of the BSA.

A significant portion of the body of knowledge that exists about the most notable of the San Joaquin Valley special status species comes from Elk Hills. Decades of biological research, surveys and monitoring that began when the United States Department of Energy assumed the administration of what was once known as the Naval Petroleum Reserve #1 from the Secretary of the Navy, and continuing to present, informs the day to day planning and operation of this facility.

Starting with the 1994 Supplemental Environmental Impact Statement and Mitigation Action Plan and the 1995 Biological Opinion (BO) by USFWS (Ref #1-1-95-F-102), additional Monitoring and Management Plans were developed from 1998 through 2000.

Following those plans, there were extensive pre-activity surveys (PAS) conducted in wide-ranging areas of Elk Hills during a six-year period from 2001 through 2005 (Quad Knopf, Inc. 2005). As an example of the intensity of these surveys, in 2005 alone, there were 323 PAS conducted for new well construction, pipeline repair or maintenance, 927 PAS were conducted for the Eastern SOZ Gas Gathering System Project, and 234 PAS were conducted for the N2 Injection System Pipeline Project. Initial monitoring of the Elk Hills Conservation Area (EHCA) was also conducted from 1999 through 2005, which consisted of conducting spotlight and track station surveys, and small mammal trapping for monitoring the prey base of the San Joaquin kit fox. During these PAS and monitoring surveys, there were 473 detections of the San Joaquin kit fox, 475 detections of the blunt-nosed leopard lizard, and 1,240 active precincts of the giant kangaroo rat identified. The EHCA monitoring and project preactivity survey program continues to be implemented as a condition of the 2016 Incidental Take Permit (2081-2014-019-04).

Based on space use models, prepared by Live Oak Associates, Inc, the amount of high, moderate and low use habitats for three umbrella species, the San Joaquin kit fox, blunt-nosed leopard lizard and the giant kangaroo rats in Elk Hills were calculated for the High Production Areas (HPA) and Non-High Production Areas (NHPA). The amount of habitat lost due to oil and gas extraction activities authorized up to 7,000 over a 50-year time period (2066). Compensation for loss of habitat was implemented to off set impacts. The actual impact to high, moderate and low use habitats was unknown due to the fact that the exact of location of well pads and associated ground disturbing activities were not established.

Therefore, impacts to habitat is assessed on a yearly basis and compensated for in five year increments.

The 2016 Incidental Take Permit (ITP) has the primary objective to avoid and minimize take to the fullest extent practicable and to use a science based program that compensates for loss of or degradation to covered species' habitats. The conservation strategy provides adequate mitigation and aid in meeting the recovery objectives for covered species. The approach for mitigating impacts to covered species for continued oil and gas operation (permanent and temporary) at Elk Hills is based in part on past stipulations that have been employed since the 1995 BO. Compensation measures (i.e., land set-asides plus habitat enhancement) are intended to "fully" compensate for any impacts that result in the loss of or degradation to suitable habitats for covered species.

5.1 - Special-Status Species

There were 27 special-status plant and animal species determined to have the potential to occur on-site and potentially be affected by the Project (Table 5-1). The complete list of species evaluated for this Project is included in Appendix A. Each species with the potential to occur on the site is further discussed in the subsections below.

Table 5-1
Special-Status Species with Potential to Occur On-Site

Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Potentially Affected by Project? Yes/No	Viability Threat? Yes/No
Plants			
<i>Atriplex cordulata</i> var. <i>cordulata</i> Heartscale	-/- 1B.2/-	Yes	No
<i>Atriplex coronate</i> var. <i>vallicola</i> Lost Hills crownscale	-/- 1B.2/-	Yes	No
<i>Caulanthus californicus</i> California jewelflower	FE/SE 1B.1/-	Yes	No
<i>Delphinium recurvatum</i> recurved larkspur	-/- 1B.2/-	Yes	No
<i>Eremalche parryi</i> ssp. <i>kernensis</i> Kern mallow	FE/- 1B.2/-	Yes	No
<i>Eriogonum temblorense</i> Temblor buckwheat	-/- 1B.2/-	Yes	No
<i>Eschscholzia lemmonii</i> ssp. <i>kernensis</i> Tejon poppy	-/- 1B.1/-	Yes	No
<i>Madia radiata</i> showy golden madia	-/- 1B.1/-	Yes	No
<i>Monolopia congdonii</i> San Joaquin woollythreads	FE/- 1B.2/-	Yes	No
<i>Stylocline citroleum</i> oil neststraw	-/- 1B.1/-	Yes	No
Invertebrates			
<i>Bombus crotchii</i> Crotch's bumble bee	-/SCE -/-	Yes	No
Reptiles			
<i>Arizona elegans occidentalis</i> California glossy snake	-/- -/SSC	Yes	No
<i>Gambelia sila</i> blunt-nosed leopard lizard	FE/SE -/SFP	Yes	No
<i>Masticophis flagellum ruddocki</i> San Joaquin coachwhip	-/- -/SSC	Yes	No
<i>Anniella alexanderae</i> temblor legless lizard	-/SCE	Yes	No
<i>Phrynosoma blainvillii</i> coast horned lizard	-/- -/SSC	Yes	No
Birds			
<i>Athene cunicularia</i> burrowing owl	-/- SSC	Yes	No
<i>Buteo swainsoni</i> Swainson's hawk	-/ST -/-	Yes	No
<i>Falco mexicanus</i> prairie falcon	-/- -/WL	Yes	No
<i>Lanius ludovicianus</i> loggerhead shrike	-/- -/SSC	Yes	No
<i>Toxostoma lecontei</i> Le Conte's thrasher	-/- -/SSC	Yes	No

Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Potentially Affected by Project? Yes/No	Viability Threat? Yes/No
Mammals			
<i>Ammospermophilus nelsoni</i> Nelson's (=San Joaquin) antelope squirrel	-/ST -/-	Yes	No
<i>Dipodomys ingens</i> giant kangaroo rat	FE/SE -/-	Yes	No
<i>Dipodomys nitratoideus brevinasus</i> short-nosed kangaroo rat	-/- -/SSC	Yes	No
<i>Onychomys torridus tularensis</i> Tulare grasshopper mouse	-/- -/SSC	Yes	No
<i>Perognathus inornatus</i> San Joaquin pocket mouse	-/- -/-	Yes	No
<i>Taxidea taxus</i> American badger	-/- -/SSC	Yes	No
<i>Vulpes macrotis mutica</i> San Joaquin kit fox	FE/ST -/-	Yes	No
<u>CRPR (California Rare Plant Rank):</u>		<u>Federal Ranking</u>	
1A Presumed Extinct in California		FE Federally Endangered	
1B Rare, Threatened, or Endangered in California and elsewhere		FT Federally Threatened	
2A Plants presumed extirpated in California, but more common elsewhere		<u>State Ranking</u>	
2B Plants Rare, Threatened, or Endangered in California, but more common elsewhere		SE State Endangered	
		ST State Threatened	
		SCE State Candidate Endangered	
<u>CRPR Threat Code Extension:</u>		SFP State Fully Protected	
.1 Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)		SSC State Species of Special Concern	
.2 Fairly endangered in California (20-80% occurrences threatened)			
.3 Not very endangered in California (<20% of occurrences threatened)			

5.1.1 - SPECIAL-STATUS PLANT SPECIES

The literature and database review identified 23 special-status plant species known or with the potential to occur in the vicinity of the Project (see the evaluation table in Appendix A). Ten of these species were determined to have the potential to occur on the Project site (see Table 5-1) because the Project supports suitable habitat, is located within the species' known range, and/or the species is documented in or near the Project. One species, *Hoover's eriastrum*, was excluded from consideration as it has since been delisted. The species that may occur on the Project site are described below.

Heartscale

ATRIPLEX CORDULATA VAR. CORDULATA

Status: CRPR 1B.2

Heartscale is an annual herb endemic to California that blooms from April to October. It is found in saline and alkaline soils, chenopod scrub, meadows and seeps, and sandy soils in valley foothill grassland habitats. It occurs at elevations ranging from sea level to approximately 1,835 feet. It is known to occur in Alameda, Butte, Contra Costa, Colusa, Fresno, Glenn, Kern, Madera, Merced, San Joaquin, Solano, Stanislaus, Tulare, and Yolo

counties. This species is threatened by competition from non-native plants and possibly threatened by trampling.

The Project is within the known range of the species and suitable habitat, including saltbush scrub and annual grassland, is present throughout the BSA. There are five CNDDB occurrences within 10 miles of the BSA, though none are from within the last decade. The most recent occurrence (EONDX 54759) is from 2003 and is located approximately six miles southeast of the BSA, where the species was observed in habitat along State Route 119.

Lost Hills Crownscale***ATRIPLEX CORONATE VAR. VALLICOLA***

Status: CRPR 1B.2

Lost Hills crownscale is an annual herb endemic to California that blooms between April and September. It is found in dry beds of alkaline pools in chenopod scrub, valley and foothill grassland, and vernal pools. It is also found on exposed slopes rich in gypsum. It occurs at elevations ranging from 165 to 2,085 feet. It has been documented on the valley floors and lower foothills of the western Central Valley in Fresno, Kings, Kern, Merced, San Benito, San Luis Obispo, and Tulare counties. This species is threatened by grazing, vehicles, and development.

The Project is within the known range of the species, and suitable habitat, including saltbush scrub and annual grassland, is present throughout the BSA. There are multiple CNDDB records within 10 miles of the BSA, the nearest (EONDX 58368) is from 2000 and located approximately 1.30 miles southeast of the BSA, where the species was observed in saltbush scrub habitat within the Elk Hills Oil Field.

California Jewelflower***CAULANTHUS CALIFORNICUS***

Status: Federally Endangered, State Endangered, CRPR 1B.1

California jewelflower is an annual herb that blooms between February and May. It is found in slightly alkaline sandy soils in chenopod scrub, valley and foothill grassland, and pinyon and juniper woodland, typically at elevations from approximately 200 to 3,280 feet. It occurs in the San Joaquin Valley, Carrizo Plain, and Cuyama Valley from Fresno County south to Santa Barbara County, and many occurrences are presumed extirpated. This species is threatened by development, grazing, and competition from non-native plants.

The Project is within the known range of the species, and suitable habitat, including saltbush scrub and annual grassland, is present throughout the BSA. There are two CNDDB occurrences (EONDX 20294 and 23135) within 10 miles of the BSA, although both are presumed extirpated, and neither is from within the last decade. The occurrences are approximately 8.60 miles northwest and 4.75 miles southeast of the BSA, respectively. As the BSA contains similar habitat to the nearby records (prior to their extirpation), there is potential for the species to occur.

Recurved Larkspur***DELPHINIUM RECURVATUM***

Status: CRPR 1B.2

Recurved larkspur is a perennial herb that blooms between March and June. It occurs in alkaline conditions in chenopod scrub, cismontane woodland, and valley and foothill grassland. It occurs at elevations ranging from approximately 10 to 2,590 feet. This species is endemic to California. It occurs throughout the Central Valley and Coast Ranges from Butte County south. Few occurrences are in the Antelope Valley. This species is threatened by agriculture and competition from non-native plants.

The Project is within the known range of the species, and suitable habitat, including saltbush scrub and annual grassland, is present throughout sections of the BSA. There are multiple CNDDB occurrences within 10 miles of the BSA, one of which (EONDX 83186) overlaps the northern terminus of the BSA. This occurrence is from 1995 when the species was observed within the Elk Hills Oil Field.

Kern Mallow***EREMALCHE PARRYI* SSP *KERNENSIS***

Status: CRPR 1B.1

Ken mallow is an annual herb that starts to bloom in January, sometimes February or March, until May. It is found on dry, open sandy to clay soils, often at the edges of balds in chenopod scrub, pinyon and juniper woodland, and valley and foothill grassland. It occurs at elevations ranging from approximately 230 to 4,230 feet. It has been documented in the southern San Joaquin Valley, including Buena Vista Valley, Elk Hills, Lost Hills, McKittrick Hills, Stockdale Highway, the Temblor Range, and Carrizo Plain. This species is threatened by agriculture and development and possibly non-native plants.

The Project is within the known range of the species, and suitable habitat, including saltbush scrub and annual grassland, is present throughout the BSA. There are multiple CNDDB occurrences from the last decade within 10 miles of the BSA. The most recent occurrence (EONDX 120309) is from 2020, where the species was observed within the Elk Hills Oil Field approximately 2.78 miles northeast of the southern terminus of the BSA.

Temblor Buckwheat***ERIOGONUM TEMBLORENSE***

Status: CRPR 1B.2

Temblor buckwheat is an annual herb that typically blooms from May to September but sometimes as early as April. It occurs in clay and sandstone substrate in valley and foothill grassland habitats. It occurs at elevations from approximately 98 to 3,280 feet and is only known in the Temblor Range from Fresno to Kern and San Luis Obispo counties. This species is threatened by energy development.

The Project, near the known range of the species, and suitable habitat, including annual grassland, is present in limited areas within the BSA. There are two CNDDDB occurrences within 10 miles of the BSA, the nearest of which (EONDX 104358) is from 2011 and located approximately 0.85 miles north of the northern terminus of the BSA. Due to the proximity of the BSA to the known range of the species and the recent CNDDDB occurrence within one mile of the BSA, this species was considered to have the potential to occur.

Tejon Poppy***ESCHSCHOLZIA LEMMONII* SSP. *KERNENSIS***

Status: CRPR 1B.1

Tejon poppy is an annual herb that blooms in March, sometimes as early as February, to May. It is found in open valley and foothill grasslands and chenopod scrub at elevations from approximately 450 to 4,500 feet. It is distinguished from the more common California poppy (*E. californica*) by its calyx. This species is possibly threatened by grazing and non-native plants.

The Project is within the known range for the species, and suitable habitat, including saltbush scrub and annual grassland, is present throughout the BSA. There are multiple CNDDDB occurrences within 10 miles of the BSA, several of which are from within the last decade and one of which overlaps the BSA. The overlapping CNDDDB occurrence (EONDX 21454) is from 1998 and is located approximately midway along the proposed Project route.

Showy Golden Madia***MADIA RADIATA***

Status: CRPR 1B.1

Showy golden madia is an annual herb endemic to California that blooms between March and May. It is found in cismontane woodland and valley and foothill grassland habitats with grassy or open slopes, usually on adobe or gypseous clay soils, at elevations from approximately 80 to 3,985 feet. Known occurrences are scattered throughout the mountains and foothills along the west side of the Central Valley from Contra Costa County south to Santa Barbara County. This species is threatened by grazing and non-native plants.

The Project is within the known range of the species, and suitable habitat, including annual grassland, is present in limited areas within the BSA. There are two CNDDDB occurrences (EONDX 2732 and 7469) within 10 miles of the BSA; both are from 1992 and located approximately 5.32 miles north of the BSA, where the species was observed adjacent to the California aqueduct within disturbed saltbush scrub habitat.

San Joaquin Woollythreads***MONOLOPIA CONGDONII***

Status: Federally Endangered, CRPR 1B.2

San Joaquin woollythreads is an annual herb endemic to California that blooms from February to May. It is found in chenopod scrub and on sandy soils in valley and foothill

grassland. It occurs at elevations from approximately 196 to 2,624 feet. Approximately half of the historical occurrences are expected to be extirpated, and the known populations occur in Carrizo Plain Natural Area, Lost Hills, Kettleman Hills, Jacalitos hills, Panoche Hills, and Cuyama Valley. This species is seriously threatened by agricultural conversion, energy development, urbanization, grazing, trampling, and vehicles.

The Project is within the known range for the species, and suitable habitat, including saltbush scrub and annual grassland, is present throughout the BSA. There are four CNDDDB occurrences within 10 miles of the BSA, the nearest of which (EONDX 115497) is from 1988 and located 3.42 miles southwest of the BSA, where the species was observed within an oil field in saltbush scrub habitat.

Oil Neststraw***STYLOCLINE CITROLEUM***

Status: CRPR 1B.1

Oil neststraw is an annual herb endemic to California that blooms from March to April. It is found on clay substrates in chenopod and coastal scrub and valley and foothill grasslands. It occurs at elevations from approximately 164 to 1,312 feet and is possibly threatened by energy development and urbanization.

The Project is within the known range for the species, and suitable habitat, including saltbush scrub and annual grassland, is present throughout the BSA. There are multiple CNDDDB occurrences within 10 miles of the BSA, two of which (EONDX 58077 and 58095) overlap the BSA. Both overlapping CNDDDB records are from 2001, when the species was observed within saltbush scrub habitat.

5.1.2 - SPECIAL-STATUS ANIMAL SPECIES

The literature and database review identified 41 special-status animal species known or with the potential to occur in the vicinity of the Project (see the evaluation table in Appendix A). Eighteen of these species were determined to have the potential to occur on-site (see Table 5-1) because the BSA supports suitable habitat, is located within the species' known range, and/or the species is documented in or near the BSA.

Crotch's Bumblebee***BOMBUS CROTCHII***

Status: State Candidate Endangered

The Crotch's bumblebee occurs in relatively warm and dry environments, including the inner Coast Range of California and the margins of the Mojave Desert. It inhabits grassland and scrub habitats, where it nests in abandoned rodent burrows, occasionally nesting above ground in tufts of grass, rock piles, or cavities in dead trees. This species is classified as a short-tongued species whose food plants include *Asclepias*, *Chaenactis*, *Lupinus*, *Medicago*, *Phacelia*, and *Salvia*. The species is threatened by habitat loss and degradation, including agricultural intensification and rapid urbanization.

Although the species was not observed during biological resource surveys, the Project is located within the known range of the species, and suitable habitat and abandoned rodent burrows within scrub habitat are present. There are three CNDDDB occurrences within 10 miles of the BSA, the nearest of which (EONDX 98854) overlaps the southern end of the BSA, although it is from 1957 and mapped generally. A Calflora query for occurrences of suitable host plants within the genera *Asclepias*, *Chaenactis*, *Lupinus*, *Medicago*, *Phacelia*, or *Salvia*, resulted in six documented occurrences within the vicinity of the BSA, none of which were observed within the last 40 years.

Temblor Legless Lizard**ANNIELLA ALEXANDRAE**

Status: State candidate Endangered

These lizards are only found in two sites, separated by continuous suitable habitat west of Highway 33, within the Temblor Range. The two sites are in areas of sandy soil at the southeast base of the Temblor Range between McKittrick and Taft on the west side of the Southern San Joaquin Valley in Kern County. They occur in moist warm loose soil with vegetation covering beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks. Can be found under rocks, boards, driftwood, logs, and leaf litter under bushes and trees. Breeding occurs between early spring and July with the young born between September and November.

Suitable habitat is present within the Project site, but the species has not been observed within the Project site. The nearest CNDDDB occurrence (EONDX 106864) is from 2024 (CDFW 2024a).

California Glossy Snake**ARIZONA ELEGANS OCCIDENTALIS**

Status: Species of Special Concern

This subspecies of glossy snake occurs from the eastern part of the San Francisco Bay south to northwestern Baja, California. It appears to prefer microhabitats of open areas with soil loose enough for easy burrowing. It inhabits arid scrub, rocky washes, grasslands, and chaparral. This species is nocturnal and hides under rocks, in existing burrows, or creates its own burrow during daylight hours. It is usually active from late February until November.

Although the species was not observed during biological resource surveys, the Project is located within the known range of the species, and suitable habitat is present. There are seven CNDDDB occurrences of this species within 10 miles of the BSA. The nearest occurrence (EONDX 104923) is from 2015 and is located approximately 2.46 miles west of the BSA, where the species was observed within habitat adjacent to State Route 58.

Blunt-nosed Leopard Lizard**GAMBELIA SILA**

Status: Federally Endangered, State Endangered, Fully Protected

The blunt-nosed leopard lizard is a large lizard that occurs in semiarid habitats within the southern Central Valley, Cuyama Valley, and Panoche Valley, at elevations between 100 and 2,400 feet. Preferred habitats are typically flat, sparsely vegetated grasslands with large open areas with scattered shrubs for cover and sandy washes. The species spends most of the year underground in abandoned small mammal burrows, with adults surfacing in the spring and early summer to breed and feed. Young hatch in July and August, and both adults and young recede to refugia between August and November. Individuals feed primarily on grasshoppers and smaller lizards. The species is threatened mainly by habitat loss and fragmentation.

Although the species was not observed during biological resource surveys, the Project is located within the known range of the species, and suitable habitat is present. There are multiple CNDDDB occurrences within 10 miles of the BSA, although none overlap the BSA. The nearest CNDDDB occurrence (EONDX 119287) is from 2017 and is located approximately 0.65 miles northwest of the BSA, where the species was observed in saltbush scrub habitat.

San Joaquin Coachwhip***MASTICOPHIS FLAGELLUM RUDDOCKI***

Status: Species of Special Concern

San Joaquin coachwhip is a non-poisonous, slender, fast-moving snake with smooth scales and coloring ranging from tan to pinkish brown (Brattstrom and Warren, 2000–2018). This species is endemic to California, ranging from Colusa County in the Sacramento Valley southward to the Grapevine in the Kern County portion of the San Joaquin Valley and westward into the inner South Coast Ranges (Brattstrom and Warren 2000-2018). The San Joaquin coachwhip occurs in open, dry, treeless areas with little or no cover, including valley grassland and saltbush scrub, desert scrub, chaparral, pasture, and open pine and oak woodlands, and avoids areas of dense vegetation where their mobility can be hindered. San Joaquin coachwhips are found below 7,700 feet in elevation (Zeiner et al., 1988).

Although the species was not observed during biological resource surveys, the Project is located within the known range of the species, and suitable habitat is present. There are seven CNDDDB occurrences within 10 miles of the BSA. The nearest CNDDDB occurrence (EONDX 113180) to the BSA is from 2017 and is located approximately 0.93 miles to the west, where the species was observed at an oil field sump site.

Coast Horned Lizard***PHRYNOSOMA BLAINVILLII***

Status: Species of Special Concern

This cryptic lizard prefers sandy, loose soils in grasslands, forests, woodlands, and open chaparral. Individuals are often found along sandy washes and dirt roads with scattered shrubs for cover. This species feeds almost exclusively on ants. It is found in coastal California from Baja, California north to the Bay Area, southeastern desert regions, southern Central Valley flats and foothills, and the surrounding mountains on drier, warmer slopes at

elevations up to 8,000 feet. The species is threatened by habitat loss and fragmentation and the spread of invasive ant species displacing native prey.

Although the species was not observed during biological resource surveys, the Project is located within the known range of the species, and suitable habitat is present. This species was observed within five miles of the Project site during a survey within Elk Hills by QK in 2022. However, there are no CNDDDB records within 10 miles of the BSA.

Burrowing Owl

ATHENE CUNICULARIA

Status: Species of Special Concern

The western burrowing owl is a broadly distributed, small ground-dwelling owl that can be found throughout western North America, Florida, Central and South America, Hispaniola, Cuba, and northern Lesser Antilles, and the Bahamas (Shuford and Gardali, 2008). Typically, this species can be found in a variety of habitat types, including grasslands, deserts, or other open habitats where food resources are available and contain treeless areas with low vegetation cover and gently sloping terrain (Rodewald, 2015).

Burrowing owls utilize earthen burrows, typically relying on other fossorial mammals to construct their burrows, such as prairie dog (*Cynomys* spp.) or American badger (USFWS, 1998a). In Florida, burrowing owls are capable of digging their own burrows (Poulin, 2011). In California, they are associated with California ground squirrels (Winchell, 1994). They use a burrow throughout the year for temperature regulation, offspring rearing, shelter, and escape from predators. While burrows are most often earthen, they have been documented using atypical burrows such as pipes, culverts, and other man-made structures as burrows, most often as shelter (Shuford and Gardali, 2008). Burrowing owls can have several burrows close to one other that they may frequently use to avoid predators.

The Project is located within the known range of the species, and suitable habitat is present. There are multiple CNDDDB occurrences within 10 miles of the BSA, the nearest (EONDX 45077) is from 2000 and located approximately 2.10 miles southeast of the southern terminus of the BSA, where an adult was observed at a burrow site within the Elk Hills Oil Field. While no burrowing owl individuals were observed during reconnaissance surveys, two burrows displaying diagnostic sign (white-wash, pellets, feathers) were observed at the northern end of the BSA.

Swainson's Hawk

BUTEO SWAINSONI

Status: State Threatened

Swainson's hawks occur in grassland, desert, and agricultural landscapes throughout the Central Valley and Antelope Valley (Bechard et al., 2010; Zeiner et al., 1988). Some hawks may be resident, especially in the southern portion of their range, while others may migrate between winter and breeding habitats. They prefer larger isolated trees or small woodlots for nesting, usually with grassland or dryland grain fields nearby for foraging, and have been

known to nest in large eucalyptus trees (*Eucalyptus* sp.) along heavily traveled freeway corridors. Swainson's hawks forage in grassland, open scrub, pasture, and dryland grain agricultural habitats, primarily for rodents. Swainson's hawks exhibit moderate to high nest site fidelity for successful nest sites.

Although the species was not observed during biological resource surveys, the Project is located within the known range of the species. No suitable nesting sites were observed within the BSA during site surveys, but inactive stick nests capable of supporting the species were observed nearby, and areas of open saltbush scrub within the BSA could provide foraging opportunities for the species. There are six CNDDDB occurrences within 10 miles of the BSA, the nearest (EONDX 91375) is from 2017 and is located approximately 4.37 miles north of the BSA, where a nest was observed in a large tamarisk tree.

Prairie Falcon***FALCO MEXICANUS***

Status: State Watch List

The prairie falcon is a widely distributed species that occurs all over the world. It breeds in open landscapes with cliffs or skyscrapers for nest sites. It nests at elevations up to 12,000 feet, as well as along rivers, coastlines, cities, transmission towers, silos, quarries, and bridges. This falcon primarily preys on other bird species and occasionally pirate prey from other raptors.

Although the species was not observed during biological resource surveys, the Project is located within the known range of the species, and while no suitable nesting sites were observed within the BSA, suitable foraging habitat was observed. There is a single CNDDDB occurrence (EONDX 18211), which is from 1989 and overlaps the BSA, although it is mapped generally as the exact location has been suppressed from the record.

Loggerhead Shrike***LANIUS LUDOVICIANUS***

Status: Species of Special Concern

The loggerhead shrike is a common resident in lowlands and foothills throughout California. It prefers open grassland and pasture habitats with scattered trees, fence posts, utility lines, shrubs, and other perches. This species primarily consumes large insects but will prey upon other small animals. It nests in densely foliated and/or thorny shrubs and trees less than 50 feet above the ground.

Although the species was not observed during biological resource surveys, the Project is located within the known range of the species, and both suitable nesting and foraging habitat are present. There is a single CNDDDB occurrence (EONDX 66869) within 10 miles of the BSA, which is from 1999, when six adults and two juveniles were observed within the saltbush scrub habitat. The CNDDDB occurrence is located approximately 2.32 miles southwest of the northern terminus of the BSA.

Le Conte's Thrasher***TOXOSTOMA LECONTEI***

Status: Species of Special Concern

Le Conte's thrasher is an uncommon-to-rare local resident in southern California deserts. It occurs in open desert wash, desert scrub, alkali desert scrub, desert succulent scrub, and Joshua tree habitat with scattered shrubs. It occurs from Mono County south to the Mexican border and in western and southern San Joaquin Valley. It has rarely been recorded north of Kern County after the 1950s. It feeds on insects and occasionally on seeds, small lizards, and other small vertebrates. This species is threatened by loss of habitat due to oil and gas production, overgrazing, and pesticides (DDT).

Although the species was not observed during biological resource surveys, the Project is located within the known range of the species, and both suitable nesting and foraging habitat are present. There are multiple CNDDDB occurrences within 10 miles of the BSA, the nearest (EONDX 41609) is from 1999 and is located approximately 1.50 miles west of the northern terminus of the BSA, where two adults were observed in saltbush scrub habitat within oil and gas development.

Nesting Birds

Habitat within the BSA supports nesting native bird species, which are protected by the federal MBTA and the CFGC. The reconnaissance surveys were conducted outside of the nesting bird season (February 1 to September 15); however, numerous bird species were observed during the surveys indicating there is a high potential for migratory birds and raptors to nest in the vicinity of the Project. Various species of birds will construct nests in a variety of substrates and structures, and nests may be found in trees or shrubs, in manmade structures, and directly on the ground. The Project supports several types of habitats, substrates, and structures suitable for nesting birds, and birds will likely nest on the Project during the breeding season.

While no nesting birds were observed during site reconnaissance surveys and no active nests were observed within the BSA, there were inactive stick nests noted in close proximity to the BSA in structures such as utility poles and the heads of abandoned pumpjacks (Figures 5-1 through 5-5).

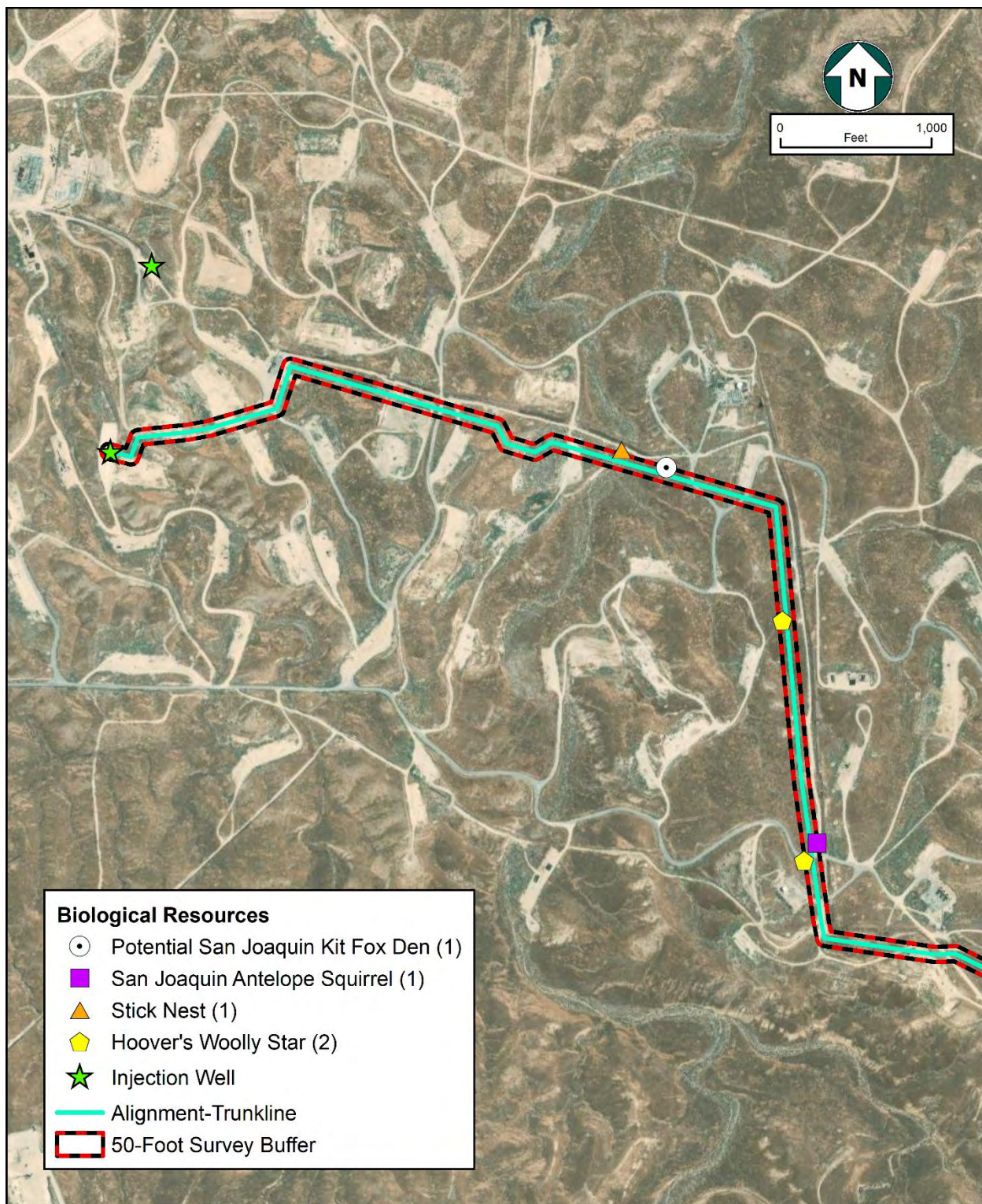
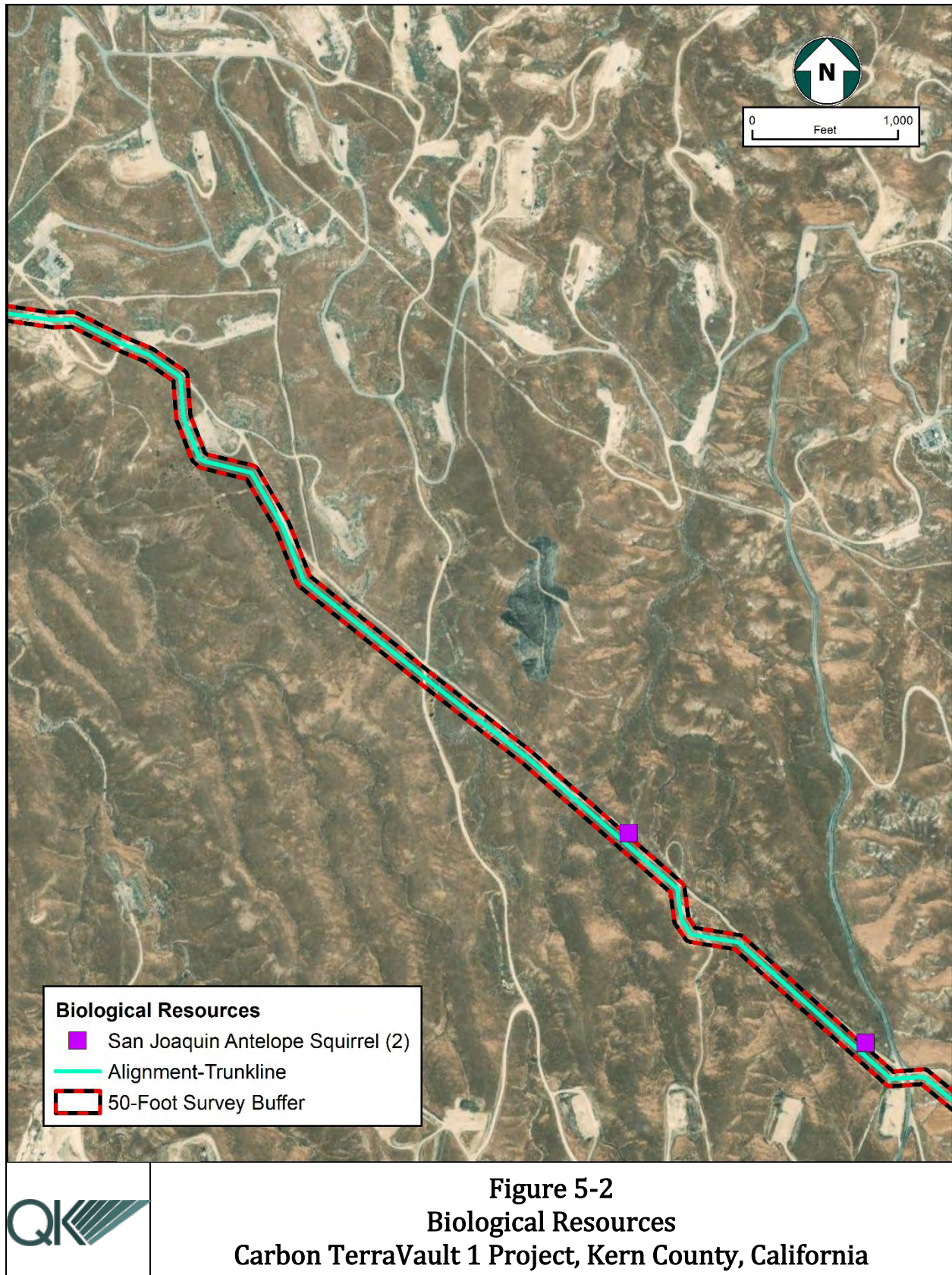
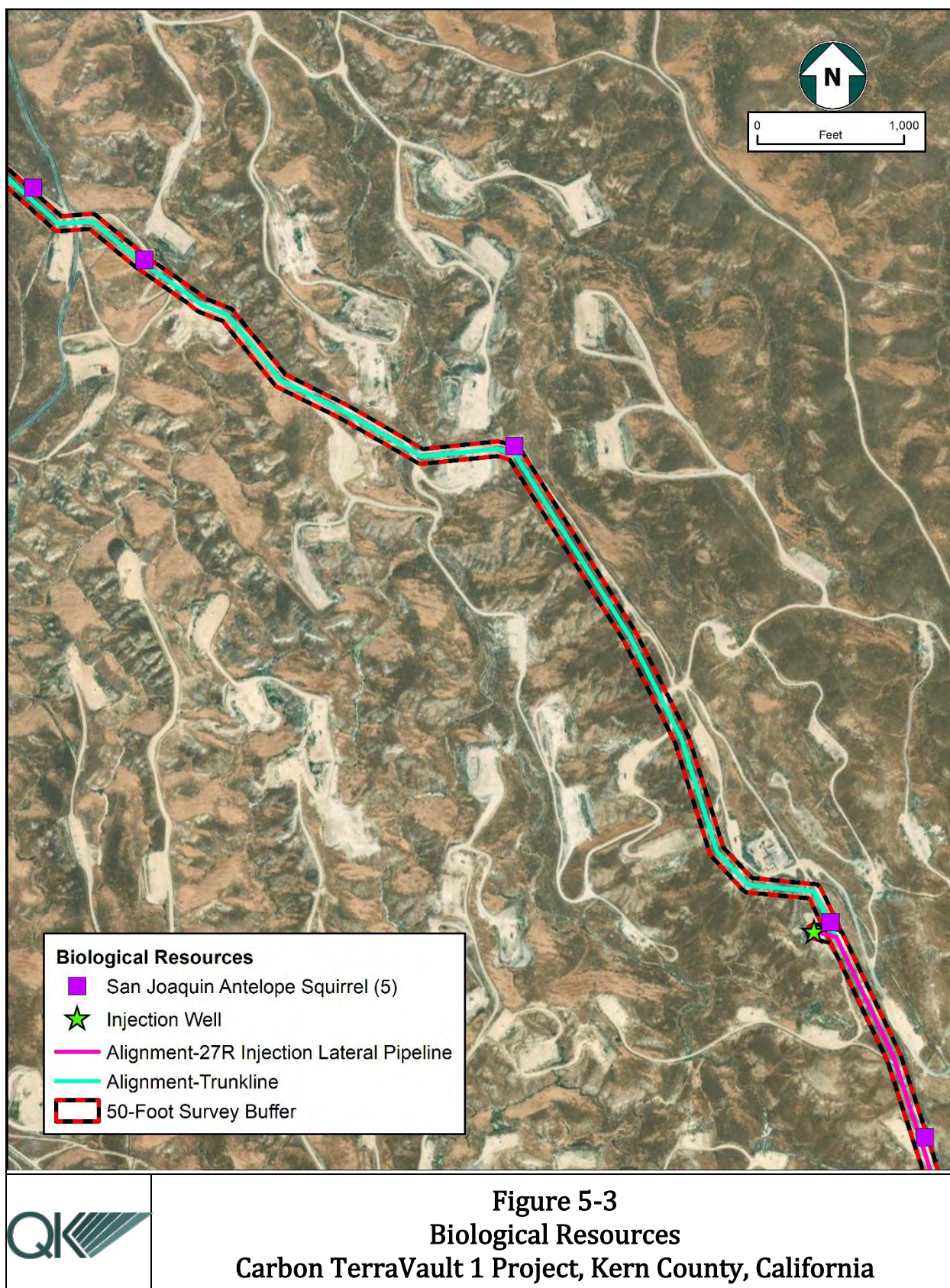


Figure 5-1
Biological Resources
Carbon TerraVault 1 Project, Kern County, California





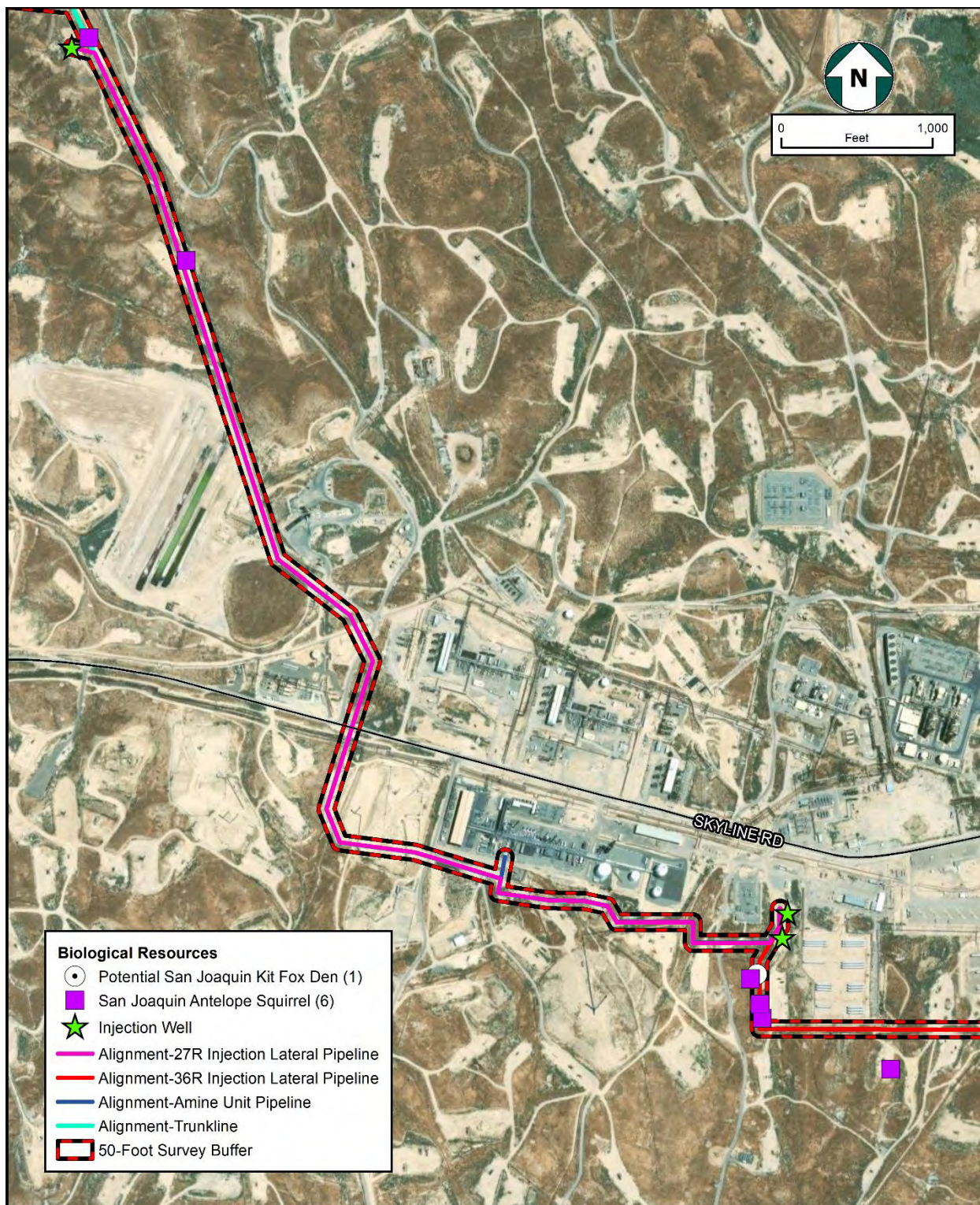
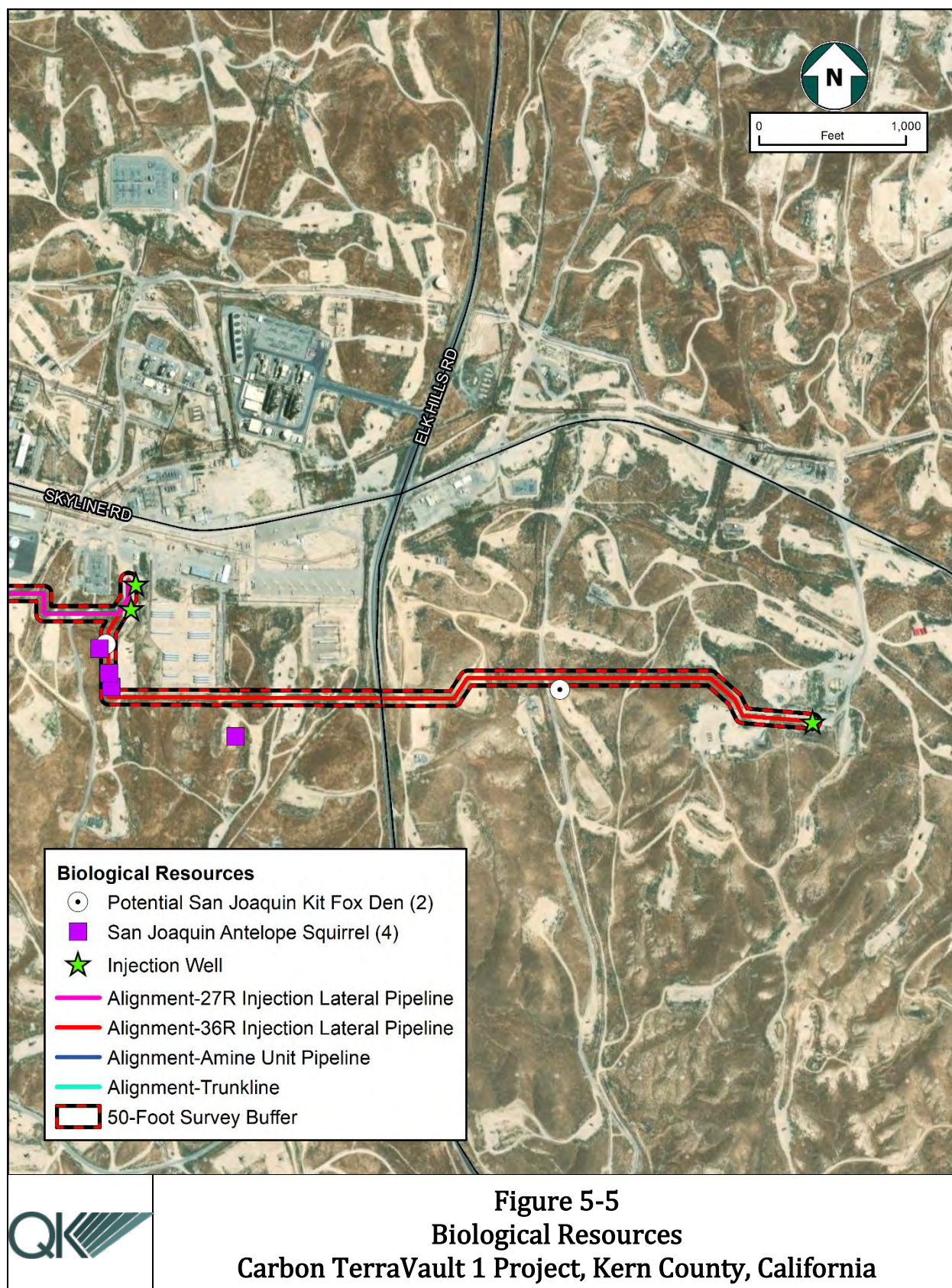


Figure 5-4
Biological Resources
Carbon TerraVault 1 Project, Kern County, California



San Joaquin Antelope Squirrel***AMMOSPERMOPHILUS NELSONI***

Status: State Threatened

San Joaquin antelope squirrels occur in saltbush scrub and grassland habitats and prefer washes and open shrub areas with sandy soils. Known populations occur in Lokern Natural Area, Elk Hills Carrizo and Elkhorn Plains, Temblor Range and foothills and interior valleys of the Diablo Range, and as far north as Merced and San Benito counties. It feeds primarily on insects, green vegetation, seeds, and occasionally on small vertebrates. This species can excavate burrows or use kangaroo rat burrows for temperature regulation, litter-rearing, shelter, and escape from predators. The species is threatened by habitat loss and population fragmentation from agricultural development, urbanization, petroleum extraction, and excessive cattle grazing.

The Project is located within the known range of the species, and suitable habitat is present. There are multiple CNDDDB occurrences within 10 miles of the BSA, two of which overlap the BSA. The most recent overlapping CNDDDB occurrence (EONDX 114570) is from 2018, when both adults and juveniles were observed in saltbush scrub habitat. Multiple individuals were observed during the reconnaissance surveys throughout the BSA, apart from the highly urbanized area in the southern section.

Giant Kangaroo Rat***DIPODOMYS INGENS***

Status: Federally Endangered, State Endangered

Giant kangaroo rats occur in native annual grassland and shrubland habitats with vegetated annual grass and forbs and scattered desert shrubs. It is known only to six major geographic units: Panoche Region, Kettleman Hills, San Juan Creek Valley, western Kern County (Lokern, Elk Hills, McKittrick, Taft, and Maricopa), Carrizo Plain Natural Area, and Cuyama Valley and occurs at elevations between 280 to 2,800 feet. It excavates burrows on level or gentle slopes with friable, sandy, well-drained soils and is a nocturnal foraging species. It is threatened by habitat loss, fragmentation, degradation, and drought and also by land conversions to agricultural, industrial, and urban developments.

Focused trapping surveys for this species were not conducted as part of this analysis; however, the Project is located within the known range of the species, and suitable habitat is present. There are multiple CNDDDB occurrences within close proximity of the BSA, one of which overlaps the BSA. The overlapping CNDDDB occurrence (EONDX 65314) is from 1987 in saltbush scrub habitat. This species was not observed during the reconnaissance surveys.

Short-nosed Kangaroo Rat***DIPODOMYS NITRATOIDES BREVINASUS***

Status: Species of Special Concern

The short-nosed kangaroo rat is a subspecies of the San Joaquin kangaroo rat (*Dipodomys nitratoide*s) that occurs on friable soils on flat or gentle slopes within grassland or desert scrub habitat. The current range is unknown, but there are fragmented populations in Pleasant Valley, Kettleman and Lost Hills, Lokern, Elk Hills, San Emigdio, Wheler Ridge, Carrizo Plain Natural Area, and Caliente Mountains. It excavates burrows on higher ground and is a nocturnal foraging species. The species is threatened by random catastrophic events (i.e., drought, flooding, fire), overgrazing of rangeland, and extensive land conversion to agriculture from the 1960s through the 1970s.

Focused trapping surveys for this species were not conducted as part of this analysis; however, the Project is located within the known range of the species, and suitable habitat is present. There are multiple CNDDDB occurrences within close proximity of the BSA, one of which overlaps the BSA. The overlapping CNDDDB occurrence (EONDX 33137) is from 1990 in saltbush scrub habitat. This species was not observed during the reconnaissance surveys; however, suitable burrows with diagnostic sign of kangaroo rat were observed.

Tulare Grasshopper Mouse***ONYCHOMYS TORRIDUS TULARENSIS***

Status: Species of Special Concern

The Tulare grasshopper mouse occurs in shrubland communities in hot, arid grassland and shrubland associations. These include blue oak woodlands, upper Sonoran subshrub scrub, alkali sink and mesquite associations on the valley floor, and grasslands associations on the sloping margins of the San Joaquin Valley and Carrizo Plain region. This subspecies occupies burrows and feeds primarily on invertebrates but may supplement its diet with seeds and other small mammals.

Focused trapping surveys for this species were not conducted as part of this BAR; however, the Project is located within the known range of the species, and suitable habitat is present. There are multiple CNDDDB occurrences within 10 miles of the BSA. The nearest CNDDDB occurrence (EONDX 23826) is from 1957 and is located approximately 0.75 miles north of the BSA. This species was not observed during the reconnaissance surveys; however, potentially suitable burrows were observed within the BSA.

San Joaquin Pocket Mouse***PEROGNATHUS INORNATUS***

Status: None

The San Joaquin pocket mouse is a nocturnal species found in dry, open grasslands and scrublands on fine-textured soils in the Central Valley (mostly west side) and Salinas Valley at elevations from 1,100 to 2,000 feet. It digs its own burrows for cover, breeding, and seed caching.

Focused trapping surveys for this species were not conducted as part of this analysis; however, the Project is located within the known range of the species, and suitable habitat is present. There are multiple CNDDDB occurrences within 10 miles of the BSA, one of which overlaps the BSA. The overlapping CNDDDB occurrence (EONDX 65635) is from 1991, when there were 172 captures resulting from four trapping periods throughout the year. This species was not observed during the reconnaissance surveys; however, potentially suitable burrows were observed within the BSA.

American Badger***TAXIDEA TAXUS***

Status: Species of Special Concern

The American badger is an uncommon, permanent resident at lower elevations throughout California except for the northern North Coast (CDFG, 1995). They can typically be found in grasslands, deserts, and drier habitats. Badgers are typically nocturnal and hunt or forage at night while spending daylight hours below ground. Normally, they have a single den entrance that is approximately 8 to 12 inches in width, in an elliptical or half-moon shape, similar to their body shape. Dens are usually found in friable soils, which are easier to dig in. American badgers spend most of their time near a den; however, they may have multiple dens in an area that can be used at the same time. American badgers are known to be able to dig a new den each night. During cooler nights, the entrance to the den may be partially plugged with soil to help regulate temperatures.

The Project is located within the known range of the species, and suitable habitat is present. There are multiple CNDDDB occurrences within 10 miles of the BSA, the nearest (EONDX 49676) is from 1999 and is located approximately one mile northwest of the BSA. The species was not observed during biological resource surveys, although dens displaying sign consistent with use by badger and characteristic badger exploratory digs were observed, indicating they may be present within the BSA.

San Joaquin Kit Fox***VULPES MACROTIS MUTICA***

Status: Federally Endangered, State Threatened

The San Joaquin kit fox (SJKF) is a subspecies of kit fox that is endemic to the Central Valley of California (USFWS, 1998a, 2011). Individuals of this subspecies are found primarily in the San Joaquin Valley, Carrizo Plain, and Cuyama Valley, as well as other small valleys in the western foothills of the Central valley. They are only found west of the Sierra Nevada crest. They occupy arid to semi-arid grasslands, open shrublands, savannahs, and grazed lands with loose-textured soils. SJKF are well-established in some urban areas and are highly adaptable to human-altered landscapes, and while they may occasionally forage in agricultural habitats, they generally avoid intensively maintained agricultural land due to repeated ground disturbance. SJKF use subterranean dens year-round for shelter and pup-rearing. They are nocturnally active but may be visible above ground near their dens during the day, particularly in the spring. They feed primarily on small mammals but will consume a variety of prey and will scavenge for human food.

The Project is located within the known range of the species, and suitable habitat is present. There are multiple CNDDDB occurrences within close proximity of the BSA, four of which overlap the BSA. The most recent overlapping CNDDDB occurrence (EONDX 46017) is from 2001, when one individual was observed. San Joaquin kit fox was not observed during biological resource surveys; however, several dens displaying diagnostic sign, including scat and tracks, were observed during the surveys (Figure 5-2).

5.2 - Sensitive Natural Communities

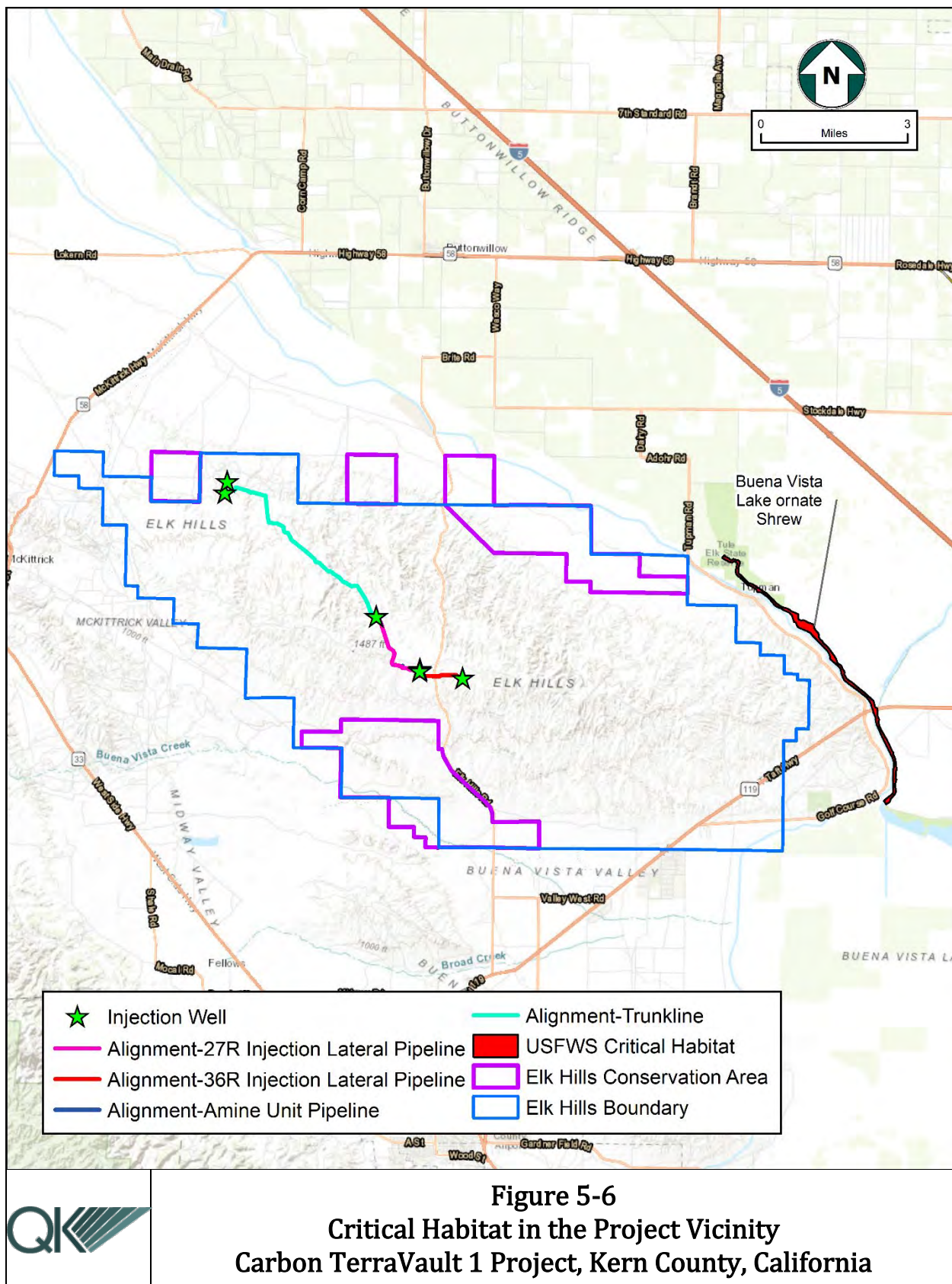
5.2.1 - SENSITIVE PLANT COMMUNITIES

The database and literature review identified three sensitive plant communities that are known to occur or with the potential to occur within the vicinity of the Project: Valley Saltbush Scrub, Great Valley Mesquite Scrub, and Valley Sink Scrub. One of these plant communities, Valley Saltbush Scrub, was observed on-site during the reconnaissance surveys.

There were no mesquite (*Prosopis glandulosa torreyana*) trees/shrubs, and thus Great Valley Mesquite Scrub, observed within the BSA during reconnaissance surveys. Similarly, alkali-tolerant plant species characteristic of Valley Sink Scrub were not observed within the BSA. Valley Saltbush Scrub was observed throughout the BSA, predominantly as highly isolated fragments amongst the previously disturbed pipeline route within the oil and gas development.

5.2.2 - CRITICAL HABITATS

The Project does not overlap with any federally designated critical habitat (Figure 5-6, USFWS, 2023b). The nearest Critical Habitat is for the Buena Vista ornate shrew approximately 10 miles to the east.



5.3 - Jurisdictional Aquatic Resources

A query of the NHD and NWI databases indicated that seven riverine water features might intersect the Project area (Figure 4-2). Formal jurisdictional delineations of potential waters were not conducted for this BAR; however, water features observed during field reconnaissance surveys were all ephemeral drainages, many of which have been impacted by surrounding development.

5.4 - Wildlife Movement

Wildlife movement corridors also referred to as dispersal corridors or landscape linkages, are generally defined as linear features along which animals can travel from one habitat or resource area to another. Wildlife movement corridors can be large tracts of land that connect regionally important habitats that support wildlife in general, such as stop-over habitat that supports migrating birds or large contiguous natural habitats that support animals with very large home ranges (e.g., coyotes [*Canis latrans*], mule deer [*Odocoileus hemionus californicus*]). They can also be small-scale movement corridors, such as riparian zones, that provide connectivity and cover to support movement at a local scale.

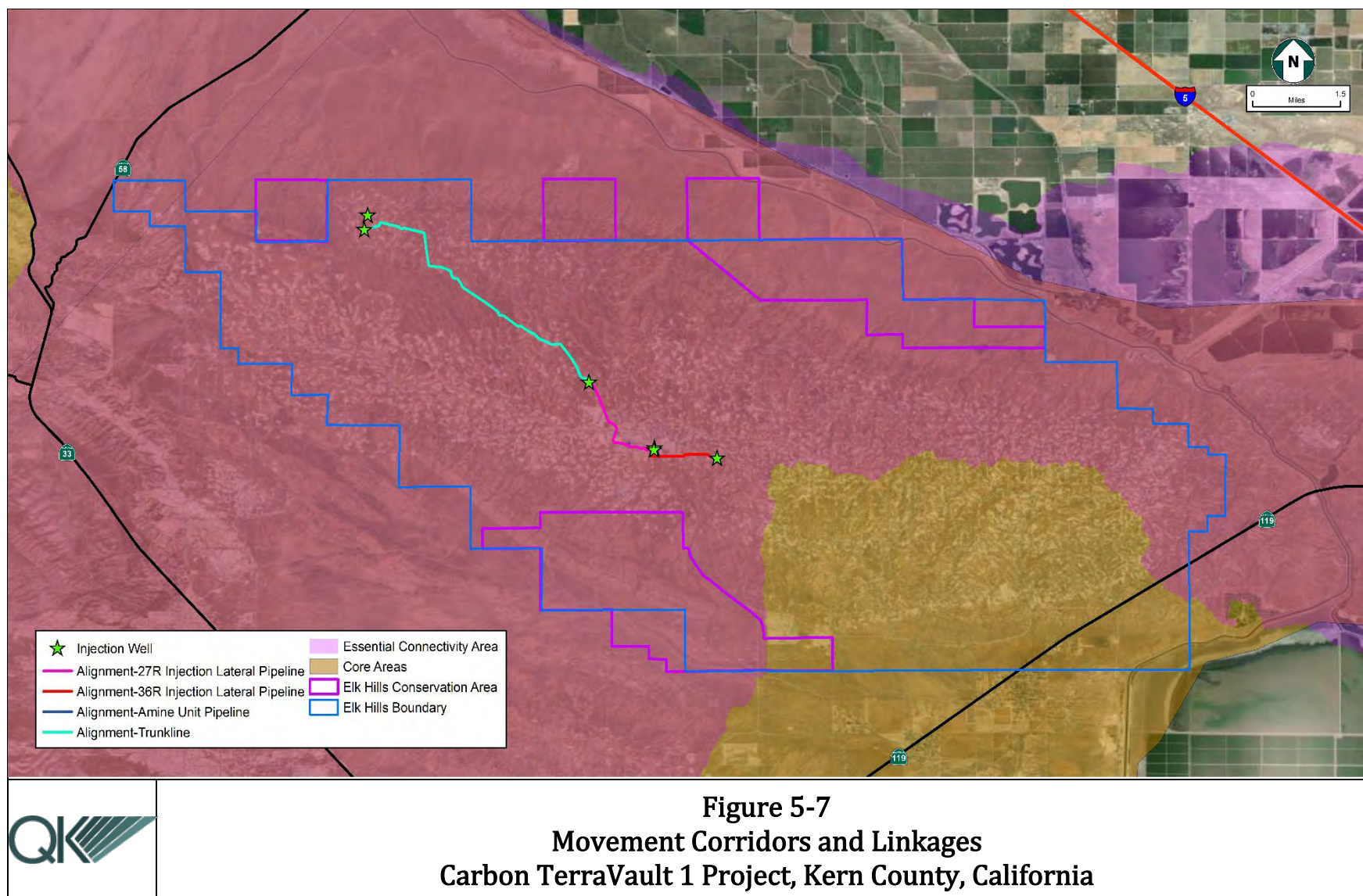
The Project is situated within two identified connectivity corridors, the Essential Connectivity Area and Core Area (Figure 5-7). Specifically, the Project falls within the 'Elk Hills – Carrizo Plain/Temblor Range' and 'Ten Section Oil Field – Elk Hills' Essential Connectivity areas.

5.5 - Resources Protected by Local Policies and Ordinances

The County of Kern General Plan contains policies aimed at the preservation of biological resources and promotes coordination with federal and State resource agencies. These policies are listed in Appendix A. The General Plan also outlines a work plan with implementation measures by which to uphold these policies, including a biological resource review for proposed projects and the development of mitigation measures for these projects.

5.6 - Habitat Conservation Plans

California Resources Corporation has a habitat conservation program in place, which is certified by the Wildlife Habitat Council. It includes operating practices to protect unique plant and animal species and cultural resources at Elk Hills and western Kern County.



SECTION 6 - IMPACT ANALYSIS AND RECOMMENDED MITIGATION MEASURES

This section provides an analysis of the potential for sensitive biological resources to be impacted by the Project. This section also provides avoidance and minimization measures to prevent and/or reduce Project impacts to sensitive biological resources. These measures were determined using the Kern County Oil and Gas EIR Mitigation Monitoring and Reporting Program. The impact analysis focuses on the construction phase of the Project.

6.1 - Special-Status Species

In accordance with Appendix G of the CEQA Guidelines, the proposed Project would have a significant effect on biological resources if it would:

- a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.*

Avoidance and minimization measures are designed to reduce or eliminate impacts to special-status species through Project construction, operation, and decommissioning. Detailed specific measures are outlined below for each special-status species that may occur on the Project site or within potential alternative routes.

6.1.1 - PROJECT IMPACTS TO SPECIAL-STATUS PLANT SPECIES

Heartscale

Heartscale was not observed within the BSA during the biological resource surveys. However, the BSA is within the known range for the species, and the species could potentially be present within the fragments of Valley saltbush scrub habitat.

Direct impacts from construction activities could include the destruction or injury of individual plants if present. During the growth and blooming period, the spread of dust during construction could cause an indirect impact on the species, as could the spread of non-native or invasive species caused by Project activities. Competition with invasive plants would have an indirect impact on this species.

There is no evidence this species is present in the BSA, and it is unlikely that the Project will result in direct or indirect impacts to this species. If present, implementation of Measures BIO-1 through BIO-4, listed below, would reduce impacts to this species to a less-than-significant level. It is assumed there would be no impacts to this species during the operational phase.

Lost Hills Crownscale

Lost Hills crownscale was not observed within the BSA during the biological resource surveys. However, the BSA is within the known range for the species, and the species could potentially be present within the fragments of saltbush scrub habitat within the BSA.

Direct impacts from construction activities could include the destruction or injury of individual plants if present. During the growth and blooming period, the spread of dust during construction could cause an indirect impact on the species, as could the spread of non-native or invasive species caused by Project activities. Competition with invasive plants would have an indirect impact on this species.

There is no evidence this species is present in the BSA, and it is unlikely that the Project will result in direct or indirect impacts to this species. If present, implementation of Measures BIO-1 through BIO-3, listed below, would reduce impacts to this species to a less-than-significant level. It is assumed there would be no impacts to this species during the operational phase.

California Jewelflower

California jewelflower was not observed during biological resource surveys. However, the BSA is within the known range for the species, and the species could potentially be present within the fragments of saltbush scrub habitat within the BSA.

Direct impacts from construction activities could include the destruction or injury of individual plants if present. During the growth and blooming period, the spread of dust during construction could cause an indirect impact on the species, as could the spread of non-native or invasive species caused by Project activities. Competition with invasive plants would have an indirect impact on this species.

If present, implementation of Measures BIO-1 through BIO-3, listed below, would reduce impacts to this species to a less-than-significant level.

Recurved Larkspur

Recurved larkspur was not observed during biological resource surveys. However, the BSA is within the known range for the species, and the species could potentially be present within the fragments of saltbush scrub habitat within the BSA.

Direct impacts from construction activities could include the destruction or injury of individual plants if present. During the growth and blooming period, the spread of dust during construction could cause an indirect impact on the species, as could the spread of non-native or invasive species caused by Project activities. Competition with invasive plants would have an indirect impact on this species.

If present, implementation of Measures BIO-1 through BIO-3, listed below, would reduce impacts to this species to a less-than-significant level.

Kern Mallow

Kern mallow was not observed during biological resource surveys. However, the BSA is within the known range for the species, and the species could potentially be present within the fragments of saltbush scrub habitat within the BSA.

Direct impacts from construction activities could include the destruction or injury of individual plants if present. During the growth and blooming period, the spread of dust during construction could cause an indirect impact on the species, as could the spread of non-native or invasive species caused by Project activities. Competition with invasive plants would have an indirect impact on this species.

If present, implementation of Measures BIO-1 through BIO-3, listed below, would reduce impacts to this species to a less-than-significant level.

Temblor Buckwheat

Temblor buckwheat was not observed within the BSA during the biological resource surveys. However, the BSA is within the known range for the species, and the species could potentially be present within the fragments of saltbush scrub habitat intermixed with annual grassland within the BSA.

Direct impacts from construction activities could include the destruction or injury of individual plants if present. During the growth and blooming period, the spread of dust during construction could cause an indirect impact on the species, as could the spread of non-native or invasive species caused by Project activities. Competition with invasive plants would have an indirect impact on this species.

There is no evidence this species is present in the BSA, and it is unlikely that the Project will result in direct or indirect impacts to this species. If present, implementation of Measures BIO-1 through BIO-3, listed below, would reduce impacts to this species to a less-than-significant level. It is assumed there would be no impacts to this species during the operational phase.

Tejon Poppy

Tejon poppy was not observed during biological resource surveys. However, the BSA is within the known range for the species, and the species could potentially be present within the fragments of saltbush scrub habitat intermixed with annual grassland within the BSA.

Direct impacts from construction activities could include the destruction or injury of individual plants if present. During the growth and blooming period, the spread of dust during construction could cause an indirect impact on the species, as could the spread of non-native or invasive species caused by Project activities. Competition with invasive plants would have an indirect impact on this species.

If present, implementation of Measures BIO-1 through BIO-3, listed below, would reduce impacts to this species to a less-than-significant level.

Showy Golden Madia

Showy golden madia was not observed during biological resource surveys. However, the BSA is within the known range for the species, and the species could potentially be present within the fragments of saltbush scrub habitat intermixed with annual grassland within the BSA.

Direct impacts from construction activities could include the destruction or injury of individual plants if present. During the growth and blooming period, the spread of dust during construction could cause an indirect impact on the species, as could the spread of non-native or invasive species caused by Project activities. Competition with invasive plants would have an indirect impact on this species.

If present, implementation of Measures BIO-1 through BIO-3, listed below, would reduce impacts to this species to a less-than-significant level.

San Joaquin Woollythreads

San Joaquin woollythreads was not observed during biological resource surveys. However, the BSA is within the known range for the species, and the species could potentially be present within the fragments of saltbush scrub habitat within the BSA.

Direct impacts from construction activities could include the destruction or injury of individual plants if present. During the growth and blooming period, the spread of dust during construction could cause an indirect impact on the species, as could the spread of non-native or invasive species caused by Project activities. Competition with invasive plants would have an indirect impact on this species.

If present, implementation of Measures BIO-1 through BIO-3, listed below, would reduce impacts to this species to a less-than-significant level.

Oil Neststraw

Oil neststraw was not observed during biological resource surveys. However, the BSA is within the known range for the species, and the species could potentially be present within the fragments of saltbush scrub habitat within the BSA.

Direct impacts from construction activities could include the destruction or injury of individual plants if present. During the growth and blooming period, the spread of dust during construction could cause an indirect impact on the species, as could the spread of non-native or invasive species caused by Project activities. Competition with invasive plants would have an indirect impact on this species.

If present, implementation of Measures BIO-1 through BIO-3, listed below, would reduce impacts to this species to a less-than-significant level.

Avoidance and Minimization Measures

Implementation of the Avoidance and Minimization Measures listed below would reduce Project impacts to special-status plant species to a level that would be less than significant. The following measures are recommended to avoid and minimize impacts to the special-status species with the potential to occur within the Project area. These Avoidance and Minimization Measures were adapted from the 'Kern County Oil and Gas Mitigation and Reporting Program – August 23, 2022.'

BIO-1: Special-Status Plant Surveys. Plant surveys for Protected Species and Sensitive Species must be completed by a qualified biologist during the appropriate blooming periods for species identification and detection (see Table 6-1). Plant surveys shall be conducted in accordance with all applicable protocols established by the United States Fish and Wildlife Service and the California Department of Fish and Wildlife for particular plant species ("Plant Survey Protocol") and shall extend 50 feet from areas where any new disturbance would occur unless a greater survey distance is specified in the species.

Table 6-1
Blooming Period of Special-status Plants with Potential to Occur

Special-Status Plant Species	Optimal Blooming Period
<i>Atriplex cordulata</i> var. <i>cordulata</i> heartscale	April–October
<i>Atriplex coronata</i> var. <i>vallicola</i> Lost Hills crownscale	April–September
<i>Caulanthus californicus</i> California jewelflower	February–May
<i>Delphinium recurvatum</i> recurved larkspur	March–June
<i>Eremalche parryi</i> ssp. <i>kernensis</i> Kern mallow	February/March–May
<i>Eriogonum temblorense</i> Temblor buckwheat	April/May–September
<i>Eschscholzia lemmonii</i> ssp. <i>kernensis</i> Tejon poppy	February/March–May
<i>Madia radiata</i> Showy golden madia	March–May
<i>Monolopia congdonii</i> San Joaquin woollythreads	February–May
<i>Stylocline citroleum</i> Oil neststraw	March–April

BIO-2: Avoidance of Listed Special-Status Plants. No incidental take or relocation of any plant listed under the federal Endangered Species Act, the California Endangered Species Act, or the California Native Plant Protection Act may occur unless the incidental take is authorized by the United States Fish and Wildlife Service and/or the California Department of Fish and Wildlife in a permit or other authorization. If focused plant surveys detect the

presence of any listed plant, the plant populations shall be buffered from disturbance activities by implementing applicable impact avoidance protocols established by the United States Fish and Wildlife Service and/or the California Department of Fish and Wildlife unless incidental take authority is obtained. Projects covered under incidental take authority shall conduct activities in accordance with the take authorization. The California Department of Fish and Wildlife may be contacted to determine the appropriate buffer required to prevent incidental take of a listed plant if avoidance protocols have not been established for the species. The qualified biologist shall confirm that all applicable listed plant buffers have been implemented prior to the commencement of any disturbance activity.

BIO-3: Avoidance of Non-Listed Special-Status Plants. Sensitive species plant populations that are not Protected Species that may be impacted by new ground-disturbing activities must be avoided by a 50-foot buffer, as delineated and implemented by a qualified biologist used by the applicant. These species of individuals or populations may be avoided by spanning or by rerouting new pipeline or roadway routes to avoid disturbance and minimize impacts to the plant populations from any construction activities.

6.1.2 - PROJECT IMPACTS TO SPECIAL-STATUS ANIMAL SPECIES

Crotch's Bumble Bee

The Crotch's bumblebee was not observed during reconnaissance surveys. Known host plants of the species (*Chaenactis*, *Lupinus*, *Medicago*, *Phacelia*, and *Salvia*) were also not observed, though the surveys were conducted outside of the optimal blooming period. There are only six Calflora records of potential host plant occurrences within the BSA, ranging from between 1937 and 1992. However, the BSA is within the known range for the species, and suitable habitat is present.

Direct impacts to the Crotch's bumblebee could include mortality or injury caused by Project construction activities. The Project could also result in the loss of suitable habitat.

Implementation of Avoidance and Minimization Measures BIO-7, BIO-9, BIO-16, and BIO-17 would reduce impacts to the species.

Temblor Legless Lizard

The Project site is within the known range for the species, and suitable habitat is present.

Direct impacts to the Temblor legless lizard could include mortality or injury caused by Project construction activities. The Project could also result in the loss of suitable habitat.

Implementation of Avoidance and Minimization Measures BIO-6, BIO-7, BIO-9, BIO-16, and BIO-17 would reduce impacts to the species

California Glossy Snake

The California glossy snake was not observed during biological resource surveys. However, the BSA is within the known range for the species, and suitable habitat is present.

This species is nocturnal, so the impacts of construction activities are expected to be limited. Direct impacts to California glossy snakes could include mortality or injury caused by Project construction activities. Noise, vibration, and increased human activity could alter the normal behaviors of the snake. The Project could also result in the loss of suitable habitat.

Implementation of Avoidance and Minimization Measures BIO-7, BIO-9, BIO-10, BIO-16, and BIO-17 would reduce impacts to the species.

Blunt-nosed Leopard Lizard

The blunt-nosed leopard lizard was not observed during biological resource surveys. Additionally, the BSA is within the known range for the species, suitable habitat is present, and there is a recent CNDDDB record of the species within one mile of the BSA.

Without appropriate avoidance and minimization measures for BNLL, potentially significant impacts associated with ground-disturbing activities include habitat loss, burrow collapse, reduced reproductive success, or direct mortality. If there is an active burrow within land adjacent to the Project site or proposed alternative routes, noise and vibration from construction activities could alter the daily behaviors of individuals and affect the foraging activity and reproductive success during the short-term construction period. Habitat loss could result in indirect impacts through increased competition for limited resources over the long term.

Implementation of Avoidance and Minimization Measures BIO-7, BIO-9, BIO-15, BIO-16, and BIO-17 listed below would avoid direct impacts to the species.

San Joaquin Coachwhip

The San Joaquin coachwhip was not observed during biological resource surveys. Additionally, the BSA is within the known range for the species, suitable habitat is present, and there is a recent CNDDDB record of the species within one mile of the BSA.

Direct impacts to the San Joaquin coachwhip could include mortality or injury caused by Project construction activities. Noise, vibration, and increased human activity could alter the normal behaviors of the lizard. The Project could also result in the loss of suitable habitat.

Implementation of Avoidance and Minimization Measures BIO-7, BIO-9, BIO-10, BIO-16, and BIO-17 would reduce impacts to the species.

Coast Horned Lizard

The coast horned lizard was not observed during biological resource surveys. Additionally, the BSA is within the known range for the species, and suitable habitat is present.

Direct impacts to the coast horned lizard could include mortality or injury caused by Project construction activities. Noise, vibration, and increased human activity could alter the normal behaviors of the lizard. The Project could also result in the loss of suitable habitat.

Implementation of Avoidance and Minimization Measures BIO-7, BIO-9, BIO-10, BIO-16, and BIO-17 would reduce impacts to the species.

Burrowing Owl

Burrowing owl was not directly observed during biological resource surveys. However, burrows displaying diagnostic sign of the species (white-wash, pellets, feathers) were observed within the BSA, the BSA is within the known range for the species, and suitable habitat is present.

Direct and/or indirect impacts to burrowing owl could occur if there is an active burrow within the Project area during the period of construction activities. Construction activities could result in crushing or destroying a burrow, with or without a burrowing owl inside. Noise, vibration, and increased human activity resulting from Project construction activities could alter the daily behaviors of individual owls and affect foraging success, displace owls from their burrows, or lead to nest failure. Operational activities have the potential to impact burrowing owls in the same way but to a lesser degree than construction activities. Suitable nesting and foraging habitat would be lost as a result of the Project.

Implementation of Avoidance and Minimization Measures BIO-7, BIO-9, BIO-10, BIO-11, BIO-16, and BIO-17, listed below, would reduce impacts to the species.

Swainson's Hawk

Swainson's hawk was not observed during biological resource surveys. Additionally, the BSA is within the known range for the species, and suitable habitat for foraging is present.

Direct impacts to Swainson's hawks could occur if construction activities occur near an active nest or in foraging habitat during the nesting season. Complete tree removal, noise, and vibration from the construction of the Project, plus the presence of construction workers, could alter the normal behaviors of nesting adults, resulting in harm or death to eggs or nestlings.

Implementation of Avoidance and Minimization Measures BIO-7, BIO-9, BIO-10, BIO-14, BIO-16, and BIO-17 would reduce impacts to the species.

Prairie Falcon

Prairie falcon was not observed during biological resource surveys. Additionally, the BSA is within the known range for the species, and suitable habitat for foraging is present.

Direct impacts to the prairie falcon could include mortality or injury caused by Project construction activities. Noise, vibration, and increased human activity could alter normal behaviors resulting in reduced foraging success and displacing individuals from established territories. Loss of suitable habitat could impact the species.

Implementation of Avoidance and Minimization Measures BIO-7, BIO-9, BIO-10, BIO-14, BIO-16, and BIO-17 would reduce impacts to the species.

Loggerhead Shrike

There were no observations of loggerhead shrike during biological resource surveys. Open areas of scrub habitat within the BSA provide suitable nesting and foraging habitat for loggerhead shrike. The species may use fence posts, utility lines, or scrubs within the BSA as perches and nest in areas of dense foliage.

Direct impacts to this species could include the destruction of active nests resulting from Project construction activities. Noise, vibration, and increased human activity could alter normal behaviors resulting in nest failure, reducing foraging success, and displacing individuals from established territories. Loss of suitable habitat could impact the species.

Implementation of Avoidance and Minimization Measures BIO-7, BIO-9, BIO-10, BIO-14, BIO-16, and BIO-17 would reduce impacts to the species.

Le Conte's Thrasher

There were no observations of Le Conte's thrasher during biological resource surveys. The BSA provides suitable nesting and foraging habitat. The species may forage in areas of saltbush habitat and use saltbushes as nesting sites.

Direct impacts to this species could include the destruction of active nests resulting from Project construction activities. Noise, vibration, and increased human activity could alter normal behaviors resulting in nest failure, reducing foraging success, and displacing individuals from established territories. Loss of suitable habitat could impact the species.

Implementation of Avoidance and Minimization Measures BIO-7, BIO-9, BIO-10, BIO-14, BIO-16, and BIO-17 would reduce impacts to the species.

San Joaquin Antelope Squirrel

Multiple San Joaquin antelope squirrel observations were made throughout the BSA during biological resources surveys (Figure 5-2). Suitable habitat for this species containing suitable burrows is present within the BSA.

Direct impacts to this species could include mortality or injury caused by entrapment or crushing individuals within burrows or from vehicle strikes during construction. Indirect impacts caused by noise, vibration, and the presence of construction workers could alter the normal behaviors of San Joaquin antelope squirrel, which could affect reproductive success, foraging success, or displacement from active burrows. Loss of foraging habitat could impact the species. Loss of suitable habitat could cause indirect impacts on the species, but impacts would be minimal given the amount of suitable foraging habitat throughout the region.

Implementation of Avoidance and Minimization Measures BIO-7, BIO-9, BIO-10, BIO-16, and BIO-17, listed below, would reduce impacts to the species.

Giant Kangaroo Rat

Giant kangaroo rat was not observed during biological resource surveys. Additionally, the BSA is within the known range of the species, and suitable habitat is present.

Direct impacts to this species could include mortality or injury caused by entrapment or crushing individuals within burrows or from vehicle strikes during construction. Indirect impacts caused by noise, vibration, and the presence of construction workers could alter the normal behaviors of giant kangaroo rat, which could affect reproductive success, foraging success, or displacement from active burrows. Loss of foraging habitat could impact the species.

Implementation of Avoidance and Minimization Measures BIO-7, BIO-9, BIO-10, BIO-16, and BIO-17, listed below, would reduce impacts to the species.

Short-nosed Kangaroo Rat

The short-nosed kangaroo rat was not observed during biological resource surveys. Additionally, the BSA is within the known range of the species, and suitable habitat is present, and potentially suitable burrows fitting the size characteristics of kangaroo rats and displaying sign consistent with use by the species (tail-drag) were observed.

Direct impacts to this species could include mortality or injury caused by entrapment or crushing individuals within burrows or from vehicle strikes during construction. Indirect impacts caused by noise, vibration, and the presence of construction workers could alter the normal behaviors of short-nosed kangaroo rat, which could affect reproductive success, foraging success, or displacement from active burrows. Loss of foraging habitat could impact the species.

Implementation of Avoidance and Minimization Measures BIO-7, BIO-9, BIO-10, BIO-16, and BIO-17, listed below, would reduce impacts to the species.

Tulare Grasshopper Mouse

The Tulare grasshopper mouse was not observed during biological resource surveys. Additionally, the BSA is within the known range of the species, and suitable habitat is

present, and potentially suitable burrows fitting the size characteristics of the species were observed.

Direct impacts to this species could include mortality or injury caused by entrapment or crushing individuals within burrows or from vehicle strikes during construction. Indirect impacts caused by noise, vibration, and the presence of construction workers could alter the normal behaviors of Tulare grasshopper mouse, which could affect reproductive success, foraging success, or displacement from active burrows. Loss of foraging habitat could impact the species.

Implementation of Avoidance and Minimization Measures BIO-7, BIO-9, BIO-10, BIO-16, and BIO-17, listed below, would reduce impacts to the species.

San Joaquin Pocket Mouse

The San Joaquin pocket mouse was not observed during biological resource surveys. Additionally, the BSA is within the known range of the species, and suitable habitat is present, and potentially suitable burrows fitting the size characteristics of the species were observed.

Direct impacts to this species could include mortality or injury caused by entrapment or crushing individuals within burrows or from vehicle strikes during construction. Indirect impacts caused by noise, vibration, and the presence of construction workers could alter the normal behaviors of San Joaquin pocket mouse, which could affect reproductive success, foraging success, or displacement from active burrows. Loss of foraging habitat could impact the species.

Implementation of Avoidance and Minimization Measures BIO-7, BIO-9, BIO-10, BIO-16, and BIO-17, listed below, would reduce impacts to the species.

American Badger

The American badger was not observed during biological resource surveys. Additionally, suitable denning and foraging habitat is present within the BSA, and potentially suitable dens and sign of badger were observed during surveys.

Direct impacts to this species could include mortality or injury caused by entrapment or crushing individuals within dens and vehicle strikes. Indirect impacts to the species could be caused by noise, vibration, and the presence of construction workers that could alter normal behaviors, which could affect reproductive success, foraging success, or displacement from active dens if they were present within or adjacent to the Project area during construction. Operational activities could impact the species in many of these same ways because it is assumed that this species could be present from time to time during the operational phase of the Project.

Implementation of Avoidance and Minimization Measures BIO-7, BIO-9, BIO-10, BIO-13, BIO-16, and BIO-17, listed below, would reduce impacts to the species.

San Joaquin Kit Fox

No San Joaquin kit fox were observed during biological resource surveys. However, potentially suitable dens, some including diagnostic sign such as scat and track, were observed throughout the BSA. San Joaquin den in a variety of areas, such as rights-of-way and vacant lands, and may be attracted to the Project area due to the type and level of ground-disturbing activities and the loose, friable soils resulting from intensive ground disturbance.

Since this species is highly mobile, foxes could be injured or killed if they disperse through the Project area during construction or operations activities. Direct impacts could also include entrapment in trenches or pipes during construction. If there is an active den within the Project footprint during construction activities, noise and vibration from construction activities could alter the daily behaviors of individuals and affect foraging activity, or dens could be subject to collapse. Mortalities from vehicle strikes are possible, but the proposed Project would not cause an appreciable increase in traffic at night when the species is most active.

Implementation of Avoidance and Minimization Measures BIO-7, BIO-9, BIO-10, BIO-12, BIO-16, and BIO-17, listed below, would avoid direct impacts to the species.

Nesting Birds

The entire Project area contains habitat suitable to support a wide variety of nesting native and non-native bird species. Depending on the timing of construction, eggs, and nestlings of bird species with small, well-hidden nests could be subject to loss. This action would result primarily during habitat clearing, earth removal, grading, digging, and equipment movement. If nesting occurs on the Project area during construction, an Environmentally Sensitive Area (ESA) may be established to reduce or eliminate potential impacts to nesting birds, eggs, and nestlings.

Noise, vibration, and increased human activity resulting from Project construction activities could alter the daily behaviors of individuals and affect foraging success or lead to nest failure. Access roads will be utilized during the construction phase, and there exists a potential for mortality due to vehicle collisions, although this risk is minimal as highly mobile species like birds are expected to disperse to nearby habitat.

Implementation of Avoidance and Minimization Measures BIO-7, BIO-9, BIO-10, BIO-14, BIO-16, and BIO-17 would reduce impacts to nesting birds.

Avoidance and Minimization Measures

Implementation of the avoidance and minimization listed below would reduce Project impacts to special-status wildlife species to levels that would be less than significant. The following measures are recommended to avoid and minimize impacts to, Crotch's bumblebee, Temblor legless lizard, California glossy snake, blunt-nosed leopard lizard, San

Joaquin coachwhip, coast horned lizard, burrowing owl, Swainson's hawk, prairie falcon, loggerhead shrike, LeConte's thrasher, San Joaquin antelope squirrel, giant kangaroo rat, short-nosed kangaroo rat, Tulare grasshopper mouse, San Joaquin pocket mouse, American badger, San Joaquin kit fox, nesting birds, and wintering migratory birds and raptors.

BIO-4: Qualified Biologist. A qualified biologist will be used for all preparation of reporting for submission of any application of an Incidental Take Permit if needed. The qualified biologist must have a Bachelor of Science Degree or Bachelor of Arts Degree in biology or related environmental science, have demonstrated familiarity with the natural history, habitat affinities, and identification of Covered Species of the San Joaquin Valley, and have conducted work in California for at least one year of field level reconnaissance survey work. The resume of the biologist preparing any report submitted for permits shall be included in the report. Lack of these specific qualifications will result in immediate rejection of the report without further review.

Bio-5: Incidental Take Avoidance. No incidental take of any species listed as threatened or endangered under the Federal Endangered Species Act, threatened or endangered under the California Endangered Species Act, rare or endangered in the California Native Plant Protection Act, or designated as fully protected in the California Fish and Game Code (Protected Species) may occur unless the incidental take is authorized by applicable state and federal wildlife agencies in the form of a permit or other written authorization.

BIO-6: Biological Reconnaissance Surveys. A qualified biologist shall conduct a biological reconnaissance survey in potential special-status species habitat to advise the Project proponent of potential Project impacts and potential surveying needs and advise on the need for focused special-status surveys. Early consultation with the United States Fish and Wildlife Service and California Department of Fish and Wildlife will also inform Project proponents of additional recommendations.

BIO-7: Pre-Disturbance Surveys. Within 30 days before any ground-disturbing activities in special-status species habitat, the qualified biologist shall conduct a pre-disturbance survey to record existing conditions of the site, determine if conditions have changed since the reconnaissance or focused/protocol surveys were conducted, and determine where sensitive species avoidance buffers will be established.

BIO-8: Focused/Protocol Surveys. Based on the information gathered from the biological resources survey and any informal consultation with the United States Fish and Wildlife Service and California Department of Fish and Wildlife and if required, focused/protocol surveys shall be conducted by a qualified biologist consistent with protocol study timelines to determine the presence/absence of sensitive species protected by State and Federal Endangered Species Acts and potential Project impacts to those species. The survey shall be conducted in accordance with the most current standard protocol of the United States Fish and Wildlife Service and California Department of Fish and Wildlife.

- a. The purpose of focused/protocol surveys is to confirm the presence or absence of any species listed as threatened or endangered under the Federal Endangered Species

Act, threatened or endangered under the California Endangered Species Act, rare or endangered in the California Native Plant Protection Act or designated as fully protected in the California Fish and Game Code (collectively, "Protected Species"), and to confirm the presence or absence of any other species considered "sensitive" under California Environmental Quality Act ("Sensitive Species"), and to identify and implement avoidance and minimization measures for such species.

- b. The surveys shall be conducted in accordance with all currently-applicable presence and absence survey and/or species protocols established by the United States Fish and Wildlife Service and the California Department of Fish and Wildlife ("Species Protocols").
- c. In the absence of any approved protocols, the survey shall extend for a minimum of 250 feet from all areas where any ground-disturbance activities would occur, provided that permission to access has been obtained.
- d. As an alternative to individual pre-disturbance surveys for each application, and after consultation with and concurrence by the California Department of Fish and Wildlife and the United States Fish and Wildlife Service, multiple parcels or areas of oil and gas production lands (including lands that may have multiple surface or mineral ownership) may be consolidated for the purpose of more efficiently managing pre-disturbance surveys and determinations regarding the absence of protected species in areas of proposed new ground-disturbance activities.

BIO-9: Biological Monitoring. A biological monitor with the same qualifications as a qualified biologist shall be present during initial ground-disturbing activities in Project locations that have special-status species habitat or are adjacent to potential special-status species habitat.

Bio-10: Protected Species Avoidance Buffers. Protective buffers shall be used, where effective in the opinion of the qualified biologist, to avoid any unauthorized incidental take of Protected Species and to minimize any incidental take of Sensitive Species by separating the planned disturbance area from any locations where the qualified biologist has detected the presence of Protected Species or Sensitive Species. Protective buffers shall be delineated using brightly colored stakes and/or flagging or similar materials and remain until construction activities are complete, at which time of completion, the buffers must be removed. Protective buffers shall be established around active dens and/or burrows of special-status animal species or populations of special-status plant species to avoid unauthorized take of protected species as listed in the table below. The protective buffer distance shall be increased if required to avoid unauthorized incidental take of any Protected Species as determined by a qualified biologist. Protective buffer distances and other avoidance measures that may be implemented to avoid impacts to Protected Species or Sensitive Species must be consistent with the United States Fish and Wildlife Service and/or the California Department of Fish and Wildlife requirements and shall be implemented and overseen by the qualified biologist.

Table 6-2
Disturbance Buffers for Sensitive Resources

Sensitive Resource	Buffer Zone from Disturbance (feet)
Potential San Joaquin kit fox den	50
Known San Joaquin kit fox den	100
Natal San Joaquin kit fox den	500
Atypical San Joaquin kit fox den	50
Rodent burrows	50
Listed bird species' active nests	500 feet to 0.5 miles dependent on species and sight line
Burrowing owl burrow (breeding and non-breeding season)	Pursuant to CDFW guidelines (see Table 6-3)
San Joaquin coachwhip, all legless lizard species, coast horned lizard, and California glossy snake	30
American badger: Non-maternity dens	50
American badger: Maternity dens	200
Special-status plants	50

Bio-11: Burrowing Owl Avoidance. Occupied burrowing owl burrows shall not be disturbed during the species nesting season (February 1 through August 31). The following distances shall be maintained between all disturbance areas and burrowing owl nesting sites (Table 6-3).

Table 6-3
Setback Distances for Burrowing Owl Nesting Sites by Level of Proposed Project Impacts

Location		
Nesting sites	Nesting sites	Nesting sites
Time of Year		
April 1-Aug 15	Aug16- Oct 15	Oct 16- March 31
Project Impact Level		
Low		
656 feet (200 meters)	656 feet (200 meters)	164 feet (50 meters)
Medium		
1,640 feet (500 meters)	656 feet (200 meters)	328 feet (100 meters)
High		
1,640 feet (500 meters)	1,640 feet (500 meters)	1,640 feet (500 meters)

Burrowing owls present in proposed disturbance areas or within 500 feet or as specified under an approved Habitat Conservation Plan (as identified during pre-disturbance surveys) outside of the breeding season (between September 1 and January 31) may be moved away from the disturbance area using passive relocation techniques approved by the California Department of Fish and Wildlife. Passive relocation techniques in the California Department of Fish and Wildlife Staff Report on Burrowing Owl Mitigation Guidelines

(California Department of Fish and Game, 2012) include installing one-way doors in burrow entrances for 48 hours to ensure the owl(s) have left the burrow, daily monitoring during the passive relocation period, and collapsing existing burrows to prevent reoccupation. A minimum of one or more weeks will be required to relocate the owl(s) and allow for acclimatization to alternate off-site burrows. Prior to burrow exclusion or eviction, a burrowing owl management plan shall be prepared and approved by the California Department of Fish and Wildlife. Destruction of burrows shall occur only pursuant to a management plan for the species approved by the California Department of Fish and Wildlife; burrow excavation shall be conducted by hand whenever possible.

As an alternative to passive relocation, occupied burrows identified off-site within 500 feet of construction activities may be buffered with hay bales, fencing (e.g., sheltering in place), or as directed by the qualified biologist and the California Department of Fish and Wildlife, to avoid disturbance of burrows.

BIO-12: Standard Avoidance and Minimization Measures for the Protection of SJKF. Any potential San Joaquin kit fox dens (as defined in United States Fish and Wildlife Service, 2011a) detected during biological resource surveys or focused/protocol surveys shall be reevaluated by the qualified biologist for species activity no more than 30 days prior to the commencement of ground disturbance in the required pre-construction survey. Potential kit fox dens shall be marked, and a 50-foot avoidance buffer shall be delineated using brightly colored stakes and flagging or similar materials to prevent inadvertent damage to the potential den. If the qualified biologist determines that an unoccupied potential den cannot be avoided, the den may be hand excavated in accordance with the United States Fish and Wildlife Service Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance (United States Fish and Wildlife Service, 2011). If species activity is detected, the location shall be identified as a "known" kit fox den in accordance with the U.S. Fish and Wildlife Service species guidelines (United States Fish and Wildlife Service, 2011). A minimum 100-foot buffer from any disturbance area shall be maintained for known dens, and a minimum 500-foot buffer from any disturbance area shall be maintained for natal dens. No excavation of a known or natal den shall occur without prior authorization from the United States Fish and Wildlife Service and the California Department of Fish and Wildlife. For activities occurring on land covered under an approved federal and/or State incidental take authorization, the requirements set forth in those documents shall be implemented. Other standard measures to protect San Joaquin kit fox, including capping pipes, covering trenches, and adding exit ramps to excavated areas, shall be implemented in accordance with BIO-17.

BIO-13: Avoidance and Minimization Measures for the Protection of American badger. Occupied American badger dens detected during biological resources surveys shall be flagged, and ground-disturbing activities avoided within 50 feet of the den. Maternity dens shall be avoided, and a minimum 200-foot buffer from disturbance shall be maintained during the pup-rearing season (February 15 through July 1). Maternity dens must be avoided to the maximum extent feasible in the opinion of the qualified biologist. If an active maternity den is proposed to be disturbed, the qualified biologist shall consult with the California Department of Fish and Wildlife to identify any appropriate additional minimization

measures which the qualified biologist determines, with the wildlife agencies, can actually be implemented based on field conditions. All such measures must be implemented for Project activities.

BIO-14: Pre-activity Surveys for Nesting Birds. Pre-disturbance surveys for active bird nests must be conducted no more than 10 days prior to the commencement of disturbance. Surveys shall follow United States Fish and Wildlife and California Department of Fish and Wildlife guidance and/or protocols, as applicable. If no active nests or nesting birds are identified, then Project construction activities may proceed, and no further mitigation measures for nesting birds are required. If active nest(s) are identified, the active nest(s) should be continuously surveyed for the first 24 hours after detection to establish a behavioral baseline prior to any construction-related activities.

Once construction commences, all nests shall be continuously monitored to detect any behavioral changes as a result of the Project (i.e., nest avoidance or abandonment). If behavioral changes are observed, the work causing that change shall cease until the applicant's qualified biologist consults with the California Department of Fish and Wildlife and the United States Fish and Wildlife and the qualified biologist used by the applicant implements the recommended measures. During such times as the qualified biological monitor is not on site while construction workers are on site, a minimum non-disturbance buffer of 250 feet shall be established around active nests and a 500-foot no-disturbance buffer around the nests of raptors until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival, and any adult birds are no longer occupying the nest. Deviations from these no-disturbance buffers may be implemented if the qualified biologist concludes that work within the buffer area would not cause nest avoidance or abandonment (e.g., when the disturbance area would be concealed from a nest site by topography) provided that notification of this determination of a deviation in the no-disturbance buffer is provided by the qualified biologist no less than 15 days in advance to the California Department of Fish and Wildlife and the United States Fish and Wildlife.

BIO-15: Avoidance of Blunt-nosed Leopard Lizard. The following measures will be implemented to avoid take of blunt-nosed leopard lizard and to ensure the protection of these animals during Project activities:

- a. Project activities will avoid all potential burrows that may be occupied by blunt-nosed leopard lizards. Suitable burrows within and adjacent to potential habitat for the species should be avoided by a minimum distance of 50 feet in all areas where ground-disturbing Project activities will occur.
- b. No more than one year prior to ground-disturbing activities, focused surveys following current California Department of Fish and Wildlife and United States Fish and Wildlife protocols for detection of this species or other methods approved by both agencies shall be conducted in all potential blunt-nosed leopard lizard habitat within the work site and a 250-foot buffer area. If no individual blunt-nosed leopard lizards are observed during focused surveys, and surveys are current (e.g., completed in the same calendar year), then Project activities may proceed.

- c. If blunt-nosed leopard lizards are detected during focused surveys, a blunt-nosed leopard lizard avoidance plan shall be prepared for the Project that will result in avoidance of incidental take of this species unless take is separately authorized under a Natural Communities Conservation Plan and appropriate federal authorization is obtained. At a minimum, the blunt-nosed leopard lizard avoidance plan shall be provided to the California Department of Fish and Wildlife and the County and shall contain the following elements:
1. A Worker Environmental Awareness Program shall be implemented for all construction personnel before construction begins (see BIO-16).
 2. During periods that are optimal for blunt-nosed leopard lizard activity (early spring through late fall), a qualified biologist will be present during all ground-disturbing activities. The qualified biologist will check the Project site(s) and access route(s) daily during the blunt-nosed leopard lizard active season to determine the presence or absence of lizards in or near the work areas. Monitoring by a qualified biologist is not required during periods of inactivity (the winter season).
 3. All open trenches or excavations shall be covered at the end of each workday or protected with the use of exclusion fencing to prevent wildlife entrapment. If an excavation is too large to cover, escape ramps shall be installed at an incline ratio of no greater than 2:1. All trenches and pipes shall be inspected for the presence of wildlife each day prior to the commencement of work. If blunt-nosed leopard lizards are observed at the work site during construction, construction shall cease within a 250-foot radius, and the United States Fish and Wildlife Service and the California Department of Fish and Wildlife shall be consulted to determine what additional measures would be necessary to prevent take of this species.
 4. Off-site locations where blunt-nosed leopard lizards have been observed or are likely to occur shall be clearly marked to prevent workers from driving off the road and to prevent inadvertent destruction of burrows. Barriers, such as exclusionary fencing, may be installed. All construction equipment and construction personnel vehicles will be checked prior to moving to ensure no blunt-nosed leopard lizard are under equipment/vehicles.
 5. A speed limit of 10 miles per hour shall be posted and observed within 0.25 miles of any reported blunt-nosed leopard lizard observation.
 6. Construction activities shall avoid burrows that may be used by blunt-nosed leopard lizards. Any location of proposed construction activity with the potential to collapse or block burrows (i.e., stockpile storage, parking areas, staging areas, trenches) will be identified prior to construction in the blunt-nosed leopard lizard avoidance plan and approved by the qualified biologist. The qualified biologist may allow certain activities in burrow areas if the combination of soil hardness and activity impact is not expected to collapse burrows and no blunt-nosed leopard lizards have been found during pre-Project surveys in the impact area.
 7. All individual blunt-nosed leopard lizards observed above ground will be avoided. Any individual blunt-nosed leopard lizard that may enter the Project site(s) would be allowed to leave unobstructed and on its own accord. If a blunt-nosed leopard

lizard is detected during biological monitoring or observed at any other point, the California Department of Fish and Wildlife and the United States Fish and Wildlife Service shall be notified to determine what additional measures would be necessary to prevent take of the species.

BIO-16: Worker Environmental Awareness Program. A Worker Environmental Awareness Program shall be developed and implemented for all personnel that could access the site prior to commencing any disturbance activities. The program shall consist of an on-site or center presentation that will describe the locations and types of sensitive plant, wildlife, and sensitive natural communities (collectively, “Biological Resources”) on and near the site, an overview of the laws and regulations governing the protection of Biological Resources, the reasons for protecting the Biological Resources, the specific protection and avoidance measures that are applicable to the site, and the identity of designated points of contact should questions or issues arise, including the qualified biologist. The program shall provide training to recognize, avoid and report to applicable qualified biologists any Biological Resources on the site.

- a. The Worker Environmental Awareness Program shall emphasize the need to avoid contact with on-site wildlife and avoid entry into areas where Biological Resources have been identified based on pre-disturbance field surveys and to implement the buffer avoidance or other protection measures established by the United States Fish and Wildlife Service shall be identified California Department of Fish and Wildlife or required by the Biological Resource mitigation measures. The training shall emphasize the importance of not feeding or domesticating wildlife and the need to avoid any trash, micro trash, or potential food disposal on site except in animal-proof containers emptied daily to avoid attracting or causing adverse impacts to special status wildlife.
- b. All on-site personnel must sign a statement verifying that they have completed the Worker Environmental Awareness Program and that they understand and agree to implement the biological requirements for the worksite. If signed employee statements are not available, documentation may be provided by Worker Environmental Awareness Program training records, which shall be kept by the applicant for a minimum of five years. Each applicant shall maintain a list of all persons who have completed the training program and shall provide the list to the County or to State and federal wildlife agency representatives upon request.

BIO-17: General Measures. The following additional measures shall be implemented to avoid and minimize potential significant adverse impacts to Protected and Sensitive Species:

- a. All vehicles shall observe a 20-mile-per-hour speed limit in all areas of disturbance and on unpaved roads unless otherwise posted. Off-road traffic outside of designated access routes is prohibited. Speed limit signs shall be posted in visible locations at the point of site entry and at regular intervals on all unpaved access roads.
- b. All disturbance activities, except emergency situations or drilling that may require continuous operations, shall only occur during daylight hours. Nighttime disturbance

activity for drilling purposes shall use directed lighting and shielding methods and comply with applicable lighting mitigation measures.

- c. All food-related trash items and all forms of micro trash, such as wrappers, cans, bottles, bottle tops, and food scraps, shall be disposed of in closed, animal-proof containers and removed daily from the site.
- d. Excavations, spoils piles, access roadways, and parking and staging areas shall be subject to dust control as set forth in the dust control mitigation measures.
- e. The use of herbicides for vegetation control shall be restricted to those approved by the United States Fish and Wildlife Service and the California Department of Fish and Wildlife. No rodenticides shall be used on any site unless approved by the United States Fish and Wildlife Service and the California Department of Fish and Wildlife and shall observe label and other restrictions mandated by the United States Environmental Protection Agency, California Department of Food and Agriculture, and State and federal laws and regulations. For split estates, no herbicides for vegetation control may occur in Tier 2 areas without surface owner approval.
- f. No plants or wildlife shall be collected, taken, or removed from the site or any adjacent locations except as necessary for Project-related vegetation removal or wildlife relocation by a qualified biologist and subject to all applicable permits and authorizations.
- g. All open trenches or excavations shall be covered at the end of each workday to prevent wildlife entrapment. If an excavation is too large to cover, escape ramps shall be installed at an incline ratio of no greater than 2:1. All trenches and pipes shall be inspected for the presence of wildlife each day prior to the commencement of work.
- h. To enable San Joaquin kit foxes and other wildlife to pass through the Project site, any perimeter fencing shall include a four- to eight-inch opening between the fence mesh and the ground, or the fence shall be raised four inches above the ground except blunt-nosed leopard lizard exclusion fencing. The bottom of the fence fabric shall be knuckled (wrapped back to form a smooth edge) to protect wildlife.
- i. All vertical tubes used in Project construction and chain link fencing poles shall be temporarily or permanently capped to avoid the entrapment and death of special-status wildlife and birds. All pipes 1.5 inches or greater in diameter stored overnight on a Project location must have end caps or other physical barriers that prevent wildlife from entering the pipe.
- j. All dead or injured special-status wildlife shall be left in place and reported to the United States Fish and Wildlife Service and the California Department of Fish and Wildlife within 48 hours of discovery for rescue or salvage. Discovery of State or federal listed species that are injured or dead shall also be managed consistent with regulatory requirements, including being reported immediately via telephone and within 24 hours in writing, and with a copy to Kern County Planning and Natural Resources.
- k. All drilling installations and operations will comply at all times with the applicable federal, State, County, and local law ordinances, and regulations.
- l. During pre-construction surveys, the qualified biologist shall delineate previously disturbed areas to be used by the applicant to minimize the amount of new disturbance.

- m. All concrete and asphalt debris should be removed from the site for recycling or disposal at an authorized, permitted facility.
- n. No vehicles or construction equipment shall be parked within a wetland or waterbody/dry wash.
- o. Tracked vehicles and other construction equipment must be washed or maintained to be weed-free prior to entering and working within areas of a new disturbance.
- p. All washing of trucks, paint, equipment, or similar activities should occur in areas where runoff is fully contained for collection and off-site disposal. Wash water may not be discharged from the site and shall be located at least 100 feet from any water body or sensitive Biological Resources.
- q. Locate all extra work areas (such as staging areas and additional spoil storage areas) at least 50 feet away from wetland boundaries or waterbody, except where the adjacent upland consists of cultivated or rotated cropland or other disturbed land.
- r. All areas that must be avoided as a result of the pre-disturbance surveys and areas where new disturbance will occur shall be clearly delineated by fencing or staking and flagging and/or rope or cord.
- s. No firearms shall be allowed on any site.
- t. No pets shall be allowed on any site.
- u. No smoking may occur except in designated areas.
- v. If ground disturbance is intended to be temporary and does not occur on cultivated and croplands, perform topsoil segregation during construction activities to preserve the seed bank for restoration efforts. Store the segregated topsoil separate from the subsoil and restore the segregated topsoil to its original location.

BIO- 18: Compensation. Any new ground disturbance shall be mitigated at a 1.0 to 1.0 ratio (one acre of new disturbance shall require one acre of mitigation) except in Tier 1 areas that contain existing disturbance of 70 percent or greater, which shall be mitigated at a 1.0 to 0.5 ratio (one-acre of new disturbance shall require a one-half acre of mitigation), for the land included in the Site Plan. This compensatory mitigation requirement does not apply to construction on the ground for which compensatory mitigation has already been provided or on the ground that has been previously disturbed (e.g., cleared of vegetation for other oil and gas extraction uses, existing unpaved roads, and existing unvegetated well pads). Ground-disturbance activities that are authorized by permits or other written authorizations approved by the United States Fish and Wildlife Service and the California Department of Fish and Wildlife, which include avoidance and compensatory mitigation acreage requirements, may be used to satisfy this County compensatory mitigation ratio. Compensatory mitigation shall be required for the actual acreage of ground disturbance documented during the site plan review and completion process. New disturbance mitigation may be satisfied by one or a combination of the following measures:

- a. The recordation of a conservation easement or similar permanent, long-term conservation management agreement in a form acceptable to the County for land within the Project area on land that has mitigation value. The easement lands may be owned by an applicant or a third party under contract with an applicant. Larger land areas may be placed under a conservation easement or similar agreement, and an

applicant may “draw down” the conserved land as needed to satisfy the acreage mitigation requirements for multiple site plan review conformity permits or other authorizations from the County for oil and gas activities.

- b. Acquisition of land preservation credits from a mitigation bank located within the Project area, which is owned by the County, on other lands approved by the County, or on lands approved for mitigation or conservation purposes by the United States Fish and Wildlife Service or the California Department of Fish and Wildlife.
- c. Removal of legacy oil and gas equipment, inclusive of compliance with applicable legal requirements (e.g., well plugging and abandonment requirements under State or federal regulations), restoration of the surface grade to be consistent with surrounding lands, complete a reseeding effort using native species, and notification of the site owner (if not the applicant) of the completion of the removal and grading restoration work.
- d. Enhancement or restoration of existing habitat on lands already subject to a conservation easement or similar agreement, or which become subject to a conservation easement or similar agreement subsequent to the certification of this Environmental Impact Report, provided that such activities are covered in a permit or authorization, conservation plan, Habitat Conservation Plan, or Natural Community Conservation Plan, approved by the United States Fish and Wildlife Service or the California Department of Fish and Wildlife.
- e. Payment of a biological resources’ mitigation fee for the acquisition and management of mitigation lands, legacy equipment removal, and/or land enhancement already subject to conservation easements or a similar agreement under the terms of any biological resource mitigation program that is adopted by Kern County and approved by the United States Fish and Wildlife Service or the California Department of Fish and Wildlife. The County shall coordinate with the United States Fish and Wildlife Service or the California Department of Fish and Wildlife to identify priority conservation areas and potential conservation partners and funding sources to increase the efficiency and effectiveness of mitigation fee expenditures.

6.2 - Sensitive Natural Communities and Critical Habitat

The proposed Project would have a significant effect on biological resources if it would:

- b) Have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service.*

The Project area does not overlap any USFWS-designated critical habitat.

One sensitive plant community, Valley Saltbush Scrub, is expected to be impacted by Project activities. As the existing Valley Saltbush Scrub habitat consists of highly isolated fragments surrounded by existing oil and gas disturbance and the Project area largely follows established pipeline rights-of-way, the impact to this habitat is expected to be less than significant.

6.3 - Jurisdictional Aquatic Resources

The proposed Project would have a significant effect on biological resources if it would:

- c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.*

Formal delineation of the NHD- and NWI-identified water features were not conducted for the proposed Project. It is not anticipated jurisdictional aquatic resources will be directly impacted, and the Project will avoid these features to the extent feasible, such as spanning drainages along the Project route. However, if avoidance is impractical, to minimize impacts to potential Waters of the State and fulfill the regulatory requirements associated with discharges to Waters of the State, the following measure should be implemented should the Project design impact the existing riverine features. If the riverine feature is not determined to be waters of the State or under the jurisdiction of any agency, the following measures would not be warranted.

Avoidance and Minimization Measures

BIO-19: If construction activities will alter federal jurisdictional waters, Project applicants shall comply with the Federal Clean Water Act Section 404 and Section 401 permitting and certification requirements. If construction activities will alter State waters, Project applicants shall comply with California Department of Fish and Wildlife Streambed Alteration requirements.

6.4 - Wildlife Movement

The proposed Project would have a significant effect on biological resources if it would:

- d) Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors or impede the use of wildlife nursery sites.*

The Project area is located within an Essential Connectivity Area and Core Area. Implementation of the Biological Resources mitigation measures would reduce wildlife movement impacts to less than significant.

6.5 - Local Policies and Ordinances

The proposed Project would have a significant effect on biological resources if it would:

- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.*

The Project does not conflict with the County of Kern General Plan and is not subject to any local ordinances. Therefore, there are no impacts with respect to local policies and ordinances, and no measures are warranted.

6.6 - Adopted or Approved Plans

The proposed Project would have a significant effect on biological resources if it would:

- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan.*

The Project does not conflict with any adopted Habitat Conservation Plans, Natural Conservation Community Plan, or other approved conservation plan. Therefore, there are no impacts with respect to local policies and ordinances, and no measures are warranted.

SECTION 7 - LIMITATIONS, ASSUMPTIONS, AND USE RELIANCE

This Biological Analysis Report has been performed in accordance with professionally accepted biological investigation practices conducted at this time and in this geographic area. The findings and opinions conveyed in this report are based on on-site field examinations, jurisdictional areas, and specified historical and literary sources. The biological investigation is limited by the scope of work performed. Biological surveys conducted as part of this assessment may not have been performed during a particular blooming period, nesting period, or particular portion of the season when positive identification of certain taxa would be expected if present and, therefore, cannot be considered definitive. The biological surveys are also limited by the environmental conditions present at the time of the surveys. In addition, general biological (or protocol) surveys do not guarantee that the organisms are not present and will not be discovered in the future within the site. In particular, mobile animal species could occupy the site on a transient basis or re-establish populations in the future. No other guarantees or warranties, expressed or implied, are provided.

SECTION 8 - REFERENCES

Bechard, M. J., C. S. Houston, J. H. Saransola, A. S. England, 2010. Swainson's Hawk (*Buteo swainsoni*), version 2.0. The Birds of North America (A.F. Poole, Editor). Cornell Laboratory of Ornithology, Ithaca, NY, USA. Accessed via <https://doi.org/10.2173/bna.265>. [Accessed December 2022].

Brattstrom and Warren. 2000-2018. California Herps – A Guide to the Amphibians and Reptiles of California. Accessed via <http://www.californiaherps.com>. [Accessed December 2022].

Calflora. 2023. *Information on wild California plants for conservation, education, and appreciation*. Berkeley, CA. Updated online and accessed via www.calflora.org. [Accessed January 2023].

California Department of Fish and Wildlife (CDFW). 2023a. California Natural Diversity Database (CNDDB) – Commercial version dated November 1, 2018. Accessed via <https://map.dfg.ca.gov/rarefind/view/RareFind.aspx>. [Accessed January 2023].

CDFW. 2023b. *Special Animals List*. Biogeographic Data Branch, California Natural Diversity Database. July 2009.

CDFW. 2023c. Biogeographic Information and Observation System (BIOS). Accessed via www.wildlife.ca.gov/data/BIOS. [Accessed January 2023].

California Native Plant Society (CNPS). 2023. Inventory of Rare and Endangered Plants. V.7-08c-Interim 8-22-02. Updated online and accessed via www.rareplants.cnps.org. [Accessed January 2023].

eBird Basic Dataset. 2023. Version EBD_relMay-2017. Cornell Lab of Ornithology, Ithaca, New York. [Accessed January 2023].

Federal Emergency Management Agency. 2023. FEMA flood map service center. Kern County. Accessed via <https://msc.fema.gov/portal/search#searchresultsanchor>. [Accessed January 2023].

Google LLC. 2023. Google Earth Pro. [Accessed January 2023].

Kern County. 2021. *Final Supplemental Recirculated Enviromental Impact Rerport (2020/2021)- Revisions to the Kern County Zoning Ordinance (2020-A) Focused on Oil and Gas Local Permitting*. Accessed via <https://kernplanning.com/SREIR2020-oil-gas-zoning-revisions/>.

Kern County. 2022. *Kern County Oil and Gas Mitigation Monitoring and Reporting Program - August 23, 2022*. Accessed via https://psbweb.co.kern.ca.us/planning/pdfs/oil_gas/oilgas_mmrp_082322.pdf

Mayer, K. E., and W. F. Laudenslayer, Jr. 1988. *A guide to wildlife habitat of California*. State of California, Resources Agency, Department of Fish and Wildlife. Sacramento, CA 166 pp.

Natural Resources Conservation Service (NRCS), United States Department of Agricultural. 2023a. Web Soil Survey. Soil Survey Area: Kern County, California. Soil Survey Data: Version 8, August 27, 2009. Accessed via <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>. [Accessed January 2023].

NRCS, United States Department of Agriculture. 2023b. Lists of Hydric Soils. National Cooperative Soil Survey, U.S. Department of Agriculture. Accessed via <https://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/>. [Accessed January 2023].

Poulin, R.G., L. D. Todd, E. A. Haug, B. A. Millsap, M. S. Martell. 2011. Burrowing Owl (*Athene cunicularia*), ver. 2.0. The Birds of North America (A.F. Poole, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. Accessed via <https://doi.org/10.2173/bna.61>.

Rodewald, P. (Editor). 2015. The Birds of North America. Cornell Laboratory of Ornithology, Ithaca, NY. Accessed via <https://birdsna.org>.

Shuford, W. D., and Gardali, T., editors. 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. *Loggerhead Shrike*. Studies of Western Birds 1:271-277. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento, California.

United States Geological Survey (USGS). 2023. National Hydrography Dataset. Accessed via <https://www.usgs.gov/core-science-systems/ngp/national-hydrography>. [Accessed January 2023].

United States Fish and Wildlife Service (USFWS). 1973. The Endangered Species Act of 1973, as amended (16 U.S.C 1531 et seq.).

USFWS. 1998. Recovery Plan for Upland Species of the San Joaquin Valley, California.

USFWS. 2011. *U.S. Fish and Wildlife Service standardized recommendations for protection of the endangered SJKF prior to or during ground disturbance*. January 2011. Sacramento Fish and Wildlife Office.

USFWS. 2023a. Information for Planning and Consultation online project planning tool. Accessed via <https://ecos.fws.gov/ipac/>. [Accessed January 2023].

USFWS. 2023b. Critical Habitat Portal. Accessed via <https://ecos.fws.gov/ecp/report/table/critical-habitat.html>. [Accessed January 2023].

USFWS. 2023c. National Wetlands Inventory Wetlands Mapper. Accessed via <https://www.fws.gov/wetlands/data/mapper.html>. [Accessed January 2023].

VertNet. 2023. Web app version 2020-07-04T. Accessed via <http://www.vertnet.org/index.html>. [Accessed January 2023].

Western Regional Climate Center. 2023. Cooperative Climatological Data Summaries, NOAA Cooperative Station Taft, California (048752). Accessed via <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca8752>. [Accessed January 2023].

Winchell, C.S., 1994, February. Natural history and protection of burrowing owls. In Proceedings of the Sixteenth Vertebrate Pest Conference (1994) (p. 68).

Zeiner, D., W.F. Laudenslayer, Jr., and K.E. Mayer. 1988. *California's Wildlife. California Statewide Wildlife Habitat Relationship System, Volumes I, II, & III*. California Department of Fish and Wildlife.

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APPENDIX A

SPECIAL-STATUS SPECIES EVALUATION TABLE

Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
Sensitive Natural Communities				
Great Valley Mesquite Scrub	-/- -/-	This community is composed of an open woodland or savanna dominated by <i>Prosopis glandulosa</i> torreyana and <i>Atriplex polycarpa</i> . Understories are grassy in good rainfall years, though usually dominated by introduced annuals. This community is found in sandy loams of alluvial origin, often with wind-modified microtopography. Mesquite requires a high water table. Sierran snowmelt provided the necessary groundwater for the perennial phreatophytes.	No Potential	Western honey mesquite was not present within the BSA.
Valley Saltbush Scrub	-/- -/-	This community consists of open, gray or blue-green chenopod scrubs, usually over a low herbaceous annual understory. Areas dominated by <i>Atriplex polycarpa</i> or <i>A. spinifera</i> may be differentiable from one another. Typically found on sandy to loamy soils without surface alkalinity, largely on rolling, dissected alluvial fans. Found in areas with long, arid summers and short, damp winters, and tule fog is often present during the winters.	Present	This habitat was observed, with varying degrees of disturbance, throughout the BSA. Much of the habitat within the BSA has been extremely fragmented due to oil and gas development.
Valley Sink Scrub	-/- -/-	This community consists of low, open to dense succulent shrublands dominated by alkali tolerant Chenopodiaceae, especially <i>Allenrolfea occidentalis</i> or several Suaeda species. Understories usually are lacking, though sparse herbaceous cover dominated by <i>Bromus rubens</i> develop occasionally. Also consists of saline or alkaline clays. Heavy, saline and/or alkaline clays of lakebeds or playas with <i>Allenrolfea</i> , salt grass, <i>Lasthenia</i> , etc.	No Potential	Characteristic alkali-tolerant plant communities were not present within the BSA. The nearest CNDDDB occurrence (EONDX 9786) of this habitat is located five miles north of the northern terminus of the BSA, east of the California aqueduct.
Plants				

Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Astragalus hornii</i> var. <i>hornii</i> Horn's milk-vetch	-/- 1B.1/-	This is a perennial herb that blooms between May and October. It occurs in meadows and seeps, alkali playas, wetlands, salty flats, and along lake margins. It occurs at elevations ranging from approximately 200 to 1,000 feet and is known to occur in Inyo, Kern, San Bernardino, and possibly Tulare counties.	No Potential	Suitable habitat is absent from the BSA. There are two CNDDDB records within 10 miles of the BSA, and neither is from within the last decade. The nearest CNDDDB record (EONDx 70410) is from 1988 and is approximately five miles southwest of the BSA.
<i>Atriplex cordulata</i> var. <i>cordulata</i> heartscale	-/- 1B.2/-	This is an annual herb that is endemic to California and blooms from April to October. It occurs in saline and alkaline soils, chenopod scrub, meadows and seeps, and sandy soils in valley foothill grassland habitats. It occurs at elevations ranging from sea level to approximately 1,835 feet and is known to occur in Alameda, Butte, Contra Costa, Colusa, Fresno, Glenn, Kern, Madera, Merced, San Joaquin, Solano, Stanislaus, Tulare, and Yolo counties. This species is threatened by competition from non-native plants and possibly threatened by trampling.	Potential	The BSA is within the known range for the species, and suitable habitat, including annual grassland and saltbush scrub is present. There are several CNDDDB records within 10 miles of the BSA, while none are from the last decade, they occur in habitat similar to that present within the BSA.
<i>Atriplex cordulata</i> var. <i>erecticaulis</i> Earlimart orache	-/- 1B.2/-	This is an annual herb that is endemic to California and blooms from August to September, sometimes as late as November. It occurs in low-lying, sparsely vegetated valley and foothill grasslands and on mounds between vernal pools. It occurs at elevations ranging from 130 to 330 feet and is known primarily from the valley floor in Kings, Kern, and Tulare counties. It is threatened by vehicles and possibly development and competition from non-native plants.	No Potential	The BSA is above the known elevational range of the species. There are no CNDDDB records of the species within 10 miles of the BSA.

Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Atriplex coronata</i> var. <i>vallicola</i> Lost Hills crownscale	-/- 1B.2/-	This is an annual herb that is endemic to California and blooms between April and August. It occurs in dry beds of alkaline pools in chenopod scrub, valley and foothill grassland, and vernal pools. It is also found on exposed slopes rich in gypsum. It occurs at elevations ranging from 165 to 2,085 feet. It has been documented on the valley floors and lower foothills of the western Central Valley in Fresno, Kings, Kern, Merced, San Benito, San Luis Obispo, and Tulare counties. It is threatened by grazing, vehicles, and development.	Potential	The BSA is within the known range for the species, and suitable habitat, including annual grassland and saltbush scrub, is present. Multiple CNDDDB records are within 10 miles of the BSA, the nearest (EONDX 58368) is from 2000 and located approximately 1.30 miles southeast of the BSA, where the species was observed within saltbush scrub habitat.
<i>Atriplex flavida</i> Carrizo Plain crownscale	-/- 1B.3/-	This annual herb is endemic to California, specifically to the Carrizo Plain of eastern San Luis Obispo County, and blooms from March to July. This species was formally included in <i>Atriplex coronata</i> var. <i>vallicola</i> and has been recently differentiated from <i>A. coronata</i> species by its overall yellow-green color (as opposed to gray-green), fewer number of stamens, and longer fruiting bracts. It occurs in a semi-arid region of sodic, alkaline soils in chenopod scrub, valley and foothill grassland, and vernal pool habitat. It is ground at elevations ranging from 1,920 to 1,985 feet and is limited to the Carrizo Plain of San Luis Obispo County. Potential threats include agricultural development, grazing, the introduction of non-native plants, and road construction.	No Potential	The BSA is outside of the known geographic range of the species. There are no CNDDDB records of the species within 10 miles of the BSA.

Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Atriplex minuscula</i> lesser saltscale	-/- 1B.1/-	This is an annual herb that is endemic to California and blooms between May and October. It occurs on alkaline and sandy soils in chenopod scrub, playas, and valley and foothill grassland. It occurs at elevations ranging from 50 to 655 feet and is known to occur in Alameda, Butte, Fresno, Kings, Kern, Madera, Merced, Stanislaus, and Tulare counties. It is threatened by agriculture and solar energy development; documented primarily on the Central Valley floor with some lower foothill occurrences.	No Potential	The BSA is above the known elevational range of the species. There are no CNDDDB records of the species within 10 miles of the BSA.
<i>Atriplex subtilis</i> subtle orache	-/- 1B.2/-	This is an annual herb that is endemic to California and blooms between June and September, possibly as late as October. It occurs on alkaline soils in valley and foothill grassland habitats. It occurs at elevations ranging from approximately 130 to 330 feet and is known to occur in Butte, Fresno, Kings, Kern, Madera, Merced, Stanislaus, and Tulare Counties. This species is threatened by agriculture and possibly solar energy development and is documented primarily on the Central Valley floor.	No Potential	The BSA is above the known elevational range of the species. There are no CNDDDB records of the species within 10 miles of the BSA.
<i>Caulanthus californicus</i> California jewelflower	FE/SE 1B.1/-	This is an annual herb that blooms between February and May. It occurs in slightly alkaline sandy soils in chenopod scrub, valley and foothill grassland, and pinyon and juniper woodland, typically at elevations from approximately 200 to 3,280 feet. It occurs in the San Joaquin Valley, Carrizo Plain, and Cuyama Valley from Fresno County south to Santa Barbara County, and many occurrences are presumed extirpated. It is threatened by	Potential	The BSA is within the known range for the species, and suitable habitat, including annual grassland and saltbush scrub, is present. There are two CNDDDB records (EOND 20294 and 23135) within 10 miles of the BSA, although both are presumed extirpated. As the BSA contains similar habitat to the nearby records (prior to their extirpation), there is potential for the species to occur.

Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
		development, grazing, and competition from non-native plants.		
<i>Caulanthus lemmonii</i> Lemmon's jewelflower	-/- 1B.2/-	This is an annual herb that blooms from February through May. It occurs in pinyon and juniper woodland and valley and foothill grassland. It occurs at elevations ranging from approximately 260 to 5,185 feet. This species is documented in lower foothills and mountains in the Coast Ranges on the west side of the Central Valley from Alameda and San Joaquin counties to Ventura County. It is threatened by development, grazing, and vehicles.	No Potential	The BSA is outside of the known geographic range of the species. There are no CNDDDB records of the species within 10 miles of the BSA.
<i>Cirsium crassicaule</i> slough thistle	-/- 1B.1/-	This is an annual or perennial herb that blooms from May to August. It occurs in fresh water in chenopod scrub, marshes, swamps (sloughs), and riparian scrub. It occurs at elevations ranging from approximately 9 to 330 feet. This species has been documented on the western alluvial plains of Central Valley in Kings, Kern, and San Joaquin counties. It is threatened by agriculture and non-native plants. Population sizes can vary widely from year to year.	No Potential	The BSA lacks wetland habitat suitable for supporting this species.
<i>Delphinium recurvatum</i> recurved larkspur	-/- 1B.2/-	This is a perennial herb that blooms between March and June. It occurs in alkaline conditions in chenopod scrub, cismontane woodland, and valley and foothill grassland. It occurs at elevations ranging from approximately 10 to 2,590 feet. This species is endemic to California. It occurs throughout the Central Valley and Coast Ranges from Butte County south. Few occurrences are in the Antelope Valley. This species is threatened by agriculture and competition from non-native plants.	Potential	The BSA is within the known range for the species, and suitable habitat, including annual grassland and saltbush scrub, is present. There are multiple CNDDDB records within 10 miles of the BSA, one of which (EONDX 83186) overlaps the northern terminus of the BSA. This record is from 1995, when the species was observed within the Elk Hills Oilfield.

Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Eremalche parryi</i> ssp. <i>kernensis</i> Kern mallow	FE/- 1B.2/-	This is an annual herb that starts to bloom in January, sometimes February or March, until May. It occurs on dry, open sandy to clay soils, often at the edges of balds in chenopod scrub, pinyon and juniper woodland, and valley and foothill grassland. It occurs at elevations ranging from approximately 230 to 4,230 feet. It has been documented in the southern San Joaquin Valley and Carrizo Plain and surrounding foothills and mountains. This species is threatened by agriculture and development and possibly non-native plants.	Potential	The BSA is near the known range for the species, and suitable habitat, including annual grassland and saltbush scrub, is present. There are multiple CNDDDB records from within the last decade in the vicinity of the BSA. The most recent record (EONDx 120309) is from 2020 and located approximately 2.78 miles northeast of the southern terminus of the BSA, where the species was observed within the Elk Hills Oilfield.
<i>Eriogonum temblorens</i> Temblor buckwheat	-/- 1B.2/-	This is an annual herb that typically blooms from May to September but sometimes as early as April. It occurs in clay and sandstone substrate in valley and foothill grassland habitats. It occurs at elevations from approximately 98 to 3,280 feet and is only known in the Temblor Range from Fresno to Kern and San Luis Obispo counties. It is threatened by energy development.	Potential	The BSA is near the known range for the species, and suitable habitat, including annual grassland, is present. There are two CNDDDB records within close proximity of the BSA. The nearest record (EONDx 104358) is from 2011 and is located approximately 0.85 miles north of the northern terminus of the BSA.
<i>Eschscholzia lemmonii</i> ssp. <i>kernensis</i> Tejon poppy	-/- 1B.1/-	This is an annual herb that blooms in March, sometimes as early as February, to May. It is found in open valley and foothill grasslands and chenopod scrub at elevations from approximately 450 to 4,500 feet. It is distinguished from the more common California poppy (<i>E. californica</i>) by its calyx. It is possibly threatened by grazing and non-native plants.	Potential	The BSA is within the known range for the species, and suitable habitat, including annual grassland and saltbush scrub, is present. There are multiple CNDDDB records within close proximity to the BSA, several of which are from within the last decade. The nearest record (EONDx 21454) is from 1998 and overlaps the BSA.

Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Lasthenia chrysantha</i> alkali-sink goldfields	-/- 1B.1/-	This California endemic annual herb blooms between February and June. It occurs on alkaline soils in vernal pools and on wet saline flats at elevations of 655 feet and lower. It has been documented in the Central Valley from Sacramento south to Bakersfield and in the foothills on the western margin of the Valley. Threats to the species include habitat loss, agriculture, urbanization, and development.	No Potential	The BSA lacks suitable habitat for the species and is above the known elevational range of the species. There is a single CNDDDB record within 10 miles of the BSA (EONDX 118438); it is from an unknown date and is located approximately 5.34 miles east of the BSA within the Tule Elk State Nature Reserve.
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i> Coulter's goldfields	-/- 1B.1/-	This is an annual herb that blooms between February and June. It occurs in coastal salt marshes and swamps, playas, and vernal pools in the interior of California. It occurs at elevations from sea level to 4,000 feet. It is seriously threatened by urbanization and agricultural development, and road maintenance and is potentially threatened by foot traffic and drought.	No Potential	The BSA lacks habitat capable of supporting this species. The nearest CNDDDB record (EONDX 98968) is from 2010 and is approximately 9.31 miles north of the BSA, where it was observed in alkali sink habitat.
<i>Layia heterotricha</i> pale-yellow layia	-/- 1B.1/-	This is an annual herb endemic to California that blooms between March and June. It occurs on alkaline and clay soils in cismontane woodland, coastal scrub, pinyon and juniper woodland, and valley and foothill grassland. It occurs at elevations from approximately 980 to 5,595 feet and is mainly found in the western mountains and foothills of the San Joaquin Valley from Fresno and San Benito Counties south to Ventura and possibly Los Angeles Counties and also in Tehachapi Mountains. It is threatened by agriculture, vehicles, and competition from non-native plants.	No Potential	The BSA is outside of the known geographic range of this species, specifically the western mountains and foothills of the San Joaquin Valley. All CNDDDB records of this species are west of the BSA within the foothills of the Temblor Range in juniper woodland habitat except one (EONDX 101475), which was observed 3.12 miles west of the BSA in 1905. The exact location of the CNDDDB record from 1905 is unknown, and the record notes it may have been located further west on the ridge of the Temblor Range with the other CNDDDB records.

Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Lepidium jaredii</i> ssp. <i>jaredii</i> Jared's pepper-grass	-/- 1B.2/-	This is an annual herb endemic to California that blooms from March to May. It occurs in alkaline and adobe substrate within valley and foothill grassland. It is found only from Soda Lake in the Carrizo Plain and Devil's Den. It occurs at elevations from approximately 1,099 to 3,297 feet and is threatened by solar energy development and grazing.	No Potential	The BSA is outside of the known geographic range of the species. There are no CNDDDB records of the species within ten miles of the BSA.
<i>Madia radiata</i> showy golden madia	-/- 1B.1/-	This is an annual herb endemic to California that blooms between March and May. It occurs in cismontane woodland and valley and foothill grassland at elevations from approximately 80 to 3,985 feet. Known occurrences are scattered throughout the mountains and foothills along the west side of the Central Valley from Contra Costa County south to Santa Barbara County. It is threatened by grazing and non-native plants.	Potential	The BSA is within the known range for the species, and suitable habitat, including annual grassland, is present. There are two CNDDDB records (EONDX 2732 and 7469) within 10 miles of the BSA; both are from 1992 and located approximately 5.32 miles north of the BSA, where the species was observed adjacent to the California aqueduct within disturbed saltbush scrub habitat.
<i>Monolopia congdonii</i> San Joaquin woollythreads	FE/- 1B.2/-	This is an annual herb endemic to California that blooms from February to May. It occurs in chenopod scrub and on sandy soils in valley and foothill grassland. It occurs at elevations from approximately 196 to 2,624 feet. Approximately half of the historical occurrences are expected to be extirpated, and the known populations occur in Carrizo Plain Natural Area, Lost Hills, Kettleman Hills, Jacalitos hills, Panoche Hills, and Cuyama Valley. It is seriously threatened by agricultural conversion, energy development, urbanization, grazing, trampling, and vehicles.	Potential	The BSA is within the known range for the species, and suitable habitat, including annual grassland and saltbush scrub, is present. The nearest CNDDDB record (EONDX 115497) is from 1988 and is located 3.42 miles southwest of the BSA, where the species was observed within an oil field in saltbush scrub habitat.

Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Puccinellia simplex</i> California alkali grass	-/- 1B.2/-	This is an annual grass that blooms between March and May. It usually occurs on sinks, flats, and lake margins in vernal moist, alkaline conditions of chenopod scrub, meadows and seeps, valley and foothill grassland, and vernal pools. It occurs at elevations from approximately 5 to 3,050 feet. It is threatened by hydrological alterations, urbanization, agricultural conversion, development, and habitat fragmentation, disturbance alteration and loss. It is potentially threatened by solar energy development and is possibly threatened by grazing and proximity to roads.	No Potential	Sufficiently moist habitat capable of supporting this species was not observed within the BSA. There are two CNDDDB records within ten miles of the BSA, both of which are associated with alkaline vernal pools and neither of which is from within the last decade.
<i>Senecio aphanactis</i> chaparral ragwort	-/- 2B.2/-	This is an annual herb that typically blooms from January to April but can bloom as late as May. It sometimes grows in alkaline conditions in chaparral, cismontane woodland, and coastal scrub. It occurs at elevations from approximately 49 to 2,624 feet. It is threatened by development and is rare in Los Angeles, Orange, and Riverside counties.	No Potential	The BSA lacks habitat capable of supporting this species. There are no CNDDDB records of the species within ten miles of the BSA.
<i>Stylocline citroleum</i> oil neststraw	-/- 1B.1/-	This is an annual herb endemic to California that blooms from March to April. It occurs on clay substrates in chenopod and coastal scrub, and valley and foothill grasslands. It occurs at elevations from approximately 164 to 1,312 feet and is possibly threatened by energy development and urbanization.	Potential	The BSA is within the known range for the species, and suitable habitat including annual grassland and saltbush scrub is present. There are numerous CNDDDB records within close proximity to the BSA and several that overlap the BSA. The most recent CNDDDB records are from 2013.
Invertebrates				

Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Bombus crotchii</i> Crotch's bumble bee	-/SCE -/-	This bee occurs in relatively warm and dry environments, including the inner Coast Range of California and the margins of the Mojave Desert. It inhabits grassland and scrub habitats, where it nests in abandoned rodent burrows, occasionally nesting above ground in tufts of grass, rock piles, or cavities in dead trees. This species is classified as a short-tongued species whose food plants include <i>Asclepias</i> , <i>Chaenactis</i> , <i>Lupinus</i> , <i>Medicago</i> , <i>Phacelia</i> , and <i>Salvia</i> . The species is threatened by habitat loss and degradation, including agricultural intensification and rapid urbanization.	Potential	Suitable habitat is present within the BSA, although preferred food sources are scarce. The nearest CNDDDB record (EONDX 98854) overlaps the southern end of the BSA, although it is from 1957 and mapped generally. This species was not observed during biological resource surveys.
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	FT/- -/-	This species occurs in a variety of vernal pool habitats that range from small, clear sandstone rock pools to large, turbid, alkaline, grassland valley floor pools. It occurs more commonly in pools less than 0.05 acre, typically as part of larger vernal pool complexes. Adults are active from early December to early May. Pools must hold water for at least 18 days, the minimum to complete the life cycle if temperatures are optimal. Eggs are laid in spring and persist through dry season as cysts. The current California distribution includes the Central Valley and Coast Ranges. This species is threatened by habitat loss, degradation, fragmentation, and interference with vernal pool hydrology.	No Potential	No vernal pools were observed within the BSA. This species was not observed during biological resource surveys, and it is not expected to occur within the BSA.

Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Danaus plexippus plexippus</i> monarch - California overwintering population	FC/- -/-	This butterfly species occurs in various open habitats, including fields, meadows, weedy areas, marshes, and roadsides. Adults make massive migrations from August to October, flying thousands of miles south to hibernate along the California coast and in central Mexico. Eggs are laid, and larvae feed on plants in the milkweed family, primarily <i>Asclepias</i> sp., but also other genera, including <i>Calotropis</i> , <i>Cynanchum</i> , <i>Gonolobus</i> , and <i>Sarcostemma</i> . Adult butterflies typically live from two to six weeks, but overwintering individuals may live as long as nine months. Overwintering migratory adults will roost in large colonies in forested sites in California and Mexico, which must provide protection from the elements and assist with thermoregulation.	No Potential	Although the species could potentially disperse through the BSA, suitable overwintering roosting habitat is absent and preferred plants were not observed. The species was not observed during surveys.
<i>Lytta hoppingi</i> Hopping's blister beetle	-/- -/-	This beetle species occurs in the foothills of the southern end of the Central Valley. Adults have often been found on flowers and have been collected from late March through June. Like other members of the <i>Lytta</i> genus, females excavate shallow burrows to oviposit. <i>Lytta</i> larvae are nest parasites of solitary bees.	No Potential	This species was not observed during site reconnaissance surveys. There is a single CNDDDB record (EONDX 14398) approximately eight miles south of the BSA, and it is from 1978 and mapped generally to the City of Taft.
<i>Protodufourea zavortinki</i> Zavortink's protodufourea bee	-/- -/-	A species of sweat bees that are associated with Phacelia species for foraging purposes. This species has been documented in Kern and San Luis Obispo County.	No Potential	Neither this species nor its' associated host plant was observed during reconnaissance surveys. There is a single CNDDDB record (EONDX 59989) approximately 2.5 miles west of the BSA, and it is from 1978 and mapped generally to the City of McKittrick.
Fish				

Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Hypomesus transpacificus</i> Delta smelt	FT/SE -/-	This is a small fish species endemic to the San Francisco Estuary and the larger Sacramento-San Joaquin Delta. It moves between freshwater and low salinity water throughout the year, and most spawning happens in tidally influenced backwater sloughs and channel edge waters. It occurs primarily in main water bodies and sloughs of the Delta and Suisun Bay and is not directly associated with small stream systems. This species' historical distribution does not extend beyond Mossdale on the San Joaquin River and Sacramento on the Sacramento River.	No Potential	The BSA lacks aquatic habitat capable of supporting this species and is outside of the known range.
Amphibians				
<i>Spea hammondi</i> western spadefoot	-/- -/SSC	This species relies on vernal pools for breeding where predators cannot become established. It occurs in open areas with sand or gravelly soils in a variety of habitats: grasslands, coastal scrub, woodlands, chaparral, sandy washes, lowland river floodplains, alkali flats, foothills, and mountains. This species is endemic to California and northern Baja, California with a distribution from Redding south throughout Central Valley and foothills, throughout the South Coast mountain range into coastal southern California to Transverse mountains and Peninsular mountains. This species occurs at elevations ranging from sea level to 4,500 feet.	No Potential	There is no suitable breeding habitat or vernal pools present within the BSA. The nearest CNDDB records of the species are located approximately three to five miles east of the BSA and are all adjacent to the California aqueduct.
Reptiles				

Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Anniella alexanderæ</i> Temblor legless lizard	-/SC -/SSC	These lizards are only found in two sites, separated by continuously suitable habitat west of State Route 33, within the Temblor Range. The two sites are in areas of sandy soil at the southeast base of the Temblor Range between McKittrick and Taft on the west side of the Southern San Joaquin Valley in Kern County. They occur in moist warm loose soil with vegetation cover on beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks. They can be found under rocks, boards, driftwood, logs, and leaf litter under bushes and trees. Breeding occurs between early spring and July, with the young born between September and November.	No Potential	Suitable habitat is present within the Project site but the species has not been observed within the Project site. The nearest CNDDDB occurrence (EONDX 106864) is from 2024 and is presumed extant. This species was not observed during biological resource surveys.
<i>Anniella grinnelli</i> Bakersfield legless lizard	-/- -/SSC	This species occurs in moist warm loose soil with sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks. It can be found under leaf litter from trees and bushes or under objects such as rocks, boards, driftwood, and logs. This species requires moisture in the soil. Breeding occurs between early spring and July, with young born between September and November.	No Potential	Due to ongoing drought conditions, moist soil, and therefore suitable habitat, is absent from the BSA. There is a single CNDDDB record of this species (EONDX 121126) within 10 miles of the BSA, it is from 2020 and is located approximately 8.75 miles northeast of the BSA in the City of Bakersfield where the species was observed adjacent to a canal. This species was not observed during biological resource surveys.

Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Anniella</i> spp. California legless lizard	-/- -/SSC	This species occurs in moist, loose soils with sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks. It can be found under leaf litter from trees and bushes or under objects such as rocks, boards, driftwood, and logs. This species requires moisture in the soil. Breeding occurs between early spring and July, with young born between September and November.	No Potential	Due to ongoing drought conditions, moist soil, and therefore suitable habitat, is absent from the BSA. There are two CNDDDB records of the species within 10 miles of the BSA. The nearest (EONDX 106983) is from 2015 and is located approximately 3.70 miles west of the BSA, but it is noted as possibly extirpated due to development. This species was not observed during biological resource surveys.
<i>Arizona elegans occidentalis</i> California glossy snake	-/- -/SSC	This subspecies of glossy snake occurs from the eastern part of the San Francisco Bay south to northwestern Baja, California. It appears to prefer microhabitats of open areas with soil loose enough for easy burrowing. It inhabits arid scrub, rocky washes, grasslands, and chaparral. This species is nocturnal and hides under rocks, in existing burrows, or creates its own burrow during daylight hours. It is usually active from late February until November.	Potential	Suitable habitat, including arid scrub and grassland, is present within the BSA. There are multiple CNDDDB records of this species within close proximity to the BSA. The nearest record (EONDX 104923) is from 2015 and is located approximately 2.46 miles west of the BSA, where the species was observed within habitat adjacent to State Route 58.
<i>Emys marmorata</i> western pond turtle	-/- -/SSC	This species is highly aquatic and diurnally active. It is found in ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches with vegetation and rocky or muddy bottoms in a wide variety of habitats. It needs basking areas near water (logs, rocks, vegetation mats, banks). This species may enter brackish water and even seawater, and it digs a nest on land near water. It ranges from north of the San Francisco Bay area to south, including the Central Valley.	No Potential	There were no perennial water sources to support this species observed within the BSA.

Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Gambelia sila</i> blunt-nosed leopard lizard	FE/SE -/FP	This large lizard occurs in semiarid habitats within the southern Central Valley, Cuyama Valley, and Panoche Valley, at elevations between 100 and 2,400 feet. Preferred habitats are typically flat, sparsely vegetated grasslands with large open areas with scattered shrubs for cover and sandy washes. The species spends most of the year underground in abandoned small mammal burrows, with adults surfacing in the spring and early summer to breed and feed. Young hatch in July and August, and both adults and young recede to refugia between August and November. Individuals feed primarily on grasshoppers and smaller lizards. The species is threatened mainly by habitat loss and fragmentation.	Potential	Suitable habitat is present within the BSA, and there are multiple CNDBB records within close proximity, although none overlap. The nearest CNDBB record (EONDX 119287) is from 2017 and is located approximately 0.65 miles northwest of the BSA, where the species was observed in saltbush scrub habitat. This species was not observed during biological resource surveys.
<i>Masticophis flagellum ruddocki</i> San Joaquin coachwhip	-/- -/SSC	This species occurs in open, dry, treeless areas with little or no cover. They are found in valley grassland and saltbush scrub habitats and avoid areas that are densely vegetated. They are found from the Sacramento Valley in Colusa County southward to the Grapevine in Kern County and westward to the inner South Coast Ranges. They are threatened by habitat loss and fragmentation, conversion of large suitable habitats to agricultural use in the San Joaquin Valley, and urban development in the inner Coast Ranges.	Potential	Suitable habitat, including open grassland and saltbush scrub, is present within the BSA. The nearest CNDBB record (EONDX 113180) to the BSA is from 2017 and is located approximately 0.93 miles to the west, where the species was observed at an oil field sump site. This species was not observed during biological resource surveys.

Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Phrynosoma blainvillii</i> coast horned lizard	-/- -/SSC	This cryptic lizard prefers sandy, loose soils in grasslands, forests, woodlands, and open chaparral. Individuals are often found along sandy washes and dirt roads with scattered shrubs for cover. This species feeds almost exclusively on ants. It is found in coastal California from Baja, California north to the Bay Area, southeastern desert regions, southern Central Valley flats and foothills, and the surrounding mountains on drier, warmer slopes at elevations up to 8,000 feet. The species is threatened by habitat loss and fragmentation and the spread of invasive ant species displacing native prey.	Potential	Marginally suitable habitat consisting of sandy, loose soils within grassland, as well as dirt roads, occur within the BSA. However, this species was not observed during biological resource surveys, and there are no CNDDB records within 10 miles of the BSA, and so the potential for it to occur within the BSA is low.
<i>Thamnophis gigas</i> giant gartersnake	FT/ST -/-	This is a highly aquatic snake found in marshes and sloughs, drainage canals, and irrigation ditches and prefers sloughs to be flooded in summer and dry in winter. It prefers vegetation close to the water for basking and typically does not venture more than 200 feet from aquatic habitat. It ranges in elevation from sea level to 400 feet. It is endemic to California and currently ranges from Glenn County to the southern edge of the San Francisco Bay Delta and from Merced County to northern Fresno County.	No Potential	There were no suitable water sources, such as pools or creeks, observed within the BSA. This species was not observed during biological resource surveys and is not expected to occur within the BSA.
Birds				
<i>Agelaius tricolor</i> tricolored blackbird	-/ST -/-	This species is a year-round resident that is a colonial breeder. It occurs in freshwater, emergent wetlands with tall, dense cattails or tule, but also thickets of willow, blackberry, wild rose, and tall herbs. Breeding colonies consist of a minimum of approximately 50 pairs. This species forages mostly for insects	No Potential	The BSA lacks aquatic habitat and, therefore, habitat capable of supporting this species.

Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
		and spiders and, less often, seeds and cultivated grains in pastures, grain fields, cropland, and similar habitats near breeding areas.		
<i>Athene cunicularia</i> burrowing owl	-/- -/SSC	This species occupies a variety of open, semi-arid, to arid habitats throughout central and southern California, including desert regions. It prefers open habitats with few shrubs or trees and low-growing vegetation. It is most active around sunrise and sunset and utilizes burrows constructed by mammals year-round for shelter and nesting. This species is well documented in urban areas where patches of undeveloped areas are present (e.g., canals, airports, drainage basins) and in areas of dense agricultural development, particularly where canals provide burrow habitat. It forages primarily for rodents and insects within several miles of its burrow, usually in open grassy habitats if available. It has been observed hunting bats and insects around parking lot lights. Threats to this species include development resulting in habitat loss/fragmentation.	Present	Suitable habitat for foraging and burrowing is present within the BSA. There were no burrowing owls observed during the reconnaissance surveys, but multiple burrows showing diagnostic sign (whitewash, pellets, feathers) were observed. There are multiple CNDDDB records within close proximity of the BSA, the nearest (EONDX 45077) is from 2000 and located approximately 2.10 miles southeast of the southern terminus.
<i>Buteo swainsoni</i> Swainson's hawk	-/ST -/-	This species occurs in grassland, desert, and agricultural landscapes in the Central Valley and Antelope Valley. These hawks may be resident or migrant and nest and breed in stands with few trees in juniper-sage flats, riparian areas, and oak savannah habitats. This species has also been observed nesting and breeding in large eucalyptus trees along freeways and in trees over rural residences surrounded by agriculture. Nests are a platform of sticks, bark, and fresh leaves at or near the top of trees. This species breeds from late	Foraging: Potential Nesting: No Potential	The BSA lacks suitable nesting habitat, such as large trees but supports suitable foraging habitat, and the species may occur as a transient. The nearest CNDDDB record (EONDX 91375) is from 2017 and is located approximately 4.37 miles north of the BSA where a nest was observed in a large tamarisk tree.

Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
		March to late August. It forages in grassland, open scrub, and grain fields, primarily for rodents.		
<i>Charadrius montanus</i> mountain plover	-/- -/SSC	This terrestrial plover does not breed in California but is a winter resident and migrant between September and March when it often forms large overwintering flocks. Preferred habitats include grasslands, open sagebrush, and plowed and grazed fields throughout central and southern California. Mountain plovers feed on large insects, especially grasshoppers.	No Potential	This species does not breed in California, and the BSA does not support preferred winter habitat, such as plowed and grazed fields. The nearest CNDDDB record (EONDX 40902) is from 1990 and located approximately 6.06 miles east of the BSA, where the species was observed within the Tule Elk State Natural Reserve.
<i>Charadrius nivosus nivosus</i> western snowy plover	FT/- -/SSC	This is a ground-nesting bird that occurs along sandy beaches, salt pond levees, and shores of large alkali lakes. It prefers to nest on open bare ground in loose colonies or isolated pairs. It builds nests on a natural or shallow scrape in the ground and is lined with bits of debris, pebbles, grass, and shell fragments. This species primarily feeds on terrestrial and aquatic invertebrates.	No Potential	The BSA lacks wetland habitat and, therefore, habitat capable of supporting this species.
<i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo	FT/SE -/-	This migratory species nests in open riparian woodlands along broad lower flood bottoms of larger river systems. It prefers willows, often mixed with cottonwood, with an understory of blackberries, nettles, or wild grapes. Its nest is most often placed in willows with cottonwoods used extensively for foraging and also occasionally nests in orchards adjacent to river bottoms.	No Potential	The BSA lacks riparian habitat and, therefore, habitat capable of supporting this species.

Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Dendrocygna bicolor</i> fulvous whistling-duck	-/- -/SSC	This duck occupies freshwater wetlands, including marshes, marshy ponds, and flooded rice fields. It breeds from March to September in dense floating or flooded emergent vegetation. It is threatened by irregular species movements, pesticide contamination, habitat loss and degradation, and agricultural and hunting disturbances.	No Potential	The BSA lacks riparian habitat and, therefore, habitat capable of supporting this species.
<i>Falco mexicanus</i> prairie falcon	-/- -/WL	This falcon is primarily found in annual grasslands, savannahs, rangeland, some agricultural fields, and desert scrub. It breeds throughout the open county in the West. Nests are built on bluffs and cliffs at elevations ranging from alpine habitat to 11,000 feet. Breeding occurs in grasslands, areas of fixed shrubs, or alpine tundra. It is threatened by pesticides (reproduction failure) and degradation of habitat due to agricultural development.	Foraging: Potential Nesting: No Potential	The BSA lacks suitable nesting habitat such as bluffs and cliffs but supports suitable foraging habitat, and the species may occur as a transient. The single CNDDDB record (EONDX 18211) within 10 miles overlaps the BSA and is from 1989, although it is mapped generally, and the exact location has been suppressed.
<i>Gymnogyps californianus</i> California condor	FE/SE -/FP	This condor has been documented in southern and northern California, northern Baja, California, Oregon, southern British Columbia, and Arizona, Utah, and Nevada where the three states come together. It is a rare visitor to the San Joaquin Valley, found at elevation ranges from sea level to 9,000 feet. Their main characteristics sought for a nest site are 1) partially sheltered from the weather and 2) located on a cliff, steep slope, or tall trees. Nests are located between 2,000 to 6,500 feet in elevation. They are threatened by lead poisoning, micro trash ingestion, collisions, electrocution by powerlines, drownings, and predation. More recent threats have been from shootings.	No Potential	The BSA is below the known breeding range of the species and is not within habitat designated as critical to the species. There is a low potential the species may forage and disperse through the BSA, but no suitable nesting habitat is present, and the species is not anticipated to occur.

Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Lanius ludovicianus</i> loggerhead shrike	-/- -/SSC	This species is a common resident in lowlands and foothills throughout California. It prefers open grassland and pasture habitats with scattered trees, fence posts, utility lines, shrubs, and other perches. This species primarily consumes large insects but will prey upon other small animals. It nests in densely foliated and/or thorny shrubs and trees less than 50 feet above the ground.	Potential	Suitable foraging and nesting habitat is present in the BSA, although the species was not observed during site reconnaissance surveys. The nearest CNDDDB record (EONDX 66869) is from 1999 and is located approximately 2.3 miles southwest of the northern terminus of the BSA.
<i>Plegadis chihi</i> white-faced ibis	-/- -/SSC	This bird occurs in freshwater wetlands, especially cattail and bulrush marshes. It rarely breeds in California and is an uncommon summer resident in some southern California localities. It nests in several marshes in the western United States and the Great Basin. This species forages in flooded hay meadows, agricultural fields, and estuarine wetlands. Its primary prey is insects, crustaceans, and earthworms.	No Potential	The BSA lacks wetland habitat and, therefore, habitat capable of supporting this species.
<i>Toxostoma lecontei</i> Le Conte's thrasher	-/- -/SSC	This species is an uncommon-to-rare local resident in southern California deserts. It occurs in open desert wash, desert scrub, alkali desert scrub, desert succulent scrub, and Joshua tree habitat with scattered shrubs. It occurs from Mono County south to the Mexican border and in western and southern San Joaquin Valley. It has rarely been recorded north of Kern County after the 1950s. It feeds on insects and occasionally on seeds, small lizards, and other small vertebrates. It is threatened by loss of habitat due to oil and gas production, overgrazing, and pesticides (DDT).	Potential	Suitable foraging and nesting habitat is present in the BSA, although the species was not observed during site reconnaissance surveys. The nearest CNDDDB record (EONDX 41609) is from 1999 and is located approximately 1.5 miles west of the northern terminus of the BSA, where two adults were observed within saltbush scrub habitat within oil and gas development.

Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Vireo bellii pusillus</i> least Bell's vireo	FE/SE -/-	This migratory species is a locally common summer resident ranging from coastal southern California through the Sacramento and San Joaquin valleys as far north as Red Bluff in Tehama County. It can also occur in the Sierra Nevada and Coast Range, Owens and Death Valley, and scattered locations within the Mojave Desert. It typically occurs at low elevation, riparian habitats with dense shrub understory. Nests are typically constructed in willows, but mulefat, California wild rose, poison oak, mugwort, and cottonwoods may also be used. This species occurs below 2,000 feet in elevation. It primarily feeds on insects and is threatened by habitat loss and brood parasitism by the brown-headed cowbird.	No Potential	The BSA lacks riparian habitat and, therefore, habitat capable of supporting this species.
<i>Xanthocephalus xanthocephalus</i> yellow-headed blackbird	-/- -/SSC	This species is a migratory and summer resident in Central Valley from mid-April to late July. It occurs in marshes and pockets of habitat along rivers and tributaries, typically with tall emergent vegetation. Nearby water levels in nesting habitat are approximately 2.0 to 4.0 feet deep. This species forages on seeds and cultivated grain, but during the breeding season, they may eat insects. It is susceptible to pesticides and threatened by loss due to wetland drainage for irrigation, flood control, or water diversions.	No Potential	The BSA lacks riparian habitat and, therefore, habitat capable of supporting this species.
Mammals				

Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Ammospermophilus nelsoni</i> Nelson's (=San Joaquin) antelope squirrel	-/ST -/-	This species occurs in saltbush scrub and grassland habitats and prefers washes and open shrub areas with sandy soils. Known populations occur in Lokern Natural Area, Elk Hills Carrizo and Elkhorn Plains, Temblor Range and foothills and interior valleys of the Diablo Range, and as far north as Merced and San Benito counties. It feeds primarily on insects, green vegetation, seeds, and occasionally on small vertebrates. This species can excavate burrows or use kangaroo rat burrows for temperature regulation, litter-rearing, shelter, and escape from predators. It is threatened by habitat loss and population fragmentation from agricultural development, urbanization, petroleum extraction, and excessive cattle grazing.	Present	Multiple observations of this species were made during site reconnaissance surveys, and suitable habitat is present within the BSA. There are numerous CNDDDB records surrounding the BSA, several of which are overlapping. The most recent record (EONDX 114570) overlapping the BSA is from 2018.
<i>Dipodomys ingens</i> giant kangaroo rat	FE/SE -/-	This species occurs in native annual grassland and shrubland habitats with vegetated annual grass and forbs and scattered desert shrubs. It is known only to six major geographic units: Panoche Region, Kettleman Hills, San Juan Creek Valley, western Kern County (Lokern, Elk Hills, McKittrick, Taft, and Maricopa), Carrizo Plain Natural Area, and Cuyama Valley and occurs at elevations between 280 to 2,800 feet. It excavates burrows on level or gentle slopes with friable, sandy, well-drained soils and is a nocturnal foraging species. It is threatened by habitat loss, fragmentation, degradation, and drought and also by land conversion to agricultural, industrial, and urban developments.	Potential	This species was not observed during site reconnaissance surveys, but appropriately sized burrows displaying sign consistent with use by kangaroo rat were observed throughout sections of the BSA within suitable habitat. Suitable habitat is present within the BSA, and there are multiple CNDDDB records in close proximity to the BSA.

Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Dipodomys nitratooides brevinasus</i> short-nosed kangaroo rat	-/- -/SSC	This is a subspecies of the San Joaquin kangaroo rat (<i>Dipodomys nitratooides</i>) that occurs on friable soils on flat or gentle slopes within grassland or desert scrub habitat. The current range is unknown, but there are fragmented populations in Pleasant Valley, Kettleman and Lost Hills, Lokern, Elk Hills, San Emigdio, Wheler Ridge, Carrizo Plain Natural Area, and Caliente Mountains. It excavates burrows on higher ground and is a nocturnal foraging species. It is threatened by random catastrophic events (i.e., drought, flooding, fire), overgrazing of rangeland, and extensive land conversion to agriculture from the 1960s through the 1970s.	Potential	This species was not observed during site reconnaissance surveys, but appropriately sized burrows displaying sign consistent with use by kangaroo rat were observed throughout sections of the BSA within suitable habitat. Suitable habitat is present within the BSA, and there are multiple CNDDDB records in close proximity to the BSA and several records that overlap the BSA.
<i>Dipodomys nitratooides nitratooides</i> Tipton kangaroo rat	FE/SE -/-	This is a subspecies of the San Joaquin kangaroo rat (<i>Dipodomys nitratooides</i>) that occurs in valley saltbush scrub, valley sink scrub, and grasslands. It is historically known to occur in the southern San Joaquin Valley from southern margins on Tulare Lakebed near Lemoore and Hanford and on the valley floor in Tulare and Kern counties, but now is found only east of the California aqueduct. Population distribution is not continuous and occurs only in small, isolated patches. It is a nocturnal foraging species that excavates burrows for temperature regulation, litter-rearing, shelter, and escape from predators. This species is threatened by habitat loss, fragmentation, degradation, and by land conversions to agricultural, industrial, and urban developments, but it can quickly inhabit fallow agricultural fields if a source population is nearby.	No Potential	The BSA is outside of the known geographic range (east of the California aqueduct) of the species.

Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Eumops perotis californicus</i> western mastiff bat	-/- -/SSC	This species occurs in open, semi-arid to arid habitats throughout southeastern San Joaquin Valley and Coast Range from Monterey County southward. It can also occur in urban areas. It feeds on insects captured in flight and roosts in cliff faces, high buildings, trees, and tunnels. The maternity season begins in March, with young typically volant by September. Nursery roosts most often occur in tight rock crevices or crevices in buildings.	No Potential	No suitable roosting habitat (cliff faces, high buildings, trees, or tunnels) was observed within the BSA. There are four CNDDDB records within 10 miles of the BSA, all are from the 1950s and mapped generally as the exact location is unknown. The nearest record (EONDX 66382) is from 1959 and located approximately 4.65 miles southwest of the BSA near the City of Derby Acres. Based on the lack of nearby roosting sites, this species is not expected to be encountered within the BSA.
<i>Onychomys torridus tularensis</i> Tulare grasshopper mouse	-/- -/SSC	This subspecies occurs in shrubland communities in hot, arid grassland and shrubland associations. These include blue oak woodlands, upper Sonoran subshrub scrub, alkali sink and mesquite associations on the valley floor, and grasslands associations on the sloping margins of the San Joaquin Valley and Carrizo Plain region. This subspecies occupies burrows and feeds primarily on invertebrates but may supplement its diet with seeds and other small mammals.	Potential	This species was not observed during site reconnaissance surveys; however, potentially suitable burrows were observed within areas of suitable habitat (undisturbed grassland and saltbush scrub) during the site survey. The nearest CNDDDB record (EONDX 23826) is from 1957 and is located approximately 0.75 miles north of the BSA.
<i>Perognathus inornatus</i> San Joaquin pocket mouse	-/- -/	This nocturnal species is found in dry, open grasslands and scrublands on fine-textured soils in the Central (mostly west side) and Salinas valleys at elevations from 1,100 to 2,000 feet. It digs its own burrows for cover, breeding, and seed caching.	Potential	This species was not observed during site reconnaissance surveys; however, potentially suitable burrows were observed within areas of suitable habitat (undisturbed grassland and saltbush scrub) during the site survey. The nearest CNDDDB record (EONDX 65635) is from 1991 and overlaps the BSA.

Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
<i>Sorex ornatus relictus</i> Buena Vista Lake ornate shrew	FE/- -/SSC	This shrew species occurs in moist soil conditions in marsh habitat with dense emergent vegetation and/or leaf litter and is often associated with cottonwoods, willows, alkali heath, wild rye grass, and Baltic rush. Historically, this species occurred in and around the Buena Vista Lake and Tulare Lake Basins and was once thought to be extinct but was rediscovered at Kern Lake Preserve in 1986. It is primarily insectivorous. Reproduction typically occurs from late February to September or early October, and the litter size varies.	No Potential	The BSA lacks habitat capable of supporting this species.
<i>Taxidea taxus</i> American badger	-/- -/SSC	This species occurs mostly in open, drier stages of shrub, forest, and herbaceous habitats, with friable soils. It feeds mostly on fossorial rodents. It digs burrows for cover and reproduction and can dig a new den each night. Litters are typically born in March and April. This species can be somewhat tolerant of human activities but generally avoids cultivated agricultural habitats.	Potential	This species was not observed during site reconnaissance surveys; however, suitable habitat is present within the BSA, and potential dens were observed during site surveys. The nearest CNDDDB record (EONDX 49676) is from 1999 and is located approximately one mile northwest of the BSA.
<i>Vulpes macrotis mutica</i> San Joaquin kit fox	FE/ST -/-	This fox species is endemic to the Central Valley and primarily occurs in arid to semi-arid grasslands, open shrublands, savannahs, and grazed lands with loose-textured soils within the San Joaquin Valley, Carrizo Plain, Salinas Valley, Cuyama Valley, and other small valleys in western foothills. Intensively maintained agricultural areas are typically avoided. It is highly adaptable and documented in urban developed areas. It uses burrows year-round for shelter, escapes from predators, and rearing young, and it will use man-made structures, such as pipes, for denning. Kit fox feed	Potential	This species was not observed during site reconnaissance surveys; however, suitable habitat is present within the BSA, and potential dens were observed during site surveys. There are numerous CNDDDB records of the species in the vicinity of the BSA, several of which overlap the BSA.

Scientific Name Common Name	Status Fed/State ESA CRPR/CDFW	Habitat Requirements	Potential to Occur	Rationale
		primarily on small mammals but will also consume birds, reptiles, and insects and scavenge for human food. It is threatened by habitat loss and fragmentation, vehicle strikes, and diseases such as the current mange outbreak in the urban population in Bakersfield and in nearby natural areas.		

APPENDIX B

REGULATORY SETTING

Regulatory Setting

Federal Laws and Regulations

FEDERAL ENDANGERED SPECIES ACT OF 1973 (USC, TITLE 16, SECTIONS 1531 -1543)

The Federal Endangered Species Act (FESA) and subsequent amendments provide guidance for the conservation of endangered and threatened species and the ecosystems upon which they depend. The FESA defines species as threatened or endangered and provides regulatory protection for listed species. The FESA provides a program for the conservation and recovery of threatened and endangered species as well as the protection of designated critical habitat that the USFWS determines is required for the survival and recovery of listed species.

Section 9 lists actions that are prohibited under the FESA. Although take of a listed species is prohibited, it is allowed when it is incidental to an otherwise legal activity. Section 9 prohibits take of listed species of fish, wildlife, and plants without special exemption. The definition of “harm” includes significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns related to breeding, feeding, or shelter. “Harass” is defined as actions that create the likelihood of injury to listed species by disrupting normal behavioral patterns related to breeding, feeding, and shelter significantly.

Section 7 of the FESA requires federal agencies, in consultation with and assistance from the Secretary of the Interior or the Secretary of Commerce, as appropriate, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction of adverse modification of critical habitat for these species. The USFWS and National Marine Fisheries Service (NMFS) share responsibilities for administering the FESA. Regulations governing interagency cooperation under Section 7 are found in the California Code of Regulations (CCR) Title 50, Part 402. If an activity could result in "take" of a listed species as an incident of an otherwise lawful activity, then a biological opinion can be issued with an incidental take statement that exempts the activity from FESA's take prohibitions.

Section 10 provides a means whereby a nonfederal action with the potential to result in take of a listed species can be allowed under an incidental take permit. Application procedures are found at CFR Title 50, Sections 13 and 17 for species under the jurisdiction of USFWS and CFR, Title 50, Sections 217, 220, and 222 for species under the jurisdiction of NMFS. Section 10 would apply to the project if take of a species (as defined in Section 9) were determined to occur.

Section 4(a)(3) and (b)(2) of the FESA requires the designation of critical habitat to the maximum extent possible and prudent based on the best available scientific data and after considering the economic impacts of any designations. Critical habitat is defined in Section 3(5)(A) of the FESA: 1) areas within the geographic range of a species that are occupied by individuals of that species and contain the primary constituent elements (physical and biological features) essential to the conservation of the species, thus warranting special

management consideration or protection; and 2) areas outside of the geographic range of a species at the time of listing but that are considered essential to the conservation of the species.

MIGRATORY BIRD TREATY ACT (USC, TITLE 16, SECTIONS 703 - 711)

The MBTA, first enacted in 1918, is a series of treaties that the United States has with Great Britain (on behalf of Canada), Mexico, Japan, and the former Soviet Union that provide for international migratory bird protection. The MBTA authorizes the Secretary of the Interior to regulate the taking of migratory birds. The act provides that it shall be unlawful, except as permitted by regulations, “to pursue, take, or kill any migratory bird, or any part, nest or egg of any such bird” (U.S. Code Title 16, Section 703). The MBTA currently includes several hundred species and includes all native birds.

BALD AND GOLDEN EAGLE PROTECTION ACT OF 1940 (USC, TITLE 16, SECTION 668)

The Bald and Golden Eagle Protection Act (BGEPA) of 1940 protects bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) by prohibiting the taking, possession, and commerce of these species and establishing civil penalties for violation of this act. Take of bald and golden eagles includes to “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.” To disturb means to agitate or bother a bald or golden eagle to the degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior. (Federal Register [FR], volume 72, page 31132; 50 CFR 22.3).

FEDERAL CLEAN WATER ACT (USC, TITLE 33, SECTIONS 1521 - 1376)

The Federal Clean Water Act (CWA) provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation’s waters. Section 401 requires that a project applicant that is pursuing a federal license or permit allowing a discharge to waters of the U.S. to obtain State Certification of Water Quality, thereby ensuring that the discharge will comply with provisions of the CWA. The Regional Water Quality Control Board administers the certification program in California. Section 402 establishes a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the U.S. Section 404 establishes a permit program administered by the United States Army Corps of Engineers (USACE) that regulates the discharge of the dredged or fill material into waters of the U.S., including wetlands. The USACE implementing regulations are found in CFR, Title 33, Sections 320 and 330. Guidelines for implementation are referred to as Section 404(b)(1) Guidelines, which were developed by the United States Environmental Protection Agency (EPA) in conjunction with USACE (40 CFR 230). The guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

Applicable State Laws and Regulations

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CALIFORNIA PUBLIC RESOURCES CODE, SECTIONS 21000 - 21178, AND TITLE 14 CCR, SECTION 753, AND CHAPTER 3, SECTIONS 15000 - 15387)

The California Environmental Quality Act (CEQA) is California's broadest environmental law. CEQA helps guide the issuance of permits and approval of projects. Courts have interpreted CEQA to afford the fullest protection of the environment within the reasonable scope of the statutes. CEQA applies to all discretionary projects proposed to be conducted or approved by a State, County, or city agency, including private projects requiring discretionary government approval.

The purpose of CEQA is to disclose to the public the significant environmental effects of a proposed discretionary project; prevent or minimize damage to the environment through the development of project alternatives, mitigation measures, and mitigation monitoring; disclose to the public the agency decision-making process to approve discretionary projects; enhance public participation in the environmental review process; and improve interagency coordination.

State CEQA Guidelines Section 15380(b) provides that a species not listed on the federal or State list of protected species, nonetheless, may be considered rare or endangered for the purpose of CEQA if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definition in FESA and the section of the California Fish and Game Code dealing with rare or endangered plants or animals.

CALIFORNIA ENDANGERED SPECIES ACT (CALIFORNIA FISH AND GAME CODE SECTION 2050 ET SEQ.)

The California Endangered Species Act (CESA) establishes the policy of the State to conserve, protect, restore, and enhance threatened or endangered species and their habitats. The CESA mandates that State agencies should not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. For projects that would result in take of a species listed under the CESA, a project proponent would need to obtain a take permit under Section 2081(b). Alternatively, the CDFW has the option of issuing a Consistency Determination (Section 2080.1) for projects that would affect a species listed under both the CESA and the FESA, as long as compliance with the FESA would satisfy the “fully mitigate” standard of CESA, and other applicable conditions.

PORTER-COLOGNE WATER QUALITY CONTROL ACT

Under Section 401 of the CWA, the RWQCB must certify that actions receiving authorization under Section 404 of the CWA also meet State water quality standards. The RWQCB regulates waters of the State under the authority of the Porter-Cologne Water Quality Control Act (Porter-Cologne Act). The RWQCB requires projects to avoid impacts to wetlands whenever feasible and requires that projects do not result in a net loss of wetland acreage or a net loss

of wetland function and values. The RWQCB typically requires compensatory mitigation for impacts to wetlands and/or waters of the State. The RWQCB has jurisdiction over waters deemed 'isolated' or not subject to Section 404 jurisdiction under the Solid Waste Agency of Northern Cook County (SWANCC) decision. Dredging, filling, or excavation of isolated waters constitutes a discharge of waste into waters of the State, and such discharges are authorized through an Order of Waste Discharge (or waiver of discharge) from the RWQCB.

VARIOUS SECTIONS OF THE CALIFORNIA STATE AND FISH AND GAME CODE

Section 460 and Sections 4000-4003

Chapter 5 of the California Fish and Game Code (FGC) describes regulations concerning the take of fur-bearing mammals, including defining methods of take, seasons of take, bag and possession limits, and areas of the State where take is allowed. Section 4000–4003 defines fur-bearing mammals and the issuance of permits by the Department. Sections 460 and 4000 identify fisher, marten, river otter, desert kit fox, and red fox as fur-bearing mammals, and Section 460 prohibits take of these species at any time. This section of the California Fish and Game Code (FGC) has historically been interpreted to apply to restriction on furbearer trapping permits but has recently been expanded by CDFW to apply to any forms of take and treated as if these species were listed under CESA.

Sections 1600 through 1616

Under these sections of the FGC, a project operator is required to notify CDFW prior to any project that would divert, obstruct, or change the natural flow, bed, channel, or bank of any river, stream, or lake. Pursuant to the California Code of Regulations, a “stream” is defined as a body of water that flows at least periodically or intermittently through a bed or channel having banks and supporting fish or other aquatic life. Based on this definition, a watercourse with surface or subsurface flows that support or has supported riparian vegetation is a stream and is subject to CDFW jurisdiction. Altered or artificial watercourses valuable to fish and wildlife are subject to CDFW jurisdiction. CDFW also has jurisdiction over dry washes that carry water during storm events. Preliminary notification and project review generally occur during the environmental process. When an existing fish or wildlife resource may be substantially adversely affected, CDFW is required to propose reasonable project changes to protect the resource. These modifications are formalized in a Streambed Alteration Agreement.

Sections 3511, 4700, 5050, and 5515

The protection of fully protected species is described in Sections 3511, 4700, 5050, and 5515 of the FGC. These statutes prohibit take or possession of fully protected species. CDFW is unable to authorize incidental take of fully protected species, except as allowed for in an approved Natural Communities Conservation Plan (NCCP) or through direct legislative action.

Sections 1900 through 1913 - Native Plant Protection Act

California's Native Plant Protection Act (NPPA) requires all State agencies to use their authority to carry out programs to conserve endangered and rare native plants. Provision of the NPPA prohibits that taking of listed plants from the wild and requires notification of CDFW at least 10 days in advance of any change in land use. This allows CDFW to salvage listed plant species that otherwise would be destroyed. A project proponent is required to conduct botanical inventories and consult with CDFW during project planning to comply with the provisions of this act and sections of CEQA that apply to rare or endangered plants.

Local and Regional Laws, Regulations, and Policies

KERN COUNTY GENERAL PLAN (KCGP)

The KCGP identifies the federal, State, and local statutes, ordinances, or policies that govern the conservation of biological resources that must be considered by Kern County (County) during the decision-making process for any project that could impact biological resources.

Land Use, Open Space, and Conservation Element. The Land Use, Open Space, and Conservation Element of the KCGP states that the element provides for a variety of land uses for future economic growth while also assuring the conservation of the County's agricultural, natural, and resource attributes. Section 1.10, General Provisions, provides goals, policies, and implementation measures that apply to all types of discretionary projects.

Policies	
Policy 27.	Threatened or endangered plant and wildlife species should be protected in accordance with State and federal laws.
Policy 28.	County should work closely with State and federal agencies to assure that discretionary projects avoid or minimize impacts to fish, wildlife, and botanical resources.
Policy 29.	The County will seek cooperative efforts with local, State, and federal agencies to protect listed threatened and endangered plant and wildlife species through the use of conservation plans and other methods promoting the management and conservation of habitat lands.
Policy 27.	The County will seek cooperative efforts with local, State, and federal agencies to protect listed threatened and endangered plant and wildlife species through the use of conservation plans and other methods promoting the management and conservation of habitat lands.
Policy 30.	The County will promote public awareness of endangered species laws to help educate property owners and the development community of local, State, and federal programs concerning endangered species conservation issues.

Policies	
Policy 31.	Under the provisions of the California Environmental Quality Act (CEQA), the County, as lead agency, will solicit comments from the California Department of Fish and Game and the U.S. Fish and Wildlife Service when an environmental document (Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report) is prepared.
Implementation Measures	
Implementation Measure Q.	Discretionary projects shall consider effects to biological resources as required by the California Environmental Quality Act.
Implementation Measure R.	Consult and consider the comments from responsible and trustee wildlife agencies when reviewing a discretionary project subject to the California Environmental Quality Act.
Implementation Measure S.	Pursue the development and implementation of conservation programs with State and federal wildlife agencies for property owners desiring streamlined endangered species mitigation programs.

Source: (Kern County, 2003)

RECOVERY PLAN FOR UPLAND SPECIES OF THE SAN JOAQUIN VALLEY

Recovery plans delineate reasonable actions that are believed to be required to recover and protect listed species. Plans are published by the U.S. Fish and Wildlife Service, sometimes prepared with the assistance of recovery teams, contractors, State agencies, and others. A recovery plan delineates, justifies, and schedules the research and management actions necessary to support the recovery of a species. Recovery plans do not, of themselves, commit manpower or funds, but are used in setting regional and national funding priorities and providing direction to local, regional, and State planning efforts. The Recovery Plan for Upland Species of the San Joaquin Valley provides individual species accounts for 34 San Joaquin Valley species listed as federally protected or as candidates or species of concern.

APPENDIX C

REPRESENTATIVE PHOTOGRAPHS



Photograph 1: Representative view of existing well pad and adjacent saltbush scrub habitat fragments.
GPS coordinates: 35.329751, -119.543047, facing southeast.
Photograph taken by Mitch Wayman on September 23, 2022.



Photograph 2: Representative view of the existing pipeline route and adjacent habitat fragments.
GPS coordinates: 35.292959, -119.527528, facing east.
Photograph taken by Eric Madueno on December 15, 2022.



Photograph 3: Representative view of saltbush scrub habitat.
GPS coordinates: 35.274632, -119.464994, facing north.
Photograph taken by Mitch Wayman on October 17, 2022.



Photograph 4: Representative view of established pipeline route and adjacent habitat fragments.
GPS coordinates: 35.281262, -119.488705, facing east.
Photograph taken by Courtney Chaney on October 12, 2022.



Photograph 5: Representative photo of NHD/NWI drainage with no water and upland vegetation.
GPS coordinates: 35.315618, -119.54909, facing east.
Photograph taken by Karissa Denney on September 21, 2022.



Photograph 6: Representative photo of potentially suitable kangaroo rat burrow.
GPS coordinates: 35.31573, -119.545111.
Photograph taken by Eric Madueno on December 15, 2022.



Photograph 7: Representative photo of active San Joaquin antelope squirrel burrow.
GPS coordinates: 35.323186, -119.544908.
Photograph taken by Eric Madueno on December 14, 2022.



Photograph 8: Representative photo of potentially suitable kangaroo rat burrow.
GPS coordinates: 35.282469, -119.482045.
Photograph taken by Lauren Fah on October 03, 2022.



Photograph 9: Representative photo of potential San Joaquin kit fox den.
GPS coordinates: 35.281416, -119.494471.
Photograph taken by Lauren Fah on October 12, 2022.



Photograph 10: Representative photo of potential San Joaquin kit fox den.
GPS coordinates: 35.28669, -119.50617.
Photograph taken by Mitch Wayman on October 12, 2022.

APPENDIX D

PLANT AND ANIMAL SPECIES OBSERVED WITHIN THE BIOLOGICAL SURVEY AREA

Table D-1
Plant Species Observed within the Biological Study Area
Carbon TerraVault 1 Project, Kern County, California

Scientific Name	Common Name	Status	Native or Introduced
Shrubs			
<i>Ambrosia salsola</i>	cheesebush		Native
<i>Atriplex polycarpa</i>	allscale saltbush		Native
<i>Atriplex spinifera</i>	spinescale saltbush		Native
<i>Ericameria linearifolia</i>	interior goldenbush		Native
<i>Eriogonum fasciculatum</i>	California buckwheat		Native
<i>Gutierrezia californica</i>	matchweed		Native
<i>Helianthus annuus</i>	common sunflower		Native
<i>Isocoma acradenia</i>	alkali goldenbush		Native
<i>Peritoma arborea</i>	bladderpod		Native
Herbs			
<i>Amaranthus palmeri</i>	Palmer's amaranth		Native
<i>Ambrosia acanthicarpa</i>	annual burweed		Native
<i>Amsinckia</i> sp.	fiddleneck		Native
<i>Astragalus</i> sp.	milkvetch		Native
<i>Brassica nigra</i>	black mustard	CAL-IPC*: Moderate	Introduced
<i>Centaurea melitensis</i>	tocalote	CAL-IPC: Moderate	Introduced
<i>Centaurea solstitialis</i>	yellow starthistle	CAL-IPC: High	Introduced
<i>Chenopodium album</i>	lamb's quarters		Introduced
<i>Croton setigerus</i>	turkey mullein		Native
<i>Cucurbita palmata</i>	coyote melon		Native
<i>Datura wrightii</i>	jimsonweed		Native
<i>Erigeron canadensis</i>	horseweed		Native
<i>Erodium cicutarium</i>	redstem filaree	CAL-IPC: Limited	Introduced
<i>Euphorbia albomarginata</i>	rattlesnake sandmat		Native
<i>Hirschfeldia incana</i>	short podded mustard	CAL-IPC: Moderate	Introduced
<i>Lactuca serriola</i>	prickly lettuce		Introduced
<i>Salsola tragus</i>	Russian thistle	CAL-IPC: Limited	Introduced
<i>Solanum elaeagnifolium</i>	silverleaf nightshade		Introduced
<i>Stephanomeria pauciflora</i>	wire lettuce		Native
<i>Tribulus terrestris</i>	puncture vine	CAL-IPC: Limited	Introduced
Grasses			
<i>Avena fatua</i>	wild oat	Cal-IPC: Moderate	Introduced
<i>Bromus diandrus</i>	ripgut brome	CAL-IPC: Moderate	Introduced
<i>Bromus rubens</i>	red brome	CAL-IPC: High	Introduced
<i>Bromus tectorum</i>	downy brome	CAL-IPC: High	Introduced
<i>Schismus arabicus</i>	Arabian schismus	CAL-IPC: Limited	Introduced

*Cal-IPC = California Invasive Plant Council.

Rating system: **High** = several ecological impacts; **Moderate** = substantial but not severe ecological impacts; **Limited** = minor ecological impacts or not enough information to justify higher score; **Alert** = species ranked as High or Moderate with limited distribution, but potential to spread; **Watch** = could pose a high risk of becoming invasive in the future.

Table D-2
Animal Species Observed within the Biological Study Area
Carbon TerraVault 1 Project, Kern County, California

Scientific Name	Common Name	Native or Introduced
Birds		
<i>Aphelocoma californica</i>	California scrub-jay	Native
<i>Athene cunicularia</i> *	burrowing owl	Native - SSC
<i>Buteo jamaicensis</i>	red-tailed hawk	Native
<i>Callipepla californica</i>	California quail	Native
<i>Cathartes aura</i>	turkey vulture	Native
<i>Corvus brachyrhynchos</i>	American crow	Native
<i>Corvus corax</i>	common raven	Native
<i>Eremophila alpestris</i>	horned lark	Native
<i>Falco sparverius</i>	American kestrel	Native
<i>Mimus polyglottos</i>	northern mockingbird	Native
<i>Sayornis nigricans</i>	black phoebe	Native
<i>Sayornis saya</i>	Say's phoebe	Native
<i>Streptopelia decaocto</i>	Eurasian collared dove	Introduced
<i>Sturnella neglecta</i>	western meadowlark	Native
<i>Tyrannus verticalis</i>	western kingbird	Native
<i>Zenaida macroura</i>	mourning dove	Native
Reptiles		
<i>Aspidoscelis tigris</i>	western whiptail	Native
<i>Crotalus oreganus</i>	Pacific rattlesnake (northern)	Native
<i>Uta stansburiana</i>	common side-blotched lizard	Native
Mammals		
<i>Ammospermophilus nelsoni</i>	San Joaquin antelope squirrel	Native - ST
<i>Dipodomys</i> sp.*	kangaroo rat	Native
<i>Lepus californicus</i>	black-tailed jackrabbit	Native
<i>Otospermophilus beecheyi</i>	California ground squirrel	Native
<i>Sylvilagus audubonii</i>	desert cottontail	Native
<i>Taxidea taxus</i> *	American badger	Native - SSC
<i>Thomomys bottae</i> *	Botta's pocket gopher	Native
<i>Vulpes macrotis mutica</i> *	San Joaquin kit fox	Native - FE/ST

*Observed sign only i.e.: scat, tracks, prey remains, den, burrow, etc.

FE Federally Endangered
SE State Endangered
ST State Threatened
SSC State Species of Special Concern
SFP State Fully Protected

C.2 Conservation Easement Deed – Elk Hills Conservation Area

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Recording Requested by
CHICAGO TITLE COMPANY
Order No. 54110326

James W. Fitch, Assessor-Recorder
Kern County Official Records

SR
1/07/2013
08:22 AM

Recorded Electronically by:
203 Chicago Title

DOC #: 000213002006



Stat Types: 1	Pages: 18
FEES	66.00
TAXES	.00
OTHER	.00
PAID	66.00

RECORDING REQUESTED BY AND
WHEN RECORDED MAIL TO:

State of California
Wildlife Conservation Board
1807 13th Street, Suite 103
Sacramento, CA 95811-7117

Space Above Line for Recorder's Use Only

CONSERVATION EASEMENT DEED

THIS CONSERVATION EASEMENT DEED is made this 3rd day of
October, 2012, by Occidental of Elk Hills, Inc., a Delaware Corporation ("OEHI"
or "Grantor"), in favor of THE STATE OF CALIFORNIA ("Grantee"), acting by and through
its Department of Fish and Game, a subdivision of the California Natural Resources Agency,
with reference to the following facts:

RECITALS

A. Grantor is the sole owner in fee simple of certain real property containing
approximately 6,314 acres, located in the County of Kern, State of California, and described in
Exhibit "A" attached hereto and incorporated herein by this reference (the "Property");

B. The Property possesses wildlife and habitat values (collectively, "conservation
values") of great importance to Grantee and the people of the State of California;

C. The Property contains Valley Saltbush Scrub and other related habitats, and
provides high quality habitat for endangered, threatened or other sensitive species such as San
Joaquin kit fox, blunt-nosed leopard lizard, giant kangaroo rat, Tipton kangaroo rat, and San
Joaquin antelope squirrel;

D. The Department of Fish and Game ("CDFG") has jurisdiction, pursuant to Fish
and Game Code Section 1802, over the conservation, protection, and management of fish,
wildlife, native plants and the habitat necessary for biologically sustainable populations of those
species, and CDFG is authorized to hold easements for these purposes pursuant to Civil Code
Section 815.3, Fish and Game Code Section 1348, and other provisions of California law.

E. This Conservation Easement provides mitigation for certain impacts of oil and
gas production facilities and activities at the Elk Hills oil field, located in the County of Kern,
State of California, pursuant to (1) the Biological Opinion issued by the U.S. Fish and Wildlife
Service ("USFWS") to the U.S. Department of Energy on November 8, 1995 (No. 1-1-95-F-102),
the rights and obligations of which were assigned to OEHI on February 5, 1998 in accordance
with Section 3413 of Public Law 104-106 ("BiOp"); (2) a California Endangered Species Act
Memorandum of Understanding and Take Authorization between OEHI and CDFG (December

1997), as amended (2010) ("MOU"); and (3) a Conservation Management Agreement/Declaration of Restrictions for the Elk Hills Unit between OEHI, CDFG and USFWS, dated November 6, 1998 ("CMA"). It is anticipated that the terms of the MOU and the CMA will be superseded by a Habitat Conservation Plan and associated State Incidental Take Permit pursuant to Fish and Game Code Section 2081 et. seq.

COVENANTS, TERMS, CONDITIONS AND RESTRICTIONS

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and pursuant to California law, including Civil Code Section 815, *et seq.*, Grantor hereby voluntarily grants and conveys to Grantee a conservation easement in perpetuity over the Property.

1. **Purposes.** The purposes of this Conservation Easement are to ensure the Property will be retained forever in its natural condition and to prevent any use of the Property that will significantly impair or interfere with the conservation values of the Property, subject to Grantor's Reserved Rights as stated herein. Grantor intends that this Conservation Easement will confine the use of the Property to such activities that are consistent with those purposes, including, without limitation, those involving the preservation, restoration and enhancement of native species and their habitats, and minor oil and gas activities as provided in Grantor's Reserved Rights.

2. **Grantee's Rights.** To accomplish the purposes of this Conservation Easement, Grantor hereby grants and conveys the following rights to Grantee:

(a) To preserve and protect the conservation values of the Property consistent with this Conservation Easement;

(b) To enter upon the Property at reasonable times upon reasonable notice in order to monitor compliance with and otherwise enforce the terms of this Conservation Easement, and for scientific research and interpretive purposes by Grantee or its designees, provided that Grantee shall not unreasonably interfere with Grantor's authorized use and quiet enjoyment of the Property;

(c) To prevent any activity on or use of the Property that is inconsistent with the purposes of this Conservation Easement and to require the restoration of such areas or features of the Property that may be damaged by any act, failure to act, or any use that is inconsistent with the purposes of this Conservation Easement;

(d) All air and water rights necessary to protect and to sustain the biological resources of the Property, subject to Grantor's Reserved Rights; and

(e) All present and future development rights allocated, implied, reserved or inherent in the Property, except for Grantor's Reserved Rights; such development rights are hereby terminated and extinguished, and may not be used on or transferred to any portion of the Property, nor any other property adjacent or otherwise.

3. **Prohibited Uses.** Any activity on or use of the Property inconsistent with the purposes of this Conservation Easement is prohibited. Without limiting the generality of the foregoing, the following uses and activities by Grantor, Grantor's agents, and third parties, are expressly prohibited except insofar as they are allowed under Grantor's Reserved Rights:

(a) Unseasonal watering; use of fertilizers, pesticides, biocides, herbicides or other agricultural chemicals; weed abatement activities; incompatible fire protection activities; and any and all other activities and uses which may adversely affect the purposes of this Conservation Easement;

(b) Use of off-road vehicles and use of any other motorized vehicles except on existing roadways;

(c) Agricultural activity of any kind, except that grazing is permitted if done in accordance with a CDFG-approved grazing or management plan;

(d) Recreational activities including, but not limited to, horseback riding, biking, hunting or fishing, except as may be specifically permitted under this Conservation Easement;

(e) Commercial or industrial uses;

(f) Any legal or de facto division, subdivision or partitioning of the Property;

(g) Construction, reconstruction or placement of any building, billboard or sign, or any other structure or improvement of any kind;

(h) Depositing or accumulation of soil, trash, ashes, refuse, waste, bio-solids or any other materials;

(i) Planting, introduction or dispersal of non-native or exotic plant or animal species;

(j) Filling, dumping, excavating, draining, dredging, mining, drilling, removing or exploring for or extraction of minerals, loam, soil, sands, gravel, rocks or other material on or below the surface of the Property;

(k) Altering the surface or general topography of the Property, including building of roads;

(l) Removing, destroying, or cutting of trees, shrubs or other vegetation, except as required by law for (1) fire breaks, (2) maintenance of existing foot trails or roads, or (3) prevention or treatment of disease; and

(m) Manipulating, impounding or altering any natural water course, body of water or water circulation on the Property, and activities or uses detrimental to water quality, including but not limited to degradation or pollution of any surface or sub-surface waters.

4. **Grantor's Duties.** Grantor shall undertake all reasonable actions to prevent the unlawful entry and trespass by persons whose activities may degrade or harm the conservation values of the Property. In addition, Grantor shall undertake all necessary actions to perfect Grantee's rights under Section 2 of this Conservation Easement, including but not limited to, Grantee's water rights.

5. **Reserved Rights.**

(a) Grantor reserves to itself, and to its personal representatives, heirs, successors, and assigns, all rights accruing from their ownership of the Property, including the right to engage in or to permit or invite others to engage in all uses of the Property that are not expressly prohibited or limited by, and are consistent with the purposes of, this Conservation Easement.

(b) Consistent with the BiOp, MOU and CMA, the Minimum Conservation Area Acreage required to be preserved is 7,075 acres of undisturbed habitat. OEHI owns the majority of the land that is to be preserved and OEHI's portion of the 7,075 acres of undisturbed habitat is approximately 5,519 acres. The CDFG and USFWS recognized in the CMA, and CDFG again acknowledges in this Conservation Easement, that the Property's undisturbed habitat is more than ten percent (10%) larger than the 5,519 acres required to be preserved (i.e. larger by approximately 664 acres). Accordingly the CMA recognizes, and this Conservation Easement clarifies that Grantor may:

(i) Conduct oil and gas exploration, extraction, transport and related activities on the Property, so long as all surface disturbance associated with such activities does not disturb more than ten percent (10%) of any individual Quarter Section within any officially surveyed six hundred forty (640) acre land Section. In the event a particular portion of the Property is smaller than a Quarter Section, the aforementioned activities shall not disturb more than ten percent (10%) of that particular parcel. For example, T31S, R23E, Sec.4, SE/4 SW/4 is 40 acres so Grantor may disturb no more 4 acres of that parcel.

6. **Grantee's Remedies.** If Grantee determines that a violation of the terms of this Conservation Easement has occurred or is threatened, Grantee shall give written notice to Grantor of such violation and demand in writing the cure of such violation. If Grantor fails to cure the violation within thirty (30) days after receipt of written notice and demand from Grantee, or if the cure reasonably requires more than thirty (30) days to complete and Grantor fails to begin the cure within the thirty (30)-day period or fails to continue diligently to complete the cure, Grantee may bring an action at law or in equity in a court of competent jurisdiction to enforce the terms of this Conservation Easement, to recover any damages to which Grantee may be entitled for violation of the terms of this Conservation Easement or for any injury to the conservation values of the Property, to enjoin the violation, *ex parte* as necessary, by temporary or permanent injunction without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies, or for other equitable relief, including, but

not limited to, the restoration of the Property to the condition in which it existed prior to any such violation or injury. Without limiting Grantor's liability therefor, Grantee may apply any damages recovered to the cost of undertaking any corrective action on the Property.

If Grantee, in its sole discretion, determines that circumstances require immediate action to prevent or mitigate damage to the conservation values of the Property which is prohibited by this Conservation Easement, Grantee may pursue its remedies under this Section 6 without prior notice to Grantor or without waiting for the period provided for cure to expire. Grantee's rights under this section apply equally to actual or threatened violations of the terms of this Conservation Easement. Grantor agrees that Grantee's remedies at law for any violation of the terms of this Conservation Easement are inadequate and that Grantee shall be entitled to the injunctive relief described in this section, both prohibitive and mandatory, in addition to such other relief to which Grantee may be entitled, including specific performance of the terms of this Conservation Easement. Grantee's remedies described in this section shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity, including but not limited to, the remedies set forth in Civil Code Section 815, *et seq.*, inclusive. The failure of Grantee to discover a violation or to take immediate legal action shall not bar Grantee from taking such action at a later time.

If at any time in the future Grantor or any subsequent transferee uses or threatens to use the Property for purposes inconsistent with this Conservation Easement then, notwithstanding Civil Code Section 815.7, the California Attorney General or any entity or individual with a justiciable interest in the preservation of this Conservation Easement has standing as interested parties in any proceeding affecting this Conservation Easement.

6.1. Costs of Enforcement. Any costs incurred by Grantee, where Grantee is the prevailing party, in enforcing the terms of this Conservation Easement against Grantor, including, but not limited to, costs of suit and reasonable attorneys' and experts' fees, and any costs of restoration necessitated by Grantor's negligence or breach of this Conservation Easement shall be borne by Grantor.

6.2. Grantee's Discretion. Enforcement of the terms of this Conservation Easement by Grantee shall be at the discretion of Grantee, and any forbearance by Grantee to exercise its rights under this Conservation Easement in the event of any breach of any term of this Conservation Easement shall not be deemed or construed to be a waiver by Grantee of such term or of any subsequent breach of the same or any other term of this Conservation Easement or of any of Grantee's rights under this Conservation Easement. No delay or omission by Grantee in the exercise of any right or remedy shall impair such right or remedy or be construed as a waiver.

6.3. Acts Beyond Grantor's Control. Nothing contained in this Conservation Easement shall be construed to entitle Grantee to bring any action against Grantor for any injury to or change in the Property resulting from (i) any natural cause beyond Grantor's control, including, without limitation, fire not caused by Grantor, flood, storm, and earth movement, or any prudent action taken by Grantor under emergency conditions to prevent, abate, or mitigate significant injury to the Property resulting from such causes; or (ii) acts by Grantee or its employees.

6.4. Department of Fish and Game Right of Enforcement. All rights and remedies conveyed to Grantee under this Conservation Easement Deed shall extend to and are enforceable by CDFG. These rights are in addition to, and do not limit, the rights of enforcement under the MOU or CMA.

7. Fence Installation and Maintenance. Grantor shall install and maintain a fence reasonably satisfactory to Grantee around the Conservation Easement area to protect the conservation values of the Property, including but not limited to wildlife corridors.

8. Access. This Conservation Easement does not convey a general right of access to the public.

9. Costs and Liabilities. Grantor retains all responsibilities and shall bear all costs and liabilities of any kind related to the ownership, operation, upkeep, and maintenance of the Property. Grantor agrees that Grantee shall have no duty or responsibility for the operation, upkeep or maintenance of the Property, the monitoring of hazardous conditions thereon, or the protection of Grantor, the public or any third parties from risks relating to conditions on the Property. Grantor remains solely responsible for obtaining any applicable governmental permits and approvals for any activity or use permitted by this Conservation Easement Deed, and any activity or use shall be undertaken in accordance with all applicable federal, state, local and administrative agency statutes, ordinances, rules, regulations, orders and requirements.

9.1. Taxes; No Liens. Grantor shall pay before delinquency all taxes, assessments, fees, and charges of whatever description levied on or assessed against the Property by competent authority (collectively "taxes"), including any taxes imposed upon, or incurred as a result of, this Conservation Easement, and shall furnish Grantee with satisfactory evidence of payment upon request. Grantor shall keep the Property free from any liens, including those arising out of any obligations incurred by Grantor for any labor or materials furnished or alleged to have been furnished to or for Grantor at or for use on the Property.

9.2. **Hold Harmless.** Grantor shall hold harmless, protect and indemnify Grantee and its directors, officers, employees, agents, contractors, and representatives and the heirs, personal representatives, successors and assigns of each of them (each an "**Indemnified Party**" and, collectively, "**Indemnified Parties**") from and against any and all liabilities, penalties, costs, losses, damages, expenses (including, without limitation, reasonable attorneys' fees and experts' fees), causes of action, claims, demands, orders, liens or judgments (each a "**Claim**" and, collectively, "**Claims**"), arising from or in any way connected with: (1) injury to or the death of any person, or physical damage to any property, resulting from any act, omission, condition, or other matter related to or occurring on or about the Property, regardless of cause; notwithstanding the foregoing, in the event that Grantee's or any of its employees' negligence is a contributing cause of the injury or physical damage set forth above, this indemnity shall apply only to the injury or physical damage not caused by Grantee; (2) the obligations specified in Sections 4, 9, and 9.1; and (3) the existence or administration of this Conservation Easement.

9.3. **Extinguishment.** If circumstances arise in the future that render the purposes of this Conservation Easement impossible to accomplish, this Conservation Easement can only be terminated or extinguished, in whole or in part, by judicial proceedings in a court of competent jurisdiction.

9.4. **Condemnation.** This Conservation Easement is a "wildlife conservation easement" acquired by a State agency, the condemnation of which is prohibited except as provided in Fish and Game Code Section 1348.3.

10. **Transfer of Easement.** This Conservation Easement is transferable by Grantee, but Grantee may assign this Conservation Easement only to an entity or organization authorized to acquire and hold conservation easements pursuant to Civil Code Section 815.3 (or any successor provision then applicable) or the laws of the United States. Grantee shall give Grantor written notice of any transfer or assignment of this Conservation Easement. Grantee shall require the assignee to record the assignment in the county where the Property is located.

11. **Transfer of Property.** Grantor agrees to incorporate the terms of this Conservation Easement by reference in any deed or other legal instrument by which Grantor divests itself of any interest in all or any portion of the Property, including, without limitation, a leasehold interest. Grantor further agrees to give written notice to Grantee of the intent to transfer any interest at least thirty (30) days prior to the date of such transfer. Grantee shall have the right to prevent subsequent transfers in which prospective subsequent claimants or transferees are not given notice of the covenants, terms, conditions and restrictions of this Conservation Easement. The failure of Grantor or Grantee to perform any act provided in this section shall not impair the validity of this Conservation Easement or limit its enforceability in any way.

12. **Notices.** Any notice, demand, request, consent, approval, or communication that either party desires or is required to give to the other shall be in writing and be served personally or sent by recognized overnight courier that guarantees next-day delivery or by first class mail, postage fully prepaid, addressed as follows:

To Grantor: President and General Manager
Occidental of Elk Hills, Inc.
10800 Stockdale Highway
Bakersfield, CA 93311

With a copy to: Managing Counsel
Occidental of Elk Hills, Inc.
10800 Stockdale Highway
Bakersfield, CA 93311

To Grantee: Department of Fish and Game
Central Region
1234 E. Shaw Ave., Fresno CA 93710
Attn: Regional Manager

With a copy to: Department of Fish and Game
Office of the General Counsel
1416 Ninth Street, 12th Floor
Sacramento, California 95814-2090
Attn: General Counsel

or to such other address as any party shall designate by written notice to the other. Notice shall be deemed effective upon delivery in the case of personal delivery or delivery by overnight courier or, in the case of delivery by first class mail, five (5) days after deposit into the United States mail.

13. **Amendment.** This Conservation Easement may be amended by Grantor and Grantee only by mutual written agreement. Any such amendment shall be consistent with the purposes of this Conservation Easement and California law governing conservation easements and shall not affect its perpetual duration. Any such amendment shall be recorded in the official records of Kern County, State of California.

14. **General Provisions.**

(a) **Controlling Law.** The interpretation and performance of this Conservation Easement shall be governed by the laws of the State of California, disregarding the conflicts of law principles of such state.

(b) **Liberal Construction.** Despite any general rule of construction to the contrary, this Conservation Easement shall be liberally construed to effect the purposes of this Conservation Easement and the policy and purpose of Civil Code Section 815, *et seq.* If any provision in this instrument is found to be ambiguous, an interpretation consistent with the purposes of this Conservation Easement that would render the provision valid shall be favored over any interpretation that would render it invalid.

(c) **Severability.** If a court of competent jurisdiction voids or invalidates on its face any provision of this Conservation Easement Deed, such action shall not affect the remainder of this Conservation Easement Deed. If a court of competent jurisdiction voids or invalidates the application of any provision of this Conservation Easement Deed to a person or circumstance, such action shall not affect the application of the provision to other persons or circumstances.

(d) **Entire Agreement.** This instrument sets forth the entire agreement of the parties with respect to the Conservation Easement and supersedes all prior discussions, negotiations, understandings, or agreements relating to the Conservation Easement. No alteration or variation of this instrument shall be valid or binding unless contained in an amendment in accordance with Section 13.

(e) **No Forfeiture.** Nothing contained herein will result in a forfeiture or reversion of Grantor's title in any respect.

(f) **Successors.** The covenants, terms, conditions, and restrictions of this Conservation Easement Deed shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representatives, heirs, successors, and assigns and shall constitute a servitude running in perpetuity with the Property.

(g) **Termination of Rights and Obligations.** A party's rights and obligations under this Conservation Easement terminate upon transfer of the party's interest in the Conservation Easement or Property, except that liability for acts or omissions occurring prior to transfer shall survive transfer.

(h) **Captions.** The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon its construction or interpretation.

(i) **No Hazardous Materials Liability.** Grantor represents and warrants that, to the best of its knowledge, it has no knowledge or notice of any Hazardous Materials (defined below) or underground storage tanks existing, generated, treated, stored, used, released, disposed of, deposited or abandoned in, on, under, or from the Property, or transported to or from or affecting the Property. Without limiting the obligations of Grantor under Section 9.2, Grantor hereby releases and agrees to indemnify, protect and

hold harmless the Indemnified Parties (defined in Section 9.2) from and against any and all Claims (defined in Section 9.2) arising from or connected with any Hazardous Materials or underground storage tanks present, alleged to be present, or otherwise associated with the Property at any time, except any Hazardous Materials placed, disposed or released by Grantee, its employees or agents. This release and indemnification includes, without limitation, Claims for (i) injury to or death of any person or physical damage to any property; and (ii) the violation or alleged violation of, or other failure to comply with, any Environmental Laws (defined below). If any action or proceeding is brought against any of the Indemnified Parties by reason of any such Claim, Grantor shall, at the election of and upon written notice from Grantee, defend such action or proceeding by counsel reasonably acceptable to the Indemnified Party or reimburse Grantee for all charges incurred for services of the Attorney General in defending the action or proceeding.

Despite any contrary provision of this Conservation Easement Deed, the parties do not intend this Conservation Easement to be, and this Conservation Easement shall not be, construed such that it creates in or gives to Grantee any of the following:

- (1) The obligations or liability of an "owner" or "operator," as those terms are defined and used in Environmental Laws (defined below), including, without limitation, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (42 U.S.C. Section 9601 *et seq.*; hereinafter, "CERCLA"); or
- (2) The obligations or liabilities of a person described in 42 U.S.C. Section 9607(a)(3) or (4); or
- (3) The obligations of a responsible person under any applicable Environmental Laws; or
- (4) The right to investigate and remediate any Hazardous Materials associated with the Property; or
- (5) Any control over Grantor's ability to investigate, remove, remediate or otherwise clean up any Hazardous Materials associated with the Property.

The term "Hazardous Materials" includes, without limitation, (a) material that is flammable, explosive or radioactive; (b) petroleum products, including by-products and fractions thereof; and (c) hazardous materials, hazardous wastes, hazardous or toxic substances, or related materials defined in CERCLA, the Resource Conservation and Recovery Act of 1976 (42 U.S.C. Section 6901 *et seq.*; hereinafter "RCRA"); the Hazardous Materials Transportation Act (49 U.S.C. Section 6901 *et seq.*; hereinafter "HTA"); the Hazardous Waste Control Law (California Health & Safety Code Section 25100 *et seq.*; hereinafter "HCL"); the Carpenter-Presley-Tanner Hazardous Substance Account Act

(California Health & Safety Code Section 25300 *et seq.*; hereinafter "HSA"), and in the regulations adopted and publications promulgated pursuant to them, or any other applicable Environmental Laws now in effect or enacted after the date of this Conservation Easement Deed.

The term "Environmental Laws" includes, without limitation, CERCLA, RCRA, HTA, HCL, HSA, and any other federal, state, local or administrative agency statute, ordinance, rule, regulation, order or requirement relating to pollution, protection of human health or safety, the environment or Hazardous Materials. Grantor represents, warrants and covenants to Grantee that activities upon and use of the Property by Grantor, its agents, employees, invitees and contractors will comply with all Environmental Laws.

(j) Warranty. Grantor represents and warrants that, to the best of its knowledge, there are no outstanding mortgages, liens, encumbrances or other interests in the Property (including, without limitation, mineral interests) which have not been expressly subordinated to this Conservation Easement Deed, and that the Property is not subject to any other conservation easement.

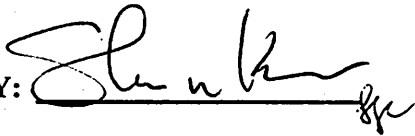
(k) Additional Easements. Grantor shall not grant any additional easements, rights of way or other interests in the Property (other than a security interest that is subordinate to this Conservation Easement Deed), or grant or otherwise abandon or relinquish any water agreement relating to the Property, without first obtaining the written consent of Grantee. Grantee may withhold such consent if it determines that the proposed interest or transfer is inconsistent with the purposes of this Conservation Easement or will impair or interfere with the conservation values of the Property. This Section 14(k) shall not prohibit transfer of a fee or leasehold interest in the Property that is subject to this Conservation Easement Deed and complies with Section 11.

(l) Recording. Grantee shall record this Conservation Easement Deed in the Official Records of Kern County, California, and may re-record it at any time as Grantee deems necessary to preserve its rights in this Conservation Easement.

IN WITNESS WHEREOF Grantor has executed this Conservation Easement Deed
the day and year first above written.

GRANTOR:

OCCIDENTAL OF
ELK HILLS, INC.

BY: 

NAME: Shawn M. Kerns

TITLE: President & General Manager

DATE: 10/3/12

Approved as to form:

General Counsel
State of California
Department of Fish and
Game

BY: 

Thomas R. Gibson
General Counsel

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

State of California

County of Kern

On 10/3/2012 before me, Kathleen Wall, Notary Public

Date

Here Insert Name and Title of the Officer

personally appeared Shawn M. Kerns

Name(s) of Signer(s)



who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Place Notary Seal Above

Signature: Kathleen Wall

Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: _____

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____

☐ Corporate Officer — Title(s): _____

☐ Individual

☐ Partner — ☐ Limited ☐ General

☐ Attorney in Fact

☐ Trustee

☐ Guardian or Conservator

☐ Other: _____

Signer Is Representing: _____

RIGHT THUMBPRINT
OF SIGNER

Top of thumb here

Signer's Name: _____

☐ Corporate Officer — Title(s): _____

☐ Individual

☐ Partner — ☐ Limited ☐ General

☐ Attorney in Fact

☐ Trustee

☐ Guardian or Conservator

☐ Other: _____

Signer Is Representing: _____

RIGHT THUMBPRINT
OF SIGNER

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EXHIBIT A

Elk Hills Conservation Area Conservation Easement Property Description

EXHIBIT A - LEGAL DESCRIPTION OF PROPERTY

Township/ Range	Section ¹	Exhibit A-2 Section ID	Undisturbed Acres	Disturbed Acres	Total Acres/Section	Comments
T30S, R22E	12	12Z	635.00	3.00	638.00	Full Section
T30S, R23E	10	10R	640.00	2.00	642.00	Full Section
	12	12R	611.00	22.00	633.00	Full Section, Less Elk Hills Road ROW
	13*	13R	318.00	1.00	319.00	Northeast Diagonal Section (Chevron)
T30S, R24E	17*	17S	578.00	8.00	586.00	Full Section, Less State Aqueduct Acreage and Parcel G/9 (Chevron)
	18	18S	635.00	5.00	640.00	Full Section
	20	20S	159.00	1.00	160.00	Northeast 1/4 Section
	21*	21S	319.00	1.00	320.00	North 1/2 Section (Chevron)
	21*	21S	158.00	2.00	160.00	North 1/2 of South 1/2 Section (Chevron)
	22	22S	152.00	8.00	160.00	North 1/2 of South 1/2 Section
T31S, R23E	2	2B	320.00	4.00	324.00	South 1/2 Section
	3	3B	322.00	-	322.00	South 1/2 Section
	4	4B	39.71	0.29	40.00	Southeast 1/4 of Southeast 1/4
	4	4B	39.51	0.49	40.00	Southwest 1/4 of Southeast 1/4
	4	4B	40.00	-	40.00	Southeast 1/4 of Southwest 1/4
	10	10B	625.00	12.00	637.00	Full Section
	11	11B	632.00	10.00	642.00	Full Section
	12	12B	61.00	-	61.00	Northwest 1/4 West of Elk Hills Road
	12	12B	164.00	-	164.00	Southwest 1/4 Section
	12	12B	49.00	-	49.00	Southeast 1/4 West of Elk Hills Road
	13	13B	309.00	13.00	322.00	North 1/2 Section
	13*	13B	322.00	7.00	329.00	South 1/2 Section (Chevron)
	14	14B	310.00	12.00	322.00	North 1/2 Section
	14	14B	121.00	-	121.00	North 1/2 of Southeast 1/4 and the Southeast 1/4 of Southeast 1/4
T31S, R24E	18	18G	22.00	1.00	23.00	Northwest 1/4 West of Elk Hills Road
	18	18G	297.00	37.00	334.00	South 1/2 Section
Total			7,878.22	149.78	8,028.00	

¹ Section numbers denoted with an asterisk indicate Chevron ownership which are not included in this Conservation Easement Deed for Occidental of Elk Hills Inc.'s property. Chevron's ownership is also indicated in the Comments column in bold. Chevron's ownership is listed for reference only.

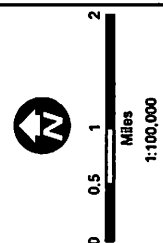
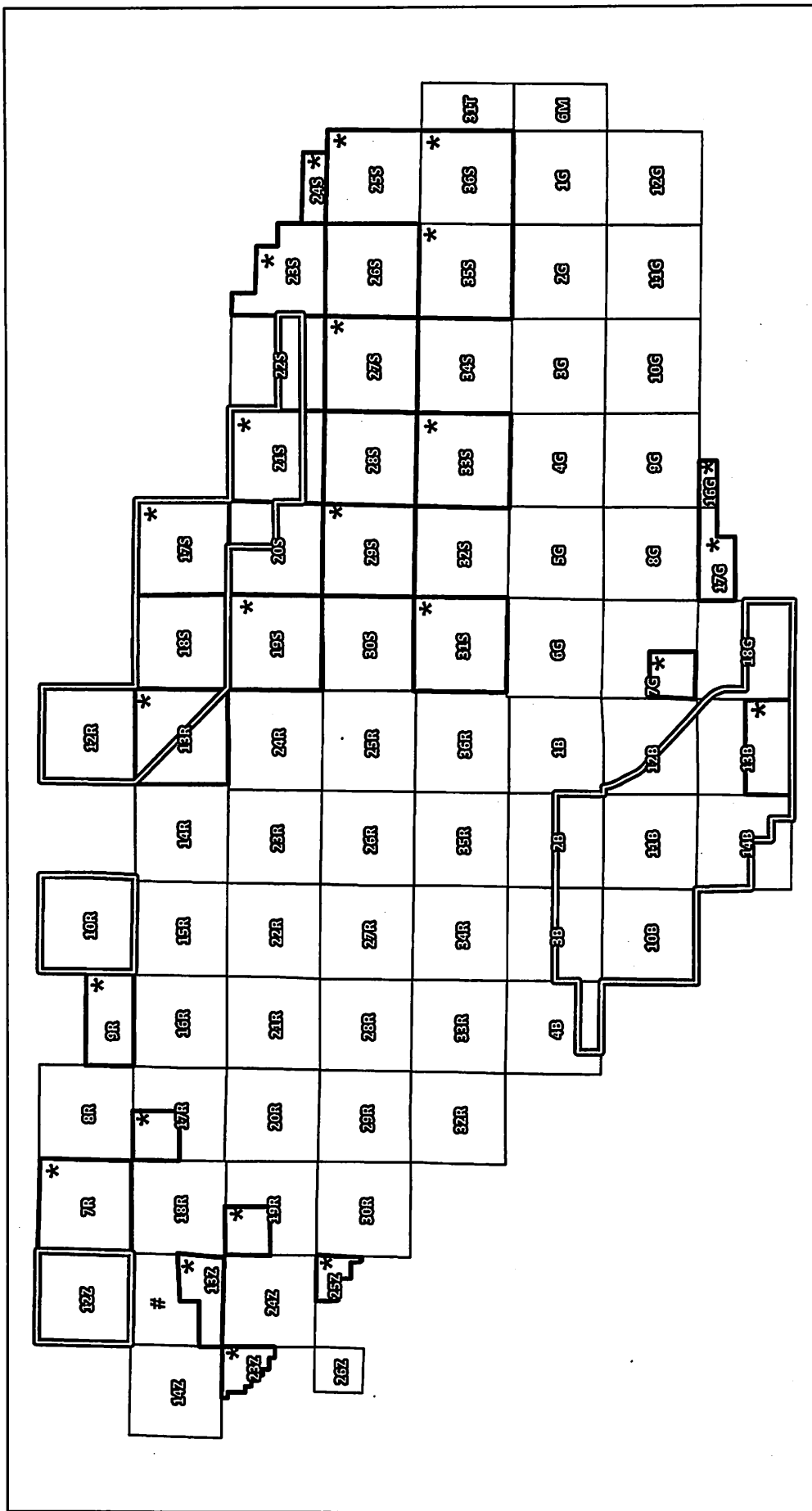
	Undisturbed	Disturbed	Total	Delta
Occidental of Elk Hills Total Acres	6,183.22	130.78	6,314.00	98.44
Chevron Total Acres	1,695.00	19.00	1,714.00	(21.22)

	Percent Allocation	Total Area	Required Contribution	Percent Contribution
Occidental of Elk Hills Required Acreage	0.78	7,801.00	6,084.78	79.26
Chevron Required Acreage	0.22	7,801.00	1,716.22	21.73



OCCIDENTAL OF ELK HILLS, INC.

Exhibit A-2



 ELK HILLS OIL FIELD CONSERVATION AREA (7,878 ACRES) * INDICATES CHEVRON UNIT LAND
 OCCIDENTAL OF ELK HILLS UNIT LAND # INDICATES CHEVRON NON-UNIT LAND



Source: Occidental of Elk Hills, Inc.

Exhibit A-3

SAVE AND EXCEPTED THEREFROM: Within the parcel described below, one hundred (100) feet in width running parallel with, and immediately adjacent to, the eastern Section boundary line of the North Half of the South Half, an easement to lay, construct, maintain, operate, repair, renew, from time to time change the size of, and remove a maximum of three (3) pipelines for the transportation of oil, gas, water, and such other substances as are suitable for transportation through a pipeline, together with such valves, meters, drips, taps, and similar appurtenances thereof (hereinafter referred to as "Said Facilities"), with the right of ingress and egress to and from the same in, under, along and across that certain real property (hereinafter referred to as "Said Premises") situated in the County of Kern, State of California, and described as follows:

Township 30 South, Range 24 East, M.D.B. & M.
Section 22; North Half of the South Half (N/2S/2)

Project: Occidental of Elk Hills, Inc. (CE)
Kern County

CERTIFICATE OF ACCEPTANCE

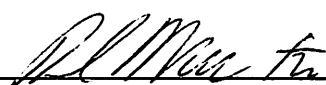
THIS IS TO CERTIFY that the interest in real property described in the Conservation Easement Deed dated October 3, 2012, from OCCIDENTAL OF ELK HILLS, INC., A DELAWARE CORPORATION, to the STATE OF CALIFORNIA, is hereby accepted by the undersigned officer on behalf of the State of California, Natural Resources Agency, Department of Fish and Game, pursuant to authority conferred by California Fish and Game Code and, in furtherance of said transfer, the grantee consents to the recordation of the aforementioned deed by its duly authorized officer.

STATE OF CALIFORNIA
Natural Resources Agency
Department of Fish and Game

I hereby certify that all conditions for exemption have been complied with and this document is exempt from Department of General Services' approval.

WILDLIFE CONSERVATION BOARD

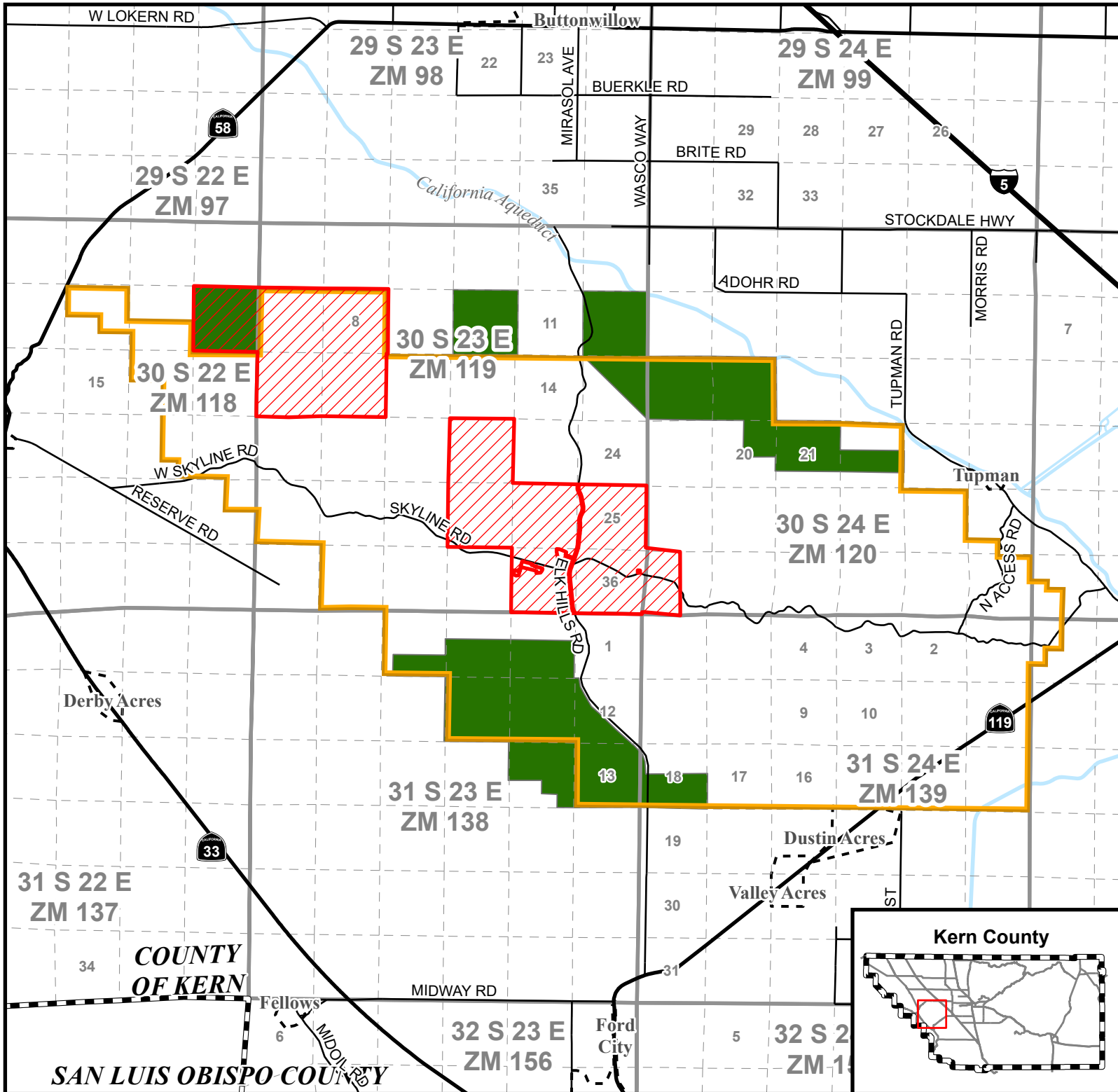
By: 
(authorizing signatory)

By: 
John P. Donnelly
Executive Director
Wildlife Conservation Board

Date: 12/24/2012

C.3 Conservation Easement Deed – Elk Hills Conservation Area Map

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ZCC 5, Map 118;
 ZCC 5, Map 119;
 ZCC 4, Map 120;
 CUP 13, Map 118;
 CUP 5, Map 119;
 CUP 3, Map 120

Elk Hills Conservation Areas

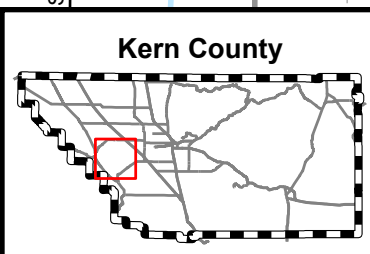
Carbon TerraVault 1
 by
 California Resources Corporation (CRC)

- Elk Hills Field
- Project Site
- Interstate
- Named Road
- State Hwy
- Arterials
- Kern County Boundary
- Township/Range
- Sections
- Water Courses
- Unincorporated Cities
- Elk Hills Conservation Areas

T30S/R22E - Sec. 12
 T30S/R23E - Sec 7-8, 17-18, 22, 25-27, 35-36
 T30S/R24E - Sec. 31

Created on: 10/9/2023

0 10,000 20,000 ft



Kern County
 Planning & Natural
 Resources Department



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Attachment 3

Crotch's Bumble Bee (*Bombus crotchii*) Survey Results Report Prepared by Owlet Ecological

**California Resources Corporation (CRC) CalCapture
Carbon Capture and Sequestration Project**

Crotch's Bumble Bee (*Bombus crotchii*) Survey Results

Prepared for: Stantec

By: Owlet Ecological

July 2025

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1. Executive Summary

This report presents the methods and results of Crotch's bumble bee (*Bombus crotchii*; CBB) surveys conducted May 7-9 (first session); May 19-21 (second session); and June 17-19 (third session), 2025 on the proposed California Resources Corporation (CRC) CalCapture Carbon Capture and Sequestration (Project), in Kern County, California. The Project site is approximately 25 miles southwest of Bakersfield, California, at the intersection of Skyline Road and Elk Hills Road in the Elk Hills range.

The Project impact area consists of an approximately 51.65-acre site in the Elk Hills Oil and Gas Field (Figures 1 and 2). Construction of the Project is anticipated to result in temporary disturbance to approximately 42.06 acres of land, and permanent disturbance to 9.58 acres. Of the total disturbance, approximately 2.45 acres is anticipated to be within allscale/saltbush scrub habitat, 0.01 acres in red brome/mediterranean grassland, and the remaining 49.19 acres will be within previously disturbed/developed areas (Table 2). The Project will include construction of pipelines and facilities, temporary parking, office and staging areas, and an electrical line. Once constructed and operational, the Project will capture carbon from the Elk Hills Power Plant and sequester it underground for storage. The biological survey area (BSA) for CBB included the anticipated disturbance areas plus a 100-foot buffer, where feasible, equaling approximately 77 acres in total. Many areas had limited access due to existing pipes or fencing, and some were inaccessible entirely, such as the buffer that fell within the existing Elk Hills Power Plant and other operational facilities.

Two abandoned well pads were added later in the season, and thus did not get included for species-specific surveys (Figure 3). These areas are recent well pad abandonment sites that will be maintained as future parking/staging areas for the proposed CalCapture Project. The existing, previously disturbed sites have been included for evaluation and habitat assessment.

Crotch's bumble bee surveys followed the Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023). The purpose of the surveys was to determine the presence of CBB and conduct a habitat assessment to evaluate the likelihood of CBB occurring within or near the Project. Data collection included compiling a list of flowering plants and approximating their coverage. While the entire BSA was evaluated, species-specific surveys targeting CBB were focused on areas with blooming plants to optimize the chance of detection.

In summary, no CBB were observed. Habitat for foraging, nesting and overwintering CBB is present within the Project and BSA; however, foraging habitat was very limited. No other *Bombus* sp. were observed; however, other pollinating bee and wasp species were documented.

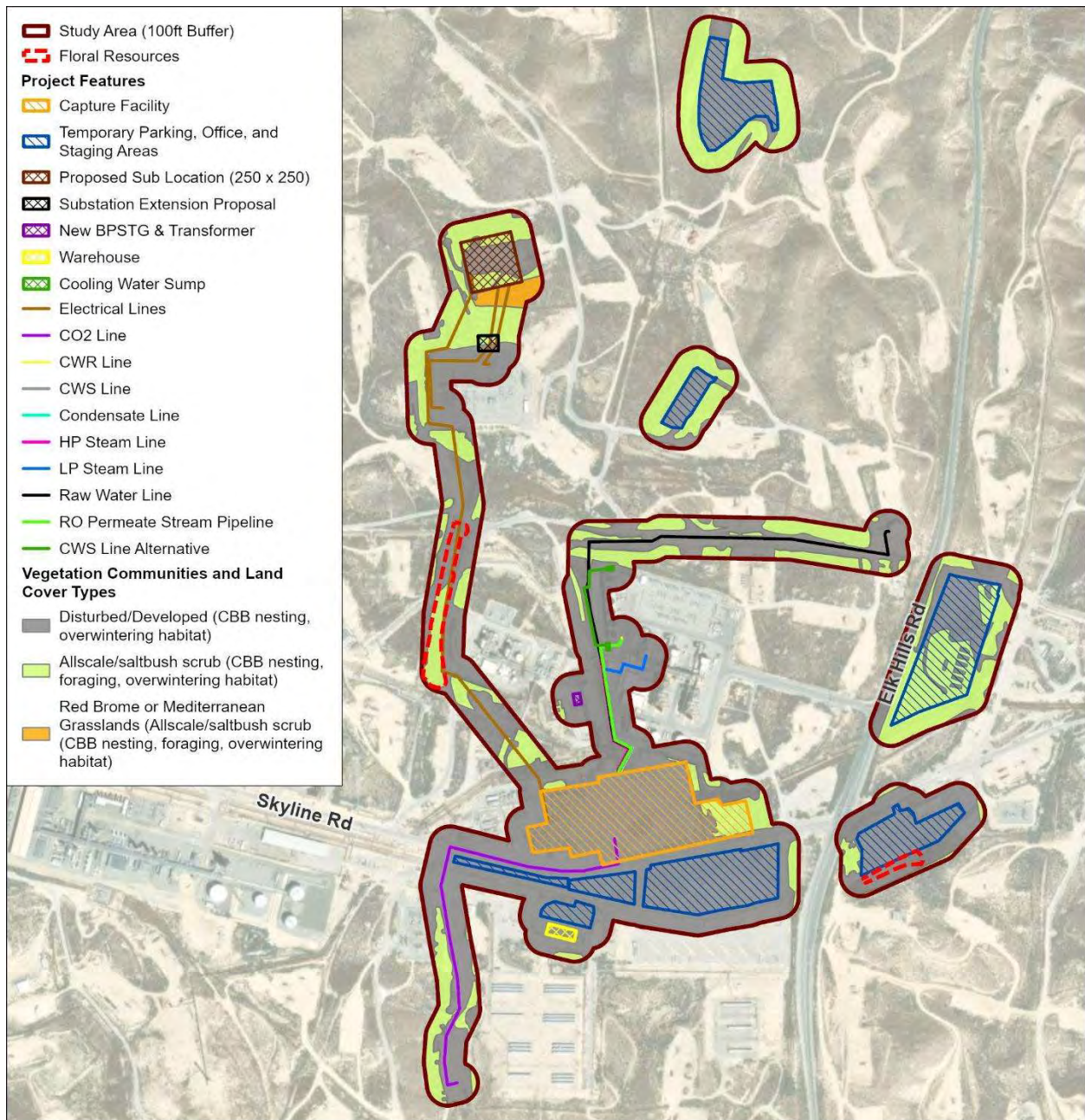


Figure 1. Map of the CalCapture Project showing location of proposed pipelines (green, purple, blue and yellow lines), electrical line and substation (darker yellow line and polygon), capture facility (yellow-orange polygon), warehouse (bright yellow polygon), and parking/staging areas and parking/staging areas (dark blue polygons).

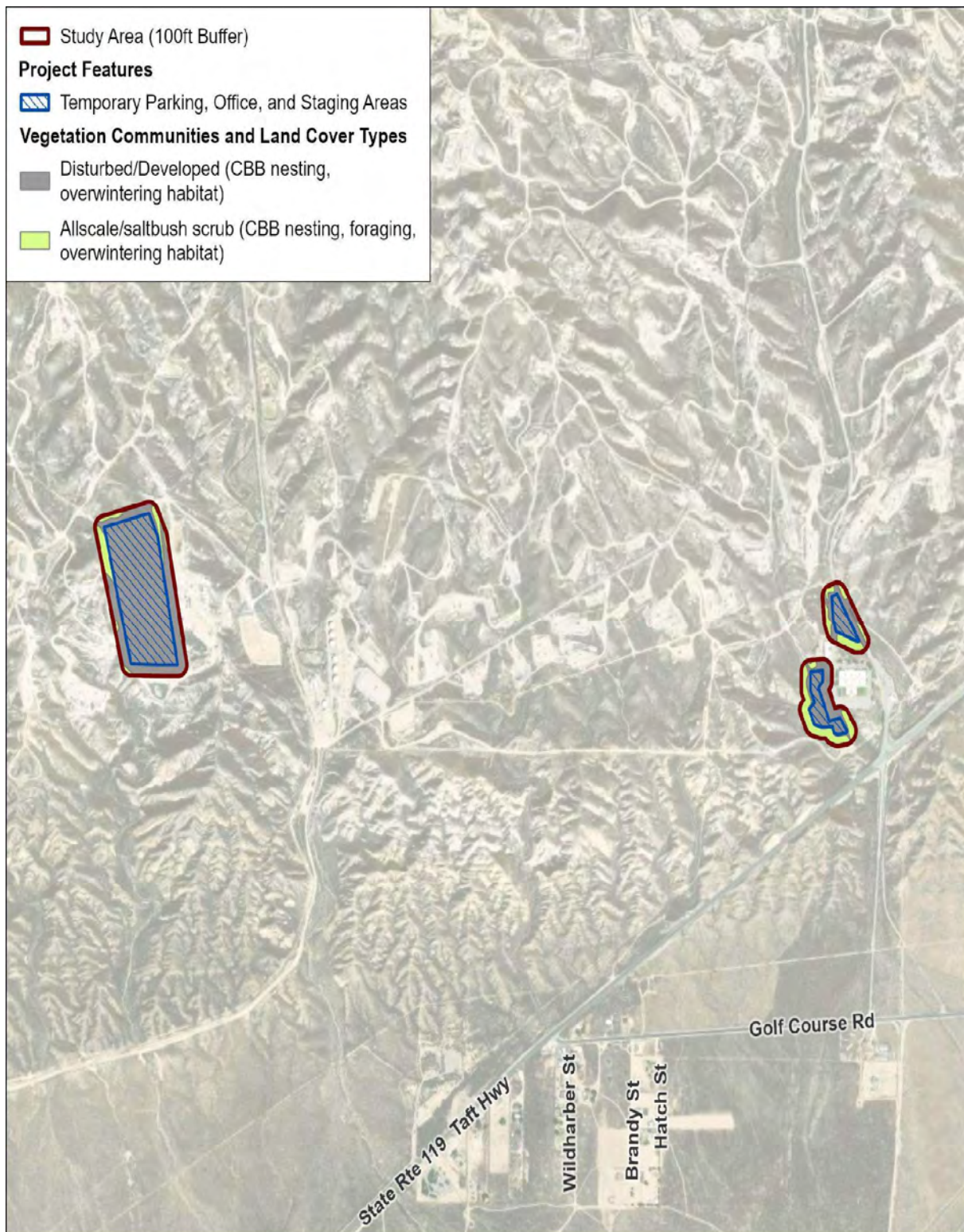


Figure 2. Map showing the location of 2 additional work areas located approximately 5-7 miles SE of the main project area. Purple polygons represent proposed temporary parking/office/laydown.

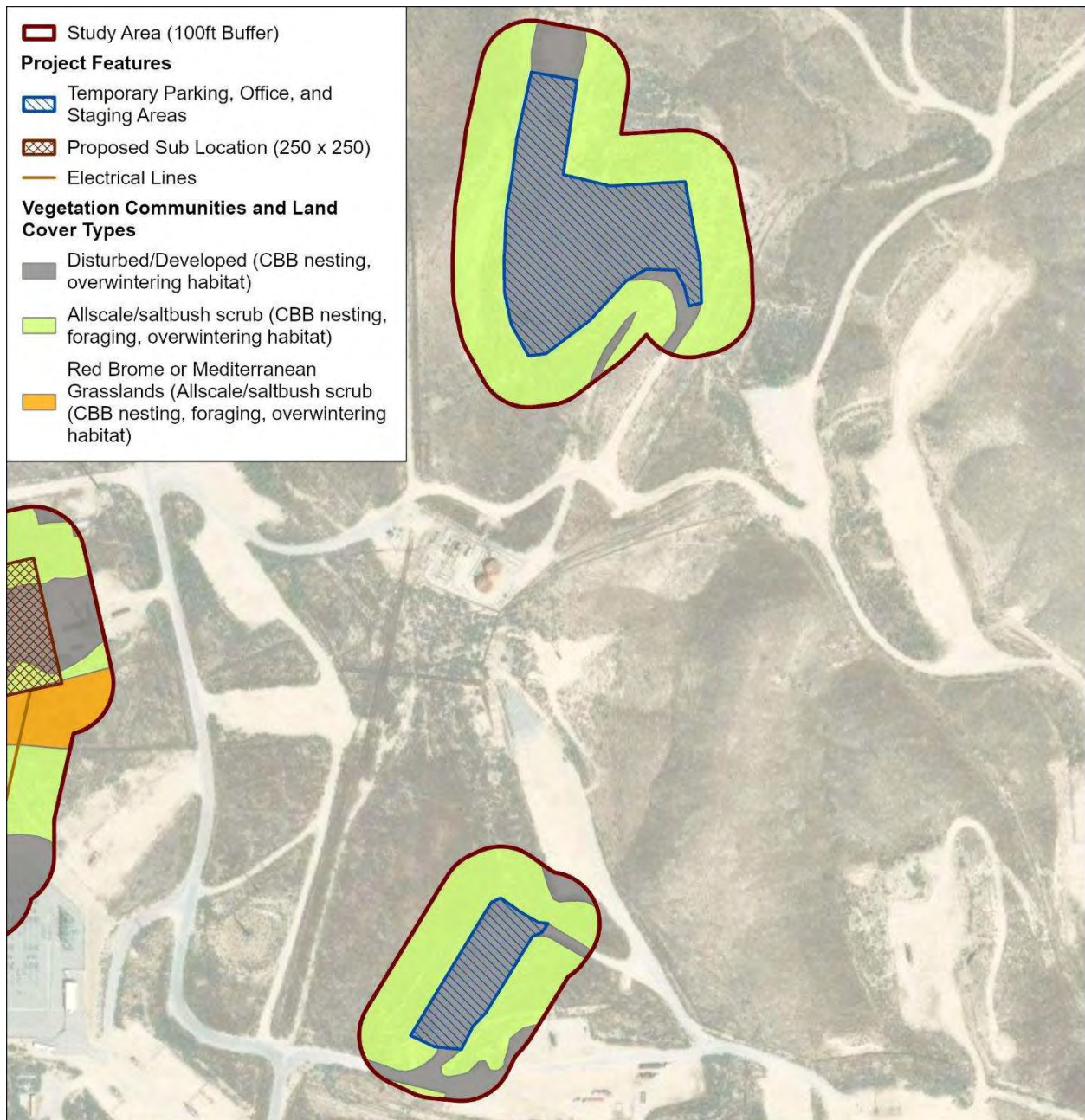


Figure 3. Map showing the location of two additional existing well pads for parking/staging areas (two blue polygons) that were added at the end of the season, and thus not included in 2025 species-specific CBB surveys.

2. Methods

Crotch's bumble bee surveys followed the Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023). Three field survey sessions were conducted between May and June, by CBB biologist Donna Noce of Owlet Ecological Inc. Surveys were completed before the end of June to account for the possibility of a shorter colony active season, which is still within the guidelines for the species. Each session consisted of 3-day surveying periods. During each session, the biologist searched for bees while walking meandering transects within the Project and 100-foot buffer, where feasible. To optimize the chance of detection, survey efforts were focused on areas with floral resources, primarily within allscale/saltbush scrub and red brome/mediterranean grassland habitat. Previously developed/disturbed areas included paved parking lots, compacted dirt or asphalt roads, compacted well pads, part of the Elk Hills Power Plant and other operational oil and gas or electrical facilities. These areas were to be included for consideration in the habitat assessment but were excluded from survey efforts for safety purposes and because detection was unlikely, due to the lack of floral resources and burrows.

Surveys were completed on sunny days with no inclement weather and wind speeds below 8 miles per hour (mph). Survey temperatures were between 65°F and 90°F and wind speed less than 5 mph (Table 1). If a foraging or resting bumble bee was observed, it would have been photographed. If a bee in flight was observed, it would have been followed to determine if a potential nest location was nearby.

Table 1. Weather Condition Data for CBB Surveys

Date	Start Time	End Time	Start Temp	End Temp	Wind (mph)	Conditions
5/7/25	8:00am	2:00pm	68.1°F	87.5°F	2	Sunny, clear
5/8/25	8:00am	2:00pm	67.2°F	89.7°F	3	Sunny, clear
5/9/25	8:00am	1:30pm	70.1°F	88.2°F	1	Sunny, clear
5/19/25	8:30am	2:00pm	69.0°F	86.5°F	2	Sunny, clear
5/20/25	8:30am	2:00pm	70.0°F	87.0°F	1	Sunny, clear
5/21/25	9:00am	1:00pm	69.0°F	86.9°F	4	Sunny, clear
6/17/25	7:30am	12:15pm	69.2°F	89.2°F	2	Sunny, clear

Date	Start Time	End Time	Start Temp	End Temp	Wind (mph)	Conditions
6/18/25	8:00am	1:30pm	70.0°F	88.1°F	2	Sunny, clear
6/19/25	7:45am	12:30pm	71.2°F	88.9°F	3	Sunny, clear

3. Results

3.1 Habitat Assessment

The following section provides an assessment of CBB nesting, foraging, and overwintering habitat. Site photos are included in Appendix A.

Nesting

The BSA supports suitable nesting habitat for CBB (Table 2). During springtime, queens emerge from their overwintering grounds and scout for nest locations. Habitat observed on the Project that could be used by CBB for nesting include rodent burrows and bare ground. Burrows are present throughout the project in the shrubland. Burrows and other gaps/openings underneath pavement are also along the edges of urban areas (Appendix A - Photo 4).

Table 2. Vegetation/Land Cover Types Mapped Within the Project and the Type of Habitat They May Provide for CBB

Vegetation/Land Cover Type	Total Acres in Project	Habitat Type for CBB
Disturbed/Developed	49.19 ac	Nesting, overwintering
Allscale/saltbush scrub	2.45 ac	Nesting, foraging, overwintering
Red Brome or Mediterranean Grasslands	0.01 ac	Nesting, foraging, overwintering

Foraging

The BSA supports suitable foraging habitat for CBB (Table 2). After a queen chooses her nest location, she begins to produce female worker bees, which forage for nectar and pollen as far as 10 kilometers (km) away from the nest. Blooming plants were present in allscale/saltbush scrub habitat within the BSA. During the first survey session these blooming plants primarily consisted of white horehound (*Marrubium vulgare*), California buckwheat (*Eriogonum fasciculatum*), bladderpod (*Cleomella arborea*), slenderleaf iceplant (*Mesembryanthemum nodiflorum*) and short-pod mustard (*Hirschfeldia incana*). During the second and third session the dominant blooming plants consisted of California buckwheat, bladderpod and narrowleaf milkweed (*Asclepias fascicularis*) (Table 3). Other blooming plants, primarily annuals, were present but were observed in much smaller numbers (Table 4).

The floral resources were primarily concentrated in two main patches. The first patch consisted of white horehound, bladderpod, California buckwheat and tree tobacco plants. This patch was located on a slope within a wash and was directly across from an existing facility (Figure 3;

Appendix 1 - Photo 3). The second patch consisted primarily of short-pod mustard and a single large clump of narrowleaf milkweed. This patch was located along the disturbed edge of an asphalt parking lot (Figure 4; Appendix 1 - Photo 2).

Application of herbicide was observed during the first survey session, and historic/ongoing use of herbicide or vegetation maintenance activities may impact foraging habitat quality. Having a variety of annual flowers with separate and overlapping bloom periods helps sustain CBB and other bumble bees by providing nectar forage and pollen throughout the entire colony-active season. Foraging habitat on site appeared to be very limited.

Table 3. Approximate Percent Cover of Blooming Plants in the BSA Per Survey Session

Flowering Plant Species	Session 1	Session 2	Session 3
California buckwheat	0.5%	3%	3%
Bladderpod	1%	0.5%	0%
White horehound	1%	0.5%	0%
Short-pod mustard	0.5%	0.5%	0%
Other annual wildflowers (See table 2)	1.3%	0.5%	>0.5%

Table 4. List of All Flowering Plant Species Observed in the BSA

Scientific Name	Common Name
<i>Amsinckia</i> sp.	fiddleneck
<i>Astragalus</i> sp.	milkvetch
<i>Cleomella arborea</i>	bladderpod
<i>Datura wrightii</i>	Wright's jimson weed
<i>Eriogonum fasciculatum</i>	California buckwheat
<i>Eriogonum maculatum</i>	spotted wild buckwheat
<i>Erodium cicutarium</i>	redstem filaree
<i>Hirschfeldia incana</i>	short-pod mustard
<i>Marrubium vulgare</i>	white horehound

Scientific Name	Common Name
<i>Melilotus indicus</i>	small melilot
<i>Mesembryanthemum nodiflorum</i>	slenderleaf iceplant
<i>Nerium oleander</i>	oleander
<i>Nicotiana glauca</i>	tree tobacco
<i>Salsola tragus</i>	prickly Russian thistle

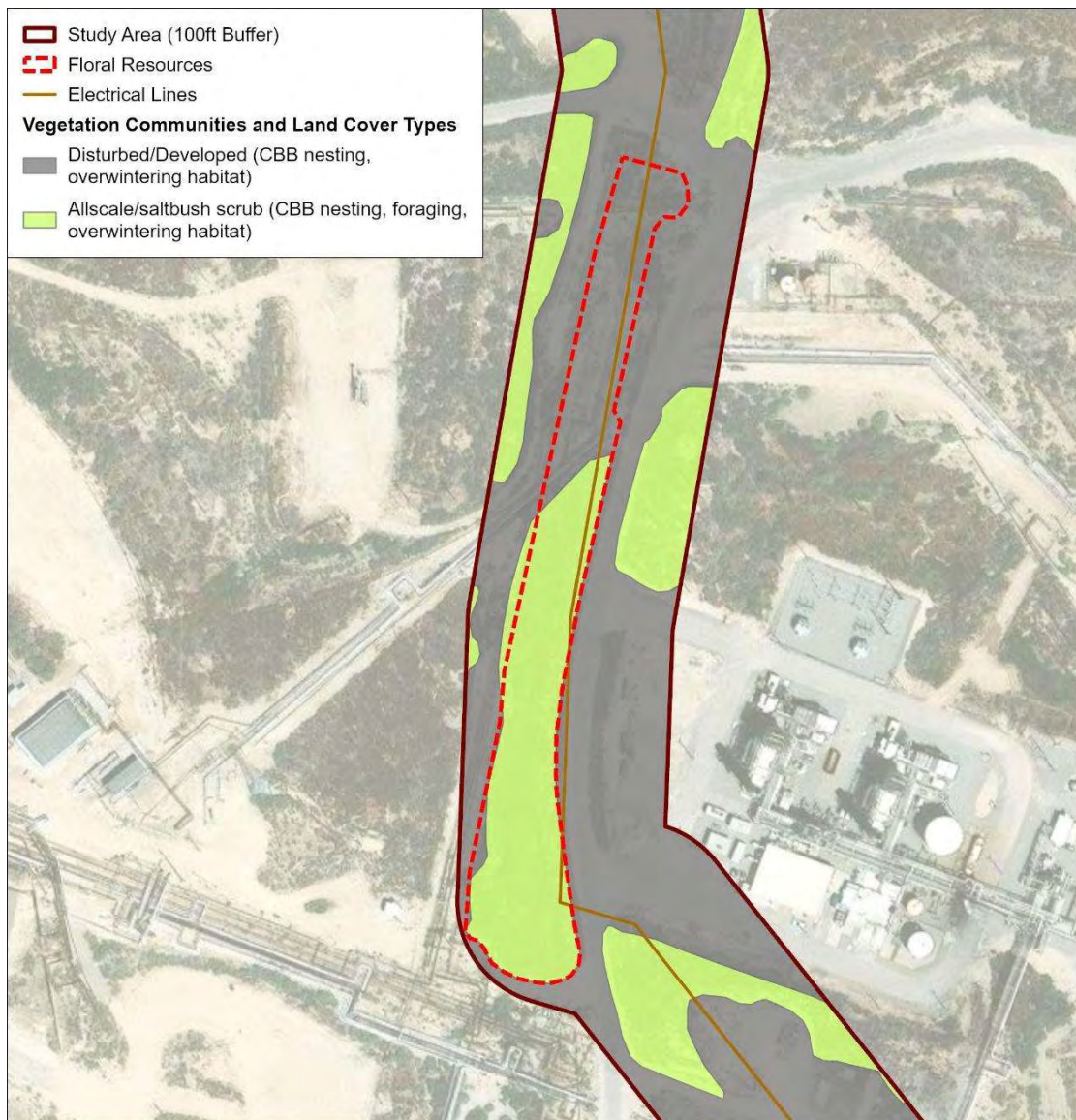


Figure 4. The red-dashed polygon represents a patch of floral resources equaling approximately 1 acre. The darker orange line that runs along the floral patch represents a proposed electrical line.

Overwintering

The BSA supports suitable overwintering habitat (Table 2). New queens produced at the end of the colony's active period will mate, spend time foraging, and then find a location to overwinter underground until spring arrives. Little is currently known about the habitat requirements for overwintering queens, or how far a new queen may travel from where she was produced in search of an overwintering location. Therefore, the assessment of suitable overwintering habitat within the BSA incorporates a conservative approach.

3.2 Presence/Absence

No CBB or other *Bombus* species were observed during the survey. Other pollinator species observed are listed below in Table 5.

Table 5. Pollinator species observed during CBB surveys.

Scientific Name	Common Name
<i>Pepsis thisbe</i>	Thisbe's tarantula hawk wasp
<i>Apis mellifera</i>	Western honey bee
<i>Eumelissodes</i> sp.	longhorn bee
<i>Polistes aurifer</i>	golden paper wasp
<i>Chlorion aerarium</i>	steel-blue cricket hunter wasp

Discussion

The Project is within the historic range of Crotch's bumble bee; however, documented observations of the species in the region appears to be scant and consistent with the negative results of the species-specific surveys (Williams et al 2014). The nearest CBB observations reported to iNaturalist are in the Elk Hills Range (Naturephotosuze 2021; Fawcett 2021). The observations are older, from 2021, and the photos provided show a male and a worker CBB, respectively, foraging on *Phacelia*. In Bumble Bee Watch, the nearest observation is in the Carrizo Plain, closer to Highway 166 off Chimineas Ranch Road; this observation is from 2023 and the result of a protocol survey performed for the Bumble Bee Atlas (Fiebler 2023). These observations are over 12 miles away.

Typically, flowering plants with overlapping bloom periods would supply CBB and other bumble bee species in the area with nectar and pollen from the queen flight season, all the way through the colony-active period. According to the CDFW Guidelines, the queen flight season for CBB is from February through March, and the colony-active period spans from April through August. Based on positive results from other CBB surveys performed in similar allscale scrub habitat in west Kern County, it's possible that CBB in the region may have a shortened colony active period. This could be a local adaptation to the region's arid climate and short wildflower bloom period. Because of this, all surveys were completed prior to the end of June, which is still within the colony active period the guidelines define as April through August.

The greatest risk of impact to CBB would be vegetation clearance and ground disturbance, which could disrupt nesting or overwintering bees. If CBB nests can be identified during

surveys/sweeps performed prior to construction, they can be avoided with a no-work buffer in coordination with CDFW. An on-site biological monitor who is qualified for CBB can also help avoid “take” by actively searching for CBB and nests during ground disturbance and vegetation clearing. Overwintering bees are more difficult to detect and avoid, as they are inactive underground. Very little is currently known about overwintering habitat requirements or features. The guidelines do not recommend surveying for overwintering bees for this reason. Repetition of surveys is recommended if construction continues into the next colony active season in 2026, as conditions and suitability on site can change year to year depending on rainfall and floral resources. Surveys in this region should be performed between March and June to capture the peak bloom periods and account for a possible shortened life cycle of CBB local to this area.

The two additional existing well pads proposed as parking/staging areas that were added later in the season are both previously existing compacted dirt pads with little to no vegetation or burrows. The burrows and vegetation that do exist are primarily on the edges of the pads, and within the saltbush scrub habitat of the 100ft buffers. It is similar in habitat and plant diversity to the rest of the Project, and floral resources are likely only present during the early spring months. The probability of CBB occurring within these parcels is likely low, as is the risk of CBB being impacted if construction is limited to the existing compacted areas, and the surrounding habitat is not disturbed.

Literature Cited

- CDFW. 2023. California Department of Fish and Wildlife Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species. June 6, 2023.
- CDFW (California Department of Fish and Wildlife). 2024. RAREFIND database ed.3.1.1. Electronic database managed by the California Natural Diversity Data Base, Wildlife Data and Habitat Analysis Branch, California Department of Fish and Wildlife. Sacramento, CA.
- Fawcett, Susan. 2021. iNaturalist Observation:
<https://www.inaturalist.org/observations/74815353>. Accessed on July 28, 2025.
- Fiehler, Craig. 2023. Bumble Bee Watch Observation:
<https://www.bumblebeewatch.org/sightings/bee/135465/>. Accessed on July 28, 2025.
- Naturephotosuze. 2021. iNaturalist Observation:
<https://www.inaturalist.org/observations/73163018>. Accessed on July 28, 2025.
- Williams, P., R. Thorp, L. Richardson, and S. Colla. 2014. Bumble Bees of North America. Princeton, New Jersey. Princeton University Press.

APPENDIX B. Photo appendix.



Photo 1. Proposed location for the Capture Facility, representing urban landcover. Photo taken facing North, by D. Noce.



Photo 2. Floral resource patch in 100ft buffer of an urban area, showing blooming white horehound and short-pod mustard, during first survey session. Urban area is a proposed temporary parking, office and staging area. Photo by D. Noce.



Photo 3. Floral resource patch within the proposed work area and 100ft buffer for an electrical line, showing blooming California buckwheat, during the second survey session. Representative saltbush/allscale scrub habitat. Photo by D. Noce.



Photo 4. Proposed raw water line site in BSA. Small mammal burrows that are suitable for nesting CBB are visible under the existing pipelines. Saltbush/allscale scrub habitat is present in the 100ft buffer. Photo taken facing West, by D. Noce.



Photo 5. Proposed cooling water sump line work area. Structure to the left within the 100ft buffer is the existing Elk Hills Power plant. Photo shows urban landcover as well as saltbush/allscale scrub habitat. Photo taken facing South, by D. Noce.



Photo 6. Limited floral resources present within the 100ft buffer of the Project. Paved area is an existing parking lot that will serve as temporary staging/parking/laydown. Photo by D. Noce.



Photo 7. Single large clump of narrow-leaf milkweed in full bloom during the third survey session. Numerous tarantula hawks can be seen swarming the plant. Photo by D. Noce.



Photo 8. Western honey bee foraging on blooming bladderpod during first survey session.
Photo by D. Noce

Attachment 4

CRC's Correspondance with the US Department of Defense

Padilla, Daniel

From: Padilla, Daniel
Sent: Wednesday, July 16, 2025 3:57 PM
To: osd.dod-siting-clearinghouse@mail.mil
Cc: Casterline, Nina; Snelling, Eric; Saadipour, Shahab; Gurrola AE (Anthony) at Aera; Gurrola, Anthony E; Ashley, Joe
Subject: Request for Informal Review: CRC's CalCapture Carbon Capture and Sequestration Project; Kern County, CA

Good afternoon,

Attached please find CRC's request for informal review of it's proposed CalCapture Carbon Capture and Sequestration project located in Kern County, California.

Attachments include:

- Completed DOD Siting Clearinghouse – Informal Review Request Form
- Project Area map in relation to DOD facilities and operational areas
- Kmz of proposed project areas



DOD_Siting_CH_...



Restricted



DOD kmz for
Airspace & DOD... CalCapture Revi...

Please let me know if you have any questions, comments, or if you require additional information.

Sincerely,

Daniel

DANIEL I. PADILLA
Senior Regulatory Advisor
CRC/CTV



CALIFORNIA
RESOURCES CORPORATION



CARBON
TERRAVULT

9600 Ming Avenue
Bakersfield, CA 93311
M: 970.412.2776
daniel.padilla@crc.com



DOD Military Aviation and Installation Assurance Siting Clearinghouse



DOD Siting Clearinghouse – Informal Review Request Form

To request an informal review, please fill out this form with all the available information for your project(s) and email this [form](#), a [shapefile](#) and/or KMZ file of the proposed location, and any relevant documentation to the Clearinghouse at osd.dod-siting-clearinghouse@mail.mil. If necessary, you may also submit coordinates in Decimal Degrees (preferred) or DMS (Degrees, Minutes, Seconds) for each component of the project (e.g., each wind turbine or transmission line tower) in Excel format.

Date of Request: July 16, 2025

PROJECT POINT OF CONTACT		
First Name	Daniel	Last Name Padilla
Organization	California Resources Corporation (CRC)	
Address	9600 Ming Avenue	
City	Bakersfield	State CA Zip Code 93311
Email	daniel.padilla@crc.com Phone Number 970-412-2776	

PROJECT DETAILS			
Project Name	CalCapture Carbon Capture and Sequestration Project		
Project Developer	California Resources Corporation		
Project County and State	Kern, CA		
Type of Project [Select all that apply]	Other, see Additional Information section below.		
Project Type #1	Project Type #2	Project Type #3	Project Type #4

For the following questions, please fill out **ONLY** the sections applicable to the project type. If the project does not yet have a defined layout, please provide coordinates to indicate the general footprint, such as boundary corners.

WIND TURBINE	
Number of Structures	Turbine Type
Hub Height (ft)	Maximum Blade Tip Height at Top of Rotation (ft)
Associated Meteorological Evaluation Towers (if applicable). Please provide the structure heights and coordinates of the METs if not they are not already included in the KMZ provided for your project. Please provide information on the types of sensors that will be used.	
Turbine Farm boundary corner coordinates boundary corner coordinates (if a shapefile and/or KMZ file cannot be provided)	

SOLAR		
Solar Technology (e.g., photovoltaic, concentrated solar power)		
Solar Panel Height (at maximum tilt) or Tower Height (ft)		
Acreage	Axis Tracking? ☐	Anti-Reflective Panels? ☐
Solar Panel or Heliostat Array boundary corner coordinates (if a shapefile and/or KMZ file cannot be provided)		
Associated Transmission Infrastructure (if applicable)		
Maximum Pole Height (ft)	Grid Point of Interconnection Coordinates	Rate Voltage of Line (kV)

GEOTHERMAL	
Acreage	Structure Height (ft)
Geothermal Layout boundary corner coordinates (if a shapefile and/or KMZ file cannot be provided)	

ENERGY STORAGE		
Acreage	Structure Height (ft)	
Project boundary corner coordinates (if a shapefile and/or KMZ file cannot be provided)		
Associated Transmission Infrastructure (if applicable)		
Maximum Pole Height (ft)	Grid Point of Interconnection Coordinates	Rate Voltage of Line (kV)

TRANSMISSION, UTILITY, OR POWER LINES	
Type of structure (wood, concrete, steel etc.):	
Height (ft)	Length of Line (ft)
Substation Tie-In	
Rated Voltage of Line (kV)	
Transmission Tower and Terminal Point Coordinates.	
<i>Please include a map of the transmission route (if shapefile and/or KMZ file is not provided)</i>	

Any additional information about your project you wish to disclose?

The proposed CalCapture Project would capture carbon dioxide (CO₂) generated as a by-product by CRC's 550 Megawatt Elk Hills Power Plant, located in the Elk Hills Oilfield near Tupman, Kern County, California. CRC is preparing a petition for Post-Certification Amendment application for submittal to the California Energy Commission for the proposed project. CRC is requesting your review of the proposed installation and operation of the project facilities in relation Department of Defense facilities and operational areas within Kern County, California. The proposed project would install facilities greater than 50 feet tall, including: 115kV Power Poles (approximately 15 tubular steep poles, up to 80 feet in height); Direct Contact Cooler at 93.0 feet in height; Absorber column at 271.0 feet in height; Stripper Unit at 131.0 feet in height and; CO₂ Vent Stack at 100.0 feet in height. Temporary cranes will be on site to assist with facilities installation activities. The largest cranes would have boom extensions approximately 300+ feet in height. The proposed temporary and permanent facilities greater than 50 feet will have appropriate flagging and/or safety and warning lighting in place during setup and operational use. The generation or operation of radio waves or digital communications will not emitted/transmitted from these structures. CRC will also complete a hazard review through the Federal Aviation Administration's (FAA) Obstruction Evaluation/Airport Airspace Analysis portal to ensure appropriate controls and notifications prescribed by the FAA are implemented prior to the start of work for all temporary and permanent facilities that meet the reporting criteria.

If the request for an informal review includes trade secrets or otherwise commercial information that is proprietary or competition sensitive, we encourage that the documents be marked accordingly. Documents should be marked as "Proprietary" or "Business Sensitive" to help ensure they are properly safeguarded upon receipt. Do not mark documents as "Confidential," as that can be easily mistaken for a national security classification. Proprietary information which is customarily and actually treated as private will be protected under Exemption 4 to the Freedom of Information Act (FOIA) to the extent permitted by law. Requests are not otherwise shared outside of DoD and will only be used to assess potential impacts on military missions.

Legend

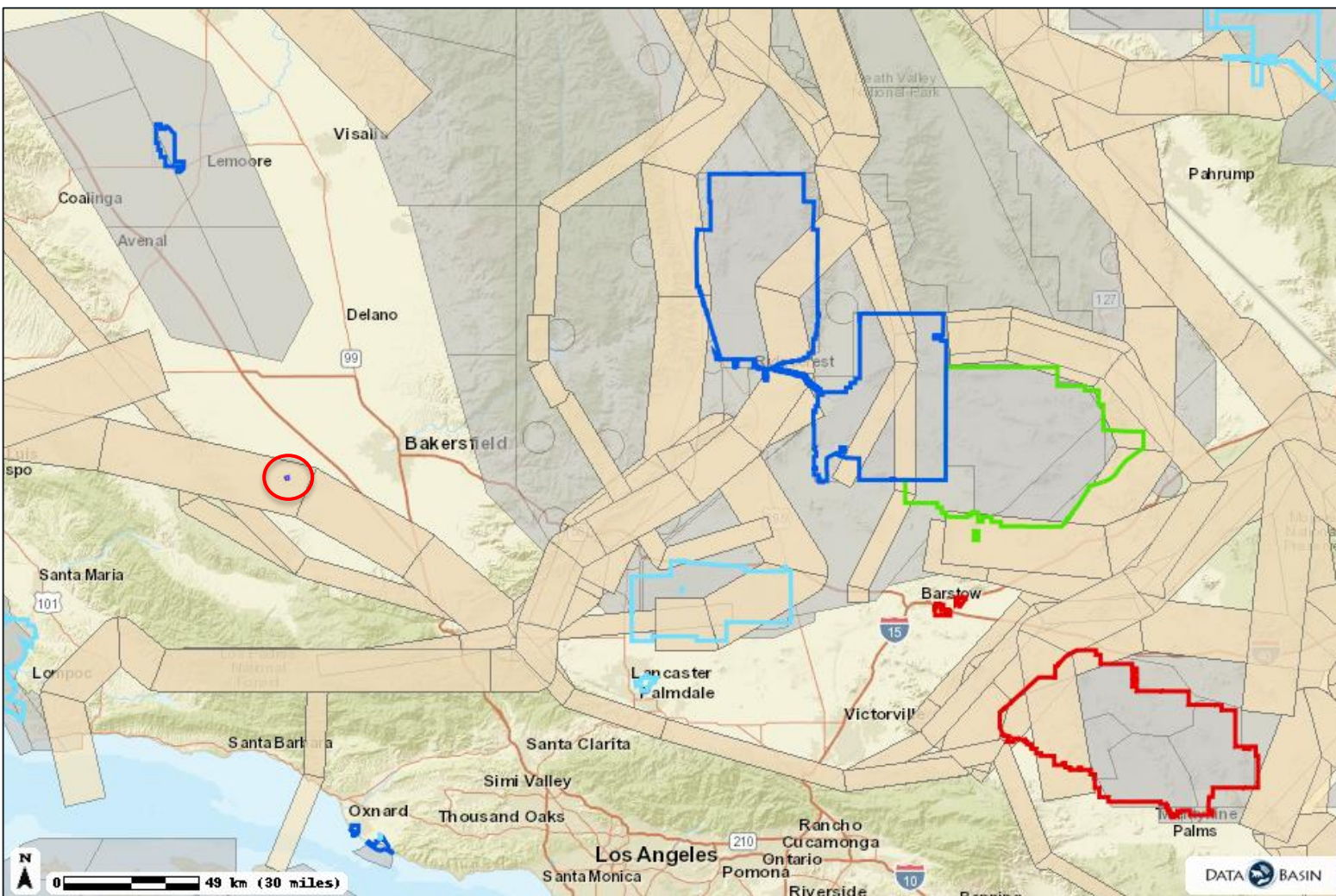
DoD Sites - Boundary

-  Air Force Active
-  Air Force Reserve
-  Air National Guard
-  Army Active
-  Army Reserve
-  Army National Guard
-  Marine Corps Active
-  Marine Corps Reserve
-  Navy Active
-  WHS
-  Other Federal

 Military Training Routes (USA)

 Restricted Airspace and Military Training Route, Western US

 CalCapture Site



CalCapture Carbon Capture and Sequestration Site – Review of Restricted Airspace, Military Training Routes, & U.S. Department of Defense Site Boundaries.

Proposed Project Site located within the Elk Hills Oilfield in Kern County, California;
 Section 35, Township 30 South, Range 23 East; Latitude/Longitude (center point):
 35.278496, -119.470711

Padilla, Daniel

From: OSD Pentagon OUSD A-S Mailbox ASD EIE-RP-SC <osd.pentagon.ousd-a-s.mbx.asd-eie-rp-sc@mail.mil>
Sent: Thursday, July 17, 2025 6:08 AM
To: Padilla, Daniel
Cc: Casterline, Nina; Snelling, Eric; Saadipour, Shahab; Gurrola AE (Anthony) at Aera; Gurrola, Anthony E; Ashley, Joe; OSD Pentagon OUSD A-S Mailbox ASD EIE-RP-SC
Subject: [EXTERNAL] RE: Request for Informal Review: CRC's CalCapture Carbon Capture and Sequestration Project; Kern County, CA

Good morning Mr. Padilla,

Your Informal Review request for the CalCapture Carbon Capture and Sequestration Project has been received. We will begin processing the request shortly.

Thank you for the opportunity to review the project.

Very Respectfully,

The Clearinghouse
Military Aviation and Installation Assurance Siting Clearinghouse
Office of the Assistant Secretary of Defense (Energy Resilience and Optimization)
Email: osd.pentagon.ousd-a-s.mbx.asd-eie-rp-sc@mail.mil

From: Padilla, Daniel <Daniel.Padilla@crc.com>
Sent: Wednesday, July 16, 2025 6:57 PM
To: OSD Pentagon OUSD A-S Mailbox ASD EIE-RP-SC <osd.pentagon.ousd-a-s.mbx.asd-eie-rp-sc@mail.mil>
Cc: Casterline, Nina <Nina.Casterline@crc.com>; Snelling, Eric <eric.snelling@stantec.com>; Saadipour, Shahab <Shahab.Saadipour@crc.com>; Gurrola AE (Anthony) at Aera <AEGurrola@aeraenergy.com>; Gurrola, Anthony E <Anthony.Gurrola@crc.com>; Ashley, Joe <Joe.Ashley@crc.com>
Subject: Request for Informal Review: CRC's CalCapture Carbon Capture and Sequestration Project; Kern County, CA

Good afternoon,

Attached please find CRC's request for informal review of its proposed CalCapture Carbon Capture and Sequestration project located in Kern County, California.

Attachments include:

- Completed DOD Siting Clearinghouse – Informal Review Request Form
- Project Area map in relation to DOD facilities and operational areas
- Kmz of proposed project areas

Please let me know if you have any questions, comments, or if you require additional information.

Sincerely,

Daniel

DANIEL I. PADILLA
Senior Regulatory Advisor
CRC/CTV



CALIFORNIA
RESOURCES CORPORATION



CARBON
TERRAVALT

9600 Ming Avenue
Bakersfield, CA 93311

M: 970.412.2776

daniel.padilla@crc.com

Padilla, Daniel I

From: OSD Pentagon OUSD A-S Mailbox ASD EIE-RP-SC <osd.pentagon.ousd-a-s.mbx.asd-eie-rp-sc@mail.mil>
Sent: Wednesday, August 13, 2025 4:12 AM
To: Padilla, Daniel
Cc: Casterline, Nina; Snelling, Eric; Saadipour, Shahab; Gurrola AE (Anthony) at Aera; Gurrola, Anthony E; Ashley, Joe; OSD Pentagon OUSD A-S Mailbox ASD EIE-RP-SC
Subject: RE: [EXTERNAL] RE: Request for Informal Review: CRC's CalCapture Carbon Capture and Sequestration Project; Kern County, CA

Good morning Mr. Padilla,

The review of the CalCapture Carbon Capture and Sequestration Project is currently in process and on schedule.

Federal law gives us 50 days to respond to Informal Review requests. However, we usually complete them within a month or so, depending on the current workload.

Right now, given the recent staffing shortages, I'd say, the DoD will probably complete this review within the two weeks.

Thank you.

Respectfully,

Dan Townes
Military Aviation and Installation Assurance Siting Clearinghouse
Office of the Assistant Secretary of Defense (Energy Resilience and Optimization)
NIPR: daniel.w.townes.ctr@mail.mil

From: Padilla, Daniel <Daniel.Padilla@crc.com>
Sent: Tuesday, August 12, 2025 5:45 PM
To: OSD Pentagon OUSD A-S Mailbox ASD EIE-RP-SC <osd.pentagon.ousd-a-s.mbx.asd-eie-rp-sc@mail.mil>
Cc: Casterline, Nina <Nina.Casterline@crc.com>; Snelling, Eric <eric.snelling@stantec.com>; Saadipour, Shahab <Shahab.Saadipour@crc.com>; Gurrola AE (Anthony) at Aera <AEGurrola@aeraenergy.com>; Gurrola, Anthony E <Anthony.Gurrola@crc.com>; Ashley, Joe <Joe.Ashley@crc.com>
Subject: RE: [EXTERNAL] RE: Request for Informal Review: CRC's CalCapture Carbon Capture and Sequestration Project; Kern County, CA

Good afternoon,

I wanted to check in with you to see how your review of CRC's proposed project is going. Please let me know if you have any questions or require additional information regarding the submitted review request.

If you do have what you need to complete your review, could you provide an estimated timeframe for finalizing your review.

Please let me know at your earliest convenience.

Sincerely,

Daniel

DANIEL I. PADILLA
Senior Regulatory Advisor
CRC/CTV



9600 Ming Avenue
Bakersfield, CA 93311
M: 970.412.2776
daniel.padilla@crc.com

From: OSD Pentagon OUSD A-S Mailbox ASD EIE-RP-SC <osd.pentagon.ousd-a-s.mbx.asd-eie-rp-sc@mail.mil>

Sent: Thursday, July 17, 2025 6:08 AM

To: Padilla, Daniel <Daniel.Padilla@crc.com>

Cc: Casterline, Nina <Nina.Casterline@crc.com>; Snelling, Eric <eric.snelling@stantec.com>; Saadipour, Shahab <Shahab.Saadipour@crc.com>; Gurrola AE (Anthony) at Aera <AEGurrola@aeraenergy.com>; Gurrola, Anthony E <Anthony.Gurrola@crc.com>; Ashley, Joe <Joe.Ashley@crc.com>; OSD Pentagon OUSD A-S Mailbox ASD EIE-RP-SC <osd.pentagon.ousd-a-s.mbx.asd-eie-rp-sc@mail.mil>

Subject: [EXTERNAL] RE: Request for Informal Review: CRC's CalCapture Carbon Capture and Sequestration Project; Kern County, CA

Good morning Mr. Padilla,

Your Informal Review request for the CalCapture Carbon Capture and Sequestration Project has been received. We will begin processing the request shortly.

Thank you for the opportunity to review the project.

Very Respectfully,

The Clearinghouse
Military Aviation and Installation Assurance Siting Clearinghouse
Office of the Assistant Secretary of Defense (Energy Resilience and Optimization)
Email: osd.pentagon.ousd-a-s.mbx.asd-eie-rp-sc@mail.mil

From: Padilla, Daniel <Daniel.Padilla@crc.com>

Sent: Wednesday, July 16, 2025 6:57 PM

To: OSD Pentagon OUSD A-S Mailbox ASD EIE-RP-SC <osd.pentagon.ousd-a-s.mbx.asd-eie-rp-sc@mail.mil>

Cc: Casterline, Nina <Nina.Casterline@crc.com>; Snelling, Eric <eric.snelling@stantec.com>; Saadipour, Shahab <Shahab.Saadipour@crc.com>; Gurrola AE (Anthony) at Aera <AEGurrola@aeraenergy.com>; Gurrola, Anthony E <Anthony.Gurrola@crc.com>; Ashley, Joe <Joe.Ashley@crc.com>

Subject: Request for Informal Review: CRC's CalCapture Carbon Capture and Sequestration Project; Kern County, CA

Good afternoon,

Attached please find CRC's request for informal review of it's proposed CalCapture Carbon Capture and Sequestration project located in Kern County, California.

Attachments include:

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- Project Area map in relation to DOD facilities and operational areas
- Kmz of proposed project areas

Please let me know if you have any questions, comments, or if you require additional information.

Sincerely,

Daniel

DANIEL I. PADILLA
Senior Regulatory Advisor
CRC/CTV



CALIFORNIA
RESOURCES CORPORATION



CARBON
TERRAVULT

9600 Ming Avenue
Bakersfield, CA 93311
M: 970.412.2776
daniel.padilla@crc.com

Padilla, Daniel I

From: Townes, Daniel W CTR OSD OUSD A-S (USA) <daniel.w.townes.ctr@mail.mil>
Sent: Tuesday, September 9, 2025 12:42 PM
To: Padilla, Daniel
Cc: Beard, Robbin E CIV OSD OUSD A-S (USA); Casterline, Nina; Snelling, Eric; Saadipour, Shahab; Gurrola AE (Anthony) at Aera; Gurrola, Anthony E
Subject: [EXTERNAL] Response Letter for the CalCapture Carbon Capture and Sequestration Project
Attachments: IR - CalCapture Carbon Capture and Sequestration Project - Response Letter.pdf

Good afternoon Mr. Padilla,

Attached is the Informal Review Response Letter for the CalCapture Carbon Capture and Sequestration Project.

Thank you for the opportunity to review your project.

Respectfully,

Dan Townes
Military Aviation and Installation Assurance Siting Clearinghouse
Office of the Assistant Secretary of Defense (Energy Resilience and Optimization)
NIPR: daniel.w.townes.ctr@mail.mil



OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE

3400 DEFENSE PENTAGON
WASHINGTON, DC 20301-3400

September 8, 2025

Daniel Padilla
Senior Regulatory Advisor
California Resources Corporation
9600 Ming Avenue
Bakersfield, CA 93311

Dear Mr. Padilla,

As requested, the Military Aviation and Installation Assurance Siting Clearinghouse coordinated within the Department of Defense (DoD) an informal review of the CalCapture Carbon Capture and Sequestration Project. The results of our review indicated that the power plant project, located in Kern County, CA, as proposed, may have an impact on military operations conducted in the area.

The proposed siting of the power plant project may impact Department of the Navy low-level flight operations on VR-1262. Please contact Ms. Lorena Cordova (lorena.g.cordova.civ@us.navy.mil), Community Partnership Program Analyst, to discuss the impact to the Department of the Navy.

Please note that this informal review by the DoD Military Aviation and Installation Assurance Siting Clearinghouse does not constitute an action under 49 United States Code Section 44718 and that the DoD is not bound by the conclusion arrived at under this informal review. To expedite our review in the Obstruction Evaluation Airport Airspace Analysis (OE/AAA) process, please add the project number (2025-7-PP-DEV-21) in the comments section of the filing. If you have any questions, please contact me at robbin.e.beard.civ@mail.mil.

Sincerely,

Robbin Beard
Executive Director
Military Aviation and Installation
Assurance Siting Clearinghouse

Padilla, Daniel I

From: Townes, Daniel W CTR OSD OUSD A-S (USA) <daniel.w.townes.ctr@mail.mil>
Sent: Wednesday, September 10, 2025 5:02 AM
To: Padilla, Daniel
Cc: Beard, Robbin E CIV OSD OUSD A-S (USA); Casterline, Nina; Snelling, Eric; Saadipour, Shahab; Gurrola AE (Anthony) at Aera
Subject: RE: [EXTERNAL] Response Letter for the CalCapture Carbon Capture and Sequestration Project

Good morning Daniel,

Ms. Cordova reached out to me yesterday and confirmed she is ready to engage.

Robbin and I do not need to be copied on the engagement. (this is the hand-off to the Navy team)

The engagement with Ms. Cordova is separate from the FAA outreach. However, the Navy participates in the FAA's Obstruction Evaluation Airport Airspace Analysis process along with the Clearinghouse and the other Military Departments. So, it's always best practice to get things worked out ahead of time to ensure that process proceeds as quickly as possible.

Please let me know if you have any additional questions. Best of luck to you and your team with the project!

Respectfully,

Dan Townes
Military Aviation and Installation Assurance Siting Clearinghouse
Office of the Assistant Secretary of Defense (Energy Resilience and Optimization)
NIPR: daniel.w.townes.ctr@mail.mil

-----Original Message-----

From: Padilla, Daniel <daniel.padilla@crc.com>
Sent: Tuesday, September 9, 2025 4:00 PM
To: Townes, Daniel W CTR OSD OUSD A-S (USA) <daniel.w.townes.ctr@mail.mil>
Cc: Beard, Robbin E CIV OSD OUSD A-S (USA) <robbin.e.beard.civ@mail.mil>; Casterline, Nina <Nina.Casterline@crc.com>; Snelling, Eric <eric.snelling@stantec.com>; Saadipour, Shahab <Shahab.Saadipour@crc.com>; Gurrola AE (Anthony) at Aera <AEGurrola@aeraenergy.com>
Subject: RE: [EXTERNAL] Response Letter for the CalCapture Carbon Capture and Sequestration Project

Good afternoon Daniel,

Project Number: 2025-7-PP-DEV-21

Thank you and Robbin for the letter response, we'll review and finalize next steps; looks like we'll be contacting the Navy (exciting!!).

A couple of follow up questions from us:

- Could you help clarify if Robbin and you would like to be copied on our engagement with Ms. Cordova?
- Does our engagement with Ms. Cordova constitute our initiation of the Obstruction Evaluation Airport Airspace Analysis, or is that the FAA outreach that we would normally do (at least 18 months prior to the start of work)? I believe that I answered my own question, but I would like to confirm.

Sincerely,

Daniel

DANIEL I. PADILLA
Senior Regulatory Advisor
CRC/CTV
9600 Ming Avenue
Bakersfield, CA 93311
M: 970.412.2776
daniel.padilla@crc.com

-----Original Message-----

From: Townes, Daniel W CTR OSD OUSD A-S (USA) <daniel.w.townes.ctr@mail.mil>

Sent: Tuesday, September 9, 2025 12:42 PM

To: Padilla, Daniel <daniel.padilla@crc.com>

Cc: Beard, Robbin E CIV OSD OUSD A-S (USA) <robbin.e.beard.civ@mail.mil>;

Casterline, Nina <Nina.Casterline@crc.com>; Snelling, Eric

<eric.snelling@stantec.com>; Saadipour, Shahab <Shahab.Saadipour@crc.com>;

Gurrola AE (Anthony) at Aera <AEGurrola@aeraenergy.com>; Gurrola, Anthony E

<anthony.gurrola@crc.com>

Subject: [EXTERNAL] Response Letter for the CalCapture Carbon Capture and Sequestration Project

[Some people who received this message don't often get email from daniel.w.townes.ctr@mail.mil. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

CAUTION: This email originated from outside of California Resources Corporation. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Padilla, Daniel I

From: OSD Pentagon OUSD A-S Mailbox ASD EIE-RP-SC <osd.pentagon.ousd-a-s.mbx.asd-eie-rp-sc@mail.mil>
Sent: Friday, June 5, 2026 7:51 AM
To: Padilla, Daniel I
Cc: Casterline, Nina E; OSD Pentagon OUSD A-S Mailbox ASD EIE-RP-SC
Subject: RE: Catch-up: RE: Request for Informal Review: CRC's CalCapture Carbon Capture and Sequestration Project; Kern County, CA

Good morning Mr. Padilla,

Ms. Cordova has moved on from her previous position.

Ms. Anna Shepherd, Region Community Planning and Liaison Officer, Navy Region Southwest (anna.shepherd4.civ@us.navy.mil), will be able to assist you in regard to CRC's outreach to the Navy's Community Partnership Program.

Please let me know if you have any additional questions or concerns.

Thank you.

Respectfully,

Dan Townes
Military Aviation and Installation Assurance Siting Clearinghouse
Office of the Assistant Secretary of War (Energy Resilience and Optimization)
NIPR: daniel.w.townes.ctr@mail.mil

From: Padilla, Daniel I <Daniel.Padilla@crc.com>
Sent: Friday, June 5, 2026 10:02 AM
To: OSD Pentagon OUSD A-S Mailbox ASD EIE-RP-SC <osd.pentagon.ousd-a-s.mbx.asd-eie-rp-sc@mail.mil>
Cc: Casterline, Nina E <Nina.Casterline@crc.com>
Subject: Catch-up: RE: Request for Informal Review: CRC's CalCapture Carbon Capture and Sequestration Project; Kern County, CA

Good morning Mr. Townes,

I am in the process of initiating CRC's outreach to the Community Partnership Program (U.S. Dept of the Navy) for our proposed project as instructed to do so in Ms. Robbin Beards response letter dated September 8, 2025 (attached) and it's possible that Ms. Lorena Cordova has moved on from her analyst position with the U.S. Dept of the Navy.

Could you confirm who the appropriate contact should be should Ms. Cordova no longer with the U.S. Dept of the Navy?

Please let me know. Sincerely,

Daniel

DANIEL I. PADILLA
Senior Regulatory Advisor
CRC/CTV



9600 Ming Avenue
Bakersfield, CA 93311
M: 970.412.2776
daniel.padilla@crc.com

From: Padilla, Daniel <Daniel.Padilla@crc.com>

Sent: Wednesday, August 13, 2025 6:35 AM

To: OSD Pentagon OUSD A-S Mailbox ASD EIE-RP-SC <osd.pentagon.ousd-a-s.mbx.asd-eie-rp-sc@mail.mil>

Cc: Casterline, Nina <Nina.Casterline@crc.com>; Snelling, Eric <eric.snelling@stantec.com>; Saadipour, Shahab <Shahab.Saadipour@crc.com>; Gurrola AE (Anthony) at Aera <AEGurrola@aeraenergy.com>; Gurrola, Anthony E <Anthony.Gurrola@crc.com>; Ashley, Joe <Joe.Ashley@crc.com>

Subject: RE: [EXTERNAL] RE: Request for Informal Review: CRC's CalCapture Carbon Capture and Sequestration Project; Kern County, CA

Good morning Mr. Townes,

This is perfect! Thank you for the update. Please let us know if you require any additional background information.

Sincerely,

Daniel

DANIEL I. PADILLA
Senior Regulatory Advisor
CRC/CTV



9600 Ming Avenue
Bakersfield, CA 93311
M: 970.412.2776
daniel.padilla@crc.com

From: OSD Pentagon OUSD A-S Mailbox ASD EIE-RP-SC <osd.pentagon.ousd-a-s.mbx.asd-eie-rp-sc@mail.mil>

Sent: Wednesday, August 13, 2025 4:12 AM

To: Padilla, Daniel <Daniel.Padilla@crc.com>

Cc: Casterline, Nina <Nina.Casterline@crc.com>; Snelling, Eric <eric.snelling@stantec.com>; Saadipour, Shahab <Shahab.Saadipour@crc.com>; Gurrola AE (Anthony) at Aera <AEGurrola@aeraenergy.com>; Gurrola, Anthony E <Anthony.Gurrola@crc.com>; Ashley, Joe <Joe.Ashley@crc.com>; OSD Pentagon OUSD A-S Mailbox ASD EIE-RP-SC <osd.pentagon.ousd-a-s.mbx.asd-eie-rp-sc@mail.mil>

Subject: RE: [EXTERNAL] RE: Request for Informal Review: CRC's CalCapture Carbon Capture and Sequestration Project; Kern County, CA

Good morning Mr. Padilla,

The review of the CalCapture Carbon Capture and Sequestration Project is currently in process and on schedule.

Federal law gives us 50 days to respond to Informal Review requests. However, we usually complete them within a month or so, depending on the current workload.

Right now, given the recent staffing shortages, I'd say, the DoD will probably complete this review within the two weeks.

Thank you.

Respectfully,

Dan Townes
Military Aviation and Installation Assurance Siting Clearinghouse
Office of the Assistant Secretary of Defense (Energy Resilience and Optimization)
NIPR: daniel.w.townes.ctr@mail.mil

From: Padilla, Daniel <Daniel.Padilla@crc.com>
Sent: Tuesday, August 12, 2025 5:45 PM
To: OSD Pentagon OUSD A-S Mailbox ASD EIE-RP-SC <osd.pentagon.ousd-a-s.mbx.asd-eie-rp-sc@mail.mil>
Cc: Casterline, Nina <Nina.Casterline@crc.com>; Snelling, Eric <eric.snelling@stantec.com>; Saadipour, Shahab <Shahab.Saadipour@crc.com>; Gurrola AE (Anthony) at Aera <[AEGurrola@aeraenergy.com](mailto:AEgurrola@aeraenergy.com)>; Gurrola, Anthony E <Anthony.Gurrola@crc.com>; Ashley, Joe <Joe.Ashley@crc.com>
Subject: RE: [EXTERNAL] RE: Request for Informal Review: CRC's CalCapture Carbon Capture and Sequestration Project; Kern County, CA

Good afternoon,

I wanted to check in with you to see how your review of CRC's proposed project is going. Please let me know if you have any questions or require additional information regarding the submitted review request.

If you do have what you need to complete your review, could you provide an estimated timeframe for finalizing your review.

Please let me know at your earliest convenience.

Sincerely,

Daniel

DANIEL I. PADILLA
Senior Regulatory Advisor
CRC/CTV



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Bakersfield, CA 93311
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From: OSD Pentagon OUSD A-S Mailbox ASD EIE-RP-SC <osd.pentagon.ousd-a-s.mbx.asd-eie-rp-sc@mail.mil>
Sent: Thursday, July 17, 2025 6:08 AM

To: Padilla, Daniel <Daniel.Padilla@crc.com>

Cc: Casterline, Nina <Nina.Casterline@crc.com>; Snelling, Eric <eric.snelling@stantec.com>; Saadipour, Shahab <Shahab.Saadipour@crc.com>; Gurrola AE (Anthony) at Aera <LEGurrola@aeraenergy.com>; Gurrola, Anthony E <Anthony.Gurrola@crc.com>; Ashley, Joe <Joe.Ashley@crc.com>; OSD Pentagon OUSD A-S Mailbox ASD EIE-RP-SC <osd.pentagon.ousd-a-s.mbx.asd-eie-rp-sc@mail.mil>

Subject: [EXTERNAL] RE: Request for Informal Review: CRC's CalCapture Carbon Capture and Sequestration Project; Kern County, CA

Good morning Mr. Padilla,

Your Informal Review request for the CalCapture Carbon Capture and Sequestration Project has been received. We will begin processing the request shortly.

Thank you for the opportunity to review the project.

Very Respectfully,

The Clearinghouse
Military Aviation and Installation Assurance Siting Clearinghouse
Office of the Assistant Secretary of Defense (Energy Resilience and Optimization)
Email: osd.pentagon.ousd-a-s.mbx.asd-eie-rp-sc@mail.mil

From: Padilla, Daniel <Daniel.Padilla@crc.com>

Sent: Wednesday, July 16, 2025 6:57 PM

To: OSD Pentagon OUSD A-S Mailbox ASD EIE-RP-SC <osd.pentagon.ousd-a-s.mbx.asd-eie-rp-sc@mail.mil>

Cc: Casterline, Nina <Nina.Casterline@crc.com>; Snelling, Eric <eric.snelling@stantec.com>; Saadipour, Shahab <Shahab.Saadipour@crc.com>; Gurrola AE (Anthony) at Aera <LEGurrola@aeraenergy.com>; Gurrola, Anthony E <Anthony.Gurrola@crc.com>; Ashley, Joe <Joe.Ashley@crc.com>

Subject: Request for Informal Review: CRC's CalCapture Carbon Capture and Sequestration Project; Kern County, CA

Good afternoon,

Attached please find CRC's request for informal review of it's proposed CalCapture Carbon Capture and Sequestration project located in Kern County, California.

Attachments include:

- Completed DOD Siting Clearinghouse – Informal Review Request Form
- Project Area map in relation to DOD facilities and operational areas
- Kmz of proposed project areas

Please let me know if you have any questions, comments, or if you require additional information.

Sincerely,

Daniel

DANIEL I. PADILLA
Senior Regulatory Advisor

CRC/CTV



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RESOURCES CORPORATION



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