



State of California – Natural Resources Agency  
DEPARTMENT OF FISH AND WILDLIFE  
Central Region  
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**GAVIN NEWSOM, Governor**  
**CHARLTON H. BONHAM, Director**



March 1, 2024

Keith Alvidrez, Planner II  
Kern County Planning and Natural Resources Department  
2700 "M" Street, Suite 100  
Bakersfield, California 93301

Governor's Office of Planning & Research

**Mar 01 2024**

**STATE CLEARINGHOUSE**

**Subject: Carbon TerraVault 1 Project (Project)  
Draft Environmental Impact Report (DEIR)  
State Clearinghouse No. 2022030180**

Dear Keith Alvidrez:

The California Department of Fish and Wildlife (CDFW) has reviewed a Draft Environmental Impact Report (DEIR) prepared by your agency acting as Lead Agency for the Project pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.<sup>1</sup>

Thank you for the opportunity to provide further comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, CDFW appreciates the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code. It should be noted that CDFW originally provided comments through early consultation, in a letter dated, April 6, 2022, regarding this proposed Project.

### **CDFW ROLE**

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (*Id.*, § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

<sup>1</sup> CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

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CDFW is also submitting comments as a **Responsible Agency** under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), related authorization as provided by the Fish and Game Code will be required.

As a responsible agency, CDFW is responsible for providing, as available, biological expertise during public agency environmental review efforts (e.g., CEQA), focusing specifically on project activities that have the potential to adversely affect fish and wildlife resources. CDFW provides recommendations to identify potential impacts and possible measures to avoid or reduce those impacts.

**Fully Protected Species:** CDFW has jurisdiction over fully protected species of birds, mammals, amphibians and reptiles, and fish, pursuant to Fish and Game Code sections 3511, 4700, 5050, and 5515. Take of any fully protected species is prohibited except where specifically authorized in Fish and Game Code; CDFW cannot authorize their incidental take for this Project.

**Bird Protection:** CDFW has jurisdiction over actions with potential to result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections that protect birds, their eggs and nests include, §§ 3503 (regarding unlawful take, possession or needless destruction of the nest or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird).

**Other Special Status Species:** Species of plants and animals need not be officially listed as Endangered, Rare, or Threatened on any State or federal list pursuant to CESA and/or the federal Endangered Species Act (ESA) to be considered Endangered, Rare, or Threatened under CEQA. If a species can be shown to meet the criteria specified in the CEQA Guidelines (California Code of Regs tit. 14, Chapter 3, § 15380), it should be fully considered in the environmental analysis for the Project.

## **PROJECT DESCRIPTION SUMMARY**

**Proponent:** California Resources Corporation (CRC)

**Objective:** The Project proposes to construct a carbon capture and storage (CCS) facility for permanent underground storage of up to 48 million tons of CO<sub>2</sub> in two reservoir formations on approximately 9,130 surface acres in the Elk Hills Oilfield in unincorporated Kern County and the related initial source for the capture of CO<sub>2</sub>.

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The initial source of CO<sub>2</sub> is the pre-combustion oilfield gas from infield locations, including uses associated with the existing Elk Hills Power Plant. Maximum injection per year from future sources would be up to 2, 210,000 tons per year divided between the two formations (R-26 and A1-A-2). The Project consists of: 1) underground pore space, approved by the Environmental Protection Agency (EPA) as the “area of review” where CO<sub>2</sub> will become permanently mineralized into rock; 2) the CCS Surface Land Area over the underground storage area where limited uses will be permitted; 3) approval of six (6) EPA Class VI UIC wells; 4) conversion and creation of wells for CO<sub>2</sub> leak monitoring and seismic activity; 5) approximately 13 miles of facility and injection underground pipeline for capture of pre-combustion gas; and 6) the related infrastructure improvements for the capture, transfer, and permanent storage of CO<sub>2</sub>.

**Location:** The Project is within the administrative boundary of the Elk Hills oilfield (9,130 surface acres) which is owned and operated by CRC in unincorporated Kern County. The proposed Project area is located on the west side of Elk Hills Road and north side of Skyline Road, within the Elk Hills Oil Field, approximately 26 miles from the City of Bakersfield, approximately 8.5 miles from the City of Taft, and approximately 4 miles from the unincorporated community of Buttonwillow, also being located within sections 7, 8, 9, 10, 13, 15, 16, 17, 18, and 26 of Township 30 South, Range 23 East, Mount Diablo Base and Meridian (MDBM), County of Kern, State of California.

**Timeframe:** Unspecified

## COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist the Lead Agency in adequately identifying and/or mitigating the Project’s significant, or potentially significant, direct, and indirect impacts on fish and wildlife (biological) resources.

In the April 6, 2002, early consultation comment letter CDFW submitted in response to the Notice of Preparation, CDFW identified that the Project Area is known to support high densities of several special-status animal species including the State and federally endangered and State fully protected blunt-nosed leopard lizard (*Gambelia sila*); the State and federally endangered giant kangaroo rat (*Dipodomys ingens*); the State threatened and federally endangered San Joaquin kit fox (*Vulpes macrotis mutica*); the State threatened Swainson’s hawk (*Buteo swainsoni*) and San Joaquin (also known as Nelson’s) antelope squirrel (*Ammospermophilus nelsoni*); the State species of special concern American badger (*Taxidea taxus*), short-nosed kangaroo rat (*Dipodomys nitratoides brevinasus*), burrowing owl (*Athene cunicularia*), and California glossy snake (*Arizona elegans occidentalis*). The Project Area is also in the range of several special-status plant species including but not limited to the State and federally endangered and California rare plant rank (CRPR) 1B.1 California jewelflower (*Caulanthus californicus*). Since preparation of the April 6, 2022, early consultation comment letter, two species have become candidates for listing under CESA and remain candidates as of the date

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of this letter. These species include Temblor legless lizard (*Anniella alexanderae*) and Crotch's bumble bee (*Bombus crotchii*).

There is an abundance of information about the extensive rare biological resources present throughout the Elk Hills Oil Field (EHOF), due to its history as the Naval Petroleum Reserve 1 (NPR1). NPR1 was sold to Occidental Petroleum as part of the 1996 National Defense Act that directed the Department of Energy (DOE) to sell the oilfield; Occidental Petroleum (OXY) completed the purchase in 1998. In addition to the extensive biological information collected by DOE, a joint Program Environmental Impact Report/Supplemental Environmental Impact Statement was prepared by DOE/Kern County in 1997 to support the transfer. CDFW issued a 1997 CESA Memorandum of Understanding and subsequent amendments, which was then superseded by a 2014 Incidental Take Permit (ITP), which authorized take of State listed species associated with oilfield exploration and operation. CDFW's ITP was supported by the Kern County Oil and Gas Environmental Impact Report. CDFW's 2014 ITP permitting effort was supported by extensive biological survey information and related modeling provided by OXY. CDFW requests that the EIR fully identify potential impacts to biological resources, including the above-mentioned species by evaluating the extensive existing biological information collected over decades within the EHOF. Specific examples follow. For all of the species referenced above, CDFW can provide some of this information if needed, as we relied heavily upon it for our more recent permitting efforts. In addition to comments in the April 6, 2022, early consultation letter, CDFW recommends that the following modifications and/or edits be incorporated into the final EIR, including proposed avoidance, minimization, and compensatory measures, prior to its adoption by Kern County.

**Blunt Nosed Leopard Lizard (BNLL).** The Biological Resources section of the DEIR appears to rely primarily on reconnaissance level surveys conducted for the DEIR and ignores the substantial body of biological information collected within the EHOF. For example, the DEIR blunt-nosed leopard lizard (BNLL) analysis states, "*The blunt-nosed leopard lizard was not observed during reconnaissance surveys. However, 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.*" This is wholly misleading given the extensive distribution of BNLL known to occur within the EHOF, as supported by decades of surveys and research on this species both during the NPR1 designation as well as after being acquired by OXY, with annual surveys conducted by OXY/CRC since 1998; there is no other area within the range of BNLL as extensively studied for BNLL as the EHOF. BNLL densities are extremely dense in portions of the EHOF, particularly in the vicinity of the North flank and the Elk Hills Conservation Area. BNLL densities at EHOF likely exceed those observed anywhere else in the species range. We recommend that the DEIR disclose OXY's BNLL Kern probability densities, ongoing monitoring routes and associated detections, and historical observations to better inform the CEQA impact analysis, as well as to inform the likelihood for Project related impacts to this Fully Protected species to be avoided as required by Fish and Game Code.

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**San Joaquin antelope squirrel (SJAS).** The DEIR indicates that multiple detections of SJAS were during reconnaissance level surveys, but no reference was made to the substantial body of SJAS detection data that exists for EHOFF. SJAS are considered fairly widespread throughout the EHOFF, though estimates of population size have not been published. OXY's information previously provided to CDFW indicates that the total number of observations has fluctuated with a low of 29 in 2000, and a high of 179 in 2003. During seismic surveys conducted on and adjacent to the EHOFF between 1998 and 2001, the locations of SJAS were collected and mapped using GPS (n = 1,298). CDFW recommends that the DEIR discloses OXY/CRC's ongoing SJAS monitoring and associated detections, and historical observations to better inform the CEQA impact analysis.

**Giant Kangaroo Rat (GKR).** The DEIR indicates that "*Giant kangaroo rat was not observed during reconnaissance surveys. However, the BSA is within the known range of the species, suitable habitat is present.*" Like the species mentioned above, there is also extensive giant kangaroo rat (GKR) survey data within EHOFF. OXY/CRC has a compilation of historical observations of GKR occurrences from the late 1970's through 2003, and monitored GKR consistently from 1994 through 2002 and allow for comparisons within this time period. For year 2003 forward, the survey effort was effectively doubled so data from subsequent years will allow for comparisons back to 2003. The EHOFF sections surveyed for GKR presence are located in the non-High Production Area on the perimeters of the EHOFF, in the existing EHOFF Conservation Area, as well as adjacent areas off of EHOFF within the 2-mile buffer along the Northeast Flank, Northwest Flank and Southwest Flank of EHOFF. These GKR survey areas overlap substantively with the proposed Project boundaries; CDFW recommends that the DEIR discloses OXY/CRC's ongoing GKR monitoring and associated detections, and historical observations to better inform the CEQA impact analysis.

**San Joaquin kit fox (SJKF).** The DEIR states that "*No San Joaquin kit fox were observed during reconnaissance surveys. However, potentially suitable dens, some including diagnostic sign such as scat and track, were observed throughout the BSA. San Joaquin kit fox den in a variety of areas, such as ROWs and vacant lands, and they may be attracted to the BSA because of the type and level of ground-disturbing activities and the loose, friable soils resulting from intensive ground disturbance.*" Like the species mentioned above, there has been extensive SJKF surveys and research conducted at the EHOFF; much of the original contemporary published research on SJKF was conducted at NPR-1. OXY/CRC has a compilation of historical observations of SJKF occurrences within the EHOFF from the late 1970's through 2003; these data were collected from many different survey efforts. Methods of monitoring for kit fox on the EHOFF changed substantially between the time periods of 1981-1995 and 1998-2011. Between 1981 and 1995, SJKF were systematically trapped and radio collared (Cypher et al. 2000). Monitoring of population trends from 1998 to present has consisted of spotlighting and scent stations. As described above under GKR occurrence on EHOFF, the areas surveyed for SJKF presence are also located in the non-High Production Areas on the perimeters of the EHOFF, in the existing EHOFF

Conservation Area, as well as adjacent areas off of EHOFF within the 2-mile buffer; these SJKF survey areas overlap substantially with the proposed Project footprint. EHOFF SJKF data includes an observed low of one (1) kit fox in 1998 with a high of 173 in 2004. This species experiences large natural fluctuations in population densities throughout their ranges. Earlier (before 1998) monitoring efforts on EHOFF allowed for the calculation of density and population estimates. Total population estimates reached a high in 1994 of 363 (density estimate of 4.35 per sq mi or 1.68 per sq km) and a low in 1991 of 46 (density estimate of 0.55 per sq mi (0.21 per sq km). This time period was characterized with fairly dramatic decreases and increases, and kit fox numbers have been observed to fluctuate in other areas (Cypher et al. 2000). CDFW recommends that the DEIR discloses OXY/CRC's SJKF monitoring and associated detections, and historical observations to better inform the CEQA impact analysis.

### **Temblor legless lizard**

The DEIR indicates in Table 4.4-4 Special Status Animal Species with Potential to Occur on Site that Temblor legless lizard (TLL) could potentially be affected by the Project. The DEIR also indicates that to reduce to less than significant the Project-related impacts to the species, the Project proponent will: determine the presence of the species by conducting "protocol surveys" at and near the Project Area, and employ a biological monitor to conduct pre-disturbance surveys within 30 days of commencing ground-disturbing activities (MM 4.4-1); maintain a 30-foot protective buffer from dens and/or active burrows which harbor the species (MM 4.4-3); implement a Worker Environmental Awareness Program for on-site workers (MM 4.4-11); and implement MM 4.4-13 which includes a list of Project-related prohibitions and limits designed to minimize take of the species.

If pre-Project CDFW-approved surveys conducted by qualified individuals reveal the presence of TLL at the Project Area, avoidance may not be possible and Incidental Take Authorization should be sought from CDFW. Individual TLLs are difficult to detect, even if they are present, and are not typically found within dens and/or burrows, therefore, the proposed "protocol surveys" of the Project Area, and proposed avoidance buffers from active dens and/or burrows may not constitute avoidance of the candidate species.

Habitat loss resulting from land conversion to agricultural, urban, and industrial development is the primary threat to TLL. The species is known to occur within and in the vicinity of the Project Area. The Project may have the potential to significantly impact local TLL populations.

### **Recommended Mitigation Measure 1: TLL Surveys**

CDFW recommends the Lead Agency require the Project proponent conduct surveys of the Project Area implementing a CDFW-approved methodology to determine the presence of TLL at and near the Project Area

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### **Recommended Mitigation Measure 2: TLL Avoidance**

CDFW recommends the Lead Agency require the Project proponent consult with, and provide an avoidance plan for approval by, CDFW in the event the surveys reveal the presence of TLL at and/or near the Project Area.

### **Recommended Mitigation Measure 3: TLL Take Authorization**

In the event complete avoidance of TLL is not feasible, CDFW recommends the Lead Agency require the Project applicant obtain incidental take authorization from CDFW prior to commencing ground disturbing activities.

### **Crotch's Bumble Bee**

The DEIR indicates in Table 4.4-4 Special Status Animal Species with Potential to Occur on Site that Crotch's bumble bee (CBB) could potentially be affected by the Project. The Lead Agency indicates that to reduce to less than significant the Project-related impacts to the species, the Project proponent will: determine the presence of the species by conducting protocol surveys at and near the Project Area, and employ a biological monitor to conduct pre-disturbance surveys within 30 days of commencing ground-disturbing activities (MM 4.4-1); implement a Worker Environmental Awareness Program for on-site workers (MM 4.4-11); and implement MM 4.4-13 which includes a list of Project-related prohibitions and limits designed to minimize take of the species. CDFW does not concur that the Mitigation Measures are sufficient to mitigate impacts, to ensure the Project Area is surveyed sufficiently to determine presence or absence and adequately mitigate for the species, CDFW recommends the following:

### **Recommended Mitigation Measure 4: CCB Surveys**

CDFW recommends that a qualified biologist conduct focused surveys for CBB and their requisite habitat features during the blooming period immediately prior to Project construction, following the methodology outlined in the Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species (CDFW 2023).

### **Recommended Mitigation Measure 5: CBB Avoidance Buffer**

If surveys cannot be completed, CDFW recommends that all small mammal burrows and thatched/bunch grasses be avoided by a minimum of 50 feet to avoid take and potentially significant impacts. If ground-disturbing activities will occur during the overwintering period (October through February), consultation with CDFW is warranted to discuss how to implement Project activities and avoid take. Any detection of CBB prior to or during Project construction warrants consultation with CDFW to discuss how to avoid take.

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## **Recommended Mitigation Measure 6: CBB Take Authorization**

If CBB is identified during surveys or at any time during Project construction, consultation with CDFW is warranted to determine if the Project can avoid take. If take cannot be avoided, take authorization prior to any ground disturbing activities is warranted. Take authorization would occur through issuance of an ITP by CDFW, pursuant to Fish and Game Code section 2081(b).

## **EDITORIAL COMMENTS AND/OR SUGGESTIONS**

**Mitigation Measures :** MM 4.4-1 B states, *“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 CCS activities (including lands which 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.”*, it is unclear what this statement means for implementation of protocol surveys, please provide additional clarification in the final EIR.

**Impacts to Conserved Lands:** As a condition of previous CDFW and USFWS permits, OXY placed 7,878 acres of high-quality habitat (“Elk Hills Conservation Area”) within the EHOF into permanently conserved status via recordation of a Conservation Easement in favor of CDFW. The Elk Hills Conservation Area is present along the North and South flanks of the EHOF, which is within and adjacent to a portion of the Project. Specifically, the proposed pore space underlies a portion of the Elk Hills Conservation Area. CDFW recommends the final EIR analyze any potential direct or indirect impacts to this conserved land and the associated special status species. Project related impacts to conserved lands may make the project proponent liable for making whole, the loss of mitigation associated with the CDFW and USFWS permits.

The DEIR indicates that Project facilities would be located within the Elk hills Conservation Area. However, while a portion of the Project Pore Space may underly the Elk Hills Conservation area, any Project related surface disturbance is prohibited by the Conservation Easement recorded in favor of CDFW. For example, Project surface infrastructure such as but not limited to pipelines and injection wells must completely avoid the Elk Hills Conservation Area parcels. Further, an appropriate buffer (at least 500 feet) for such surface infrastructure should be observed from the periphery of the Elk Hills Conservation Area boundary to minimize the potential for CO<sub>2</sub> leaks impacting the rare species inhabiting the Elk Hills Conservation Area. CDFW requests that these avoidance measures be made an explicit condition of approval in the Final EIR.

**Federally Listed Species:** CDFW recommends consulting with USFWS regarding potential impacts to federally listed species including but not limited to BNLL, GKR, SJKF, and California jewelflower. Take under the ESA is more broadly defined than



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CESA; take under ESA also includes significant habitat modification or degradation that could result in death or injury to a listed species by interfering with essential behavioral patterns such as breeding, foraging, or nesting. Consultation with the USFWS in order to comply with ESA is advised well in advance of any Project activities.

**Lake and Streambed Alteration:** Based on the information provided in the DEIR, as well as our familiarity with the EHO, the Project Area contains multiple streams. The DEIR contemplates that Project activities may be subject to CDFW's regulatory authority pursuant to Fish and Game Code section 1600 et seq. which requires an entity to notify CDFW prior to commencing any activity that may (a) substantially divert or obstruct the natural flow of any river, stream, or lake; (b) substantially change or use any material from the bed, bank, or channel of any river, stream, or lake (including the removal of riparian vegetation); (c) deposit debris, waste or other materials that could pass into any river, stream, or lake. "Any river, stream, or lake" includes those that are ephemeral, intermittent, or episodic, as well as those that are perennial. CDFW is required to comply with CEQA in the issuance of a Lake or Streambed Alteration Agreement; therefore, if the CEQA document approved for the Project does not adequately describe the Project and its impacts to streams, a subsequent CEQA analysis may be necessary for Lake or Streambed Alteration Agreement issuance. For information on notification requirements, please refer to CDFW's website (<https://wildlife.ca.gov/Conservation/LSA>) or contact CDFW staff in the Central Region Lake and Streambed Alteration Program at (559) 243-4593 or [R4LSA@wildlife.ca.gov](mailto:R4LSA@wildlife.ca.gov).

## ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database, which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to the CNDDDB. The CNDDDB field survey form can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The completed form can be mailed electronically to CNDDDB at the following email address: [CNDDDB@wildlife.ca.gov](mailto:CNDDDB@wildlife.ca.gov). The types of information reported to CNDDDB can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

## FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089).

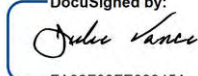
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## CONCLUSION

CDFW appreciates the opportunity to comment on the DEIR to assist Kern County in identifying and mitigating Project-related impacts on biological resources.

If you have any questions, please contact Steve Hulbert, Senior Environmental Scientist Specialist, at the address provided on this letterhead, by telephone at (559) 575-6415, or by electronic mail at [Steven.Hulbert@wildlife.ca.gov](mailto:Steven.Hulbert@wildlife.ca.gov).

Sincerely,

DocuSigned by:  
  
FA83F09FE08945A...  
Julie A. Vance  
Regional Manager

Enclosure

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## REFERENCES

CDFW 2023. Survey considerations for California Endangered Species Act candidate bumble bee species. California Department of Fish and Wildlife, Sacramento, California, USA.

Cypher, B. L., G.D. Warrick, M. R. M. Otten, T. P. O'Farrell, W. H. Berry, D. E. Harris, T.T. Kato, P. M. McCue, J. H. Scrivner, and B. W. Zoellick. 2000. Population dynamics of San Joaquin kit foxes at the Naval Petroleum Reserves in California. *Wildlife Monographs* 145: 1-43.

**Attachment 1**

**MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)  
FOR CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE  
RECOMMENDED MITIGATION MEASURES**

**PROJECT: Carbon TerraVault 1  
SCH No.: 2022030180**

<b>RECOMMENDED MITIGATION MEASURE</b>	<b>STATUS/DATE/INITIALS</b>
<i>Before Disturbing Soil or Vegetation</i>	
Mitigation Measure 1: Temblor Legless Lizard Surveys	
Mitigation Measure 3: Temblor Legless Lizard Take Authorization	
Mitigation Measure 4: Crotch's Bumble Bee Surveys	
Mitigation Measure 6: Crotch's Bumble Bee Take Authorization	
<i>During Construction</i>	
Mitigation Measure 2: Temblor Legless Lizard Avoidance	
Mitigation Measure 5: Crotch's Bumble Bee Avoidance	