

## MONTEREY COUNTY PLANNING COMMISSION

<b>Meeting:</b> July 30, 2014	<b>Agenda Item No.:</b> 1
<b>Project Description:</b> Consider a Temporary Use Permit to allow production testing for oil and gas using an existing well	
<b>Project Location:</b> 72327 Jolon Rd, Bradley	<b>APN:</b> 424-081-082-000
<b>Planning File Number:</b> PLN140395	<b>Owner:</b> Porter Estate Company Bradley Ranch LLC <b>Applicant:</b> Trio Petroleum LLC <b>Agent:</b> Steve Rowlee
<b>Planning Area:</b> South County Area Plan	<b>Flagged and staked:</b> No
<b>Zoning Designation:</b> F/40 & PG/40 [Farming and Permanent Grazing, 40 acres per unit]	
<b>CEQA Action:</b> Categorically Exempt per Section 15301 of the CEQA Guidelines	
<b>Department:</b> RMA-Planning	

### RECOMMENDATION:

Staff recommends that the Planning Commission adopt a resolution (**Exhibit C**) to:

- 1) Find the project Categorically Exempt per Section 15301 of the CEQA Guidelines; and
- 2) Approve PLN140395, based on the findings and evidence and subject to the conditions of approval (**Exhibit C**)

### PROJECT OVERVIEW:

This temporary use permit application proposes production testing for oil and gas using an existing oil and gas well located off Jolon Road in South County. The existing well was originally permitted for oil and gas exploration in 2007 and the permit expired in 2010. Currently the site contains two wells that both have expired permits and are in violation of their conditions that require the site be restored to its predevelopment state. Additional project discussion is attached. (**Exhibit B**)


**OTHER AGENCY INVOLVEMENT:** The following agencies and departments reviewed this project:

- √ RMA-Public Works Department
- √ Environmental Health Bureau
- √ Water Resources Agency
- √ Cal Fire South County Fire Protection District

Agencies that submitted comments are noted with a check mark ("√"). Conditions recommended by RMA-Planning and the Environmental Health Bureau have been incorporated into the Condition Compliance/Mitigation Monitoring and Reporting Plan attached to the draft resolution (**Exhibit C**).

The project was referred to the South County Land Use Advisory Committee (LUAC) on June 18, 2014. The LUAC voted in recommendation of the project 5-0.

Note: The decision on this project is appealable to the Board of Supervisors.

  
 Grace Bogdan, Project Planner  
 (831) 796-6414, bogdang@co.monterey.ca.us  
 July 23, 2014

cc: Front Counter Copy; Planning Commission; Cal Fire South County Fire Protection District; RMA-Public Works Department; RMA-Environmental Services; Environmental Health Bureau; Water Resources Agency; John Ford, RMA Services Manager; Grace Bogdan, Project Planner; Porter Estate Company Bradley Ranch LLC, Owner; Steve Rowlee, Agent; Steve Craig, Citizen Planning Alliance; Center for Biological Diversity; Sierra Club; Sara Rubin, Monterey County Weekly; Tia Leberz, Food and Water Watch; The Open Monterey Project (Molly Erickson); LandWatch (Amy White); John H. Farrow; Steve Craig; Planning File PLN140395

Attachments: Exhibit A Project Data Sheet  
Exhibit B Project Discussion  
Exhibit C Draft Resolution, including:  
• Conditions of Approval  
• Site Plan and Elevations  
Exhibit D Vicinity Map  
Exhibit E Project Description for Production Testing  
Exhibit F South County LUAC Minutes  
Exhibit G Technical Reports

This report was reviewed by John Ford, RMA Services Manager.



# EXHIBIT A

## Project Information for PLN140395

**Application Name:** Porter Estate Company Bradley Ranch Inc  
**Location:** 72327 Jolon Rd, Bradley  
**Applicable Plan:** South County  
**Advisory Committee:** South County Advisory Committee  
**Permit Type:** Use Permit  
**Environmental Status:** Categorical Exemption  
**Zoning:** F/40|PG/40

**Primary APN:** 424-081-082-000  
**Coastal Zone:** No  
**Final Action Deadline (884):** 8/26/2014  
**Land Use Designation:** Permanent Grazing 10 - 160 Ac Min|Farmlands 40 - 160 Ac Min

### Project Site Data:

**Lot Size:** 1280000  
**Existing Structures (sf):** 0  
**Proposed Structures (sf):** 0  
**Total Sq. Ft.:** 0

**Coverage Allowed:** 5  
**Coverage Proposed:** 0  
**Height Allowed:** 35  
**Height Proposed:** 0

**FAR Allowed:** N/A  
**FAR Proposed:** 0

**Special Setbacks on Parcel:**

### Resource Zones and Reports:

**Seismic Hazard Zone:** RELATIVELY UNSTABLE UPLANDS  
**Erosion Hazard Zone:** Moderate  
**Fire Hazard Zone:** Moderate  
**Flood Hazard Zone:** X (unshaded)|A  
**Archaeological Sensitivity:** high  
**Visual Sensitivity:** None

**Soils Report #:** N/A  
**Biological Report #:** LIB140218  
**Forest Management Rpt. #:** N/A  
**Geologic Report #:** N/A  
**Archaeological Report #:** LIB080536  
**Traffic Report #:** N/A

### Other Information:

**Water Source:** OFF-SITE  
**Water Purveyor:** N/A  
**Fire District:** South County FPD  
**Tree Removal:** 0

**Grading (cubic yds.):** 0  
**Sewage Disposal (method):** N/A  
**Sewer District Name:** N/A

## **EXHIBIT B DISCUSSION**

### Project Description and Background

The proposed temporary use permit would allow production testing (exploration) for oil and gas using an existing oil well located off Jolon Rd in South County. This well is known as Bradley Minerals 2-2 that was originally constructed with a temporary use permit in 2007 (PLN070173) and was granted an extension in 2009 (PLN080457). The extension permit expired on March 29, 2010.

This well site contains two wells, Bradley Minerals Well 1-2 & 2-2. Bradley Minerals Well 1-2 was originally drilled in 1985 and was abandoned, meaning the well was shut in and capped off below the surface and the site was restored. Division of Oil, Gas, and Geothermal Resources (DOGGR), the state agency responsible for overseeing oil and gas permits, has records that indicate this well was hydraulically fractured and used acid stimulation. A temporary use permit was granted to Trio Petroleum Inc in November of 2004 to allow the re-drilling of this well site (Bradley Minerals Well 1-2). This permit was not granted an extension and expired in 2005. The well site was never restored and presently sits idle, which is a violation of their use permit conditions of approval.

Venoco, Inc was the applicant for a separate temporary use permit and extension that allowed the construction, drilling, and testing of Bradley Minerals Well 2-2. This well has a depth of 10,400 feet and is located adjacent to Bradley Minerals Well 1-2. DOGGR's records for Bradley Minerals Well 2-2 indicate that Venoco Inc did use well stimulation treatments such as acid stimulation and hydraulic fracturing. These treatments were performed in February and June of 2008. The first treatment used acid injection and recovered nominal amounts of oil followed by two idle months. The second treatment in May of 2008 included acid and hydraulic fracturing. During this treatment the inner casing split at a depth of approximately 1,700 feet, but did not affect the outer casing. The water table for this area reaches a depth of approximately 1,900 feet. Repair to the casing was made and testing of the well continued through early 2009.

The original use permit and extension was conditioned to require the site be restored to its predevelopment state prior to the permit expiration. The site was never restored; Venoco did shut in the well and removed all equipment from the site, leaving only a trailer and port-a-potty. The well remained idle until 2014. Trio Petroleum LLC acquired the well in March of 2014 with the intent to conduct additional production testing. Trio received permits from DOGGR in April, 2014 to rework the existing oil well. RMA- Planning and Building Services received a complaint in late April that the oil company was working on an existing well with an expired use permit. A stop work notice was issued to Trio Petroleum that stated two options: 1) restore the site to its predevelopment state, or 2) submit an application for a temporary use permit. The applicant complied with the Monterey County citation issue by closing the well and submitted an application to RMA-Planning on May 28, 2014.

There are two actions that could be taken by the Planning Commission. Either 1) deny the temporary use permit and have Code Enforcement require full site restoration, or 2) approve the temporary use permit with conditions of approval, which would address the past violations and ensure the applicant will comply with future conditions.

## Project Issues

In the past, Monterey County has issued use permits to allow exploration for oil and gas. These entitlements allow the drilling of test wells that will be used for production testing to determine if the well can produce commercial quantities of oil and gas. The permits are temporary, expiring either 1 or 2 years after the permit is approved. At that time the applicant can request an extension to allow for more testing, or, if it is certain the well will not produce commercial quantities of oil and gas, it will be abandoned and restored to the site's predevelopment state.

This particular well was granted a permit for the drilling and exploratory testing in 2007 with an approved extension that expired in 2010. These past permits did not specify or regulate the use of well stimulation treatments like hydraulic fracturing or acid stimulation. Venoco requested a confidential status from DOGGR to protect this information and it was not confirmed that these treatments were conducted until documents were released to the public in 2010. The applicant for this temporary use permit, Trio Petroleum LLC, is an independent oil company that wishes to conduct additional exploration. They do not propose the use of hydraulic fracturing or any other form of well stimulation treatments in this use permit application and the proposed work is consistent with permits granted from DOGGR.

### *Production testing (Exploration for oil and gas):*

The proposed production testing for this permit will involve testing specific zones within the existing well borehole that is approximately 10,400 feet in depth. The work done by Trio Petroleum, prior to being issued a citation by Monterey County Code enforcement, included re-opening of the well, cleaning of the borehole and the creation of perforations in the existing well borehole. There is no additional drilling or well stimulation proposed as part of the temporary use permit. Production testing involves creating perforations in specific zones of the existing well followed by pumping of the well to determine if commercial quantities can be produced. The previous applicant (Venoco) tested certain zones within the well borehole; however Trio Petroleum proposes testing of a zone in the existing borehole that was not previously tested by Venoco.

Though Venoco did use stimulations in the past on this well, production testing does not require stimulation. If oil does exist, oil at this depth is typically of a light gravity and will naturally flow to the well perforations. The applicant anticipates that the well will recover salt water (brine/brackish fluids) mixed with oil. The project description submitted by Trio Petroleum (Exhibit D) cites the potential use of acid as a form of well maintenance. Acid of low concentration levels is used for ongoing maintenance for oil and domestic wells to clean calcium and other build up on the perforations of the well. The Department of Conservation does not view this as a well stimulation treatment because the acid is of low concentration and put down the well with the intent to clean, and not to permeate geologic formations. This process is referred to in the proposed state regulations for well stimulation treatments.

### *Temporary nature:*

The previous planning entitlements have allowed site development to the extent necessary for the proposed application. There is an existing access road that leads to the existing well pad, which contains two existing wells, Bradley Minerals Well 1-2 & 2-2. Trio Petroleum proposes production testing on Bradley Minerals Well 2-2. There will be no additional drilling, grading or vegetation removal necessary for the proposed exploration. All essential equipment will be temporary in nature such as portable fresh water, bathroom facilities, production tanks and the pumping unit. The application included an update to the 2007 Biological Report and Erosion Control Plan.

The temporary tanks will be fully enclosed steel tanks and will be used to capture any subsurface production. The applicant anticipates recovery of salt water and oil and states that it is unlikely that residue from the past fracturing jobs exist; that any residue would have been produced by Venoco at that time. Oil at this depth will likely be of a high gravity, between 32 and 38 degrees, and will naturally separate from the salt water. Vacuum trucks will be used to recover the oil, will be sold onsite and trucked to the purchasers. Similarly, the salt water will be collected by a licensed contractor and disposed of offsite. The salt water that is produced from deep wells is typically brackish and contains a high amount of total dissolved solids (TDS). Produced fluid would need to be disposed of by transportation to an Environmental Protection Agency (EPA) certified Class II injection well or to a hazardous waste facility. Environmental Health Bureau staff proposes conditions that will require the applicant to abide by all applicable state and federal regulations relative to the handling, storage and disposal of hazardous waste, including but not limited to production fluids.

*Biological:*

The Biological Assessment prepared by Booher Consulting in May of 2014 identified databases and literature that stated there is potential for special status plant and wildlife species to occur within the project site, but none were observed during the biological surveys. The findings of the biological report are similar to the conclusions stated in the 2007 biological assessment. The biological survey identified non-native grasslands and a ruderal/disturbed vegetative community within the project site and buffer area that could support habitats such as the California condor, coast horned lizard, San Joaquin kit fox, burrowing owl, among others. The report concluded that due to the existing development of the site, it is not anticipated that special status species will occur but recommends minimization measures for these species which will avoid any impacts to sensitive plant or animal species.

*Recommended Conditions of Approval:*

Due to the history of this site and that currently two wells exist on a site with expired permits, staff recommends a more restrictive set of conditions of approval. The recommended conditions will require a performance bond in the full amount of the estimated cost for restoration of the well site be submitted to RMA-Planning prior to the commencement of production testing. This would include the removal of all temporary equipment, abandonment of Bradley Minerals Well 1-2 & 2-2 and re-contouring of the land to match the surrounding area as permanent grazing land. These conditions will ensure compliance with past permits, correct past violations and minimize unabated future violations. If the applicant does find commercial quantities of oil, staff recommends conditions that will require the applicant to apply for a subsequent use permit to develop the site for full oil production, which will require further environmental review.

New state regulations, which were not in place during the permitting of past use permits on this site, require DOGGR to notify the local planning entity when well stimulation treatment permits are issued. This communication will ensure that Monterey County is notified when a site is permitted for well stimulation and will give RMA-Planning the opportunity to review records to ensure project sites have the necessary land use entitlements. If not, enforcement action can be taken.

Environmental Review

Staff recommends this project be categorically exempt from CEQA per Section 15301. The project proposes operation of an existing oil well for production testing. This type of project is consistent with the Class 1 exemption because it is an existing facility that proposes temporary

operation that will involve negligible or no expansion of the existing use. The well site, and the specific well, has been permitted in the past for the exploration of oil and gas and this permit would allow the continued operation for exploration (production testing) for a period of one year.

Recommendation

Staff recommends that the Planning Commission approve the temporary use permit, subject to the conditions of approval in Exhibit C, to allow production testing for oil and gas using an existing well located at 72327 Jolon Rd, Bradley.

**EXHIBIT C  
DRAFT RESOLUTION**

**Before the Planning Commission in and for the  
County of Monterey, State of California**

In the matter of the application of:

**PORTER ESTATE COMPANY BRADLEY RANCH LLC (PLN140395)  
RESOLUTION NO. ----**

Resolution by the Monterey County Hearing Body:

- 1) Finding the project Categorically Exempt per Section 15301 of the CEQA Guidelines; and
- 2) Approving a temporary use permit to allow production testing for oil and gas using an existing well (Bradley Minerals Well 2-2).

[PLN140395, Porter Estate Company Bradley Ranch LLC, 72327 Jolon Rd, Bradley, South County Area Plan (APN: 424-081-082-000)]

**The Porter Estates application (PLN140395) came on for public hearing before the Monterey County Planning Commission on July 30, 2014. Having considered all the written and documentary evidence, the administrative record, the staff report, oral testimony, and other evidence presented, the Planning Commission finds and decides as follows:**

**FINDINGS**

1.       **FINDING:**       **PROJECT DESCRIPTION** – The proposed project is a temporary use permit to allow the exploration for oil and gas using an existing well  
**EVIDENCE:** a) The exploration for oil and gas using an existing oil well will involve production testing within the existing borehole of Bradley Minerals Well 2-2 that has an approximate depth of 10,400 feet, located at 72327 Jolon Road, Bradley. No additional drilling, grading, or construction is permitted. The project has been conditioned to limit the production testing to one year and will not include the use of hydraulic fracturing or any other form of well stimulation treatments.  
b) The application, project plans, and related support materials submitted by the project applicant to Monterey County RMA-Planning for the proposed development found in Project File PLN140395.
  
2.       **FINDING:**       **CONSISTENCY** – The Project, as conditioned, is consistent with the applicable plans and policies which designate this area as appropriate for development.  
**EVIDENCE:** a) During the course of review of this application, the project has been reviewed for consistency with the text, policies, and regulations in:
  - the 2010 Monterey County General Plan;
  - South County Area Plan;
  - Monterey County Zoning Ordinance (Title 21);No conflicts were found to exist. No communications were received



during the course of review of the project indicating any inconsistencies with the text, policies, and regulations in these documents.

- b) The property is located at 72327 Jolon Rd, Bradley (Assessor's Parcel Number 424-081-082-000), South County Area Plan. The parcel is zoned F/40 and PG/40 [Farming and Permanent Grazing, 40 acres per unit], both zonings allow for the exploration for and removal of oil and gas, however the proposed development is predominantly located in the portion of the property zoned permanent grazing. Therefore, the project is an allowed land use for this site.
- c) This is an existing well pad site containing two existing oil wells, Bradley Minerals Well 1-2 and 2-2. The original well, 1-2, was drilled in 1985, approved for a temporary use permit in 2004 (PLN040283) for re-drilling of the well. Bradley Minerals Well 2-2 was drilled in 2007 under PLN070173 and granted an extension in 2009 under PLN080457. Both use permits are expired.
- d) The project planner conducted a site inspection on July 14, 2014 to verify that the project on the subject parcel conforms to the plans listed above. There is an access road off of Jolon Road with a locked gate controlling access. The site contained a temporary trailer and a port-a-potty restroom. Both the Bradley Minerals Well 1-2 and 2-2 were shut in.
- e) The previous planning entitlements have allowed site development to the extent necessary for the proposed application. There is an existing access road that leads to the existing well pad. There will be no additional drilling, grading or vegetation removal necessary for the temporary use permit.
- f) The project was referred to the South County Land Use Advisory Committee (LUAC) for review. Based on the LUAC Procedure guidelines adopted by the Monterey County Board of Supervisors per Resolution No. 08-338, this application warranted referral to the LUAC because the permit application and land use matter may raise significant land use issues that necessitate review prior to a public hearing by the Planning Commission.
- g) The South County LUAC met on June 18, 2014 to discuss the application and any potential issues. The applicant gave a short presentation on the project and necessary equipment for production testing. The applicant responded to questions from the Southern Monterey County Rural Coalition regarding the use of hydraulic fracturing and other well stimulation treatments, which are not proposed or permitted as part of this temporary use permit. The LUAC voted in recommendation of project approval 5-0.
- h) The application, project plans, and related support materials submitted by the project applicant to Monterey County RMA-Planning for the proposed development found in Project File PLN140395.

3. **FINDING:** **SITE SUITABILITY** – The site is physically suitable for the use proposed.

**EVIDENCE:** a) The project has been reviewed for site suitability by the following departments and agencies: RMA- Planning, Cal Fire South County Fire Protection District, RMA-Public Works, Environmental Health Bureau,

and Water Resources Agency. There has been no indication from these departments/agencies that the site is not suitable for the proposed development. Conditions have been incorporated.

- b) Staff identified potential impacts to Biological Resources. The following reports have been prepared:
  - "Biological Assessment" (LIB140218) prepared by Robert A Booher Consulting, Bakersfield, CA in May of 2014.The above-mentioned technical report by an outside consultant indicated that there are no physical or environmental constraints that would indicate that the site is not suitable for the use proposed. County staff has independently reviewed these reports and concurs with their conclusions.
- c) The biological assessment included recommended minimization measures such as preconstruction surveys to ensure no special status wildlife species are established in the project site or buffer area. The project has been conditioned to include these recommended mitigation measures.
- d) The site has been used for oil and gas exploration dating back to 1985. Bradley Minerals well 2-2 was permitted in 2007, PLN070173, to allow the drilling of the well and the exploration for oil and gas. An extension for the exploration of oil and gas was granted in 2009 under PLN080457, which expired in 2010. This application will allow the exploration for oil and gas on Bradley Minerals Well 2-2, for which the site has been permitted in the past.
- e) The project has been conditioned to require full restoration of the site and requires the applicant to submit a performance bond equal to the cost of full site restoration.
- f) Staff conducted a site inspection on July 14, 2014 to verify that the site is suitable for this use.
- g) The application, project plans, and related support materials submitted by the project applicant to the Monterey County RMA - Planning for the proposed development found in Project File PLN140395.

4. **FINDING:** **HEALTH AND SAFETY** - The establishment, maintenance, or operation of the project applied for will not under the circumstances of this particular case be detrimental to the health, safety, peace, morals, comfort, and general welfare of persons residing or working in the neighborhood of such proposed use, or be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the County.

- EVIDENCE:**
- a) The project was reviewed by the RMA- Planning, Cal Fire South County Fire Protection District, RMA-Public Works, Environmental Health Bureau, and Water Resources Agency. The respective agencies have recommended conditions, where appropriate, to ensure that the project will not have an adverse effect on the health, safety, and welfare of persons either residing or working in the neighborhood.
  - b) Cal Fire South County Fire Protection District, RMA-Public Works, and Water Resources Agency completed the project with no conditions.
  - c) RMA-Planning conditioned the temporary permit to expire one year from the date that construction begins and requires the applicant to

apply for a subsequent use permit to convert the exploratory oil well to full production if commercial quantities of oil and gas are found. The project has been conditioned to allow specific uses, which do not include the use of hydraulic fracturing or any other form of well stimulation treatments. The project has been conditioned to require full restoration of the site if no commercial quantities of oil or gas are found, to ensure compliance the applicant is required to submit a performance bond equal to the cost of full site restoration. Other conditions applied by RMA-Planning were recommended by the Biological Assessment prepared by Robert A Booher Consulting in May 2014. These conditions require preconstruction surveys to ensure no special status wildlife species are established in the project site or buffer area prior to any onsite activity.

- d) The Environmental Health Bureau has conditioned the project to require the applicant to maintain an up-to-date Business Response Plan and to ensure the maintenance of above ground storage tanks and the disposal of hazardous waste, including but not limited to requiring that handling of production fluids are compliant with state and federal regulations.
- e) Necessary public facilities will be provided and will be temporary in nature. The applicant has contracted a licensed rental company to provide temporary restroom facilities and a portable 500 gallon tank of fresh water for onsite needs.
- f) The project description submitted by the applicant, included as Exhibit E, stating that the site will be equipped with a natural gas flare to burn off natural gas if it is found during production testing, in accordance with Monterey Bay Unified Air Pollution Control District requirements. The project has been conditioned to ensure compliance with Monterey Bay Unified Air Pollution Control District requirements.
- g) Staff conducted a site inspection on July 14, 2014 to verify that the site is suitable for this use.
- h) The application, project plans, and related support materials submitted by the project applicant to the Monterey County RMA - Planning for the proposed development found in Project File PLN140395.

5. **FINDING:** **VIOLATIONS** - The subject property is not compliance with all rules and regulations pertaining to zoning uses in the County's zoning ordinance. The approval of this permit will correct the existing violation and bring the property into compliance.

**EVIDENCE:** a) The proposed project corrects an existing violation, 14CE00123. With the approval of this permit, the subject property will be compliant with all rules and regulations. The violation exists because the applicant began working on the existing oil well (Bradley Minerals Well 2-2) under an expired use permit for exploratory drilling. This temporary use permit allows the exploratory work to be conducted on the existing oil well for up to one year of the approved date. Bradley Minerals Well 1-2 exists on the same project site and was permitted under PLN040283. This permit is expired and the well site was never restored to its predevelopment state. This is a second violation on the property. The project is conditioned to require a performance bond in the full amount of estimated site restoration which will include the abandonment of

Bradley Minerals Well 1-2 & 2-2, removal of all temporary structures, and re-contouring of the land.

- b) Pursuant to Section 21.84.140 of Monterey County Code, permit applications for uses which have been established or initiated prior to the application for permit shall require a fee of twice the amount normally charged for the application. The project has been conditioned to require payment of this fee prior to commencement of production testing on Bradley Minerals Well 2-2.
- c) The application, plans and supporting materials submitted by the project applicant to Monterey County RMA-Planning for the proposed development are found in Project File PLN140395.

6. **FINDING:** **CEQA (Exempt):** - The project is categorically exempt from environmental review and no unusual circumstances were identified to exist for the proposed project.

- EVIDENCE:**
- a) California Environmental Quality Act (CEQA) Guidelines Section 15301 categorically exempts the operation and minor alteration of existing facilities involving negligible or no expansion of use.
  - b) This type of project falls under the Class 1 exemption because it is an existing facility that proposes temporary operation that will involve negligible or no expansion of the existing use. The well site, and the specific well, currently exist and have been permitted in the past for the exploration of oil and gas. This permit will allow the continued operation for exploration for a period of one year.
  - c) The project will be granted for a period of one year and all necessary equipment will be temporary in nature. There will be no grading or additional ground disturbance required and the exploratory work will be conducted on an existing well pad. The project has been conditioned to avoid any impacts to surrounding habitat.
  - d) No adverse environmental effects were identified during staff review of the development application during a site visit on July 14, 2014.
  - e) None of the exceptions under CEQA Guidelines Section 15300.2 apply to this project. The project does not involve a designated historical resource, a hazardous waste site, development located near or within view of a scenic highway, unusual circumstances that would result in a significant effect or development that would result in a cumulative significant impact.
  - f) Staff conducted a site inspection on July 14, 2014 to verify that the site is suitable for this use.
  - g) The application, project plans, and related support materials submitted by the project applicant to Monterey County RMA-Planning for the proposed development found in Project File PLN140395.

7. **FINDING:** **APPEALABILITY** - The decision on this project may be appealed to the Board of Supervisors.

- EVIDENCE:**
- a) Section 21.80.010.D of the Monterey County Zoning Ordinance states that the proposed project is appealable to the Board of Supervisors.

### DECISION

**NOW, THEREFORE**, based on the above findings and evidence, the Planning Commission does hereby:

- 1) Find the project Categorical Exempt per Section 15301 of the CEQA Guidelines; and
- 2) Approve a temporary use permit to allow production testing for oil and gas using an existing well (Bradley Minerals Well 2-2).

**PASSED AND ADOPTED** this 30th day of July, 2014 upon motion of xxxx, seconded by xxxx, by the following vote:

AYES:  
NOES:  
ABSENT:  
ABSTAIN:

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Mike Novo, Planning Commission Secretary

COPY OF THIS DECISION MAILED TO APPLICANT ON DATE

THIS APPLICATION IS APPEALABLE TO THE BOARD OF SUPERVISORS.

IF ANYONE WISHES TO APPEAL THIS DECISION, AN APPEAL FORM MUST BE COMPLETED AND SUBMITTED TO THE CLERK TO THE BOARD ALONG WITH THE APPROPRIATE FILING FEE ON OR BEFORE [DATE]

This decision, if this is the final administrative decision, is subject to judicial review pursuant to California Code of Civil Procedure Sections 1094.5 and 1094.6. Any Petition for Writ of Mandate must be filed with the Court no later than the 90th day following the date on which this decision becomes final.

NOTES

1. You will need a building permit and must comply with the Monterey County Building Ordinance in every respect.

Additionally, the Zoning Ordinance provides that no building permit shall be issued, nor any use conducted, otherwise than in accordance with the conditions and terms of the permit granted or until ten days after the mailing of notice of the granting of the permit by the appropriate authority, or after granting of the permit by the Board of Supervisors in the event of appeal.

Do not start any construction or occupy any building until you have obtained the necessary permits and use clearances from Monterey County RMA-Planning and RMA-Building Services Department office in Salinas.

2. This permit expires 1 year after the above date of granting thereof if no extension or subsequent use permit is applied for.

Form Rev. 5-14-2014

# Monterey County RMA Planning

## DRAFT Conditions of Approval/Implementation Plan/Mitigation Monitoring and Reporting Plan

PLN140395

### 1. PD001 - SPECIFIC USES ONLY

**Responsible Department:** RMA-Planning

**Condition/Mitigation Monitoring Measure:** This temporary use permit (PLN140395) allows production testing for oil and gas using an existing well (Bradley Minerals Well 2-2). The property is located at 72327 Jolon Rd, Bradley (Assessor's Parcel Number 424-081-082-000), South County Area Plan. This permit was approved in accordance with County ordinances and land use regulations subject to the terms and conditions described in the project file. Neither the uses nor the construction allowed by this permit shall commence unless and until all of the conditions of this permit are met to the satisfaction of the Director of RMA - Planning. Any use or construction not in substantial conformance with the terms and conditions of this permit is a violation of County regulations and may result in modification or revocation of this permit and subsequent legal action. No use or construction other than that specified by this permit is allowed unless additional permits are approved by the appropriate authorities. To the extent that the County has delegated any condition compliance or mitigation monitoring to the Monterey County Water Resources Agency, the Water Resources Agency shall provide all information requested by the County and the County shall bear ultimate responsibility to ensure that conditions and mitigation measures are properly fulfilled. (RMA - Planning)

**Compliance or Monitoring Action to be Performed:** The Owner/Applicant shall adhere to conditions and uses specified in the permit on an ongoing basis unless otherwise stated.

### 2. PD002 - NOTICE PERMIT APPROVAL

**Responsible Department:** RMA-Planning

**Condition/Mitigation Monitoring Measure:** The applicant shall record a Permit Approval Notice. This notice shall state:  
"A temporary use permit (Resolution Number \*\*\*) was approved by the Planning Commission for Assessor's Parcel Number 424-081-082-000 on [Date the permit was approved]. The permit was granted subject to 15 conditions of approval which run with the land. A copy of the permit is on file with Monterey County RMA - Planning."

Proof of recordation of this notice shall be furnished to the Director of RMA - Planning prior to issuance of building permits or commencement of the use. (RMA - Planning)

**Compliance or Monitoring Action to be Performed:** Prior to the issuance of grading and building permits or commencement of use, the Owner/Applicant shall provide proof of recordation of this notice to the RMA - Planning.

**3. PD003(A) - CULTURAL RESOURCES NEGATIVE ARCHAEOLOGICAL REPORT**

**Responsible Department:** RMA-Planning

**Condition/Mitigation Monitoring Measure:** If, during the course of construction, cultural, archaeological, historical or paleontological resources are uncovered at the site (surface or subsurface resources) work shall be halted immediately within 50 meters (165 feet) of the find until a qualified professional archaeologist can evaluate it. Monterey County RMA - Planning and a qualified archaeologist (i.e., an archaeologist registered with the Register of Professional Archaeologists) shall be immediately contacted by the responsible individual present on-site. When contacted, the project planner and the archaeologist shall immediately visit the site to determine the extent of the resources and to develop proper mitigation measures required for recovery.  
(RMA - Planning)

**Compliance or Monitoring Action to be Performed:** The Owner/Applicant shall adhere to this condition on an on-going basis.

Prior to the issuance of grading or building permits and/or prior to the recordation of the final/parcel map, whichever occurs first, the Owner/Applicant shall include requirements of this condition as a note on all grading and building plans. The note shall state "Stop work within 50 meters (165 feet) of uncovered resource and contact Monterey County RMA - Planning and a qualified archaeologist immediately if cultural, archaeological, historical or paleontological resources are uncovered."

When contacted, the project planner and the archaeologist shall immediately visit the site to determine the extent of the resources and to develop proper mitigation measures required for the discovery.

**4. PD004 - INDEMNIFICATION AGREEMENT**

**Responsible Department:** RMA-Planning

**Condition/Mitigation Monitoring Measure:** The property owner agrees as a condition and in consideration of approval of this discretionary development permit that it will, pursuant to agreement and/or statutory provisions as applicable, including but not limited to Government Code Section 66474.9, defend, indemnify and hold harmless the County of Monterey or its agents, officers and employees from any claim, action or proceeding against the County or its agents, officers or employees to attack, set aside, void or annul this approval, which action is brought within the time period provided for under law, including but not limited to, Government Code Section 66499.37, as applicable. The property owner will reimburse the County for any court costs and attorney's fees which the County may be required by a court to pay as a result of such action. The County may, at its sole discretion, participate in the defense of such action; but such participation shall not relieve applicant of his/her/its obligations under this condition. An agreement to this effect shall be recorded upon demand of County Counsel or concurrent with the issuance of building permits, use of property, filing of the final map, recordation of the certificates of compliance whichever occurs first and as applicable. The County shall promptly notify the property owner of any such claim, action or proceeding and the County shall cooperate fully in the defense thereof. If the County fails to promptly notify the property owner of any such claim, action or proceeding or fails to cooperate fully in the defense thereof, the property owner shall not thereafter be responsible to defend, indemnify or hold the County harmless. (RMA - Planning)

**Compliance or Monitoring Action to be Performed:** Upon demand of County Counsel or concurrent with the issuance of building permits, use of the property, recording of the final/parcel map, whichever occurs first and as applicable, the Owner/Applicant shall submit a signed and notarized Indemnification Agreement to the Director of RMA-Planning for review and signature by the County.

Proof of recordation of the Indemnification Agreement, as outlined, shall be submitted to RMA-Planning .

**5. PD016 - NOTICE OF REPORT**

**Responsible Department:** RMA-Planning

**Condition/Mitigation Monitoring Measure:** Prior to issuance of building or grading permits, a notice shall be recorded with the Monterey County Recorder which states:  
"A Biological Assessment (Library No. LIB140218), was prepared by Robert A. Booher Consulting in May, 2014 and is on file in Monterey County RMA - Planning. All development shall be in accordance with this report."  
(RMA - Planning)

**Compliance or Monitoring Action to be Performed:** Prior to the issuance of grading and building permits, the Owner/Applicant shall submit proof of recordation of this notice to RMA - Planning.

Prior to occupancy, the Owner/Applicant shall submit proof, for review and approval, that all development has been implemented in accordance with the report to the RMA - Planning.



**6. PDSP001-NON-STANDARD CONDITION**

**Responsible Department:** RMA-Planning

**Condition/Mitigation Monitoring Measure:** This temporary Use Permit shall expire one year from the date that construction begins, with a request to extend the permit at the specific site for a period not to exceed an additional six (6) months. Any request will be contingent upon no violation of grading, zoning, land use policies or local and state regulations.

**Compliance or Monitoring Action to be Performed:** Apply for an extension, if necessary, prior to the expiration of the temporary Use Permit

**7. PDSP002-NON-STANDARD CONDITION**

**Responsible Department:** RMA-Planning

**Condition/Mitigation Monitoring Measure:** If the production testing for oil and gas finds that commercial quantities of oil and gas exist at this location (Bradley Minerals Well 2-2), a subsequent Use Permit approval will be required to convert the site to full production.

**Compliance or Monitoring Action to be Performed:** Prior to the expiration of the temporary Use Permit, which is one year past the approval of this permit, the applicant shall submit an application to convert site to full production for the recovery of commercial quantities of oil and gas.

**8. PDSP003-NON-STANDARD CONDITION**

**Responsible Department:** RMA-Planning

**Condition/Mitigation Monitoring Measure:** Should the applicant not find commercial quantities of oil and gas at this location (Bradley Minerals Well 2-2), all wells onsite shall be abandoned, all temporary facilities shall be removed, and the site shall be restored to its predevelopment state as permanent grazing/non-native grasslands.

**Compliance or Monitoring Action to be Performed:** A performance bond or security in the amount of one hundred percent (100%) of the estimated cost of well abandonment (Bradley Minerals Well 1-2 & 2-2) and site restoration shall be submitted to RMA-Planning prior to commencement of production testing.

Prior to the expiration of the temporary Use Permit, the applicant shall submit documentation (site photos, DOGGR permits, etc) to RMA-Planning that the site has been restored to its predevelopment state.

**9. PDSP004-NON-STANDARD CONDITION**

**Responsible Department:** RMA-Planning

**Condition/Mitigation Monitoring Measure:** Not more than 14 days prior to construction a qualified, County-approved biologist shall conduct a preconstruction survey of the proposed project site and buffer area to verify that no special status wildlife species including the San Joaquin Kit Fox, Burrowing Owl, California Long Horned Lizard or any Avian Species have become established in the project site or buffer area. If the preconstruction survey shows evidence of any of the above listed species, the biologist and applicant shall adhere to the proper mitigation measures as outlined in the Biological Assessment submitted by Robert A. Booher Consulting dated May 2014. All planned construction activities shall be postponed until a qualified biologist can conclude that the project site and buffer area are clear of any special status wildlife species.

**Compliance or Monitoring Action to be Performed:** The qualified biologist shall submit a copy of the preconstruction survey results to RMA-Planning.

**10. PDSP005-NON-STANDARD CONDITION**

**Responsible Department:** RMA-Planning

**Condition/Mitigation Monitoring Measure:** The temporary use permit will allow production testing using an existing oil and gas well, Bradley Minerals 2-2. The use of hydraulic fracturing or any other form of well stimulation treatment is not permitted with this entitlement.

**Compliance or Monitoring Action to be Performed:** The Applicant (Trio Petroleum LLC) and its successors and assigns shall adhere to conditions and uses specified in the permit on an ongoing basis unless otherwise stated.

**11. PDSP006-NON-STANDARD CONDITION**

**Responsible Department:** RMA-Planning

**Condition/Mitigation Monitoring Measure:** Any flaring of natural gas shall be done using permitted equipment by the Monterey Bay Unified Air Pollution Control District (MBUAPCD) and shall comply with all applicable MBUAPD standards.

**Compliance or Monitoring Action to be Performed:** Contact the Monterey Bay Unified Air Pollution Control District.

**12. PDSP008-NON-STANDARD CONDITION**

**Responsible Department:** RMA-Planning

**Condition/Mitigation Monitoring Measure:** The applicant shall pay all retroactive permit fees pursuant to Title 21.84.140 of Monterey County Code.

**Compliance or Monitoring Action to be Performed:** The applicant shall pay \$9,226.50 to RMA-Planning prior to commencement of production testing of Bradley Minerals Well 2-2.

**13. EHSP01 - HAZARDOUS MATERIALS: BUSINESS RESPONSE PLAN (NON-STANDARD)**

**Responsible Department:** Health Department

**Condition/Mitigation Monitoring Measure:** The applicant shall maintain an up-to-date Business Response Plan that meets the standards found in the California Code of Regulations, Title 19, Division 2, Chapter 4 (Hazardous Material Release Reporting, Inventory, and Response Plans) and the California Health and Safety Code, Division 20, Chapter 6.95 (Hazardous Material Release Response Plans and Inventory), and the Monterey County Code Chapter 10.65.

**Compliance or Monitoring Action to be Performed:** Prior to commencement of operation, submit a signed Business Response Plan – Memorandum of Understanding (form available from EHB) that specifies an approved Business Response Plan must be on file with Hazardous Materials Management Services prior to bringing hazardous materials on site and/or commencement of operations.

**14. EHSP02 - HAZARDOUS WASTE CONTROL (NON-STANDARD)**

**Responsible Department:** Health Department

**Condition/Mitigation Monitoring Measure:** The facility shall comply with the standards found in the California Code of Regulations, Title 22, Division 4.5 and the California Health and Safety Code, Division 20, Chapter 6.5, and the Monterey County Code Chapter 10.65 for the proper handling, storage and disposal of Hazardous Waste, including but not limited to produced fluids, as approved by the Environmental Health Bureau (EHB).

**Compliance or Monitoring Action to be Performed:** Prior to commencement of operation, the applicant shall submit to the Hazardous Materials Management Services of the Environmental Health Bureau (EHB) an inventory of any hazardous waste expected to be generated on site for review and acceptance. If no hazardous waste is expected to be generated, applicant shall submit attestation to the satisfaction of EHB.

**15. EHSP03 - HAZARDOUS MATERIALS: SPILL PREVENTION CONTROL COUNTERMEASURE PLAN (NON-STANDARD)**

**Responsible Department:** Health Department

**Condition/Mitigation Monitoring Measure:** Above ground storage tanks for petroleum products (i.e. diesel, oil, and gasoline) with greater than 1320-gallons of capacity or for cumulative storage of more than 1320-gallons shall meet the standards as found in the California Health and Safety Code, Section 25270 et seq. and of the Code of Federal Regulations, Part 112 (commencing with Section 112.1) of Subchapter D of Chapter 1 of Title 40.

**Compliance or Monitoring Action to be Performed:** Prior to commencement of operation, prepare a Spill Prevention Control Countermeasure (SPCC) Plan and submit to the Environmental Health Bureau (EHB) for review and acceptance.

- natural gas flare
- 500 gallon fresh water tank
- self contained toilet facility
- pumping unit
- five 500 barrel temporary tanks
- driveway

BRADLEY MINERALS #1-2  
 GRID N: 1841252.150  
 GRID E: 801025.450  
 LATITUDE: 37°32'24.80"  
 LONGITUDE: -120°51'36.450"  
 ELEVATION: 627.10'

BRADLEY MINERALS #2-2 WELL LOCATION



WM HOLDINGS INC.  
 William L. Meagher  
 2747 Sherwin Ave. #12  
 Ventura, Ca. 93003  
 (805) 677-4850  
 Drawn by Jeremy Henry, LS



**BRADLEY MINERALS #2-2 WELL  
 LOCATION  
 BRADLEY, CALIFORNIA**

SHEET 1  
 OF 1  
 DRAWING NO.  
807070

REVISED: 06-20-2007



Ruler

Line Path Pro

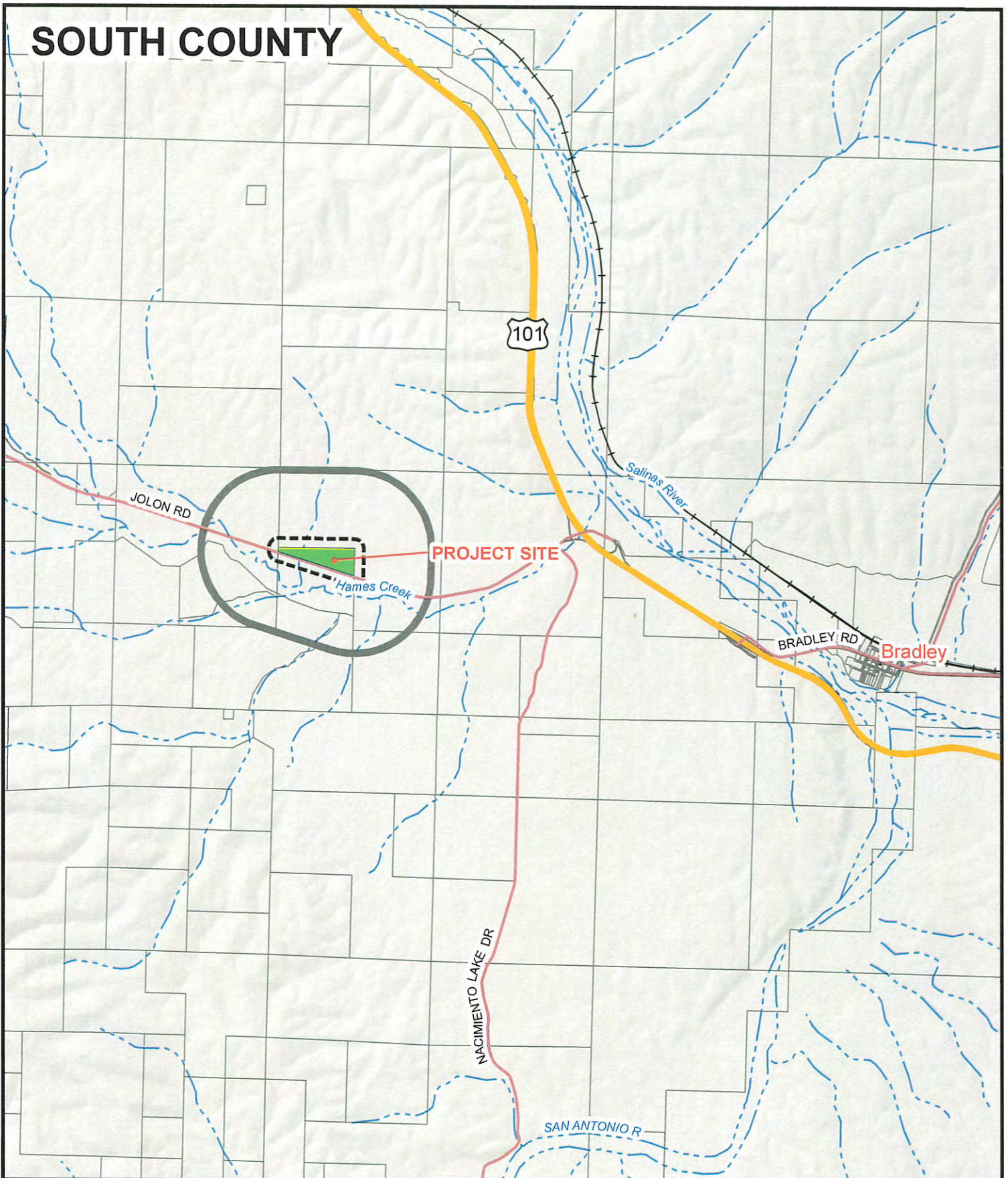
Measure the distance between two points on the ground

Map Length:	500.32	Feet
Ground Length:	500.67	
Heading:	90.15	degrees

Mouse Navigation

Save Clear




# SOUTH COUNTY



**APPLICANT:** PORTER ESTATE COMPANY RANCH INC

**APN:** 424-081-082-000

**FILE #** PLN140395

 2500' Limit  300' Limit  Water



**PLANNER:** BOGDAN

**TRIO PETROLEUM LLC**  
**BRADLEY MINERALS #2-2**  
**Project Description-- Production Testing**

Trio Petroleum LLC is proposing to production test an existing exploratory oil and gas well, the Bradley Minerals #2-2, from an existing oil and gas drilling site (or well pad), the Bradley Minerals #1-2 well pad, in southern Monterey County. (It should be noted that this well has previously been referred to as the South Salina #1.) The well pad, which encompasses an area of approximately 175 feet by 365 feet, and the existing Bradley Minerals #2-2 exploratory oil and gas well are located in Section 2, Township 24 South, Range 10 East. The locations of the well, well pad and existing access route are identified on the attached site plan and ancillary documents.

The well pad can be accessed from an existing driveway and access road off of Jolon Road. No grading will be required as the existing drill site and access road provides adequate room for Trio's proposed project. Since this is a production testing operation and not a drilling operation, traffic to and from the site will be minimal, consisting of approximately three vacuum trucks per week and daily visits by company personnel.

As no well pad or road construction is required, the project would not alter the current drainage pattern of the site or area in a manner that would promote flooding, erosion or siltation either on or off site. The project will maintain existing drainage patterns. No trees or vegetation will be disturbed or removed.

The Bradley Minerals #2-2 well is currently prepared for hydrocarbon production testing which can take place immediately upon the installation of a pumping unit and placement of temporary enclosed production tanks. All necessary and required State of California, Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) permits for production testing have been obtained. Should natural gas in conjunction with oil be encountered during testing, same will be safely flared in compliance with Monterey Bay Unified Air Pollution Control District requirements. The flaring of natural gas, which is commonly found in association with oil production (but in less than commercial quantities), may be intermittent, constant during testing or non-occurring. During production testing of the existing #2-2 well, which will likely be a 24 hour a day process, a company representative will be either onsite or in the immediate vicinity. Fresh water (a portable 500 gallon tank), bathroom facilities (self-contained port-a-potty) and sewage disposal will be provided by licensed contractors (i.e. Pensingers Trailer Rentals).

All down hole well operations will be regulated by the State of California, Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR). To protect ground water (if any), surface casing, designed to protect fresh water zones, is already set and cemented in the well.

Evaluation of the well, which includes production testing, to determine if the well is economically viable could continue for up to one year. If the well were eventually determined to be economically viable, Trio would submit an application to the County to develop and equip the well for long term production.

**SUPPLEMENTAL PROJECT DESCRIPTION**  
(In response to 7/18/2014 request for additional information)

Other items of information requested by Monterey County Planning:

- 1. Well history (depth, past stimulation treatments, any known past casing failures)
- 2. Detailed description of proposed testing: what production testing consists of, the depth range of perforations and how many, what perforations were existing and what did you add, will any stimulation be used, do you intend to use acid for maintenance, if not, please state that
- 3. What permits were obtained from DOGGR for proposed work and what site inspections were performed for well casing and blow out testing
- 4. What do you expect to find, any residual from past fracking, salt water, oil (at what gravity)
- 5. Explain what the vacuum trucks will be used for (on the phone you mentioned there will be separation of water and oil onsite and then trucked off separately, please put that in writing) describe the process for separating the oil and water (or other fluids), how much do you expect to truck off weekly
- 6. Will the tanks be enclosed steel?
- 7. At what depth is the fresh water table and what is the casing for that area

Responses to items 1-7:

1. Following is a condensed summary of Venoco's 2-2 well operations (for drilling detail, attached in pdf are the DOGGR 2-2 well histories for the Venoco drilling operations and the Trio 2-2 rework operations). Note: The 5 1/2" production casing failure during the Venoco frac was only related to the production casing and did not affect the protective 9 3/4" surface casing (see response to item 7):

- **Spud:**  
9/24/2007
- **Deviation:** 27° Inclination, 340° Azimuth
- **TD:** Basement, 10,400' MD, (9,292' TVD)
- **Surface Casing:** Set 9 5/8" K55 casing from surface to 2,124'---cement returns to surface
- **FIT:** 12.0 ppg at 2,054', no leak off
- **Mud:** LVT Oil, 11.5 ppg at TD
- **LCM:** Calcium Carbonate pumped 9,800-10,400'
- **Production Casing:** 5-1/2" 17# N-80, 0-10,400'
- **Annular Isolation:** Cemented from 7,990-10,400'
  - DV Collar Cemented from 4,770-5,944'
- **Release Rig:**  
11/8/2007



- **Current Status:** Idle
- **Mud Log:** 190-10,400'
- **Sidewall Cores:** 2,290-9,260'
  - Recover 12 samples
- **Run #1:** 2,122-10,355'
  - PEX
    - Array Induction / GR / SP / Density / Neutron
  - MCFL
  - HNGS
  - CMR
- **Run #2:** 8,000-10,400'
  - FMI
  - Sonic Scanner
- **CBL:** 2,100-10,340'
  - Good bond 8,000-10,400' & 4,770-5,944'
- **Perf:** 10,110-10,150', 10,157-10,230'

**(Vaqueros)**

1/2/2008

- All perforations 3-3/8" TCP guns
- Swab: 46 BO, 23 BW 7 days
- Downhole Gauge PBU 4 days
- **Perf: 9,960-10,090' (Sandholdt)**  
1/14/2008
  - Swab: 44 BO, 25 BW 3 days
- Downhole Gauge PBU 8 days
- **Perf: 10,090-10,110' (Vaqueros)**  
1/29/2008
  - Swab: 37 BO, 29 BW 2 days
  - 43° API oil, 6,000 ppm Cl water
- **Acid: 9,960-10,230'**  
2/5/2008
  - 3,000 gals 7.5% HCl
  - CT making sweeps across perfs
  - Flow/Swab: 240 BO, 66 BW 8 days
  - Rod Pump: 487 BO, 193 BW 8 days
    - Pumped off
  - Surface PBU 42 days
    - Very tight, limited inflow

- Set Composite BP at 9,800'  
5/14/2008
  
- **Perf: 9,210-9,260'**  
**5/16/2008**
  - Swab: 188 BO, 12 BW 4 days
- Downhole Gauge PBU 3 days
  - Swab/Flow: 94 BO, 6 BW 2 days
  - Rod Pump: 1810 BO, 175 BW 26 days
    - Less than 224 bbls load water recovered
- Found Bridge Plug at 10,051'  
6/25/2008
- Set Cast Iron BP at 9,800'  
6/26/2008
  
- **Frac: 9,210-9,260'**  
**6/28/2008**
  - 3,650 bbls 35# Hybor, 4% KCl
  - 1-5 ppa, 185 Mlbs 40/70 sand in zone
    - ~15 Mlbs left in wellbore
  - 5-1/2" Casing failure at 1,700' during frac
- Bleed off 98 BO 1 day
- Patch to repair casing 13 days
  - Rod Pump: 1,251 BO, 1,908 BW 23 days
  - Less than 3,650 bbls load water recovered
- Downhole Gauge PBU 3 days
  
- Downhole Gauge PBU 8 days
- **Acid: 9,210-9,260'**  
**9/11/2008**
  - 1,000 gals 7.5% HCl foamed to 70Q
  - 2,000 gals 10.5/1.5 HCl/HF foamed to 70Q
  - Swab : 21 BO, 34 BW 1 day
  - Rod Pump: 848 BO, 1,311 BW 33 days
  
- **Perf: 9,260-9,330', 9,365-9,425'**  
**12/18/2008**
  - TCP w/ propellant
  - Swab: 12 BW 2 days
  - Rod Pump: 618 BO, 1,548 BW 28 days
- Surface PBU 108 days

2. Production testing of the 2-2 well essentially consists of rod pumping the well into temporary (portable), fully enclosed steel tanks. An acid wash may be used during testing to ensure the perforations remain open and clear. When the well is put back on production the acid recovered will be captured and disposed of by a licensed contractor at a proper hazardous waste facility. Any acidizing of the well will be at nominal pressure only as necessary for cleaning perforations and far lower than pressure necessary to fracture the formation. The perforated intervals in the production casing created and used by Venoco and, those subsequently created by Trio, are specifically set forth in the attached DOGGR well histories referred to in 1. above.
3. Attached in pdf are copies of Trio's DOGGR permits for operations on the 2-2 well , including witness and approval of the blowout equipment.
4. We expect to recover salt water and oil (32° -38°). We do not expect to recover any residual from the past Venoco fracturing operation as it was most likely produced during their own production testing period which occurred subsequent to the frac.
5. Vacuum trucks are owned and operated by licensed contractors and are used to remove, carry and dispose of fluid produced from wells (i.e. salt water, oil). Formation water (salt water) will be taken by the contractor and disposed of at a proper hazardous waste facility. Oil of such high gravity (32° -38°) separates naturally from water and will be recovered, sold and trucked to the purchasers refining facility. It is expected that vacuum trucks will be coming to from the facility twice or three times per week during the production testing period.
6. The temporary production tanks are fully enclosed and made of steel.
7. The fresh water table appears to be at a depth of 1,900' and the casing protecting that area is 9 5/8" K55 casing cemented from the surface to 2,124'.

# Action by Land Use Advisory Committee Project Referral Sheet

Monterey County Planning Department  
168 W Alisal St 2<sup>nd</sup> Floor  
Salinas CA 93901  
(831) 755-5025

Advisory Committee: **South County**

Please submit your recommendations for this application by: June 18, 2014

**Project Title:** PORTER ESTATE COMPANY BRADLEY RANCH INC

**File Number:** PLN140395

**File Type:** PC

**Planner:** BOGDAN

**Location:** 72327 JOLON RD BRADLEY

**Project Description:**

Use Permit to allow the the exploration for oil and gas on an existing well (Bradley Well 2-2). The property is located at 72327 Jolon Road, Bradley (Assessor's Parcel Number 424-081-082-000), Township 24, Range 10 East Section 2, South County Area Plan.

**Was the Owner/Applicant/Representative Present at Meeting?** Yes X No \_\_\_\_\_

Steve Rowlee, Representative

Stan Echner, Representative

**Was a County Staff/Representative present at meeting?** Grace Bogdan, Assistant Planner (Name)

Porter Estate Company Bradley Ranch Inc – A short presentation was given by Steven Rowlee and Stan Echner followed with a question and answer period.

**PUBLIC COMMENT:**

Name	Site Neighbor?		Issues / Concerns (suggested changes)
	YES	NO	
Paula Getzleman, Southern MOCO Rural Coalition		X	Wanted to know if any Fracking would be taking place. No suggested changes
Susan Raycraft, Lockwood/Jolon		X	Also wanted to know about and Fracking that might be involved. No Suggested Changes

**LUAC AREAS OF CONCERN**

Concerns / Issues (e.g. site layout, neighborhood compatibility; visual impact, etc)	Policy/Ordinance Reference (If Known)	Suggested Changes - to address concerns (e.g. relocate; reduce height; move road access, etc)
None		None

**ADDITIONAL LUAC COMMENTS**

None

**RECOMMENDATION : Approve as Submitted**

Motion by:           Melissa Duflock           (LUAC Member's Name)

Second by:           Debbie Roberson           (LUAC Member's Name)

Support Project as proposed

Support Project with changes

Continue the Item

Reason for Continuance: \_\_\_\_\_

Continued to what date: \_\_\_\_\_

AYES:           5 (Roberson, Bartosh, Duflock, Taylor, Buntz)          

NOES:           0          

ABSENT:           1 (Martinez)          

ABSTAIN:           0

LIB140218

**Biological Assessment  
Trio Petroleum LLC  
Bradley Minerals Project  
Monterey County, California**

**Prepared for:**

**Trio Petroleum LLC  
5401 Business Park South, Suite 115  
Bakersfield, California 93309  
Contact: Mr. Steven A. Rowlee  
(661) 324-3911**

**Prepared by:**

**Robert A. Booher Consulting  
Environmental Planning and Management  
3221 Quail Hollow Drive  
Fairfield, California 94534  
Contact: Bob Booher, R.E.A.  
(707) 399-7835**

**May 2014**

## **INTRODUCTION**

Trio Petroleum LLC (Trio) is proposing to conduct oil and gas well drilling and production activities at the existing Bradley Minerals 2-2 well site. The existing project site is located within an unincorporated area of southern Monterey County. Trio retained the services of Robert A. Booher Consulting (RAB Consulting) to conduct a biological survey and assessment of the existing project site and buffer area for submittal to the Monterey County Resource Management Agency, Planning Department.

RAB Consulting conducted biological surveys of the existing well site and access road, and buffer areas to identify known or potential habitat for special-status wildlife and plant species on May 12, 2014. RAB Consulting previously conducted biological surveys of the project site on February 5 and May 28, 2007 as part of the conditional use permitting process for the Bradley Minerals 2-2 Project. This report presents the results of our current biological surveys and includes recommendations for avoidance and minimization measures to be implemented as operational procedures during the proposed project to avoid or minimize potential impacts to sensitive wildlife and plant species.

## **PROJECT LOCATION AND ENVIRONMENTAL SETTING**

The project site is located just south of the southern terminus of the Salinas Valley near the boundary of Monterey and San Luis Obispo Counties within Hames Valley. The project site was and is used for oil and natural gas exploration and production activities, and the well site has been actively maintained for such operations.

The proposed project site is located within Section 2, Township 24 south, Range 10 East (MDBM) in Monterey County, California. The general area surrounding the project site consists of privately owned grazing and agricultural lands. The community of Bradley is located approximately 3.5 miles southeast of the proposed project site. San Antonio Reservoir County Recreation Area is located approximately 4.5 miles southwest of the proposed project site. Hames Creek lies 0.15 miles south of the proposed project site. Figures 1 and 2 depict the location of the proposed project site.

The term “well site” is used throughout this document to describe the specific area where a well is proposed. The term “project site” is used to further define the project footprint (i.e. proposed well pad, existing access route, etc.). The term “buffer area” describes a 500-foot area surrounding each proposed well site that was included in the biological survey area. Representative photographs of the proposed project sites and buffer areas are presented in Appendix A.

**Habitat Conservation and Natural Community Conservation Plans** – There are no adopted Habitat Conservation Plans, Natural Community Conservation Plans or other approved local, regional, or State habitat conservation plans covering the proposed project sites.

## **SURVEY METHODOLOGIES**

A literature review was completed and field surveys were conducted to identify special-status plant and wildlife species, as well as sensitive habitats that could be potentially present within the

proposed project site and buffer area. The following sections describe the survey methods that were used and the literature and databases that were reviewed prior to conducting biological surveys.

**Literature Review:** Prior to conducting biological surveys for the proposed project site and buffer area and during the preparation of this biological assessment, we reviewed RAB Consulting data files and records from the following sources:

- United States Fish and Wildlife Service (USFWS) Sacramento Office online electronic database of threatened and endangered species (USFWS 2014a);
- United States Fish and Wildlife Service (USFWS) Environmental Conservation Online System (ECOS) Critical Habitat Portal (USFWS 2014b);
- California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB) RareFind 5 and Biological Information and Observation System (BIOS) (CDFW 2014);
- Sighting records from eBird, the online database of bird sightings that is maintained by National Audubon Society and the Cornell University Lab of Ornithology (eBird 2014); and
- California Native Plant Society's (CNPS) online *Inventory of Rare and Endangered Vascular Plants of California, 8<sup>th</sup> Edition* (CNPS 2014).

From each review, a list of special-status species was generated for species that occur in or may be affected by projects in the Bradley, Wunpost, Hames Valley, and Tierra Redonda Mountain USGS 7.5-minute quadrangles. Special-status species that potentially occur in these quadrangles (an area measuring approximately 280 square miles) are identified in Table 1. Each of the species identified in the database queries was evaluated in terms of its likelihood to occur within the project site and buffer area (see Table 1). This evaluation considered the known distribution and habitat requirements of the species and the following findings were prepared:

- Known to Occur – species was observed within or adjacent to the project site or buffer area during biological surveys or has previously been documented within or immediately adjacent to the project site or buffer area.
- Potentially Present – species has not been documented within or immediately adjacent to the project site or buffer area, but should be expected in areas of suitable habitat on and near the project site and buffer area during the appropriate season and time of day.
- Low Potential – species has not been documented within or immediately adjacent to the project site or buffer area, nor is it likely to occur on or near the project site or buffer area, but its presence cannot be completely discounted due to incomplete information on the taxon's distribution or habitat requirements.
- No Potential – species does not occur within or immediately adjacent to the project site or buffer area due to the lack of required habitat features for the species, or the known range



of the species is well defined and does not include the project vicinity.

*Special-Status Species* - Special-status species are those taxa that are legally protected under the State or Federal Endangered Species Act (ESAs) or other regulations and considered sufficiently rare by the scientific community to qualify for such listing. Special-status plants and animals generally fall into one or more of the following categories:

- Plants or animals listed or proposed for listing as Threatened or Endangered under the Federal ESA (50 Code of Federal Regulations [CFR] 17.12 [listed plants], 1711 [listed animal] and various notices in the Federal Register [FR][proposed species]);
- Plants or animals that are candidates for possible future listing as Threatened or Endangered under the Federal ESA (61 FR 40, February 28, 1996);
- Plants or animals listed or proposed for listing by the State of California as Threatened or Endangered under the California ESA (14 California Code of Regulations [CCR] 670.5);
- Animal Species of Special Concern to the CDFW (Remsen 1978 [birds], Williams 1986 [mammals], Jennings and Hayes 1994 [reptiles and amphibians], Moyle et al. 1989 [fish]);
- Animals Fully Protected in California (California Fish and Game Code, Sections 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]);
- Plants listed as California Rare Plant Rank (CRPR) 1A (former CNPS List 1A) are presumed extinct in California (CNPS 2001, 2014 and Skinner and Pavlik, 1994);
- Plants listed as California Rare Plant Rank (CRPR) 1B (former CNPS List 1B) are considered rare, threatened, or endangered in California or elsewhere (CNPS 2001, 2014 and Skinner and Pavlik, 1994);
- Plants listed as California Rare Plant Rank (CRPR) 2A (former CRPR 1A) are presumed extirpated in California, but more common elsewhere (CNPS 2014);
- Plants listed as California Rare Plant Rank (CRPR) 2B (former CRPR 1B) are considered rare or endangered in California, but more common elsewhere (CNPS 2014);
- Plants identified as California Rare Plant (CRPR) Rank 3 (former CNPS List 3) are those for which more information is needed; a review list (CNPS 2001, 2014 and Skinner and Pavlik, 1994); and
- Plants listed as California Rare Plant Rank 4 (former CNPS List 4) are of limited distribution; a watch list (CNPS 2001, 2014 and Skinner and Pavlik 1994) – these taxa may be included as special-status species on the basis of local significance or recent biological information.

## SENSITIVE WILDLIFE SPECIES SURVEYS

We surveyed the existing well site and a 500-foot buffer area around the proposed well site for sensitive wildlife, special-status plant species, and their habitats on May 12, 2014. Wildlife and plant species observed during biological surveys are listed in Table 2. Species with potential to occur in the proposed project site based on known and historic occurrences in the CNDDDB are discussed in text. Based on current site conditions and lack of habitat in the proposed well site and buffer area, those species identified in Table 1 as having no potential to occur in the project site are not discussed further in this document.

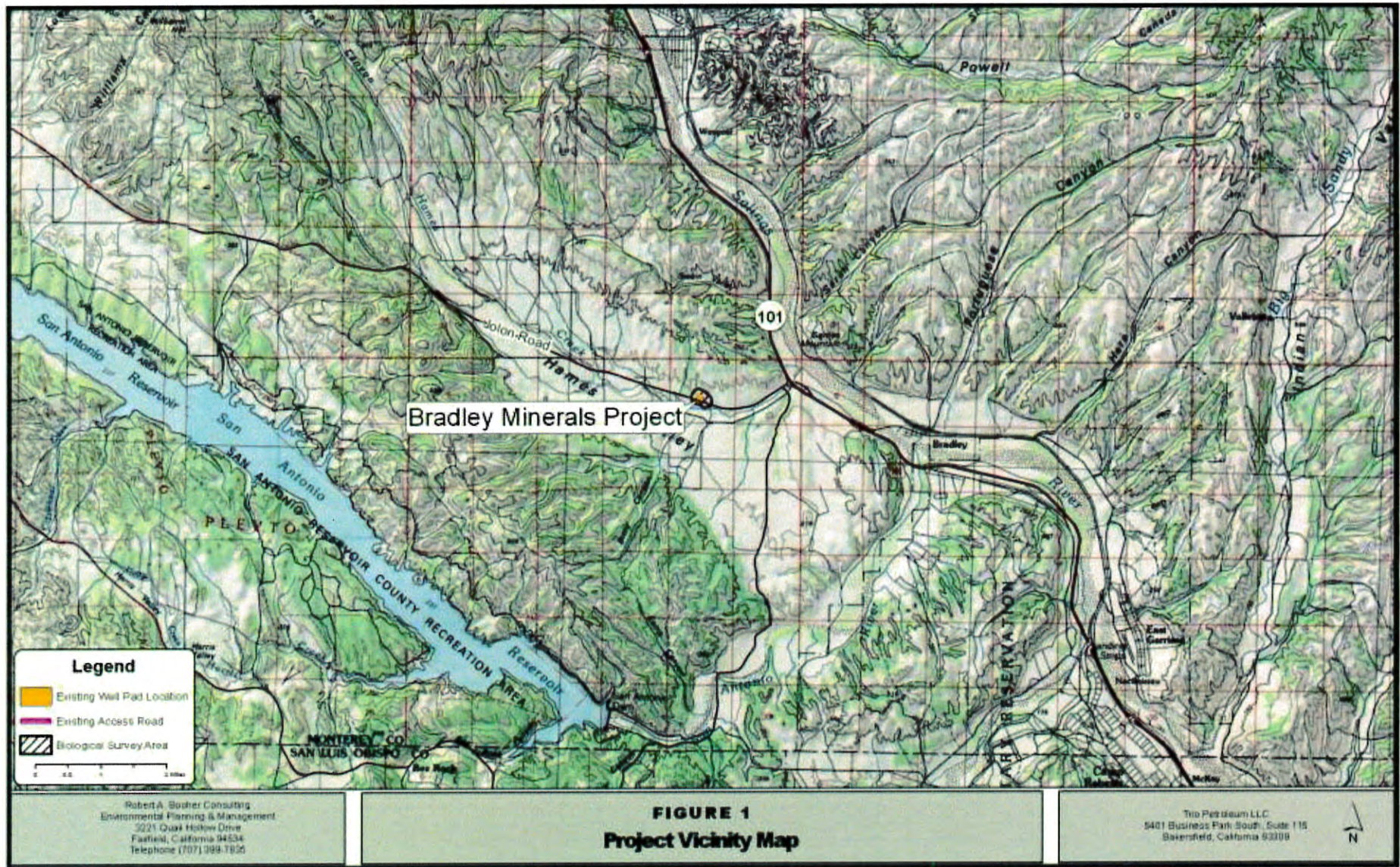
We used portions of standard agency approved methods to survey for special-status wildlife species. Surveys were conducted to identify the following:

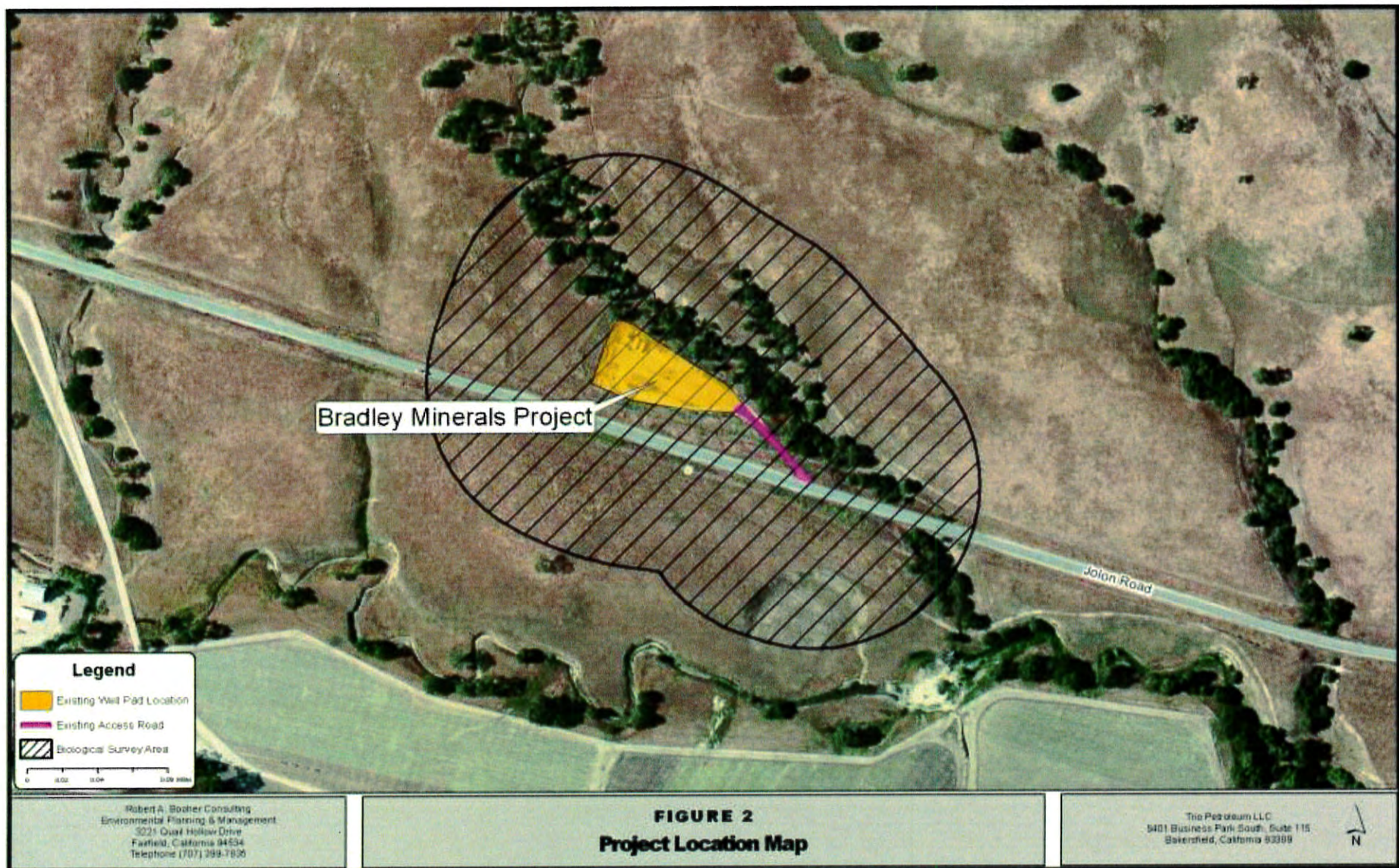
- Suitability of habitat(s) to support special-status wildlife species
- Presence of known and potential San Joaquin kit fox dens
- Presence of individual special-status amphibian and reptile species and their habitat
- Sightings, burrows, and "sign" of sensitive small mammal species
- Sightings, burrows, and "sign" of western burrowing owls and other sensitive avian species
- Presence of suitable nesting, roosting, and/or foraging habitat for migratory and other sensitive avian species, including California condor
- Vegetation association, habitat types, and special-status plant species
- Dominant plant canopy and ground cover species
- Habitat condition and quality
- On-site, adjacent, and surrounding land uses.

We conducted surveys by walking parallel meandering transects spaced at 30 to 50 foot intervals to identify special-status wildlife species. Presence of these species was confirmed by direct observation or by identification of "sign" (e.g., tracks, scat, dens and/or burrows, etc.) unique to a particular species.

**San Joaquin Kit Fox** - We conducted diurnal surveys for San Joaquin kit fox dens and their "sign." Scats measuring 15 to 20 millimeter in diameter of appropriate canid shape are attributed to kit fox. No other vulpid is known to inhabit the project sites, and scats larger than 20 millimeter in diameter probably belong to coyote (*Canis latrans*) or domestic dog (*Canis familiaris*). Canid tracks up to 45 by 38 millimeter in size were attributed to kit fox. Tracks larger than this are probably attributable to coyote or domestic dog (Murie 1974).

We conducted surveys along transects spaced 30 to 50 feet apart following CDFW Approved Survey Methodologies for Sensitive Species (CDFG 1990) and by USFWS guidelines (USFWS 1989, 1995, 1999, and 2011). If San Joaquin kit fox "sign" and/or dens were identified, they were recorded using GPS and mapped on USGS topographic maps and/or aerial imagery. In addition, we used knowledge gained from past experiences working with numerous kit fox dens and their "sign" (tracks, scat, etc.) during radio telemetry studies, and kit fox den identifications during other





biological surveys. We classified underground dens according to the following USFWS kit fox den definitions (USFWS 2011):

***Known Den:*** Any existing natural den or manmade structure that is used or has been used at any time in the past by a San Joaquin kit fox. Evidence of use may include historical records, past or current radiotelemetry or spotlighting data, kit fox sign such as tracks, scat, and/or prey remains, or other reasonable proof that a given den is being or has been used by a kit fox. The Service discourages use of the terms “active” and “inactive” when referring to any kit fox den because a great percentage of occupied dens show no evidence of use, and because kit foxes change dens so often, with the result that the status of a given den may change frequently and abruptly.

***Potential Den:*** Any subterranean hole within the species’ range that has entrances of appropriate dimensions for which available evidence is insufficient to conclude that it is being used or has been used by a kit fox. Potential dens shall include the following: (1) any suitable subterranean hole; or (2) any den or burrow of another species (e.g., coyote, badger, red fox, or ground squirrel) that otherwise has appropriate characteristics for kit fox use.

***Natal or Pupping Den:*** Any den used by kit foxes to whelp and/or rear their pups. Natal/pupping dens may be larger with more numerous entrances than dens occupied exclusively by adults. These dens typically have more kit fox tracks, scat, and prey remains in the vicinity of the den, and may have a broader apron of matted dirt and/or vegetation at one or more entrances. A natal den, defined as a den in which kit fox pups are actually whelped but not necessarily reared, is a more restrictive version of the pupping den. In practice, however, it is difficult to distinguish between the two, therefore, for purposes of this definition either term applies.

***Atypical Den:*** Any manmade structure which has been or is being occupied by a San Joaquin kit fox den. Atypical dens may include pipes, culverts, and diggings beneath concrete slabs and buildings.

**Other Sensitive Wildlife** - We surveyed for evidence of California tiger salamander, silvery legless lizard, San Joaquin whipsnake, coast horned lizard, golden eagle, western burrowing owl, prairie falcon, California condor, pallid bat, Salinas pocket mouse, and other targeted species of concern (see Table 1) while conducting transect surveys. This consisted of recording direct observation of the species and/or their "sign" (i.e., tracks, scat, dens and/or burrows, nests, roosts, etc.).

**Table 1  
Special-Status Species Potentially Occurring in the Proposed Project Sites**

Common Name	Scientific Name	Federal Status	State Status	Habitat/Requirements	Potential to Occur in Project Sites
<i>Amphibians and Reptiles</i>					
California tiger salamander, Central Population	<i>Ambystoma californiense</i>	FT	CT	Primarily inhabit non-native grassland providing underground refuges, especially ground squirrel burrows and vernal pools or other seasonal water sources for breeding.	Low Potential. No suitable habitat is present within the proposed project site. Suitable habitat was observed within the project buffer area. No potential burrows that were of appropriate size for use by this species were observed within the boundaries of the proposed project site. Small mammal burrows were observed along the edge of the project site within the project buffer area. The closest potential aquatic habitat for this species is located approximately 0.45 miles south of the existing well site. No individual salamanders were observed during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project sites (CDFW 2014) (see Figure 3).
Silvery legless lizard	<i>Anniella pulchra pulchra</i>	-	CSC	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential; this species prefers soils with high moisture content.	Low Potential. No suitable habitat is present within the proposed project site. Suitable habitat was observed within the project buffer area. No potential burrows that were of appropriate size for use by this species were observed within the boundaries of the proposed project site. Small mammal burrows were observed along the edge of the project site within the project buffer area. No individual lizards were observed during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project sites (CDFW 2014) (see Figure 3).

**Table 1  
Special-Status Species Potentially Occurring in the Proposed Project Sites**

Common Name	Scientific Name	Federal Status	State Status	Habitat/Requirements	Potential to Occur in Project Sites
Western pond turtle	<i>Emys marmorata</i>	-	CSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Requires basking sites and suitable upland habitat (sandy banks or grassy open fields) for egg-laying.	No Potential. No suitable aquatic habitat is present in the proposed project site or buffer area.
San Joaquin whipsnake	<i>Masticophis flagellum ruddocki</i>	-	CSC	Open, dry habitats with little or no tree cover. Found in valley grassland and saltbush scrub in the San Joaquin Valley. Needs mammal burrows for refuge and egg laying sites.	Low Potential. No suitable habitat is present within the proposed project site. Suitable habitat was observed within the project buffer area. No potential burrows that were of appropriate size for use by this species were observed within the boundaries of the proposed project site. Small mammal burrows were observed along the edge of the project site within the project buffer area. No individual snakes were observed during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project sites (CDFW 2014) (see Figure 3).
Coast horned lizard	<i>Phrynosoma blainvillii</i>	-	CSC	Frequents a wide variety of habitats. Most common in lowlands along sandy washes with scattered low bushes. Require open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supplies of ants and other insects for feeding.	Low Potential. Suitable habitat for this species was observed within the project buffer area. The potential exists that the species may be found within the project site due to its proximity to suitable habitat. No individual lizards were observed during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project sites (CDFW 2014) (see Figure 3).

**Table 1**  
**Special-Status Species Potentially Occurring in the Proposed Project Sites**

Common Name	Scientific Name	Federal Status	State Status	Habitat/Requirements	Potential to Occur in Project Sites
California red-legged frog	<i>Rana draytonii</i>	FT	CSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11 to 20 weeks of permanent water for larval development. Must have access to aestivation habitat, consisting of small mammal burrows and moist leaf litter.	No Potential. No suitable aquatic breeding habitat is present within the proposed project site or buffer area. Potential upland aestivation habitat (annual grassland) is present in the project buffer area. No small mammal burrows were observed within the boundaries of the proposed project site. Small mammal burrows, however, were observed in the buffer area of the project site. No individuals were observed during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014).
Western spadefoot toad	<i>Spea hammondi</i>	-	CSC	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	No Potential. No suitable habitat was observed within the project site or buffer area. No individuals were observed during biological surveys. This species has not been documented within the boundaries of or in proximity to the project site (CDFW 2014) (see Figure 3).
<b>Birds</b>					
Tricolored blackbird	<i>Agelaius tricolor</i>	-	CSC	This highly colonial species requires open water and protected nesting substrate. Needs foraging area with insect prey within a few kilometers of the colony.	No Potential. No suitable foraging or nesting habitat for this species was observed in the project site or buffer area.



**Table 1**  
**Special-Status Species Potentially Occurring in the Proposed Project Sites**

Common Name	Scientific Name	Federal Status	State Status	Habitat/Requirements	Potential to Occur in Project Sites
Golden eagle	<i>Aquila chrysaetos</i>	-	Fully Protected	Golden eagles are found in open and semi-open habitats from sea level to 3,600 meters elevation. Habitat types that they inhabit include tundra, shrublands, grasslands, woodland-brushlands, and coniferous forests. Most golden eagles are found in mountainous areas, but they also nest in wetland, riparian and estuarine habitats.	Low Potential. Potential foraging habitat (annual grassland) is present in the buffer area of the project site. No potential nesting habitat appropriate for use by this species was observed in the project site or buffer area. No individual golden eagles were observed during biological surveys. This species has not been documented within the boundaries of or in proximity to the project site (CDFW 2014) (see Figure 3).
Burrowing owl	<i>Athene cucularia</i>	-	CSC	Open grasslands, prairies, farmlands, and deserts.	Low Potential. Potential habitat is present in areas surrounding the proposed project site that support annual grassland. California ground squirrel burrows were observed in the buffer area that may serve as potential for use by burrowing owls. No burrows suitable for use by the species were observed in the proposed project site. No individual burrowing owls or sign of their presence (i.e., whitewash, castings, feathers, etc.) were observed during biological surveys. Burrowing owls have not been documented in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Yellow warbler	<i>Dendroica petechia brewsteri</i>	-	CSC	Prefers riparian plant associations with willow, cottonwood, aspen, sycamore, and alder trees for nesting and foraging activities. Also nests in montane shrubbery in open conifer forests.	No Potential. No suitable foraging or nesting habitat for this species was observed in the project site or buffer area.

**Table 1  
Special-Status Species Potentially Occurring in the Proposed Project Sites**

Common Name	Scientific Name	Federal Status	State Status	Habitat/Requirements	Potential to Occur in Project Sites
Prairie falcon	<i>Falco mexicanus</i>	-	WL	Dry, open terrain in level or hilly areas. Breeding sites are located on cliffs. This species forages far afield, to marshlands and ocean shores.	Low Potential. Potential foraging habitat (annual grassland) is present in the buffer area of the project site. No potential nesting habitat appropriate for use by this species was observed in the project site or buffer area. No individual prairie falcons were observed during biological surveys. This species has been documented within the vicinity of the project site (CDFW 2014) (see Figure 3).
California condor	<i>Gymnogyps californianus</i>	FE	CE, Fully protected	Found as a recently reintroduced species primarily in the mountains of Ventura, Santa Barbara, and Los Angeles Counties. However, individuals are known to be wide ranging and have even been seen soaring over the Tehachapi Mountains and southern Sierra Nevada. The species is strictly a scavenger and may travel up to 35 miles or more from roost sites in search of carrion. Most foraging occurs in open habitats that facilitate landings and takeoffs. Traditional roost sites are on cliffs or ledges, but snags and trees in old growth coniferous forest may also be used.	Low Potential. Potential foraging habitat (annual grassland) is present in the project buffer area. However, no suitable foraging habitat is present on the project site. While California condor may occasionally fly over the project site, the project site is not favorable for flight, landings and/or taking off as a result of topography. No suitable roost sites or potential nesting habitat for this species were observed in the project site or buffer area. No individual condors were observed during biological surveys. This species has not been documented within the boundaries of or in proximity to the project site (CDFW 2014) (see Figure 3).
Bald eagle	<i>Haliaeetus leucocephalus</i>	Delisted	CE	Nests and winters near ocean shores, lake margins and rivers. Nests in large, oldgrowth, or dominant live trees with open branches, especially Ponderosa pine. Roosts communally in winter.	No Potential. No suitable foraging or nesting habitat for this species was observed in the project site or buffer area.

**Table 1**  
**Special-Status Species Potentially Occurring in the Proposed Project Sites**

Common Name	Scientific Name	Federal Status	State Status	Habitat/Requirements	Potential to Occur in Project Sites
Least Bell's vireo	<i>Vireo belli pusillus</i>	FE	CE	Considered a rare, local, summer resident below about 2,000 feet in willows and other, low dense valley foothill riparian habitat. Usually nests in a willow or other shrub near water or in thickets along dry, intermittent streams.	No Potential. No suitable foraging or nesting habitat for this species was observed in the project site or buffer area.
<b>Mammals</b>					
Pallid bat	<i>Antrozous pallidus</i>	-	CSC	Found in deserts, grasslands, shrublands, woodlands, and forests. Most common in dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Low Potential. No suitable roosting areas for this species are present in the project site or buffer area. Potential foraging habitat was observed in areas present in the project site and buffer area. However, we did not observe any known roosts or potential maternity or nesting sites in the project site or buffer area. No individual bats were observed during biological surveys. This bat species has not been documented in the project site (CDFW 2014) (see Figure 3).
Giant kangaroo rat	<i>Dipodomys ingens</i>	FE	CE	Prefer annual grassland on gentle slopes of generally less than 10°, with friable, sandy-loam soils. However, most remaining populations are found on poorer, marginal habitats which include shrub communities on a variety of soil types and on slopes up to about 22°. Giant kangaroo rats develop burrow systems with one to five or more separate openings. Utilize two types of burrow: 1) a vertical shaft with a circular opening and no dirt apron, and 2) a larger, more horizontally-opening shaft, usually wider than high with a well-worn path leading from the mouth.	No potential. Proposed project site and buffer area lie outside of the geographic range of this species.

**Table 1**  
**Special-Status Species Potentially Occurring in the Proposed Project Sites**

Common Name	Scientific Name	Federal Status	State Status	Habitat/Requirements	Potential to Occur in Project Sites
Salinas pocket mouse	<i>Perognathus inornatus psammophilus</i>	-	CSC	Annual grassland and desert scrub communities in the Salinas Valley. Found in fine-textured, sandy, friable soils. Burrows for cover and nesting.	Low Potential. No suitable habitat for Salinas pocket mouse is present within the existing well site or access road. Potential habitat (annual grassland) was observed in the buffer area of the project site. No potential burrows that were of appropriate size for use by this species were observed within the boundaries of the proposed project site. Small mammal burrows were observed along the edge of the project site within the project buffer area. No individual mice were observed during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project sites (CDFW 2014) (see Figure 3).
American badger	<i>Taxidea taxus</i>	-	CSC	Found in drier open stages of most shrub, forest, and herbaceous habitats with friable soils. Require uncultivated ground. Prey on burrowing rodents. The American badger digs their own burrows.	Low Potential. Potential foraging habitat is present in areas of annual grassland that surround the project site. However, no potential burrows of appropriate size for use by this species were observed during biological surveys. No individuals or sign (i.e., scat, tracks, digging, prey remains) of badger activity were observed in the project site or buffer area. This species has not been documented within or in proximity to the project site (CDFW 2014) (see Figure 3).

**Table 1**  
**Special-Status Species Potentially Occurring in the Proposed Project Sites**

Common Name	Scientific Name	Federal Status	State Status	Habitat/Requirements	Potential to Occur in Project Sites
San Joaquin kit fox	<i>Vulpes macrotis mutica</i>	FE	CT	Inhabit annual grasslands or grassy open stages with scattered shrubby vegetation. Require loose-textured sandy soils for burrowing, and a suitable prey base.	Known to Occur. Potential habitat was observed in areas surrounding the proposed project site that support annual grassland. California ground squirrel burrows were observed in the buffer area that are of appropriate size for potential use by San Joaquin kit fox. No potential burrows that were of appropriate size for use by this species were observed in the project site. No individual San Joaquin kit foxes or sign (i.e. scat, tracks, prey remains, etc.) of their activity was observed during surveys. This species has been recorded in proximity to the project site (CDFW 2014) (see Figure 3).
<b>Invertebrates</b>					
Conservancy fairy shrimp	<i>Branchinecta conservatio</i>	FE	-	Endemic to grasslands. Found in large, turbid pools. Inhabit astatic pools located in swales formed by old braided alluvium filled by winter and spring rains.	No Potential. No suitable habitat (vernal pools) was observed within the project site or buffer area. This species has not been documented within the boundary of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Vernal pool fairy shrimp	<i>Branchinecta lynchii</i>	FT	-	Found in short-lived seasonal cool-water vernal pools with low to moderate dissolved solids.	No Potential. No suitable habitat (vernal pools) was observed within the project site or buffer area. This species has not been documented within the boundary of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
<b>Plants</b>					
Bristlecone pine	<i>Abies bracteata</i>	-	List 1B.3	Broadleafed upland forest, chaparral, and lower montane coniferous forest. Elevation range: 183 to 1,600 meters. Blooming period: None.	No Potential. This species was not observed within the project site or buffer area during the biological survey. This species has not been documented within the boundaries of or in proximity to the project site (CDFW 2014) (see Figure 3).
Douglas' fiddleneck	<i>Amsinckia douglasiana</i>	-	List 4.2	Cismontane woodland, valley and foothill grassland. Found on	Potentially Present. Suitable habitat (cismontane woodland and valley and

**Table 1**  
**Special-Status Species Potentially Occurring in the Proposed Project Sites**

Common Name	Scientific Name	Federal Status	State Status	Habitat/Requirements	Potential to Occur in Project Sites
				Monterey shale, in dry areas. Elevation range: 0 to 1,950 meters. Blooming period: March to May.	foothill grassland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Oval-leaved snapdragon	<i>Antirrhinum ovatum</i>	-	List 4.2	Chaparral, cismontane woodland, pinyon and juniper woodland, valley and foothill grassland. Found on clay, gypsum, and alkaline soils. Elevation range: 200 to 1,000 meters. Blooming period: May through November.	Potentially Present. Suitable habitat (cismontane woodland and valley and foothill grassland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Hoover's manzanita	<i>Arctostaphylos hooveri</i>	-	List 4.3	Broadleaf upland forest, chaparral, cismontane woodland, and lower montane coniferous forest. Elevation range: 480 to 1,010 meters. Blooming period: February through June.	Potentially Present. Suitable habitat (cismontane woodland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Indian Valley Spineflower	<i>Aristocapsa insignis</i>	-	List 1B.2	Cismontane woodland. Elevational range: 300 to 600 meters. Blooming period: May through September.	Potentially Present. Suitable habitat (cismontane woodland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This

**Table 1**  
**Special-Status Species Potentially Occurring in the Proposed Project Sites**

Common Name	Scientific Name	Federal Status	State Status	Habitat/Requirements	Potential to Occur in Project Sites
					species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Salinas milk-vetch	<i>Astragalus macrodon</i>	-	List 4.3	Chaparral (openings), cismontane woodland, valley and foothill grassland. Found in sandstone, shale, or serpentine soils. Elevation range: 250 to 950 meters. Blooming period April through July.	Potentially Present. Suitable habitat (cismontane woodland and valley and foothill grassland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Western lessingia	<i>Benitoa occidentalis</i>	-	List 4.3	Chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland. Elevational range: 450 to 1,070 meters. Blooming period: May through November.	Potentially Present. Suitable habitat (cismontane woodland and valley and foothill grassland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Round-leaved filaree	<i>California macrophylla</i>	-	List 1B.1	Cismontane woodland, valley and foothill grassland. Elevational range: 15 to 1,200 meters. Blooming period: March through May.	Potentially Present. Suitable habitat (cismontane woodland and valley and foothill grassland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This

**Table 1**  
**Special-Status Species Potentially Occurring in the Proposed Project Sites**

Common Name	Scientific Name	Federal Status	State Status	Habitat/Requirements	Potential to Occur in Project Sites
					species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
La Panza mariposa-lily	<i>Calochortus simulans</i>	-	List 1B.3	Valley and foothill grasslands, cismontane woodlands, and chaparral. Found on decomposed granite or serpentinite soils. Elevation range: 395 to 1,100 meters. Blooming period: April through June.	Potentially Present. Suitable habitat (cismontane woodland and valley and foothill grassland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Dwarf calycadenia	<i>Calycadenia villosa</i>	-	List 1B.1	Chaparral, cismontane woodland, valley and foothill grassland, meadows, and seeps, open dry meadows, hillsides, and gravelly outwashes. Elevational range: 215 to 1,275 meters. Blooming period: May through October.	Potentially Present. Suitable habitat (cismontane woodland and valley and foothill grassland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Santa Cruz Mountains pussypaws	<i>Calyptridium parryi</i> <i>var. hesseae</i>	-	List 1B.1	Chaparral and cismontane woodland. Elevational range: 305 to 1,530 meters. Blooming period: May through August.	Potentially Present. Suitable habitat (cismontane woodland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see



**Table 1  
Special-Status Species Potentially Occurring in the Proposed Project Sites**

Common Name	Scientific Name	Federal Status	State Status	Habitat/Requirements	Potential to Occur in Project Sites
					Figure 3).
Hardham's evening-primrose	<i>Camissonia hardhamiae</i>	-	List 1B.2	Chaparral and cismontane woodland on decomposed carbonate soils. Elevational range: 330 to 500 meters. Blooming period: April through May.	Potentially Present. Suitable habitat (cismontane woodland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
San Luis Obispo owl's clover	<i>Castilleja densiflora ssp. obispoensis</i>	-	List 1B.2	Valley and foothill grassland. Elevational range: 10 to 215 meters. Blooming period: March through May.	Potentially Present. Suitable habitat (valley and foothill grassland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Lemmon's jewelflower	<i>Caulanthus lemmonii</i>	-	List 1B.2	Pinyon-juniper woodland, valley and foothill grassland. Elevational range: 80 to 1,220 meters. Blooming period: March through May.	Potentially Present. Suitable habitat (valley and foothill grassland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Lompoc ceanothus	<i>Ceanothus cuneatus var. fascicularis</i>	-	List 4.2	Chaparral. Elevational range: 5 to 400 meters. Blooming period: February through April.	No Potential. No suitable habitat was observed within the boundaries of the project site or buffer area. This species has

**Table 1  
Special-Status Species Potentially Occurring in the Proposed Project Sites**

Common Name	Scientific Name	Federal Status	State Status	Habitat/Requirements	Potential to Occur in Project Sites
					not been documented within the boundaries of or in proximity to the project site (CDFW 2014) (see Figure 3).
Purple amole	<i>Chlorogalum purpureum</i> var. <i>purpureum</i>	FT	List 1B.1	Cismontane woodland, valley and foothill grassland. Often found in grassy areas with blue oaks in foothill woodland. Elevational range: 300 to 330 meters. Blooming period: April through June.	Potentially Present. Suitable habitat (cismontane woodland and valley and foothill grassland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Douglas' spineflower	<i>Chorizanthe douglasii</i>	-	List 4.3	Chaparral, cismontane woodland, valley and foothill grassland, coastal scrub, and lower montane coniferous forest. Elevational range: 55 to 1,600 meters. Blooming period: April through July.	Potentially Present. Suitable habitat (cismontane woodland and valley and foothill grassland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Palmer's spineflower	<i>Chorizanthe palmeri</i>	-	List 4.2	Chaparral, cismontane woodland, and valley and foothill grassland. Elevational range: 60 to 700 meters. Blooming period: April through August.	Potentially Present. Suitable habitat (cismontane woodland and valley and foothill grassland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see

**Table 1  
Special-Status Species Potentially Occurring in the Proposed Project Sites**

Common Name	Scientific Name	Federal Status	State Status	Habitat/Requirements	Potential to Occur in Project Sites
					Figure 3).
Straight-awned spineflower	<i>Chorizanthe rectispina</i>	-	List 1B.3	Chaparral, cismontane woodland, coastal scrub, often on granite in chaparral. Elevational range: 355 to 1,035 meters. Blooming period: April through July.	Potentially Present. Suitable habitat (cismontane woodland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Jolon's clarkia	<i>Clarkia jolonensis</i>	-	List 1B.2	Cismontane woodland. Elevational range: 20 to 660 meters. Blooming period: April through June.	Potentially Present. Suitable habitat (cismontane woodland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Monkey-flower savory	<i>Clinopodium mimuloides</i>	-	List 4.2	Chaparral and north coast coniferous forest. Elevational range: 305 to 1,800 meters. Blooming period: June through October.	No Potential. No suitable habitat was observed within the boundaries of the project site or buffer area. This species has not been documented within the boundaries of or in proximity to the project site (CDFW 2014) (see Figure 3).
San Antonio collinsia	<i>Collinsia antonina</i>	-	List 1B.2	Chaparral, cismontane woodland on shale substrates. Elevational range: 280 to 365 meters. Blooming period: March through May.	Potentially Present. Suitable habitat (cismontane woodland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to

**Table 1  
Special-Status Species Potentially Occurring in the Proposed Project Sites**

Common Name	Scientific Name	Federal Status	State Status	Habitat/Requirements	Potential to Occur in Project Sites
					the proposed project site (CDFW 2014) (see Figure 3).
Rattan's cryptantha	<i>Cryptantha rattanii</i>	-	List 4.3	Cismontane woodland, riparian woodland, and valley and foothill grassland. Elevational range: 245 to 915 meters. Blooming period: April through July.	Potentially Present. Suitable habitat (cismontane woodland and valley and foothill grassland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Small-flowered gypsum-loving larkspur	<i>Delphinium gypsophilum ssp. parviflorum</i>	-	List 3.2	Cismontane woodland, valley and foothill grassland on rocky clay and serpentinite. Elevational range: 190 to 350 meters. Blooming period: March through June.	Potentially Present. Suitable habitat (cismontane woodland and valley and foothill grassland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Umbrella larkspur	<i>Delphinium umbracolorum</i>	-	List 1B.3	Cismontane woodland. Elevational range: 400 to 1,600 meters. Blooming period: April through June.	Potentially Present. Suitable habitat (cismontane woodland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).

**Table 1**  
**Special-Status Species Potentially Occurring in the Proposed Project Sites**

Common Name	Scientific Name	Federal Status	State Status	Habitat/Requirements	Potential to Occur in Project Sites
Koch's cord-moss	<i>Entosthodon kochii</i>	-	List 1B.3	Cismontane woodland. Elevational range: 500 to 1,000 meters. Blooming period: Not known.	Potentially Present. Suitable habitat (cismontane woodland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Yellow-flowered eriastrum	<i>Eriastrum luteum</i>	-	List 1B.2	Broadleafed upland forest, cismontane woodland, and chaparral. Found on bare sandy decomposed granite slopes. Elevational range: 360 to 1,000 meters. Blooming period: May through June.	Potentially Present. Suitable habitat (cismontane woodland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Elegant wild buckwheat	<i>Eriogonum elegans</i>	-	List 4.3	Cismontane woodland, valley and foothill grassland. Elevational range: 200 to 1,525 meters. Blooming period: May through November.	Potentially Present. Suitable habitat (cismontane woodland and valley and foothill grassland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Jepson's woolly sunflower	<i>Eriophyllum jepsonii</i>	-	List 4.3	Chaparral, cismontane woodland, and coastal scrub. Elevation range: 200 to 1,025 meters. Blooming period: April through June.	Potentially Present. Suitable habitat (cismontane woodland) was observed within the buffer area of the project site. No suitable habitat was observed within the

**Table 1  
Special-Status Species Potentially Occurring in the Proposed Project Sites**

Common Name	Scientific Name	Federal Status	State Status	Habitat/Requirements	Potential to Occur in Project Sites
					existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Santa Lucia monkeyflower	<i>Erythranthe hardhamiae</i>	-	List 1B.1	Chaparral. Elevation range: 300 to 730 meters. Blooming period: March through May.	No Potential. No suitable habitat was observed within the boundaries of the project site or buffer area. This species has not been documented within the boundaries of or in proximity to the project site (CDFW 2014) (see Figure 3).
San Benito poppy	<i>Eschscholzia hyppecoides</i>	-	List 4.3	Chaparral, cismontane woodland, and valley and foothill grassland. Elevation range: 200 to 1,500 meters. Blooming period: March through June.	Potentially Present. Suitable habitat (cismontane woodland and valley and foothill grassland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Stinkbells	<i>Fritillaria agrestis</i>	--	List 4.2	Cismontane woodland, chaparral, pinyon and juniper woodland, valley and foothill grassland. Mostly found on clay or serpentine soils. Elevation range: 10 to 1,555 meters. Blooming period: March through June.	Potentially Present. Suitable habitat (cismontane woodland and valley and foothill grassland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).

**Table 1**  
**Special-Status Species Potentially Occurring in the Proposed Project Sites**

Common Name	Scientific Name	Federal Status	State Status	Habitat/Requirements	Potential to Occur in Project Sites
Phlox-leaf serpentine bedstraw	<i>Galium andrewsii ssp. gatense</i>	-	List 4.2	Chaparral, cismontane woodland, and lower montane coniferous forest. Elevational range: 150 to 1,450 meters. Blooming period: April through July.	Potentially Present. Suitable habitat (cismontane woodland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Hogwallow starfish	<i>Hesperervax caulescens</i>	-	List 4.2	Valley and foothill grasslands and vernal pools. Elevation range: 0 to 505 meters. Blooming period: March through June.	Potentially Present. Suitable habitat (valley and foothill grassland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Kellogg's horkelia	<i>Horkelia cuneata ssp. sericea</i>	-	List 1B.1	Closed-cone coniferous forest, chaparral, coastal dunes, and coastal scrub. Elevational range: 10 to 200 meters. Blooming period: April through September.	No Potential. No suitable habitat was observed within the boundaries of the project site or buffer area. This species has not been documented within the boundaries of or in proximity to the project site (CDFW 2014) (see Figure 3).
Santa Lucia dwarf rush	<i>Juncus luciensis</i>	-	List 1B.1	Chaparral, Great Basin scrub, lower montane coniferous forest, meadows, seeps, and vernal pools. Elevational range: 300 to 2,040 meters. Blooming period: April through July.	No Potential. No suitable habitat was observed within the boundaries of the project site or buffer area. This species has not been documented within the boundaries of or in proximity to the project site (CDFW 2014) (see Figure 3).
Diablo Range hare-leaf	<i>Lagophylla diabolensis</i>	-	List 1B.2	Cismontane woodland and valley and foothill grassland. Elevational range: 365 to 885 meters. Blooming period: April through September.	Potentially Present. Suitable habitat (cismontane woodland and valley and foothill grassland) was observed within the buffer area of the project site. No suitable

**Table 1**  
**Special-Status Species Potentially Occurring in the Proposed Project Sites**

Common Name	Scientific Name	Federal Status	State Status	Habitat/Requirements	Potential to Occur in Project Sites
					habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Pale-yellow layia	<i>Layia heterotricha</i>	-	List 1B.1	Cismontane woodland, pinyon-juniper woodland, valley and foothill grassland. Found on alkaline or clay soils in open areas. Elevational range: 270 to 1,705 meters. Blooming period: March through June.	Potentially Present. Suitable habitat (cismontane woodland and valley and foothill grassland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Woolly-headed lessingia	<i>Lessingia hololeuca</i>	-	List 3	Broadleafed upland forest, coastal scrub, lower montane coniferous forest, valley and foothill grassland. Elevational range: 15 to 305 meters. Blooming period: June through October.	Potentially Present. Suitable habitat (cismontane woodland and valley and foothill grassland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
San Luis Obispo County lupine	<i>Lupinus ludovicianus</i>	-	List 1B.2	Chaparral and cismontane woodland. Elevational range: 50 to 525 meters. Blooming period: April through July.	Potentially Present. Suitable habitat (cismontane woodland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project



**Table 1**  
**Special-Status Species Potentially Occurring in the Proposed Project Sites**

Common Name	Scientific Name	Federal Status	State Status	Habitat/Requirements	Potential to Occur in Project Sites
					site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Abbott's bush mallow	<i>Malacothamnus abbottii</i>	-	List 1B.1	Riparian scrub among willows, near rivers, and along roadsides. Elevational range: 135 to 525 meters. Blooming period: May through October.	No Potential. No suitable habitat was observed within the boundaries of the project site or buffer area. This species has not been documented within the boundaries of or in proximity to the project site (CDFW 2014) (see Figure 3).
Indian Valley bush-mallow	<i>Malacothamnus aboriginum</i>	-	List 1B.2	Cismontane woodland and chaparral. Elevational range: 150 to 1,700 meters. Blooming period: April through October.	Potentially Present. Suitable habitat (cismontane woodland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Davidson's bush mallow	<i>Malacothamnus davidsonii</i>	-	List 1B.2	Coastal scrub, riparian woodland, and chaparral. Often found in sandy washes. Elevational range: 180 to 855 meters. Blooming period: June through January.	No Potential. No suitable habitat was observed within the boundaries of the project site or buffer area. This species has not been documented within the boundaries of or in proximity to the project site (CDFW 2014) (see Figure 3).
Carmel Valley bush-mallow	<i>Malacothamnus palmeri</i> var. <i>involucratus</i>	-	List 1B.2	Cismontane woodland and chaparral. Found on talus hilltops and slopes. Elevational range: 30 to 1,100 meters. Blooming period: May through August.	Potentially Present. Suitable habitat (cismontane woodland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see

**Table 1**  
**Special-Status Species Potentially Occurring in the Proposed Project Sites**

Common Name	Scientific Name	Federal Status	State Status	Habitat/Requirements	Potential to Occur in Project Sites
					Figure 3).
Jones' bush mallow	<i>Malacothrix jonesii</i>	-	List 4.3	Cismontane woodland and chaparral. Elevational range: 250 to 830 meters. Blooming period: May through July.	Potentially Present. Suitable habitat (cismontane woodland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Carmel Valley malacothrix	<i>Malacothrix saxatilis</i> <i>var. arachnoidea</i>	-	List 1B.2	Chaparral, rock outcrops, or steep roadcuts. Elevational range: 25 to 1,215 meters. Blooming period: June through December.	No Potential. No suitable habitat was observed within the boundaries of the project site or buffer area. This species has not been documented within the boundaries of or in proximity to the project site (CDFW 2014) (see Figure 3).
Mt. Diablo cottonweed	<i>Micropus amphibolus</i>	-	List 3.2	Broadleafed upland forest, chaparral, cismontane woodland, valley and foothill grassland. Elevational range: 45 to 825 meters. Blooming period: March through May.	Potentially Present. Suitable habitat (cismontane woodland and valley and foothill grassland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Woodland woolythreads	<i>Monolopia gracilens</i>	-	List 1B.2	Broadleafed upland forest, chaparral, cismontane woodland, North Coast coniferous forest, and valley and foothill grassland. Elevational range: 100 to 1,200 meters. Blooming period: February through July.	Potentially Present. Suitable habitat (cismontane woodland and valley and foothill grassland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or

**Table 1**  
**Special-Status Species Potentially Occurring in the Proposed Project Sites**

Common Name	Scientific Name	Federal Status	State Status	Habitat/Requirements	Potential to Occur in Project Sites
					buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Shining navarretia	<i>Navarretia nigelliformis</i> ssp. <i>radians</i>	-	List 1B.2	Cismontane woodland, valley and foothill grassland, and vernal pools. Elevational range: 200 to 1,000 meters. Blooming period: May through July.	Potentially Present. Suitable habitat (cismontane woodland and valley and foothill grassland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Prostate vernal pool navarretia	<i>Navarretia prostrate</i>	-	List 1B.1	Coastal scrub, meadows, seeps, valley and foothill grassland, and vernal pools. Elevational range: 15 to 700 meters. Blooming period: April through July.	Potentially Present. Suitable habitat (valley and foothill grassland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Robbins' nemacladus	<i>Nemacladus secundiflorus</i> var. <i>robbinsii</i>	-	List 1B.2	Chaparral and valley and foothill grassland. Dry, sandy, and gravelly slopes. Elevational range: 350 to 1,700 meters. Blooming period: April through June.	Potentially Present. Suitable habitat (valley and foothill grassland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see

**Table 1  
Special-Status Species Potentially Occurring in the Proposed Project Sites**

Common Name	Scientific Name	Federal Status	State Status	Habitat/Requirements	Potential to Occur in Project Sites
					Figure 3).
Large-flowered nemacladus	<i>Nemacladus secundiflorus</i> var. <i>secundiflorus</i>	-	List 4.3	Chaparral and valley and foothill grassland. Dry, sandy, and gravelly slopes. Elevational range: 200 to 2,000 meters. Blooming period: April through June.	Potentially Present. Suitable habitat (valley and foothill grassland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Hooked popcorn-flower	<i>Plagiobothrys uncinatus</i>	-	List 1B.2	Chaparral, cismontane woodland, valley and foothill grassland, and coastal bluff scrub. Found on sandstone outcrops and canyon sides, often in burned or disturbed areas. Elevational range: 300 to 820 meters. Blooming period: April through May.	Potentially Present. Suitable habitat (cismontane woodland and valley and foothill grassland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Shrub live oak	<i>Quercus turbinella</i>	-	List 4.3	Chaparral, cismontane woodland, lower montane coniferous forest, and pinyon and juniper woodland. Elevational range: 1,200 to 2,000 meters. Blooming period: April through June.	No Potential. This species was not observed within the project site or buffer area during the biological survey. This species has not been documented within the boundaries of or in proximity to the project site (CDFW 2014) (see Figure 3).
San Gabriel ragwort	<i>Senecio astephanus</i>	-	List 4.3	Chaparral and coastal bluff scrub. Elevational range: 400 to 1,500 meters. Blooming period: May through July.	No Potential. No suitable habitat was observed within the boundaries of the project site or buffer area. This species has not been documented within the boundaries of or in proximity to the project site (CDFW 2014) (see Figure 3).
Santa Cruz	<i>Stebbinsoseris</i>	-	List 1B.2	Broadleafed upland forest, closed-	Potentially Present. Suitable habitat

**Table 1  
Special-Status Species Potentially Occurring in the Proposed Project Sites**

Common Name	Scientific Name	Federal Status	State Status	Habitat/Requirements	Potential to Occur in Project Sites
microseris	<i>decipiens</i>			cone coniferous forest, chaparral, coastal prairie, coastal scrub, valley and foothill grassland. Elevational range: 10 to 500 meters. Blooming period: April through May.	(cismontane woodland and valley and foothill grassland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).
Mason's neststraw	<i>Stylocline masonii</i>	-	List 1B.1	Chenopod scrub, pinyon-juniper woodland, and sandy washes. Elevational range: 100 to 1,200 meters. Blooming period: March through May.	No Potential. No suitable habitat was observed within the boundaries of the project site or buffer area. This species has not been documented within the boundaries of or in proximity to the project site (CDFW 2014) (see Figure 3).
Cook's triteleia	<i>Triteleia ixioides ssp. cookii</i>	-	List 1B.3	Closed cone coniferous forest and cismontane woodland. Elevational range: 150 to 700 meters. Blooming period: May through June.	Potentially Present. Suitable habitat (cismontane woodland) was observed within the buffer area of the project site. No suitable habitat was observed within the existing well site or access road. This species was not observed within the project site or buffer area during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project site (CDFW 2014) (see Figure 3).

**Status Codes:**

**Federal**

FE = Federally listed as Endangered

FT = Federally listed as Threatened

FC = Federal Candidate species

**California Rare Plant Rank (CRPR)**

California Rare Plant Rank 1A = Plants presumed extinct in California

California Rare Plant Rank 1B = Plants rare, threatened, or endangered in California and elsewhere

**State**

CE = California listed as Endangered

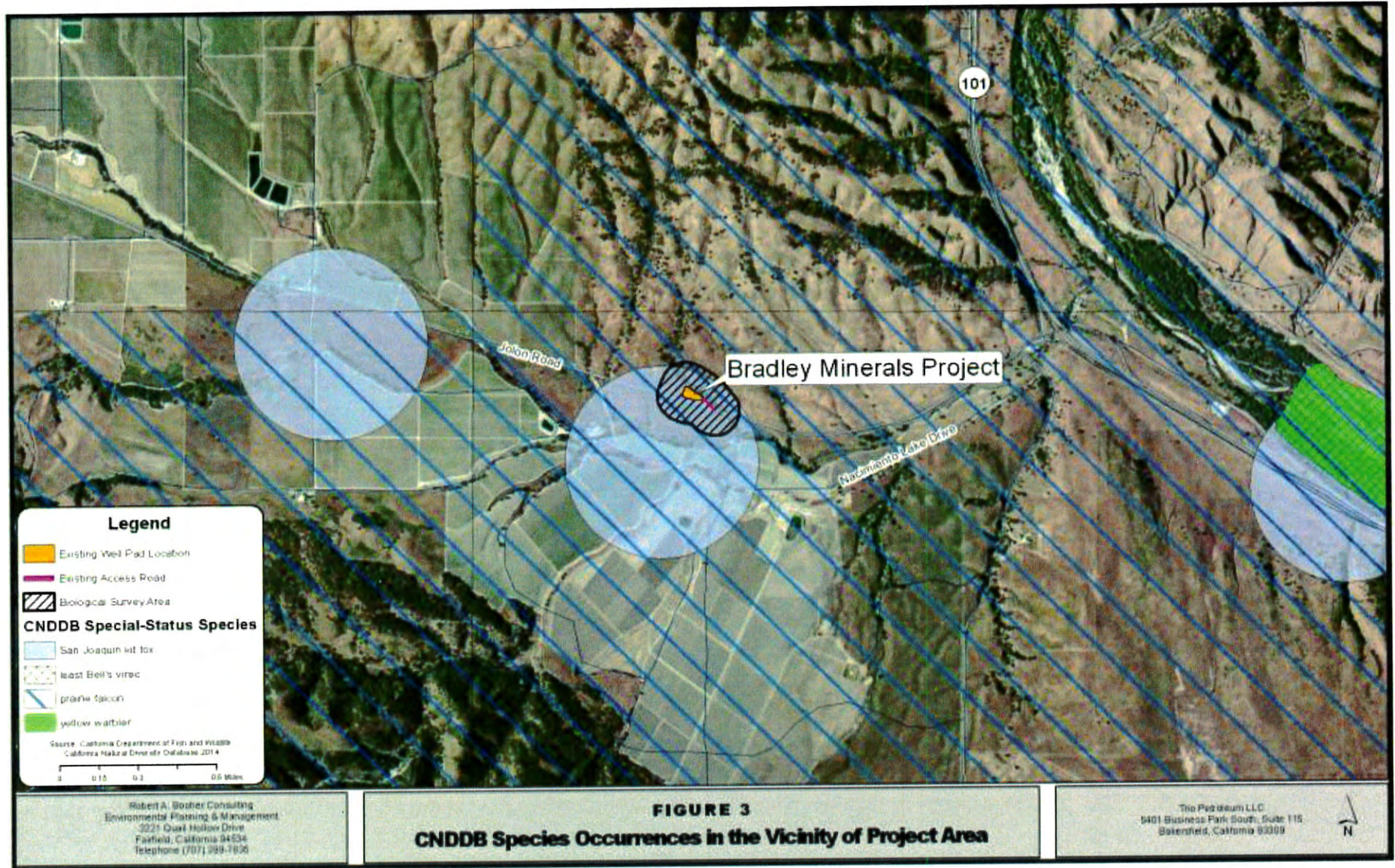
CT = California listed as Threatened

CR = California listed as Rare

CSC = Species of Special Concern

California Rare Plant Rank 2A = Plants presumed extirpated from California, but more common elsewhere  
California Rare Plant Rank 2B = Plants rare or endangered in California, but more common elsewhere  
California Rare Plant Rank 3 = Plants about which we need more information; a review list  
California Rare Plant Rank 4 = Plants of limited distribution; a watch list.  
California Rare Plant Rank Rarity Status of .1 = Seriously endangered in California  
California Rare Plant Rank Rarity Status of .2 = Fairly endangered in California  
California Rare Plant Rank Rarity Status of .3 = Not very endangered in California

Status, distribution, and habitat information from the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database RareFind 5 (CDFW 2014); California Native Plant Society, California Rare Plant Electronic Inventory (CNPS 2014); and USFWS Online Endangered Species Database (USFWS 2014).



## **SPECIAL-STATUS PLANT SURVEYS**

**Literature Review:** Prior to conducting field surveys, we reviewed information from published and unpublished sources to determine special-status plant species known, or that have potential to occur in the vicinity of the proposed project. Special-status plant species include species listed as Endangered, Threatened, or Rare by USFWS (1990, 2000, and 2014), or by CDFW (CDFG 1989, 2009, 2012, and CDFW 2014), and species listed by Smith and Berg (1988) and CNPS (CNPS 2014). Sources consulted for information on the distribution of special-status plant species include regional and local floras (Abrams 1923, 1944, 1951, Abrams and Ferris 1960, Hickman 1996, Munz and Keck 1968), occurrence records and maps from CNDDB (CDFW 2014), county and USGS quadrangle records in Smith and Berg (1988), CNPS (2001 and 2014), and occurrence records from previous surveys in the region.

**Plant Species Surveys and Identification:** Surveys to identify special-status plant species were conducted for the proposed project sites on May 12, 2014. These surveys were floristic in nature and were completed concurrent with surveys to detect sensitive wildlife species. Surveys were conducted in accordance with the USFWS *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants* (USFWS 2000) and the CDFW *Protocols for Surveying and evaluating impacts to special-status native plant populations and natural communities* (CDFG 2009). Rare plant surveys were also performed using demographic survey techniques derived from the CNPS rare plant monitoring guidelines (CNPS 2011). These guidelines include conducting floristically based surveys, identifying all plants encountered to the species level, or identifying to the level necessary to detect rare plants if present.

We surveyed 30 to 50 feet wide transects within the project site and a 500 foot buffer area surrounding the project site. We identified vascular plant species encountered in the surveys using standard manuals (Hickman 1996). Scientific nomenclature used for plant species in this report follows Hickman (1996) and we used modifications of Cheatham and Haller (1975) and Holland (1986) to describe habitat types found in the project site and buffer area. A list of plant species observed during the course of biological surveys is included in Table 2.

## **RESULTS AND DISCUSSION**

Results of our biological surveys for the project site and buffer area are presented below. A list of wildlife and plant species observed during biological surveys is included as Table 2. The following discussion describes habitat types that occur in the project site and focuses on special-status wildlife species that could potentially occur within the project site, based on site conditions observed at the time of our surveys. Special-status species that were not identified on the USFWS, CDFW, or CNPS species lists are not addressed in this document.

### **HABITAT TYPES**

No USFWS designated critical habitat is present in the proposed project sites or buffer areas (USFWS 2014b). No perennial or intermittent streams, wetlands, vernal pools, or other sensitive habitats were observed within the boundary of the existing project site. Habitat types observed



during our biological field surveys are briefly described below. Vegetative community designations are based on *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer 1988).

### **Ruderal/Disturbed**

The ruderal/disturbed vegetative community type was observed within portions of the existing well site, the existing access road, and wherever disturbed soils occurred, active land uses were present, or active land uses were absent where disturbance had occurred in the recent past. Common vegetative species found in this community were composed of weedy non-native and weedy native species. Common species identified during the field visit included: common fiddleneck (*Amsinckia menziesii* var. *intermedia*), fivehook bassia (*Bassia hyssopifolia*), bellardia (*Bellardia trixago* (L.) All.), field mustard (*Brassica campestris*), black mustard (*Brassica nigra* L. Koch), yellow-star thistle (*Centaurea solstitialis*), field bindweed (*Convolvulus arvensis*), redstem filaree (*Erodium cicutarium*), fennel (*Foeniculum vulgare*), prickly Lettuce (*Lactuca serriola*), cheeseweed (*Malva parviflora*), wild radish (*Rhaphanus sativus*), and spiny sowthistle (*Sonchus asper*).

Although often comprised of non-native plant species, ruderal habitats, particularly at edges of natural communities, can provide foraging habitat for many species of birds and mammals. These habitats can be occupied by California ground squirrels and other rodents.

### **Non-Native Annual Grassland**

Non-native annual grassland was the dominant vegetative community observed adjacent to the existing well site and access road within the project buffer area. Common species found in this community were composed of introduced grasses and broadleaf weedy species, which quickly re-colonize disturbed areas.

Common species identified during the field visit included soft blow wives (*Achryaena mollis*), common fiddleneck (*Amsinckia menziesii* var. *intermedia*), wild oat (*Avena fatua*), black mustard (*Brassica nigra* L. Koch), soft chess (*Bromus mollis*), ripgut (*Bromus rigidus* Roth), perennial rye grass (*Lolium perenne*), Mediterranean barley (*Hordeum marinum*), soft cheat grass (*Bromus hordeaceus*), bristly ox-tongue (*Picris echioides*), field mustard (*Brassica campestris*), wild radish (*Rhaphanus sativus*), cheeseweed (*Malva parviflora*), bur clover (*Medicago polymorpha*), blue oak (*Quercus douglasii* Hook. and Arn.), yellow-star thistle (*Centaurea solstitialis*), red brome (*Bromus rubens*), purple owl's clover (*Castilleja exserta*), Monterey centaury (*Centaureum muehlenbergii*), herald-of-summer (*Clarkia rubicunda*), California poppy (*Eschscholzia californica*), fennel (*Foeniculum vulgare*), valley lupine (*Lupinus subvexus*), common tarweed (*Hemizonia fasciculata*), and bigbract verbena (*Verbena bracteata*).

Grasslands support a variety of mammals, birds, and reptiles, and provide foraging habitat for raptors. Many species use the grassland for only part of their habitat requirements, foraging in the grassland and seeking cover in the surrounding tree and scrub cover. Grassland cover provides foraging, nesting, and denning opportunities for resident species such as: western fence

lizard (*Sceloporus occidentalis*), northern alligator lizard (*Elgaria coerulea*), gopher snake (*Pituophis melanoleucus*), western meadowlark (*Sturnella neglecta*), goldfinch (*Carduelis tristis*), ring-necked pheasant (*Phasianus colchicus*), red-winged blackbird (*Agelaius phoeniceus*), California ground squirrel (*Spermophilus beecheyi*), California vole (*Microtus californicus*), pocket gophers (*Thomomys* spp.), black-tailed jackrabbit (*Lepus californicus*), and occasionally black-tailed deer (*Odocoileus hemionus columbianus*).

The rodent, bird, and reptile populations offer foraging opportunities for avian predators such as the northern harrier hawk (*Circus cyaneus*), American kestrel (*Falco sparverius*), red-tailed hawk (*Buteo jamaicensis*), golden eagle (*Aquila chrysaetos*), barn owl (*Tito alba*), and great horned owl (*Bubo virginianus*). Mammalian predators, which utilize the grasslands include gray fox (*Urocyon cinereoargenteus*) and long-tailed weasel (*Mustela frenata*). Foraging activity of these predatory species, which tend to require relatively undisturbed habitat, is generally limited to the undeveloped fringes of the project area where habitat fragmentation has not occurred and human activity is limited.

### **Coastal Oak Woodland**

Coastal oak woodland was observed along a stream channel approximately 75 feet east of the proposed well site. Oak woodlands within the general project area consist both of oak trees widely spaced and in clumps, forming an oak grassland savannah. Composition of both overstory trees and understory vegetation of coastal oak woodland varies and reflects the environmental diversity over which this habitat occurs. The overstory of coastal oak woodland in the project area is dominated by coast live oak (*Quercus agrifolia*) and blue oak (*Quercus douglasii*). Understory vegetation within this vegetative community consists of annual grassland species. Annual grassland species are described further under the description of *non-native annual grassland*.

Coastal oak woodlands provide habitat for a variety of wildlife species. Barrett (1980) reports that at least 60 species of mammals may use oaks in some way. Verner (1980) reports 110 species of birds observed during the breeding season in California habitats where oaks form a significant part of the canopy or subcanopy. Many types of wildlife utilize oak woodlands for food (i.e., acorns, grass, and leaf browse) and shelter. Avian species that are typically found in this vegetative community include acorn woodpecker (*Melanerpes formicivorus*), California towhee (*Pipilo crissalis*), wild turkey (*Meleagris gallopavo*), scrub jay (*Aphelocoma californica*), California quail (*Callipepla californica*), chickadees (*Poecile* spp.), and western bluebirds (*Sialia mexicana*). Mammal species typically found in this community include woodrats (*Neotoma* spp.), mule deer (*Odocoileus hemionus*), feral pigs (*Sus scrofa*), western gray squirrel (*Sciurus griseus*), and pocket gophers (*Thomomys* spp.). Typical amphibians and reptiles found in this community include ringneck snake (*Diadophis punctatus*), western skink (*Eumeces skiltonianus*), and arboreal salamanders (*Aneides lugubris*).

### **SPECIAL-STATUS BIOLOGICAL RESOURCES**

Through a literature review and an electronic search of the CNDDDB, CNPS and USFWS databases, 22 special-status wildlife and invertebrate species and 58 special-status plant species were identified

that occur in or may be affected by projects in the Bradley, Wunpost, Hames Valley, and Tierra Redonda Mountain quadrangles (an area measuring approximately 280 miles). Table 1 provides a list of these special-status species, and includes a brief analysis of their potential to occur in the project site and buffer area.

Based on habitats present and the environmental conditions observed during biological surveys, RAB Consulting determined that 46 special-status plant species and 12 wildlife species have the potential to occur in the proposed project site and buffer area. No special-status species have been previously documented within the boundaries of the proposed project site; however, two (2) special-status species have been historically recorded in proximity to the proposed project site and buffer area (CDFW 2014) (see Figure 3). These species include San Joaquin kit fox and prairie falcon (see Figure 3). No special-status species were observed during biological surveys. Special-status species are not anticipated to occur in the project site as a result of historic land conversion to active oil and gas exploration and production operations.

## **AMPHIBIANS & REPTILES**

The **California tiger salamander** is a cryptic species that spends the majority of its life underground in rodent burrows and cracks in the soil. Adults are typically observable for only a very short time each year as they move to aquatic breeding sites. They typically breed in long-lasting rain ponds but may also use permanent ponds if aquatic predators are absent (Jennings and Hayes 1994). Burrows excavated by small mammals, such as California ground squirrels, provide upland habitat for salamanders during the non-breeding season.

No suitable breeding habitat for this species was observed within the project sites or buffer areas during surveys. Potential breeding habitat was observed in an irrigation pond approximately 0.45 miles south of the existing well site. California tiger salamanders typically do not travel further than one (1) mile from aquatic habitat breeding sites. Potential upland aestivation habitat was observed within the buffer area of the proposed well site, in areas that support suitable habitat and potential burrows for this species. This species has not been previously documented within these areas by CNDDDB (CDFW 2014) (see Figure 3). No individuals were observed in the proposed project site or buffer area during the course of biological surveys. Based on current site conditions in the proposed project site, it is highly unlikely that this species is present within the proposed project site.

The findings of our biological survey are consistent with those conducted by RAB Consulting during 2007 for the same project site and buffer area.

**Silvery Legless Lizard** is a small lizard without limbs. The upper side of the body is light colored, while the underside is yellow. The species occurs in riparian, sand/dune, shrubland, chaparral, hardwood and mixed woodland habitats. The species ranges from near Antioch, south in the Coast Ranges, Transverse Mountains and along the coast of California, to northwestern Baja California. Scattered occurrences are also known in the San Joaquin Valley, the southern Sierra Nevada, Walker Basin, Piute, Scodie, and Tehachapi Mountains. These lizards are found in sandy or loose loamy soils under sparse vegetation. This species prefers soils with high

moisture content (CDFW 2014). Silvery legless lizards may forage in leaf litter during the day, emerging on the surface at dusk or at night (Stebbins 1985).

Potential habitat for this species was observed in the buffer area surrounding the existing project site. This species has not been documented in the proposed project area. No individuals were observed in the proposed project site or buffer area during the course of biological surveys. Based on current site conditions in the proposed project site, it is highly unlikely that this species is present within the proposed project site.

The findings of our biological survey are consistent with those conducted by RAB Consulting during 2007 for the same project site and buffer area.

The **San Joaquin whipsnake** is a California species of special concern. San Joaquin whipsnakes occur along the Coast Ranges from Alameda and San Joaquin Counties south to Kern County. They are found in open, dry habitats with little or no tree cover. They require mammal burrows or rocky outcrops for refuge and may use them as oviposition sites (Jennings and Hayes 1994).

Potential habitat for this species was observed within the buffer area of the proposed project site. No appropriate habitat was observed on the proposed project site during biological surveys. No potential burrows that were of appropriate size for use by this species were observed within the boundaries of the proposed project site. Small mammal burrows were observed along the edge of the project site within the project buffer area. No individual snakes were observed during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project sites (CDFW 2014) (see Figure 3). Consequently, there is no evidence to suggest that the taxon occurs within the project site or buffer area, and no impacts to this species as a result of project implementation is expected.

The findings of our biological survey are consistent with those conducted by RAB Consulting during 2007 for the same project site and buffer area.

**Coast horned lizard** occurs in a variety of open habitats (including grasslands) that provide sites for basking, sandy substrates in which night-time burial can occur, and a suitable prey base (the taxon feeds almost exclusively on ants). However, the species is extremely rare in grasslands that do not have a shrub component.

Suitable habitat for this species was observed within the project buffer area. The potential exists that the species may be found within the project site due to its proximity to suitable habitat. Evidence of the lizard's prey species (i.e., granivorous ants) was found within the project sites and buffer areas. No individual lizards were observed during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project sites (CDFW 2014) (see Figure 3).

The findings of our biological survey are consistent with those conducted by RAB Consulting during 2007 for the same project site and buffer area.

## BIRDS

**Golden Eagles** Golden eagles maintain home ranges or territories that may be as large as 77 square miles. They build large nests in high places (mainly cliffs) to which they may return for several breeding years. Most breeding activities take place in the spring; they are monogamous and may remain together for several years or possibly for life. Females lay up to four eggs, and then incubate them for six weeks. Typically, one or two young survive to fledge in about three (3) months. Golden eagles are fairly adaptable in habitat but often reside in areas with a few shared ecological characteristics. They are best suited to hunting in open or semi-open areas and search them out year-around. Native vegetation seems to be attractive to them and they typically avoid developed areas of any type from urban to agricultural as well as heavily forested regions. In desolate areas, they can occur regularly at roadkills and garbage dumps. The largest numbers of golden eagles are found in mountainous regions today, with many eagles doing a majority of their hunting and nesting on rock formations. However, they are not solely tied to high elevations and can breed in lowlands if the local habitats are suitable.

Potential foraging for the golden eagle is present within the project buffer area. No foraging habitat was observed within the project site. No appropriate nesting habitat was observed in either the proposed project site or buffer area. No individual golden eagles or their nests (active or potential) were observed during our biological survey. This species has not been documented within the proposed project area by CNDDDB (CDFW 2014) (see Figure 3).

The findings of our biological survey are consistent with those conducted by RAB Consulting during 2007 for the same project site and buffer area.

**Western Burrowing Owl** is a ground dwelling owl that occurs in grassland habitats. Burrowing owls typically uses burrows of small mammals and large rodents, particularly California ground squirrels, for shelter and breeding. The species is listed by the CDFW as a Species of Special Concern (SSC).

Potential foraging and nesting habitat (non-native annual grassland) is present in the buffer area of the proposed project site. No potential foraging or nesting habitat was observed within the proposed project site. California ground squirrel burrows were observed in the buffer area approximately 92 feet east of the existing well site that may serve as potential for use by burrowing owls. No burrows suitable for use by the species were observed in the proposed project site. No individual burrowing owls or sign of their presence (i.e., whitewash, castings, feathers, etc.) were observed during biological surveys. Burrowing owls have not been documented in proximity to the proposed project site (CDFW 2014) (see Figure 3).

The findings of our biological survey are consistent with those conducted by RAB Consulting during 2007 for the same project site and buffer area.

**Prairie Falcon** occurs as an uncommon nesting species throughout the Sierra Nevada foothills, Coast Ranges, Modoc Plateau and adjacent mountains, Great Basin mountains, and southern California desert and mountains. Nests are typically located on a sheltered ledge of a cliff overlooking a large, open area (generally supporting grassland, rangeland, savannah, or desert

scrub). However, the species sometimes utilizes old nests of other cliff-nesting species (e.g., great-horned owl, common raven, golden eagle, etc.). Although southeast-facing nest sites are preferred, orientation is secondary to the nature of the ledge. Nesting occurs from mid-February through mid-September with a peak during April to early August (Zeiner *et al.* 1990). Home range and nest territory size varies with availability of suitable nesting habitat and adjacent foraging habitat.

We observed potential foraging habitat for prairie falcon in the proposed project site and buffer area during biological surveys. This species may forage intermittently throughout the project area, but is not expected to nest in the project site. No known roosts or potential breeding sites (cliffs) were identified in the project site or buffer area. No individual prairie falcons were observed during biological surveys. Since the species is wide-ranging, and the buffer area provides potential foraging habitat the species has some potential, to occur on site. The species is not expected to nest in the project area based on a lack of suitable nesting sites. Although location information is suppressed based on sensitivity, prairie falcons have been historically documented in the vicinity of the proposed project site (CDFW 2014) (see Figure 3). These CNDDDB observation records are dated 1974, 1977, and 1979, and are based on CDFW prairie falcon nest records compiled by the CDFW Wildlife Branch in 1986.

The findings of our biological survey are consistent with those conducted by RAB Consulting during 2007 for the same project site and buffer area.

**California Condor** was listed as endangered in a final rule published by the USFWS in 1967 (32 FR 4001) and critical habitat was designated for the species nearly a decade later, in 1976. The species historically occurred in a narrow strip along the Pacific coast, from British Columbia, Canada to Baja California Norte, Mexico (Koford 1953, Wilbur 1978). The range of California condors was restricted to chaparral, coniferous forests, and oak savannah habitats in southern and central California (USFWS 1996c). The species used a wishbone shaped area that encompassed six counties in California; this area was designated as the range of primary concern by the Condor Recovery Team. The reduced range of the California condor has since been used for reference by the public and for planning purposes by regulatory and management agencies.

As noted in the 1979 Recovery Plan and reiterated in the 5-year species review, California condors require adequate nesting sites, roosting sites, and foraging habitat with adequate food, (USFWS 2013). Roosting sites are generally located near nesting or foraging areas. Cliffs and tall conifers are used as roost sites by California condors throughout their range. Water is also required for drinking and bathing (Zeiner *et al.* 1990). The species typically nests in chaparral, conifer forest, or oak woodland communities. Historically, condors nested on bare ground in caves and crevices, behind rock slabs, or on large ledges or potholes on high sandstone cliffs in isolated, extremely steep, rugged areas. Nests have also been documented in cavities in giant sequoia (*Sequoiadendron giganteum*) and redwood (*Sequoia sempervirens*) trees. Nest sites are often surrounded by dense brush and generally have the following attributes:

- Entrances large enough for the adults to fit through;
- Ceiling height of at least 14.8 inches at the egg position;
- Floors fairly level with some loose surface substrate;

- Nest space unconstricted for incubating adults; and
- A nearby landing point (Zeiner et al. 1990).

Potential nesting habitat occurs over a large portion of the coastal and interior mountains in central and southern California; however the occupied nesting range is limited. Based on the 1996 Recovery Plan for the species, all California condor nest sites in the wild were located on public lands in the Angeles, Los Padres, and Sequoia National Forests (USFWS 1996).

Foraging habitat of California condors has been characterized as open foothill grasslands and oak savannah foothills that support populations of deer, elk and cattle (USFWS 2013). Historically, foraging also occurred on beaches and large rivers along the Pacific coast where the condor diet may have been comprised of marine species including whales, and sea lions. While potential foraging habitat is expansive, not all is usable due to inaccessible terrain that limits soaring by condors. Prior to 1987 California condors foraged primarily in the foothills bordering the southern San Joaquin Valley and axillary valleys in San Luis Obispo, Santa Barbara, Kern, and Tulare Counties (USFWS 1996c). Most principal foraging areas were on privately owned lands used for livestock grazing. In Kern County condors foraged in the foothills adjacent to the Los Padres National Forest to Reyes Station in the west, to the Pleito Hills west of Interstate 5, and eastward throughout much of the Tehachapi Mountains. Foraging areas were relatively close to traditional nesting sites (USFWS 1984).

California condors are opportunistic scavengers, feeding exclusively on carrion (dead animal carcasses). This species, which is considered a permanent resident of the semi-arid, rugged mountain ranges surrounding the southern San Joaquin Valley (i.e., Coast Range from Santa Clara County south to Los Angeles County, Transverse Ranges, Tehachapi Mountains, and southern Sierra Nevada), travels over a wide area when foraging. The species is known to regularly fly 35 miles or more from roost sites and occasionally travels even greater distances. California condors may travel up to 150 miles in a single day in search of food. They typically fly at a height of approximately 600 feet while in search of carrion. However, they have been recorded at heights of 15,000 feet while in flight (Zeiner et al. 1990). Typical foraging behavior includes long-distance reconnaissance flights, lengthy circling flights over a carcass, and hours of waiting at a roost or on the ground near a carcass.

Condors are highly dependent on topography and thermal wind patterns for flight. Nearly all observations of California condor flights followed routes over foothills and mountains in the southern San Joaquin Valley; California condors have rarely been documented in flight directly over the flat, highly agricultural Valley floor (USFWS 1996c). However, where flat, agricultural regions are less extensive, such as the Cuyama Valley, condors have been documented high above in flight in route to foraging grounds.

Early condor recovery actions focused on habitat protection and preservation as a means to reduce mortality and control the population decline. The California condor recovery strategy was modified to emphasize a captive breeding program and intensive management actions to reestablish the species in the wild, which included radiotelemetry studies. The last wild California condors were captured in 1987 and taken into captivity due to the precipitous decline in the species' (fewer than 20 remaining individuals) population. Condors reared in captivity as

well as some of the originally captured individuals have been reintroduced into the wild since 1992. The reintroductions in California were initially focused in northeastern Ventura County (including the Sespe Condor Sanctuary), Big Sur mountains and coast, and Pinnacles National Monument. Issues with reintroductions included mortalities that resulted from predation, starvation, and infection. Mortality of California condors has also been attributed to power line collisions, lead exposure and poisoning, shooting, and microtrash ingestion at nest sites.

The goal of the California condor Recovery Plan is to establish two (2) geographically separate populations in the wild and to maintain one captive population, each with 150 birds and at least 15 breeding pairs (USFWS 1996c). The reintroduced populations would be established in California and in areas of northern Arizona, southeastern Nevada, and southern Utah. In order to achieve recovery goals, the number of California condor release sites and supplemental feeding stations has increased. Population growth has been steady over the last couple of decades. In the last decade, the wild population has continued to produce offspring, numbering 35 survivors at the end of 2012 (USFWS 2013). As of May 2013, the total population of California condors was 435 individuals; the wild population consists of 237 condors. The wild population continues to exceed the number in captivity, which is 198 birds. Wild populations now occur in central and southern California, in Arizona, and in northern Baja California (USFWS 2013).

About 570,400 acres have been designated as critical habitat for California condor (USFWS 2014c). RAB Consulting conducted a review of critical habitat areas established by the USFWS to protect key habitat for this species. Based on our review, the closest area of designated critical habitat for California condor is located approximately 33.7 miles to the southeast of the proposed project site. No designated critical habitat for California condor is present in the proposed project sites (USFWS 2014b).

In the CNDDDB, no condor sightings have been documented in proximity to the proposed project site (CDFW 2014). Based on RAB Consulting's review of sighting records from eBird, a California condor was documented soaring approximately 3.55 miles east of the proposed project site on July 16, 2013 (eBird 2014). As described above, eBird is an online database of bird sightings reported by professional and recreational birders that is maintained by the National Audubon Society and the Cornell University Lab of Ornithology.

No known roosts or potential nesting sites (cliffs at higher elevations or old growth forest) were identified in the project site or buffer area. No suitable foraging habitat for California condor is present in the proposed project site. Potential foraging habitat was observed in non-native annual grassland habitat in the project buffer area. While California condor may occasionally fly over in route to foraging grounds, the species is not anticipated to occur in the proposed project site or buffer area based on a lack of suitable roost and/or nest sites and lack of adequate forage. Furthermore, as a result of flat topography in the general area, the project sites are not favorable for flight, taking off and/or landing by California condors.

The findings of our biological survey are consistent with those conducted by RAB Consulting during 2007 for the same project site and buffer area.



## MAMMALS

**Pallid Bat** is a locally common species of low elevations in California. The species occurs throughout the State, except for the high Sierra Nevada from Shasta to Kern Counties (Zeiner *et al.*, 1990). Pallid bats are year round occupants of grassland, shrubland, woodland, and forest habitats (CDFW 2014). These bats prefer rocky outcrops, cliffs, and crevices with access to open habitats for foraging. Unlike other bat species, pallid bats prey on the ground or in foliage, rather than in flight.

We observed potential foraging habitat for pallid bats in vegetated areas within the buffer area of the proposed project site. No potential foraging habitat was observed within the proposed project site during biological surveys. However, no potential roosting or breeding sites suitable for use by this species were observed in the project site or buffer area. No individual bats were observed in the project site or buffer area during the course of the biological survey. Furthermore, this species has not been documented in the project area (CDFW 2014) (see Figure 3).

The findings of our biological survey are consistent with those conducted by RAB Consulting during 2007 for the same project site and buffer area.

**American Badger** (*Taxidea taxus*) is widespread across the drier portions of the western United States where suitable habitat is characterized by most open vegetation communities with dry, friable soils. These include grassland and shrub communities, and open stages of some woodland communities. Home range estimates vary geographically and seasonally, but have ranged between 338 and 1,549 acres (Messick and Hornocker 1981, Lindzey 1978). Badgers mate in summer and early fall, and most young are born in March and April (Long 1973). The most common signs of habitat occupation by badgers include dens and fresh diggings. Badger dens exhibit characteristics that are diagnostic of the species (e.g., dome-shaped entrance with claw marks in the upper portion of the entrance).

We observed potential habitat (non-native annual grassland) for the American badger during biological surveys, in areas of habitat surrounding the proposed project site and existing roads. No potential denning burrows that were of adequate size for use by badgers were observed within the proposed project site or buffer area during the biological survey conducted on May 12, 2014. No active sign of badger use (excavations to unearth rodents) was observed in the proposed project site or buffer area during surveys. No individuals were observed within the project site or buffer areas during surveys. However, given the species' large home range sizes and the presence of suitable habitat adjacent to the proposed project site, the species is considered to have some potential to occur within the project site and buffer area.

The findings of our biological survey are consistent with those conducted by RAB Consulting during 2007 for the same project site and buffer area.

**Salinas Pocket Mouse** prefers annual grassland habitat on fine- textured, sandy soils. They may also occur on a variety of other substrates in annual grassland and desert shrub communities, especially where plant cover is not dense and soils are friable. The known distribution of this

species extends from near Soledad southward to Hog Canyon in the Salinas Valley, Monterey County.

No suitable habitat for Salinas pocket mouse is present within the existing well site or access road. Potential habitat (annual grassland) was observed in the buffer area of the project site. No potential burrows that were of appropriate size for use by this species were observed within the boundaries of the proposed project site. Small mammal burrows were observed along the edge of the project site within the project buffer area. No individual mice were observed during biological surveys. This species has not been documented within the boundaries of or in proximity to the proposed project sites (CDFW 2014) (see Figure 3).

The findings of our biological survey are consistent with those conducted by RAB Consulting during 2007 for the same project site and buffer area.

**San Joaquin Kit Fox** historically occurred throughout the southern portion of the San Joaquin Valley, along the eastern edge of the San Joaquin Valley, and in the dry interior valleys of the Coast Ranges. The species occurs in a variety of open grassland, oak savannah, and shrub vegetation communities. However, in the southern portion of its range it is generally found in sparse annual grassland and scrub communities (e.g., valley sink scrub, saltbush scrub). Den characteristics of the subspecies vary across its range. In the southern portion of its range the taxon often creates dens with two entrances; natal/pupping dens typically have multiple entrances. Entrances range from 8 to 10 inches in diameter and are normally higher than wide, but kit foxes can utilize dens with entrances as small as four inches in diameter. Kit foxes often change dens on a regular basis. Home ranges for the taxon have been reported by several authors to range from 1 to 12 square miles (USFWS 1998).

Monterey County is considered to be the northern portion of the San Joaquin kit fox range in the general project region; however, few sightings have been recorded in the CNDDDB (CDFW 2014) for the county. The Salinas River corridor, approximately 1.67 miles to the east of the proposed project site, is likely utilized by San Joaquin kit fox for movement in this portion of its range.

The Endangered Species Recovery Program (ESRP 1999) conducted a study to estimate the quality of habitat under managed/protected lands and under private ownership. Kit fox populations were delineated from public land survey townships that corresponded to the general area of the named populations. The three (3) core kit fox populations were assigned sixteen (16) townships each, eight (8) secondary populations were assigned eight (8) townships each, and eight (8) tertiary populations were assigned four (4) townships each. The nearest core kit fox population is the Salinas River Valley population, which begins near King City and encompasses Camp Roberts to the south. The project site is in the vicinity of the southern end of this core population area. The general range of the San Joaquin kit fox in the Salinas Valley is between Soledad on the north and the Carrizo Plain on the south.

No suitable habitat was observed in the proposed project site. However, suitable habitat was observed immediately adjacent to the proposed project site in non-native annual grassland habitat. California ground squirrel burrows were observed in the buffer area approximately 92 feet east of the existing well site that are of appropriate size for potential use by San Joaquin kit

fox. No potential burrows that were of appropriate size for use by this species were observed in the project site. No individual San Joaquin kit foxes or sign (i.e. scat, tracks, prey remains, etc.) of their activity was observed during biological surveys. This species has been recorded in proximity to the project site (CDFW 2014) (see Figure 3). Although no burrows suitable for potential denning were observed within the proposed project site at the time of our biological survey, it is possible that the project site may accommodate foraging San Joaquin kit fox. However, forage would be limited in the project site based on a lack of small mammal burrows that would support a suitable prey base.

The findings of our biological survey are consistent with those conducted by RAB Consulting during 2007 for the same project site and buffer area.

### **Incidental Wildlife**

Wildlife species that we recorded during our biological surveys for special-status species are listed in Table 2 below. A few avian species protected under the Federal Migratory Bird Treaty Act were observed during biological surveys (see Table 2). Common raven and other raptors such as red-tailed hawk may construct nests on power poles that occur in the buffer area of the existing access road and parallel to Jolon Road. However, in the event that migratory birds become established in the project site prior to project implementation, avoidance measures are included as recommendations in this report.

### **Oak Trees**

The Open Space and Land Use Elements of the Monterey County General Plan 2006, and the Monterey County Zoning Ordinance (Section 21.64.260) provide protections for any oak tree with a trunk that is over 6 inches in diameter at breast height. A number of oak trees east of the proposed disturbance area would fall under the protection of these regulations. However, the proposed project has been designed to completely avoid these resources.

### **SPECIAL-STATUS PLANTS**

Based on literature and database reviews, and the findings of the biological survey on May 12, 2014, no special-status plant species have the potential to occur in the project site. No suitable habitat for special-status plants is present within the proposed project site. Suitable habitat for special-status plant species was observed in the buffer area of the project site. Based on the habitat requirements of targeted plant species, historic and current land use (the existing project site is used as a well pad), RAB Consulting determined that special-status plant species are not expected to occur or become established in the proposed project site. Therefore, no impacts to special-status plants would result from project implementation.

**Table 2**

List of Animal and Plant Species Observed During Biological Surveys

Scientific name	Common name
<b>Animals</b>	
<i>Buteo jamaicensis</i>	Red-tailed hawk
<i>Cathartes aura</i>	Turkey vulture
<i>Corvus brachyrhynchos</i>	American crow
<i>Corvus corax</i>	Common raven
<i>Elgaria coerulea</i>	Northern alligator lizard
<i>Lepus californicus</i>	Black-tailed jackrabbit
<i>Sceloporus occidentalis</i>	Western fence lizard
<i>Spermophilus beecheyi</i>	California ground squirrel
<i>Sturnella neglecta</i>	Western meadowlark
<i>Zenaida macroura</i>	Mourning dove
<b>Plants</b>	
<i>Achrachaena mollis</i>	Soft blow wives
<i>Aira caryophyllea L.</i>	Silver hairgrass
<i>Amsinckia menziesii var. intermedia</i>	Common fiddleneck
<i>Avena fatua</i>	Wild oat
<i>Bassia hyssopifolia</i>	Fivehook bassia
<i>Bellardia trixago (L.) All.</i>	Bellardia
<i>Brassica campestris</i>	Field mustard
<i>Brassica nigra L. Koch</i>	Black mustard
<i>Bromus rigidus Roth.</i>	Ripgut
<i>Bromus hordeaceus</i>	Soft cheat grass
<i>Bromus mollis</i>	Soft chess
<i>Bromus rubens</i>	Red brome
<i>Castilleja exserta</i>	Purple owl's clover
<i>Centaurea solstitialis</i>	Yellow-star thistle
<i>Centaureum muehlenbergii</i>	Monterey centaury
<i>Clarkia rubicunda</i>	Herald-of-summer
<i>Convolvulus arvensis</i>	Field bindweed
<i>Daucus carota L.</i>	Wild carrot
<i>Erodium cicutarium</i>	Redstem filaree
<i>Erodium moschatum</i>	Whitestem filaree
<i>Eschscholzia californica</i>	California poppy
<i>Foeniculum vulgare</i>	Fennel
<i>Hemizonia fasciculata</i>	Common tarweed
<i>Hordeum leporinum</i>	Foxtail barley
<i>Hordeum marinum</i>	Mediterranean barley
<i>Lactuca serriola</i>	Prickly Lettuce
<i>Lolium perenne</i>	Perennial rye grass
<i>Lupinus subvexus</i>	Valley lupine
<i>Malva parviflora</i>	Cheeseweed
<i>Medicago polymorpha</i>	Bur clover
<i>Picris echioides</i>	Bristly ox-tongue
<i>Quercus douglasii Hook. and Arn.</i>	Blue oak
<i>Rhaphanus sativus</i>	Wild radish
<i>Sonchus asper</i>	Spiny sowthistle
<i>Verbena bracteata</i>	Bigbract verbena

**ANALYSIS OF POTENTIAL IMPACTS**

The biological assessment conducted for the Bradley Minerals project found that no special-status animal or plant species were present within the boundary of the proposed project site. No

riparian, wetland, vernal pool, or other sensitive community types were observed within the proposed project site during the biological survey. Based on the current use of the project site as an active well pad, no suitable habitat is present for special-status species within the boundaries of the proposed well site. Suitable habitat was observed within the buffer area of the existing project site. No perennial or intermittent streams occur in the project site. An intermittent stream was observed 83 feet east of the existing project site within the buffer area. Since the proposed project site is already an existing well pad and access road, no impacts to streams, riparian areas, wetlands, vernal pools, or other sensitive habitats will result from the proposed project.

Direct mortality or injury to common wildlife and plant populations could occur during minor site preparations and project drilling operations associated with implementation of the project. Small vertebrate, invertebrate, and plant species are particularly prone to impact during project implementation because they are much less to non-mobile, and cannot easily move out of the path of project activities. Other more mobile wildlife species, such as most birds and larger mammals, can avoid project-related activities by moving to other adjacent areas temporarily. Increased human activity and vehicle traffic in the vicinity may disturb some wildlife species. However, common wildlife species have likely become acclimated to on-going oil and gas exploration, development, and production activities. Because common wildlife species found in the project area are locally and regionally common, potential impacts to these resources are considered less than significant. Therefore, no avoidance or minimization measures are proposed at this time.

Implementation of the proposed project could potentially impact individual San Joaquin kit fox or their dens, in the event they become established in the project site prior to project implementation. Impacts to kit fox could occur through crushing by construction, drilling and production equipment during project activities. This species could also be affected due to noise and vibration from project activities if dens are located closer than 250 feet to the proposed project site; project related noise and vibration could cause the abandonment of occupied den sites. Impacts to this species would be considered significant. Avoidance and minimization measures to protect this species from potential impacts are included and described further in the *Proposed Avoidance and Minimization Measures* section.

Implementation of the proposed project could potentially impact individual and nesting burrowing owls should they become established within the proposed project site or buffer area prior to project implementation. Impacts to this species could occur through crushing by construction and drilling equipment during implementation of project activities. Actively nesting burrowing owls could also be affected due to noise and vibration from project activities if nests are located closer than 250 feet to the proposed project sites; project related noise and vibration could cause the abandonment of active nest sites. Impacts to this species would be considered significant. In the event that burrowing owls become established in the proposed project site or buffer area, avoidance and minimization measures to protect this species from potential impacts are described further in the *Proposed Avoidance and Minimization Measures* section.

Implementation of the proposed project is not expected to impact foraging activities of California condors since no suitable foraging habitat is present in the proposed project site or buffer area. As stated previously, California condors are opportunistic scavengers, feeding exclusively on the

carcasses of large dead animals. This species may potentially fly over the general area, in route to foraging grounds; however, as a result of flat topography and oil and gas development, the project site are not favorable for California condor flight, landings and/or taking off.

No nesting habitat was observed at the proposed project site or buffer area. Therefore, there is no substantial evidence that the proposed project would impact nesting activities of the California condor. Furthermore, no California condors were observed during the course of biological surveys for the proposed project, and no condor sightings have been documented in the proposed project sites by the CNDDDB (CDFG 2014). In the unlikely event that California condor becomes established in the proposed project site, avoidance and mitigation measures to protect this species from potential impacts are described further in the *Proposed Avoidance and Minimization Measures* section. Protective measures include implementing an environmental awareness program, conducting pre-construction and nesting bird surveys, and employing best management practices and housekeeping measures that ensure trash and fluids are not available to affect wildlife species in a negative manner. Implementation of these measures would be intended to avoid or reduce these potential impacts to a less-than-significant level. The recommended measures are feasible and appropriate to reduce impacts under CEQA to the California condor.

Implementation of the proposed project could potentially impact individual and nesting migratory bird species should they become established within the proposed project site prior to project implementation. Impacts to migratory bird species could occur through crushing by construction and drilling equipment during implementation of project activities. Actively nesting birds could also be affected due to noise and vibration from project activities, if nests are located closer than 250 feet to the proposed project sites. Project related noise and vibration could cause the abandonment of active nest sites. Impacts to these species would be considered significant. In the event that nesting birds are present or become further established in the proposed project site, avoidance and minimization measures to protect these species from potential impacts are described further in the *Proposed Avoidance and Minimization Measures* section.

Implementation of the proposed project could potentially impact individual American badgers or their dens, in the event they become established in the project site prior to project implementation. Impacts to badgers could occur through crushing by construction, drilling and production equipment during project activities. This species could also be affected due to noise and vibration from project activities if dens are located closer than 250 feet to the proposed project site; project related noise and vibration could cause the abandonment of occupied den sites. Impacts to this species would be considered significant. Avoidance and minimization measures to protect this species from potential impacts are included and described further in the *Proposed Avoidance and Minimization Measures* section.

Implementation of the proposed project could potentially impact individual coast horned lizards in the event they are present in the project site prior to project implementation. Impacts to these lizards could occur through crushing by construction, drilling and production equipment during project activities. Impacts to this species would be considered significant. Avoidance and minimization measures to protect this species from potential impacts are included and described further in the *Proposed Avoidance and Minimization Measures* section.

Implementation of the proposed project could potentially impact individual San Joaquin whipsnakes or their burrows, in the event they become established in the project site prior to project implementation. Impacts to whipsnakes could occur through crushing by construction, drilling and production equipment during project activities. Impacts to this species would be considered significant. Avoidance and minimization measures to protect this species from potential impacts are included and described further in the *Proposed Avoidance and Minimization Measures* section.

Implementation of the proposed project could potentially impact individual Salinas pocket mice or their burrows, in the event they become established in the project site prior to project implementation. Impacts to whipsnakes could occur through crushing by construction, drilling and production equipment during project activities. Impacts to this species would be considered significant. Avoidance and minimization measures to protect this species from potential impacts are included and described further in the *Proposed Avoidance and Minimization Measures* section.

Traffic, consisting predominantly of oilfield personnel and vehicles in the project site is sporadic. A short-term increase in vehicle traffic is anticipated during project implementation and less so after project completion. This will result in a short-term increase in associated noise, which may cause temporary disturbance to common wildlife species. Increased vehicular traffic could cause direct mortality to these species or impede normal activities such as dispersal (Luckenbach 1975, Weinstein 1978). Species intolerant of human activities may use the proposed project site less when humans are regularly present in the area (Bushnel 1978, Lee and Griffith 1977). Those species observed during biological surveys appear to have acclimated to ongoing oil and gas exploration and production activities near the proposed project site.

The project would not interfere with movements of wildlife species or with established native resident or migratory wildlife corridors. Native resident and/or migratory fish and known native wildlife nursery sites are not present within the proposed project sites or buffer areas.

## **PROPOSED AVOIDANCE AND MINIMIZATION MEASURES**

Implementation of the proposed avoidance and minimization measures is recommended to avoid or reduce potential impacts to special-status wildlife and plant species. The avoidance and minimization measures presented below would be implemented as Operational Procedures for the proposed project.

1. Environmental Awareness Training shall be presented to all personnel working in the field on the proposed project site. Training shall consist of a brief presentation in which biologists knowledgeable of endangered species biology and legislative protection shall explain endangered species concerns. Training shall include a discussion of special-status plants and sensitive wildlife species. Species biology, habitat needs, status under the Endangered Species Act, and measures being incorporated for the protection of these species and their habitats shall also be discussed.

2. As close to the beginning of project activities as possible, but not more than 14 days prior, a qualified biologist shall conduct a final pre-construction survey of the proposed project site and buffer area to verify that no special-status wildlife species have become established in the project site or buffer area. A qualified biologist shall be present immediately prior to project activities that have potential to impact sensitive species to identify and protect potentially sensitive resources.
3. Project site boundaries shall be clearly delineated by stakes and /or flagging to minimize inadvertent degradation or loss of adjacent habitat during project site preparation and drilling operations. Staff and/or its contractors shall post signs and/or place fence around the project site to restrict access of vehicles and equipment unrelated to drilling operations.
4. If San Joaquin kit foxes become established within the proposed project site or buffer area prior to project implementation, Trio will implement the following measures (measures 4-9) contained in the USFWS's *Standardized Recommendations For Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (USFWS 2011):

- a) For kit fox dens within 200 feet of proposed construction area(s), exclusion zones shall be established prior to construction by a qualified biologist. Exclusion zones shall be roughly circular with a radius of the following distances measured outward from the entrance:

Potential den	50 feet
Atypical den	50 feet
Known den	100 feet
Natal/pupping den (occupied <u>and</u> unoccupied)	UFWFS must be contacted

- b) Protective exclusion zones can be placed around all known and potential dens which occur outside the project footprint (conversely, the project boundary can be demarcated).
- c) To ensure protection of known dens, exclusion zones should be demarcated by fencing that encircles each den at the appropriate distance and does not prevent access to the den by kit foxes. Acceptable fencing includes untreated wood particle-board, silt fencing, or orange construction fencing, as long as it has opening for kit fox ingress/egress and keeps humans and equipment out.
- d) Exclusion zone barriers shall be maintained until all construction related or operational disturbances have been terminated. At that time all fencing shall be removed to avoid attracting subsequent attention to the dens.
- e) For potential and/or atypical dens, placement of 4-5 flagged stakes 50 feet from the den entrance(s) will suffice to identify the den location; fencing will not be required, but the exclusion zone must be observed.



- f) Only essential vehicle operation on existing roads and foot traffic should be permitted. Otherwise, all construction, vehicle operation, material storage, or any type of surface-disturbing activity should be prohibited or greatly restricted within the exclusion zones.
5. If a natal/pupping den is discovered within the project site or within 200-feet of the project boundaries, the USFWS shall be immediately notified and under no circumstances should the den be disturbed or destroyed without prior authorization. If the preconstruction/preactivity survey reveals an active natal pupping den or new information, Trio should contact the USFWS immediately to obtain the necessary take authorization/permit.
6. Destruction of any known or natal/pupping kit fox den requires take authorization/permit from the USFWS. Limited destruction of kit fox dens may be allowed, if avoidance is not a reasonable alternative, provided the following procedures are observed:
  - a. Known dens occurring within the footprint of the project must be monitored for three (3) consecutive days with tracking medium or an infra-red camera beam to determine the current use. If no kit fox activity is observed during this period, the den(s) should be destroyed immediately to preclude subsequent use.
  - b. If kit fox activity is observed at the den(s) during this period, the dens) should be monitored for at least five (5) consecutive nights from the time of the observation to allow any resident animal to move to another den during its normal activity. Only when the den(s) are determined unoccupied may the den(s) be excavated.
  - c. Destruction of the den(s) should be accomplished by careful excavation until it is certain that no kit foxes are inside. The den(s) should be fully excavated, filled with dirt and compacted to ensure that kit foxes cannot reenter to use the den(s) during the construction period. If at any point during excavation, a kit fox is discovered inside the den(s), the excavation activity shall cease immediately and monitoring the den as described above should resume. Destruction of the den(s) may be completed when in the judgment of the biologist, the animal has escaped, without further disturbance, from the partially destroyed den(s).
7. Potential dens occurring within the footprint of the project or within 50 feet must be monitored for three (3) consecutive days with tracking medium or an infra-red camera beam to determine the current use. If no kit fox activity is observed during this period, the den(s) should be destroyed immediately to preclude subsequent use.
8. Destruction of the den(s) should be accomplished by careful excavation until it is certain that no kit foxes are inside. The den(s) should be fully excavated, filled with dirt and compacted to ensure that kit foxes cannot reenter to use the den during the construction period. If at any point during excavation, a kit fox is discovered inside the de, the excavation activity shall cease immediately and monitoring the den as described above

should resume. Destruction of the den may be completed when in the judgment of the biologist, the animal has escaped, without further disturbance, from the partially destroyed den.

9. If any kit fox den is considered to be a potential den, but is later determined during monitoring or destruction to be currently, or previously used by kit fox (e.g., if kit fox sign is found inside), then all construction activities shall cease and the USFWS shall be notified immediately.
10. Pre-construction nesting surveys shall be conducted for nesting migratory avian species in the project site and buffer area. Pre-construction surveys shall occur prior to the proposed project implementation, and during the appropriate survey periods for nesting activities. Surveys will follow required CDFW and USFWS protocols, where applicable. A qualified biologist will survey suitable habitat for the presence of these species. If a migratory avian species is observed and suspected to be nesting, a 250-foot buffer area will be established to avoid impacts to the active nest. If no nesting avian species are found, project activities may proceed and no further mitigation measures will be required. If active nesting sites are found, the following exclusion buffers will be established, and no project activities will occur within these buffer zones until young birds have fledged.
  - a. If ground disturbing activities occur during breeding season (February through mid-September), surveys for active nests will be conducted by a qualified biologist no more than 10 days prior to start of activities. Minimum no disturbance of 250 feet around active nest of non-listed bird species and 250 foot no disturbance buffer around migratory birds; and 0.5-mile no disturbance buffer from listed species and fully protected species until 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.
11. The following measures included in the CDFW's *Staff Report on Burrowing Owl Mitigation* (CDFG 2012) shall be implemented by Trio for the proposed project:
  - a. If preconstruction surveys determine that burrowing owls are present in the project site and buffer area, a burrowing owl mitigation plan shall be prepared by a qualified biologist describing recommended site specific shelter-in-place measures, worker training, and/or other measures to ensure that Project construction does not result in adverse impacts to the burrowing owls.
  - b. Occupied burrows shall not be disturbed during the burrowing owl nesting season (February 1 through August 31) unless a qualified biologist approved by the CDFW verifies through non-invasive methods that either: (1) the birds have not begun egg-laying and incubation; or (2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.
  - c. Burrowing owls present in the project sites or within 500 feet (as identified during preconstruction surveys) shall be moved away from the disturbance area using

passive relocation techniques. Prior to commencement of relocation, a management plan shall be prepared and approved by CDFW. Relocation shall be completed between September 1 and January 31 (outside of breeding season). A minimum of one or more weeks is required to relocate the owls and allow them to acclimate to alternate burrows. Passive relocation techniques will follow the CDFG Staff Report on Burrowing Owl Mitigation Guidelines (2012) and include the following measures:

- i. Install one-way doors in burrow entrances. Leave doors in place for 48 hours to ensure owls have left the burrow.
  - ii. Allow one or more weeks for owls to acclimate to off-site burrows. Daily monitoring shall be required for the passive relocation period.
  - iii. Once owls have relocated off-site, collapse existing burrows to prevent reoccupation. Prior to burrow excavation, flexible plastic pipe shall be inserted into the tunnels to allow escape of any remaining owls during excavation. Excavation shall be conducted by hand whenever possible.
  - iv. Destruction of burrows shall occur only pursuant to a management plan approved by CDFW.
  - v. As an alternative (if approved by CDFW), all occupied burrows identified off-site within 500 feet of construction activities outside of nesting season (September through January) and during nesting season (February 1 through August 31) could be buffered by hay bales, fencing (e.g. sheltering in place) or as directed by a qualified biologist and the CDFW.
12. As close to the beginning of construction as possible, but no more than 30 days prior to construction, a qualified biologist shall conduct a pre-project survey for California horned lizards. California horned lizards shall be removed from the project site (by capture by a qualified biologist) and moved to a safe adjacent location.
  13. A project representative shall establish restrictions on project-related traffic to approved project areas, storage areas, staging and parking areas via signage. Off-road traffic outside of designated project site shall be prohibited.
  14. Project-related traffic shall observe a 15 mph speed limit in the project site except on County roads and State and federal highways to avoid impacts to special-status and common wildlife species.
  15. Project activities shall be scheduled to avoid evening hours, as feasible, to avoid special-status wildlife species that are active in the nighttime.

16. Hazardous materials, fuels, lubricants, and solvents that spill accidentally during project-related activities shall be cleaned up and removed from the project as soon as possible according to applicable federal, state and local regulations.
17. All equipment storage and parking during site development and operation shall be confined to the proposed project site.
18. All excavated steep-walled holes or trenches in excess of three (3) feet in depth shall be provided with one or more escape ramps constructed of earth fill to prevent entrapment of endangered species or other animals. Ramps shall be located at no greater than 1,000-foot intervals (for pipelines etc.) and at not less than 45-degree angles. Trenches shall be inspected for entrapped wildlife each morning prior to onset of project activities and immediately prior to the end of each working day. Before such holes or trenches are filled they shall be inspected thoroughly for entrapped animals. Any animals discovered shall be allowed to escape voluntarily without harassment before project activities related to the trench resume, or removed from the trench or hole by a qualified biologist and allowed to escape unimpeded.
19. All pipes, culverts, or similar structures stored at the proposed project sites overnight having a diameter of four (4) inches or greater shall be inspected thoroughly for wildlife species before being buried, capped, or otherwise used or moved in any way. Pipes laid in trenches overnight shall be capped. If during project implementation a wildlife species is discovered inside a pipe, that section of pipe shall not be moved or, if necessary, moved only once to remove it from the path of project activity, until the wildlife species has escaped.
20. All food-related trash items such as wrappers, cans, bottles or food scraps generated during project activities shall be disposed of only in closed containers and regularly removed from the proposed project site. Food items may attract wildlife species onto the proposed project site, consequently exposing such animals to increased risk of injury or mortality. No deliberate feeding of wildlife shall be allowed.
21. To prevent harassment or mortality of wildlife species via predation, or destruction of their dens or nests, no domestic pets shall be permitted on-site.

## **CONCLUSION**

Special-status species including San Joaquin kit fox and prairie falcon have been historically documented in the vicinity of the proposed project site. However, no special-status plant and/or animal species have been recorded within the boundaries of the proposed project site (CDFW 2014). The proposed project site was historically converted to an oil and gas well pad, and is actively managed for these uses. No small mammal burrows suitable for potential use by San Joaquin kit fox, American badger, Salinas pocket mice, San Joaquin whipsnake, western burrowing owls or other special-status species were observed within the boundaries of the proposed project site. Small mammal burrows were observed along the edge of the project site within the project buffer area. No burrows would be disturbed during any project activities. An intermittent stream

was observed 83 feet east of the existing project site within the buffer area. Since the proposed project site is already an existing well pad and access road, no impacts to streams, riparian areas, wetlands, vernal pools, or other sensitive habitats will result from the proposed project. The findings of our biological survey are consistent with those conducted by RAB Consulting during 2007 for the same project site and buffer area.

Since the proposed well site was constructed previously and is actively managed for oil and gas exploration and production activities, no impacts to sensitive plant or animal species are expected to occur as a result of project implementation. If the proposed avoidance and minimization measures recommended in this report are implemented for this project, impacts to sensitive and common wildlife species will be avoided.

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**APPENDIX A**  
**REPRESENTATIVE PHOTOGRAPHS**



**Photograph 1**  
View northwest of access road to existing well site.



**Photograph 2**  
View east from center of existing Bradley Minerals well site.



**Photograph 3**  
View south from center of existing Bradley Minerals well site.



**Photograph 4**  
View north from center of existing Bradley Minerals well site.



**Photograph 5**

View west from center of existing Bradley Minerals well site.