COUNTY OF SANTA BARBARA

Planning and Development

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Final Mitigated Negative Declaration

Hidden Canyon Test Well Production Plan January 2023

22PPP-00000-00001 / 23NGD-00004

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1.0 REQUEST/PROJECT DESCRIPTION

The Applicant, West Bay Exploration, is requesting approval of an Oil & Gas Drilling Production Plan (Case No 22PPP-00000-00001) to grade one new well pad, approximately 0.996 acres in size (140' x 310'), to drill one new test well for oil and gas exploration off of School House Canyon Road in New Cuyama, Santa Barbara County. The surface elevation of the site is 1,983.8 feet above mean sea level (AMSL) and the Target Depth of the formation is approximately 11,000 feet below ground level. No permanent facilities are proposed besides the single wellhead following drilling operations. If the drilling program is successful, the applicant will return with a new Production Plan request for the production phase. If the drilling program is not successful, the well will be abandoned.~~The project would be implemented in two phases; Well Drilling and Well Plugging and Abandonment.~~

Well Drilling. Preparation and grading of the drill site would take approximately 5 days to complete. During site preparation activities the proposed project site would be graded, watered and compacted to establish a level and solid foundation for the drilling rig. Topsoil would be stabilized. Material would be balanced onsite. Drilling of the Well would last ~~approximately~~ up to 24 days. This would include mobilization and demobilization of the drill rig and installation of blowout prevention equipment, cementing, mud-logging, etc. required for the drilling phase. Non-hazardous waste (primarily drilling mud and cuttings) would be a product of this phase and it would be transported to ~~E & P Waste~~McKittrick.

Equipment required for completion of Phase 1 includes, a drilling rig (Ensign 540 or equivalent): CARB PERP-registered diesel-powered ICE (3x1350 bhp, 1x 100 bhp) and five generators less than 50 bhp each for the site offices. Grading includes 4,521 cubic yards of cut and 5,482 cubic yards of fill to account for the 25% compaction factor for shrinkage over a 10% grade. Therefore 961 cubic yards would be imported.

Abandonment. If the test phase is not successful~~Once dug and tested~~, the well would be abandoned. No gas production is proposed as a part of the project. There are no permanent facilities proposed except for the single wellhead following successful drilling operations. All drilling, production and appurtenant equipment, including pipelines, designated for the exclusive use of the subject well shall be removed. One daily operator site visit would occur to ensure compliance with Code and well safety. Abandonment of the well shall comply with standards outlined in the Petroleum Code Section 25-31.

The site is accessed by School House Canyon Road is approximately 0.85 miles southwest of CA-SR 166 on APN 147-020-045 which is approximately 6,565 acres and zoned Ag-II-100. The road would not need improvements. During operational hours, site access would be controlled by staff on location. During non-operational hours, site access would be prohibited by the existing gates. The proposed well pad is approximately 0.75 miles west of Deadman Canyon. The site is 0.25 miles south of a currently active vineyard. The project is surrounded by a mixture of agricultural and natural habitats to the north, south, east, and west. Water would be ~~brought to the site for construction operations~~obtained from an onsite well. The project is located in the ~~Fifth~~ First Supervisorial District.

2.0 PROJECT LOCATION

The Site is located at 7400 Highway 166 in Cuyama, approximately 10 miles west of the town of New Cuyama within Section 35, Township 11N, Range 20E of the Santa Maria, California U.S. Geological Survey (USGS) topographic quadrangle (Figure 1). The project footprint is located over 1-acre of a 6,565-acre parcel zoned AG-II-100 and shown as Assessor Parcel Number (APN) 147-020-045, within the Fifth Supervisorial District. The work area is within the northeastern corner of the parcel, south of the North Fork Vineyard on School House Canyon Road. An existing dirt road would be utilized for the construction of the well and 0.996 acres of flat land would be used for the well pad.

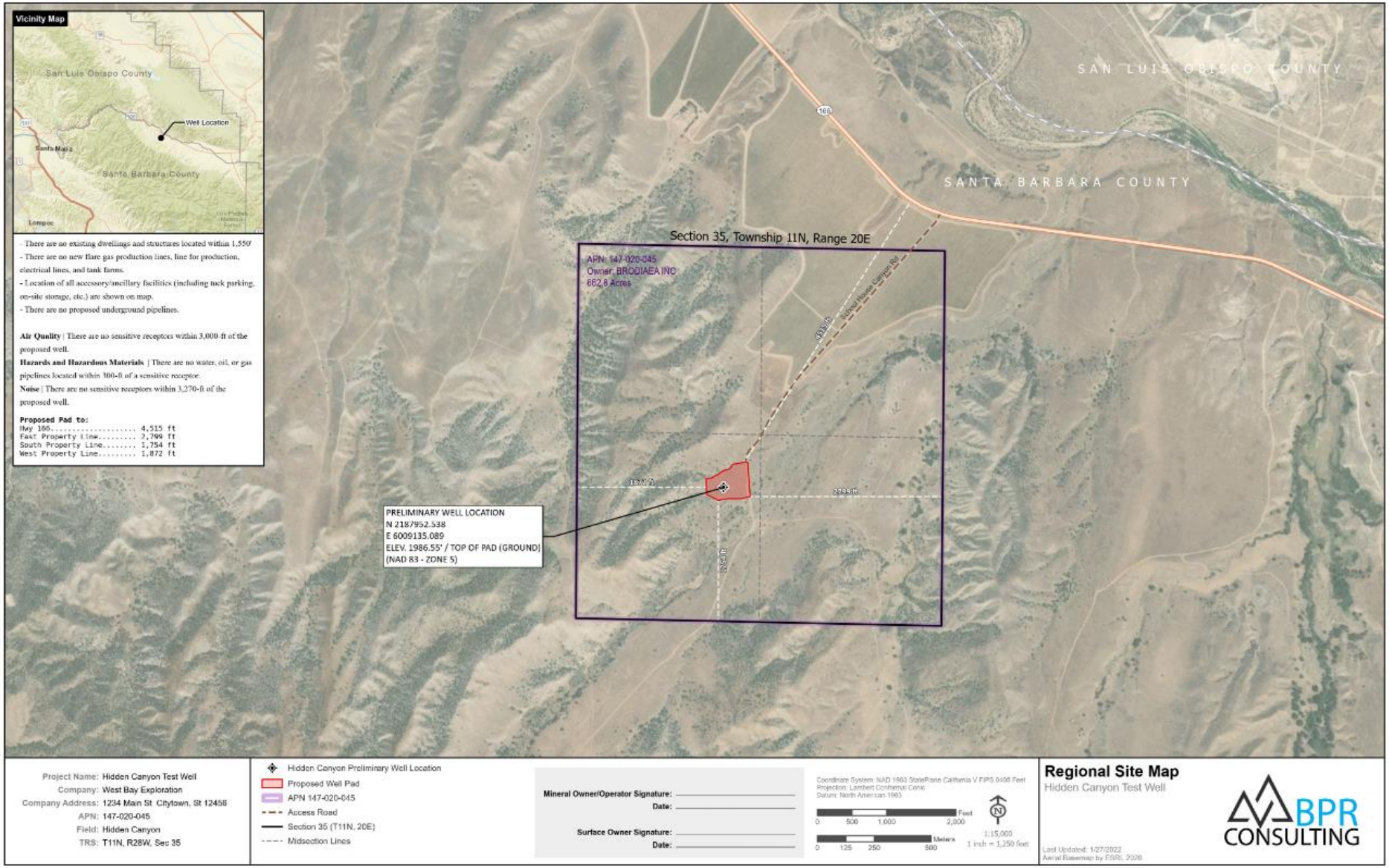


FIGURE 1. PROJECT SITE VICINITY MAP.

2.1 Site Information	
Comprehensive Plan Designation	Rural, Agriculture, AC
Zoning District, Ordinance	County Land Use and Development Code, AG-II-100, minimum lot size 100 acres
Site Size	6,565 acres
Present Use & Development	Residence, Agriculture/vineyards, Open Space, abandoned Oil Wells
Surrounding Uses/Zoning	North: AG-II-100 South: AG-II-100 East: AG-II-100 West: AG-II-100
Access	School House Canyon Road off of Highway 166
Public Services	Water Supply: Private onsite well Sewage: NA Fire: Santa Barbara County Fire District, Station 41 (New Cuyama) Other: Russel Ranch Oil Field

3.0 ENVIRONMENTAL SETTING

3.1 PHYSICAL SETTING

The project area is located in a rural setting of the New Cuyama Valley, approximately 10 miles west of the town of New Cuyama in northeastern Santa Barbara County. The area is characterized by flat lands utilized for agriculture surrounded by rolling hills cut by numerous ephemeral drainages and creeks. The Cuyama Riverbed runs in a general east–west direction on the north side of the project area and is the most prominent source of water in the immediate vicinity. Elevation within the project area is approximately 1,980 feet above mean sea level. Soils within the project area are characterized by light brown sandy silt with very few subangular shale gravels.

The existing 6,565-acre parcel currently supports vineyards and open rangeland. The subject parcel has historically been used for grazing and growing wine-grapes but due to the recent drought conditions in California, grazing has declined and most of the parcel is vacant and unused. 662-acres are designated as vineyard Ag use. The site currently consists of a single-family residence, vineyards, and grazing land. The Los Padres National Forest can be seen to the south and west and the Carrizo Plain National Monument is located approximately 2.5 miles north of the project site.

Active oil fields, and plugged and abandoned oil wells can be found throughout the Cuyama Valley Rural Area, including land designated as A-II and AC and zoned AG-II. All oil wells (abandoned, plugged, or active) are managed according to the requirements of the California Department of Conservation, Division of Geologic Energy Management Division~~Oil, Gas and Geothermal Resources~~ (~~DOGGR~~CalGEM). Two oil fields, Russell Ranch and South Cuyama, are located in the area.

3.2 ENVIRONMENTAL BASELINE

The environmental baseline from which the project's impacts are measured consists of the current physical environmental conditions in the vicinity of the project, as described above.

4.0 POTENTIALLY SIGNIFICANT EFFECTS CHECKLIST

The following checklist indicates the potential level of impact and is defined as follows:

Potentially Significant and Unavoidable Impact: A fair argument can be made, based on the substantial evidence in the file, that an effect may be significant.

Significant but Mitigable: Incorporation of mitigation measures has reduced an effect from a Potentially Significant Impact to an Insignificant Impact.

Insignificant Impact: An impact is considered adverse but does not trigger a significance threshold.

No Impact: There is adequate support that the referenced information sources show that the impact simply does not apply to the subject project.

Beneficial Impact: There is a beneficial effect on the environment resulting from the project.

Reviewed Under Previous Document: The analysis contained in a previously adopted/certified environmental document addresses this issue adequately for use in the current case and is summarized in the discussion below. The discussion should include reference to the previous documents, a citation of the page(s) where the information is found, and identification of mitigation measures incorporated from the previous documents.

4.1 AESTHETICS/VISUAL RESOURCES

Will the proposal result in:	Potent. Signif. and Unavoid.	Significant but Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
a. The obstruction of any scenic vista or view open to the public or the creation of an aesthetically offensive site open to public view?			X		
b. Change to the visual character of an area?			X		
c. Glare or night lighting which may affect adjoining areas?			X		
d. Visually incompatible structures?			X		

Current Setting. The Cuyama Valley Rural Area is bordered by the Caliente and Sierra Madre Mountain Ranges to the north and south, respectively. The rural site is characterized as generally flat, with a slightly concave valley floor, and varies from approximately 2,407 to 2,500 feet above mean sea level (msl). The land uses in the vicinity are all agricultural, commercial, recreational, mixed-use, open space, and transportation on AG-II inland areas. The majority of views within the site include the surrounding mountains, the onsite drainage, and the existing agriculture at the northern end of the site. SR-166 and SR-33 are major roadways that are within the Cuyama Valley Rural Area. While not an officially designated state scenic highway, the portion of SR-166 adjacent to the project site is listed as eligible for Scenic Route designation. The site is accessed from Hwy 166 and School House Road by driving approximately 1 mile on a dirt Ag road through a vineyard. The site is not visible from SR-166. Los Padres National ~~f~~Forest can be seen to the south and west, and the Carrizo Plain National Monument is located approximately 2.5 miles north of the project site.

County Environmental Thresholds. The County's Visual Aesthetics Impact Guidelines classify coastal and mountainous areas, the urban fringe, and travel corridors as "especially important" visual resources. A project may have the potential to create a significantly adverse aesthetic impact if (among other potential effects) it would impact important visual resources, obstruct public views, remove significant amounts of vegetation, substantially alter the natural character of the landscape, or involve extensive grading visible from public areas. The guidelines address public, not private views.

FIGURE 2. VIEW OF THE PROJECT SITE LOOKING NORTH. VEHICLES IN BACKGROUND ARE ON SCHOOL HOUSE CANYON ROAD. HIGHWAY 166 RUNS PARALLEL TO THE HORIZON. SITE IS FLAT AND UNVEGETATED BESIDES NON-NATIVE ANNUAL GRASSLANDS.

Impact Discussion:

(a - d). The proposed project is comprised of excavating approximately 4,521-cubic-yards of cut and 5,482-cubic-yards of fill to grade one new well pad, approximately 0.996-acres in size (140 feet x 310 feet), to drill one new test well for crude oil and gas exploration. ~~The project would be implemented in two phases; Well Drilling and Well Plugging/Abandonment.~~ The site is located 1 mile into a private parcel surrounded by hills, sporadic juniper trees, and existing agricultural development. No project components, including structures, equipment, land alterations or lighting, would be visible from any public highways, railroads, public and other open spaces, trails, beaches or other recreation areas because the location of the well site is deep within the private lot. Construction activities would not be visible from any public viewpoints due to the existing topography, rural nature of the site, and distance from public access points. A LPNF road traverses north/south along the western side of the subject parcel approximately 2.5-miles west of the test well site. No other public trails are located within view of the project site. The project would not result in any permanent structures or long term changes to the aesthetics of the project site besides the single wellhead following drilling operations. Once work on the wellhead is completed~~abandoned~~, all drilling, production and appurtenant equipment, including pipelines, designated for the exclusive use of the subject well ~~shall~~ would be removed. One daily operator site visit would occur to ensure compliance with Code and well safety. The pad area would remain as a flat unvegetated space, similar to the existing conditions (Figure 2).

The proposed project does not include the installation of any lighting fixtures~~. Construction activities would be limited to daytime hours between 7:00 a.m. and 4:00 p.m. (see Noise-02 Construction Hours in section 4.11)~~ and the Project does not adversely alter the character of the landscape or topography. The project would not affect neighboring areas with glare or night lighting. Trucking of equipment on and off of the property would be temporarily visible to neighboring properties, as discussed more in Section 4.14. Once grading activities are complete, the project site would look comparable as existing

conditions. The project would not affect neighboring areas with glare or night lighting. Therefore, the project would have *less than significant impacts* to aesthetics.

Cumulative Impacts. The implementation of the project is not anticipated to result in any substantial change in the aesthetic character of the area since no change to the aesthetics of the environment is proposed. Thus, the project would not cause a cumulatively considerable effect on aesthetics.

Mitigation and Residual Impact. No impacts are identified. No mitigations are necessary.

4.2 AGRICULTURAL RESOURCES

Will the proposal result in:	Poten. Signif. and Unavoid.	Significant but Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
a. Convert prime agricultural land to non-agricultural use, impair agricultural land productivity (whether prime or non-prime) or conflict with agricultural preserve programs?			X		
b. An effect upon any unique or other farmland of State or Local Importance?			X		

Existing Setting.

Background

Agricultural lands play a critical economic and environmental role in Santa Barbara County. Over 12,000 acres of irrigated and non-irrigated agriculture are found in the Cuyama Valley. Agriculture continues to be Santa Barbara County's major producing industry with a gross production value of over $1.6 billion (Santa Barbara County Agricultural Production Report, 2019). In addition to the creation of food, jobs, and economic value, farmland provides valuable open space and maintains the County's rural character.

Physical

The existing 6,565-acre parcel currently supports vineyards. The subject parcel has historically been used for grazing and growing wine-grapes. Due to the recent drought conditions in California, grazing has declined and most of the parcel is vacant and unused. Currently, 662-acres are designated as vineyard Ag use. The U.S. Department of Agriculture Natural Resources Conservation Service [NRCS] maps one soil type on the parcel, Pleasanton Sandy Loam (2 to 9 percent). This is a well-drained soil with moderately slow permeability, and slow to medium runoff. The soil is considered prime farmland if irrigated and is usually used for dry farmed grain and grain hay, wine grapes, fruits, row crops, etc. The soil on the flatter portions of the parcel are designated Prime soils while the soils on the interior of the parcel, on steeper slopes are not.

The subject parcel is within a Williamson Act Contract, No. 95-AP-024. Approved by the Board of Supervisors June 11, 1996, the Agricultural Preserve covers 7,860 acres (subject parcel and a parcel within San Luis Obispo County) and is owned by Wells Fargo Bank. The 'Wells Fargo Back Agricultural Preserve' became effective January 1, 1997 and devotes the encompassed land to agricultural uses and uses compatible with agriculture. Ag Contracts last 10 years. In 2007 and 2017 the Contract was reinstated. The proposed project attended the Agricultural Preserve Advisory Committee (APAC) on June 8, 2023 to determine if the development conforms with the limitations of the contract and the County Ag Preserve Uniform Rules (Attachment 4).

County Thresholds Manual

The County's Agricultural Resources Guidelines (approved by the Board of Supervisors, August 1993) provide a methodology for evaluating agricultural resources. These guidelines utilize a weighted point system to serve as a preliminary screening tool for determining significance. The tool assists planners in identifying whether a discretionary act would result in the conversion of a parcel which qualifies as viable using the weighting system, from an agricultural use to a non-agricultural use or the substantial disruption of surrounding agricultural operations. A project which would result in the loss or impairment of agricultural resources would create a potentially significant impact.

To qualify as agriculturally viable, the area of land in question need only be of sufficient size and/or productive capability to be economically attractive to an agricultural lessee. This productivity standard should take into consideration the cultural practices and leasehold production units in the area, as well as soil type and water availability.

Impact Discussion:

(a, b). The project would not have a significant impact given the limited size of the site and the larger size of the parcel as well as the historical use, water availability, and small size of the proposal. The project will temporarily take a limited area out of grazing land, and restore the site upon project completion. The agricultural land surrounding the project would remain viable after project implementation. No crops or agricultural development of any kind are currently located on the approximately one acre site where the well pad would be graded. Additionally, oil and gas drilling and production facilities are allowable uses within the Ag-II zone and are considered consistent with the Uniform Rules for AG Preserves and Farmland Security Zones. Often these facilities are developed within or adjacent to prime Ag land. The proposed Project was reviewed by the Agricultural Preserve Advisory Committee on June 8, 2023 and was found to be compatible with the Uniform Rules for agricultural preserves. Therefore, the Project would not conflict with the existing agricultural preserve contract onsite (95-AP-024), and its impacts to agricultural recourses would be *less than significant*.

Cumulative Impacts. The project has been found not to have a significant impact on agricultural resources. Therefore, the project's contribution to the regionally significant loss of agricultural resources is not considerable, and its cumulative effect on regional agriculture is insignificant.

Mitigation and Residual Impact. No impacts are identified. No mitigations are necessary.

4.3a AIR QUALITY

Will the proposal result in:	**Poten. Signif. and Unavoid.**	**Signif. But Mitigable**	**Insignif.**	**No Impact / Beneficial Impact**	**Reviewed Under Previous Document**
a. The violation of any ambient air quality standard, a substantial contribution to an existing or projected air quality violation, or exposure of sensitive receptors to substantial pollutant concentrations (emissions from direct, indirect, mobile and stationary sources)?		X			
b. The creation of objectionable smoke, ash or odors?			X		
c. Extensive dust generation?		X			

Setting. The project site is located within the South Central Coast air basin, a federal and state nonattainment area for ozone (O3) and a state non-attainment area for particulate matter (PM10). Reactive organic compounds (ROC) and nitrogen oxides (NOx), which are precursors to ozone, are considered to be non-attainment pollutants. The major sources of ozone precursor emissions in the County are motor vehicles, the petroleum industry and solvent use. Sources of PM10 include grading, road dust and vehicle exhaust.

Preparation and grading of the well pad would take approximately 5 days. During this time, the proposed project site would be graded, watered and compacted to establish a level and solid foundation for the drilling rig. Earthmoving activities for the project would not exceed a combined total disturbance of 5.0 acres per day nor involve movement, deposition, or relocation of more than 2,500 cubic yards per day of bulk materials on any three (3) or more days. Equipment required for grading would include a Rubber Tired Dozer, graders, a Tractor/Loader/Backhoe, the Bore/Drill Rig, a crane, and cement and mortar mixers.

The drilling phase for the proposed project would last a total of approximately 24 days. The drilling phase would consist of mobilization and demobilization of the drill rig and for drilling and various tasks associated with the drilling phase including installation of blowout prevention equipment, cementing, mud-logging, etc. Included in the drilling phase is the installation casing annulus and a well head with a production tree. Non-hazardous waste (primarily drilling mud and cuttings) would be a product of this phase and it would be transported to E & P Waste, but graded soils would be balanced onsite. Forklifts, Tractor/Loader/Backhoe, Welders, Generator Sets for the Main Rig Power, Instrumentation, and Trailers, blowout prevention equipment, and other General Construction Equipment would be used during construction and operation and are the sources of emissions for the project.

The worker, vendor and haul trips used a conservative estimate of 65 miles, which is the distance from Bakersfield to the project location.

County Environmental Threshold. Chapter 5 of the Santa Barbara County Environmental Thresholds and Guidelines Manual (as revised in July 2015) addresses the subject of air quality. The thresholds provide that a proposed project will not have a significant impact on air quality if operation of the project will:

- Emit (from all project sources, mobile and stationary), less than the daily trigger for offsets for any pollutant (currently 55 pounds per day for NOx and ROC, and 80 pounds per day for PM10);
- Emit less than 25 pounds per day of oxides of nitrogen (NOx) or reactive organic compounds (ROC) from motor vehicle trips only;
- Not cause or contribute to a violation of any California or National Ambient Air Quality Standard (except ozone);
- Not exceed the APCD health risk public notification thresholds adopted by the APCD Board; and
- Be consistent with the adopted federal and state Air Quality Plans.

No thresholds have been established for short-term impacts associated with construction activities. However, the County's Grading Ordinance requires standard dust control conditions for all projects involving grading activities. Long-term/operational emissions thresholds have been established to address mobile emissions (i.e., motor vehicle emissions) and stationary source emissions (i.e., stationary boilers, engines, and chemical or industrial processing operations that release pollutants).

Impact Discussion:

(a - c). Potential Air Quality Impacts. The scope of the project includes grading and compaction of the well pad~~,~~ and drilling the well ~~, and abandoning the well within~~ near the Russell Ranch crude oil production field. No production is proposed as part of the project. A vineyard is located approximately 0.25 miles north of the project site. The air emissions reviewed in the Air Quality Report (Attachment 5) include the criteria air pollutants (NOx, VOC, SOx, PM10 and CO). CalEEMod (version CalEEMod.2020.4.0)

was used to determine both the unmitigated and mitigated emissions for each construction phase and for the total project. Mitigation incorporated into the project description and analysis includes using Tier 4F equipment, watering exposed areas for dust control, and reducing vehicle speeds on unpaved roads.

Construction (short term) Emissions

PM10. Project-related grading activities would have the potential to cause short-term fugitive dust that could have the potential to impact nearby agricultural activities. Project related grading would also contribute to regional emissions of PM10 and PM2.5. Dust emissions resulting from project-related construction would be reduced to the extent feasible through the implementation of County Grading Ordinance and the Air Pollution Control District requirements, which require the implementation of standard dust control measures. Based on existing investigation data, project-related grading to flatten and compact the well pad and dig the well head would require 4,521 Cubic yards (Cy) of cut and 5,482 Cy of fill to account for the 25% compaction factor for shrinkage over a 10% grade, importing 961 Cy of soil. Although no quantitative threshold has been established for short-term, construction related PM10 (which is 50 percent of total dust), dust mitigation measures are required for all discretionary construction activities. County APCD reviewed the project description and provided recommended additional standard dust mitigation measures, in a letter dated June 1, 2023 (Attachment 6). With the incorporation of these dust measures, short-term dust emissions from project related grading would be less than significant. The project would not be a substantial long-term source of dust emissions.

NOX/ROC. Short-term thresholds for NOx and ROC emissions from construction equipment have not been established in the County, however, would primarily result from the use of earthmoving equipment. Per the Santa Barbara County Environmental Thresholds and Guidelines Manual Published January 2021, emissions of NOx from construction equipment in the County are estimated at 1,000 tons per year of NOx. When compared to the total NOx emission inventory for the County, construction emissions from all projects Countywide comprise approximately six percent of the county-wide emission inventory for NOx. In general, this amount is not considered significant. However, due to the non-attainment status of the air basin for ozone, contractors are required to adhere to diesel particulate and NOx emission reduction measures as required by County Planning, and outlined in Attachment 6 (APCD's condition letter), to reduce construction-related emissions of ozone precursors to the extent feasible. Compliance with these measures is routinely required for all new development in the County.

Potential gas releases during the drilling phase are prevented with drilling fluid. The density and rheological properties of the drilling fluid are engineered to prevent gas migration from the formation while the well is being drilled. The hydrostatic pressure of the drilling fluid column is greater than the reservoir pressure, thus preventing flow of gas and liquids from the formation to the borehole. Additionally, the rheological properties of the drilling fluid are engineered such that formation gas cannot be easily dissolved into solution. Minute amounts of gas are carried out of the well with the drill cuttings ("cuttings gas") and break-out at surface. These small releases are virtually immeasurable from a volumetric perspective but are continuously monitored with a chromatograph for changes that could indicate gas influx to the wellbore. H2S monitors would be installed in several key locations on the rig and drill site and H2S scavenger material is kept on site while drilling and added to the drilling fluid if necessary to mitigate H2S release and/exposure. The operational vehicles emissions are less than 25 pounds per day of NOx or ROC from motor vehicle trips only and are not significant.

Operation (long term) Emission

The well head would remain after construction activities are complete. The operational phase includes fugitive components from the inactive well head and one daily operator site visit. The emission factor for the well is 6.6409 lbs/day of ROG as a worst-case value, per CARB/KVB Method (Version 6.0). The worker VMT used a conservative estimate of 65 miles, which is the distance from Bakersfield to the project location (Section 4.13, Transportation/Circulation).

The County APCD will be permitting the well head as a new stationary source. The project would not result in significant new vehicle emissions (i.e., new vehicular trips to or from the site would be fewer than 100). ~~It would not involve new stationary sources (i.e., equipment, machinery, hazardous materials storage, industrial or chemical processing, etc.) that would increase the amount of pollutants released into the atmosphere.~~ The project would also not generate additional smoke, ash, odors, or long term dust after construction. The project's contribution to global warming from the generation of greenhouse gases would be negligible.

Per the Air Quality Impact Report, Table 2 below provides the operational emissions. The operational emissions of Criteria Air Pollutants from all project sources, both stationary and mobile, are less than the daily trigger for offsets or Air Quality Impact Analysis set in the APCD New Source Review Rule, for any pollutant and are not significant.

Table 2: Total Project Criteria Air Pollutants - Operational

Project Total Criteria Air Pollutants - Mitigated					
	ROG	NOx	PM10	PM2.5	CO
	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr
Operational (tons/yr)	1.2068	0.0052	0.166	0.0179	0.0336
Operational (lbs/day)	6.6126	0.0285	0.0909	0.0981	0.1841
Offset Thresholds (lb/day)	55	55	80	NA	NA
Significant?	No	No	No	No	No

The operational emissions of Criteria Air Pollutants from all project sources, are less than the daily trigger for offsets for any pollutant. With implementation of standard County Air Quality conditions specified in Air-01 and the additional standard dust mitigation measures, included as Attachment 6, the project's air emissions would not be substantial. Therefore, the project would have a *less than significant impact with mitigation* on air emissions.

Cumulative Impacts. The County's Environmental Thresholds were developed, in part, to define the point at which a project's contribution to a regionally significant impact constitutes a significant effect at the project level. In this instance, the project has been found not to exceed the significance criteria for air quality. Therefore, the project's contribution to regionally significant air pollutant emissions is not cumulatively considerable, and its cumulative effect is insignificant.

Mitigation and Residual Impact. The following mitigation measures would reduce the project's air quality impacts to an insignificant level:

Air-01 Dust Control. The Owner/Applicant shall comply with the following dust control components at all times including weekends and holidays:

a. Dust generated by the development activities shall be kept to a minimum with a goal of retaining dust on the site.

b. During clearing, grading, earth moving, excavation, or transportation of cut or fill materials, use water trucks or sprinkler systems to prevent dust from leaving the site and to create a crust after each day's activities cease.

c. During construction, use water trucks or sprinkler systems to keep all areas of vehicle movement damp enough to prevent dust from leaving the site.

d. Wet down the construction area after work is completed for the day and whenever wind exceeds 15 mph.

e. When wind exceeds 15 mph, have site watered at least once each day including weekends and/or holidays.

f. Order increased watering as necessary to prevent transport of dust off-site.

g. Cover soil stockpiled for more than two days or treat with soil binders to prevent dust generation. Reapply as needed.

h. If the site is graded and left undeveloped for over four weeks, the Owner/Applicant shall immediately: (i) Seed and water to re-vegetate graded areas; and/or (ii) Spread soil binders; and/or; (iii) Employ any other method(s) deemed appropriate by P&D or APCD.

PLAN REQUIREMENTS: These dust control requirements shall be noted on all grading and building plans. **PRE-CONSTRUCTION REQUIREMENTS**: The contractor or builder shall provide P&D monitoring staff and APCD with the name and contact information for an assigned onsite dust control monitor(s) who has the responsibility to:

a. Assure all dust control requirements are complied with including those covering weekends and holidays.

b. Order increased watering as necessary to prevent transport of dust offsite.

c. Attend the pre-construction meeting.

TIMING: The dust monitor shall be designated prior to grading permit issuance. The dust control components apply from the beginning of any grading or construction throughout all development activities until Final Building Inspection Clearance is issued. **MONITORING**: P&D processing planner shall ensure measures are on plans. P&D grading and building inspectors shall spot check; Grading and Building shall ensure compliance onsite. APCD inspectors shall respond to nuisance complaints.

Implementation of standard conditions placed on the grading plan as implemented through Chapter 14 (Grading Ordinance) of the County Code, along with standard APCD conditions would reduce potential short-term dust impacts to a less than significant level. The project would not result in significant project-specific long-term air quality impacts. See Attachment 6.

4.3b AIR QUALITY - GREENHOUSE GAS EMISSIONS

Greenhouse Gas Emissions - Will the project:	**Poten. Signif. and Unavoid.**	**Signif. But Mitigable**	**Insignif.**	**No Impact / Beneficial Impact**	**Reviewed Under Previous Document**
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X		
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X		

Existing Setting: Greenhouse gases include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF_6) and nitrogen trifluoride (NF_3). According to the County of Santa Barbara's *Energy and Climate Action Plan* (ECAP) (County of Santa Barbara Long Range Planning Division, 2015), these gases are released as byproducts of fossil fuel

combustion, waste disposal, energy use, land use changes, and other human activities. This release of gases creates a blanket around the earth that allows light to pass through but traps heat at the surface, preventing its escape into space. While this is a naturally occurring process known as "the greenhouse effect," there is strong evidence to support that human activities have accelerated the generation of greenhouse gases beyond natural levels. The overabundance of greenhouse gases in the atmosphere has led to a warming of the earth and has the potential to severely impact the earth's climate system. For instance, according to the California Energy Commission, Santa Barbara County is projected to experience an increase in the number of wildfires, land vulnerable to 100-year flood events, and temperature increases, even under a low-emissions scenario.

Climate change under CEQA differs from most other types of impacts in that, by definition, it is only examined as a cumulative impact that results not from any one project's GHG emissions, but rather from GHG emissions *"… generated globally over many decades by a vast number of different sources."*[1] Therefore, analysis of a project's GHG emissions under CEQA focuses solely on the incremental contribution of estimated project emissions to climate change. A CEQA lead agency may determine that a project's incremental contribution to an existing cumulatively significant issue, such as climate change, is not significant based on supporting facts and analysis (§15130(a)(2)). CEQA Guidelines direct that a project's contribution to a significant cumulative impact will be rendered less than significant if the project is required to implement or fund its fair share of a mitigation measure designed to alleviate the cumulative impact (§15130(a)(3)). Such determinations must be based on analysis in the environmental document with substantial evidence to demonstrate that mitigation required of a project represents the project's "fair-share" contribution towards alleviating the cumulative impact.

Environmental Threshold: All industrial stationary-source projects shall be subject to a numeric, bright-line threshold of 1,000 $MTCO_2e$/year to determine if greenhouse gas emissions constitute a significant cumulative impact. Annual GHG emissions that are equivalent to or exceed the threshold are determined to have a significant cumulative impact on global climate change unless mitigated. For the purpose of addressing the potential for unmitigated incremental growth, the combined GHG emissions from one or more previous discretionary permit project approvals after adoption of this threshold will be considered in the environmental review of all subsequent discretionary permit applications that, as determined by the County, constitute separate parts or phases of the previously approved projects, including but not limited to:

- Any series of oil and gas production projects under common ownership or control, including related processing and transport operations that are located within the same State-designated oil field, or represent an expansion of any State-designated oil field.
- Any series of surface mining projects under common ownership or control, including related processing and transport operations, that are located within the same individually designated Surface Mining and Reclamation Act (SMARA) operation, or represent an expansion of any individually designated SMARA operation.

Relation to County Energy and Climate Action Plan

This threshold for industrial stationary-source projects represents one of several cohesive efforts undertaken by Santa Barbara County to reduce GHG emissions. Those efforts include the Energy and Climate Action Plan (ECAP), which seeks to reduce countywide emissions by 15 percent below the 2007

[1] Kostka, Stephen I. and Michael H. Ziechke, *Practice Under California Environmental Quality Act,* Second Edition, Volume 2, (Oakland, CA: 2013, Continuing Education of the BAR, §20.83; California Natural Resources Agency, *Notice of Public Hearings and Notice of {Proposed Amendment of Regulation Implementing the California Environmental Quality Act,* 2009; Hegerl, GC. *et. al,* "Chapter 9: Understanding and Attributing Climate Change," *Climate Change 2007: The Physical Basis,* Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel of Climate Change (Cambridge: Cambridge University Press, 2007.

baseline emissions inventory by the year 2020. The ECAP constitutes a local GHG reduction plan that, pursuant to CEQA Guidelines §15183.5(b), allows a CEQA lead agency to determine whether a future project's incremental contribution to the cumulative effect of climate is significant or not, based upon compliance with requirements of the reduction plan.

This threshold and the ECAP are intended to complement one another during implementation. Permit approval of future industrial stationary source projects would need to demonstrate compliance with the reduction measures of the ECAP that may be applicable to the project, as well as mitigation measures to achieve reductions of emissions to a level below the recommended threshold of significance where feasible. Quantifiable measures to reduce a project's GHG emissions in compliance with the ECAP may also count towards GHG reductions under this threshold.

Applicability

- The threshold applies to the following greenhouse gases, per the California Health and Safety Code §38505(g), and any other gas that the California Air Resources Board recognizes as a greenhouse gas in the future: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), sulfur hexafluoride (SF6), nitrogen trifluoride (NF3). The County recognizes that environmental documents will primarily focus on the first three chemicals, because the latter four are unlikely candidates to be associated with projects subject to this threshold.
- The threshold applies to industrial stationary sources subject to discretionary approvals by the County, where the County is the CEQA lead agency. The County encourages other CEQA lead agencies and NEPA lead agencies to use this threshold, where the County is a CEQA responsible agency for a project.
- The threshold applies to both direct and indirect emissions of greenhouse gases, where protocols to support calculation of such emissions are available.
    - Direct emissions encompass the project's complete operations, including greenhouse gases emitted from a location within California from all stationary and mobile sources, involved in the operation, including off-road equipment, as well as removal of trees and other vegetation.
    - Indirect emissions encompass greenhouse gases that are emitted:
        - To provide the project with electricity, including generation and transmission;
        - To supply the project with water, including water treatment;
        - To transport and treat solid and liquid waste produced from the project's operations and water to the project's operations and the emissions to transport and process solid.
- Construction-related emissions are to be accounted for in the year that they occur.
- The threshold does not apply to greenhouse gases that are emitted throughout the life cycle of products that a project may produce or consume, except as identified above as a project's indirect emissions.
- The threshold does not apply to residential or commercial development.

Quantification of Greenhouse Gas Emissions

- The environmental document shall first quantify and disclose a project's greenhouse gas emissions by individual greenhouse gas and then convert the project's emissions to metric tonnes

of carbon dioxide equivalent per year (MTCO2e/year), based on the global warming potential of each gas.

- Renewable energy projects, such as solar and wind projects, may be credited for greenhouse gas emissions that would otherwise be emitted by natural gas-fueled electrical generation, based on consistency with California greenhouse gas reduction strategies to increase statewide reliance on renewable energy.

Projects found to result in a significant cumulative impact would be required to reduce their greenhouse gas emissions to the applicable threshold, where feasible, through onsite reductions and/or offsite reduction programs approved by the County.

Impact Discussion:

(a). Generate GHG Emissions. Climate change impacts do not discernably result from any one project's greenhouse gas emissions. However, the project's incremental contribution of greenhouse gas emissions combined with all other sources of greenhouse gases, when taken together, may have a significant impact on global climate change. Construction emissions for the site preparation and drilling, and operational emissions for after plugging and abandoning the well were determined using the latest version of the CalEEMod1 model criterion (version CalEEMod.2020.4.0). Analysis of the project concludes that total annual greenhouse gas emissions for the project would be approximately 991 $MTCO_2e$/year. Table 3 below shows the complete greenhouse gas calculations for the project. ~~Mitigation incorporated into the project description and analysis includes using Tier 4F equipment, watering exposed areas for dust control, and reducing vehicle speeds on unpaved roads.~~

Table 3: Total Project GHG Emissions - Operational

Project Total GHG Emissions - Mitigated				
	CO2	CH4	N2O	Total GHG
Construction Emissions (MT/yr)	983.5411	0.0377	0.00302	983.5818
Operational Emissions (MT/yr)	7.0335	0.0033	0.0031	7.0399
Total (MT/yr)	990.5746	0.041	0.00612	990.6217
Offset Thresholds Operational (MT/yr)				1,000
Significant?				No

The limited nature and duration of construction activities would not generate considerable greenhouse gas emissions. Once constructed, the project would only require 1 daily vehicular trip (estimated at 65 miles, which is the distance from Bakersfield to the project location) which would generate emissions GHG emissions. The project would not exceed the County's Screening Threshold of 1,000 MTCO2e/year for industrial stationary source projects, and the impact would be *less than significant*.

(b). Conflict with an applicable regulations. The project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Cumulative Impacts. The proposed project's total greenhouse gas emissions would be less than the applicable threshold. Therefore, the project's incremental contribution to a cumulative effect is not cumulatively considerable and the project's greenhouse gas emissions would not have a significant impact on the environment.

Mitigation and Residual Impact. Since the proposed project would not have a significant impact on the environment, no additional mitigation is necessary. Therefore, residual impacts would be less than significant.

4.4 BIOLOGICAL RESOURCES

Will the proposal result in:	Poten. Signif. and Unavoid.	Signif. But Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
Flora					
a. A loss or disturbance to a unique, rare or threatened plant community?		X			
b. A reduction in the numbers or restriction in the range of any unique, rare or threatened species of plants?			X		
c. A reduction in the extent, diversity, or quality of native vegetation (including brush removal for fire prevention and flood control improvements)?			X		
d. An impact on non-native vegetation whether naturalized or horticultural if of habitat value?			X		
e. The loss of healthy native specimen trees?			X		
f. Introduction of herbicides, pesticides, animal life, human habitation, non-native plants or other factors that would change or hamper the existing habitat?			X		
Fauna					
g. A reduction in the numbers, a restriction in the range, or an impact to the critical habitat of any unique, rare, threatened or endangered species of animals?		X			
h. A reduction in the diversity or numbers of animals onsite (including mammals, birds, reptiles, amphibians, fish or invertebrates)?		X			
i. A deterioration of existing fish or wildlife habitat (for foraging, breeding, roosting, nesting, etc.)?			X		
j. Introduction of barriers to movement of any resident or migratory fish or wildlife species?			X		
k. Introduction of any factors (light, fencing, noise, human presence and/or domestic animals) which could hinder the normal activities of wildlife?			X		

Existing Plant and Animal Communities/Conditions. Santa Barbara County's Environmental Thresholds and Guidelines Manual (2008) includes guidelines for the assessment of biological resource impacts.

Background and Methods:

Santa Barbara County has a wide diversity of habitat types, including chaparral, oak woodlands, wetlands and beach dunes. The project area is located in a rural setting of the New Cuyama Valley, approximately 10 miles west of the town of New Cuyama in northeastern Santa Barbara County. The area is characterized by flat lands utilized for agriculture surrounded by rolling hills cut by numerous perennial and ephemeral drainages and creeks. The Cuyama Riverbed runs in a general east–west direction on the north side of the project area and is the most prominent source of water in the immediate vicinity. Elevation within the project area is approximately 1,980 feet above mean sea level.

The topography on the site is very gently sloping with a northeast aspect. The parcel contains Pleasanton sandy loam, a well-drained soil with moderately slow permeability, and slow to medium runoff but is not

listed as a hydric soil (NRCS 2018). The soil is usually used for dry farmed grain and grain hay, wine grapes, fruits, row crops, etc. Vegetation in Pleasanton sandy loam is generally annual grasses and forbes with scattered oaks. The project site is entirely comprised of annual grassland species. The project site has been subject to agricultural practices in the past, as it is evident by existing irrigation line fixtures in the ground, and evidence of historic clearing activities.

For this project, SWCA conducted a reconnaissance level survey along with Ben Ruiz of BPR Consulting, Inc. on February 12, 2021 and a Biological Constraints Analysis, prepared in March 2021 (Attachment 7). Although the parcel is 6,565-acres, the biological survey covered the 6 acres surrounding the area of disturbance. A Blunt-nosed Leopard Lizard Protocol Survey was also prepared by BPR Consulting, dated December 3, 2021 (Attachment 8). The approximately 6-acre study area was surveyed by BPR Consulting biologists following the California Department of Fish and Wildlife's October 2019 survey methodology for BNLL. Seventeen (17) surveys were conducted from May 20 to September 15, 2021, and approximately 17 person-hours of survey effort were expended during these surveys. A Botanical Inventory Report (Attachment 8) was also conducted by Stephanie Hines, Botanist for BPR Consulting on March 7, 2021 and May 10, 2021. The following analysis is based on the information from those reports.

Flora:

The property is not located within or adjacent to any designated Critical Habitat units. Non-native annual grasslands corresponding to the Bromus rubens - Schismus (arabicus, barbatus) Semi-Natural Alliance as described in the Manual of California Vegetation is the dominant vegetation community observed throughout the Study Area. Ruderal or disturbed areas within the project area were present on and along the roadway and areas highly disturbed by cattle. These areas exhibited disturbed and compacted soils and were either unvegetated or contained patchy occurrences of non-native weedy plants. Ruderal/disturbed conditions are common along roadsides and other areas that have been significantly altered by construction or agriculture.

Based on the CNDDB, and USFWS IPaC records searches; literature review; and SWCA's knowledge of the area, eight special-status plant species were identified and evaluated for potential occurrence on the property (Figure 3). Per the botanical survey, the most likely species to occur within the area included Blakley's spineflower (Chorizanthe blakleyi), and Kern mallow (Eremalche parryi ssp. kernensis). Blakely's spineflower typically blooms between April and June. This species was identified along School House Road prior to the botanical survey for the project site. As for Kern mallow, this species typically blooms between March and May. This species had been identified at a separate project location two weeks prior. For the proposed drilling project, the entire project area and 100-foot buffer was surveyed with 100% visual coverage by walking parallel transects. No special-status plant species were observed on the property.

Although the site does not contain natural plant communities considered rare by the California Dept. of Fish and Game, California juniper woodland can be found throughout the gentle sloping foothills surrounding the project site. Individual juniper shrubs are scattered in numerous areas surrounding the proposed project area but were not at cover values great enough to be considered a stand. This community has State and Global rarity status ranks of S4 and G4, respectively, and are "Apparently Secure" with fairly low risk of extinction or elimination.

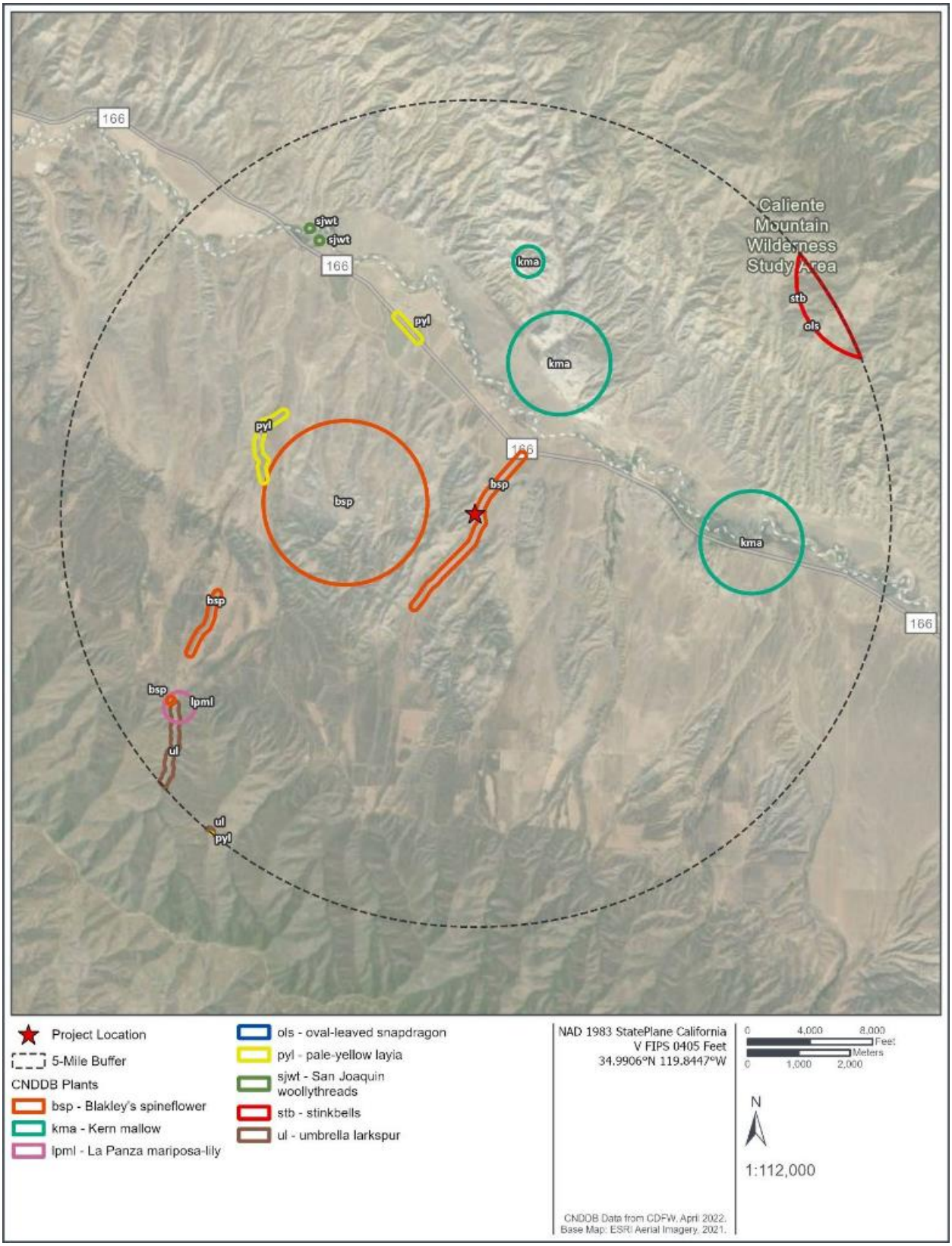


FIGURE 3. CNDDB SPECIAL STATUS PLANT SPECIES WITHIN THE PROJECT VICINITY.

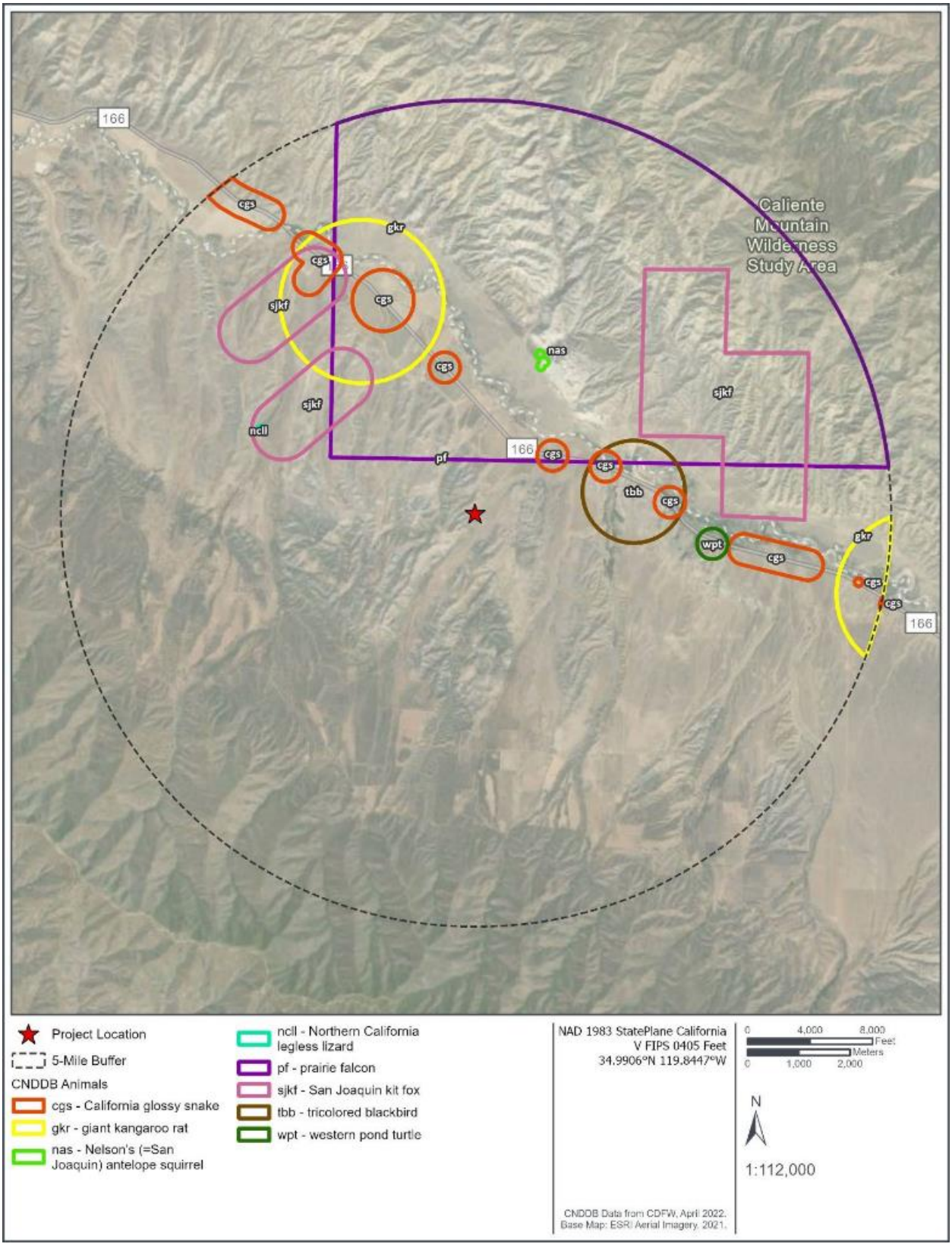


FIGURE 4. CNDDB SPECIAL STATUS ANIMAL SPECIES WITHIN 5 MILES OF THE PROJECT VICINITY.

Fauna:

The literature review identified eight special-status wildlife species that have known occurrences in the queried five-mile radius from the project site; California glossy snake, giant kangaroo rat, Nelson's antelope squirrel, Northern California legless lizard, prairie falcon, San Joaquin kit fox, tricolored blackbird, and the western pond turtle (Figure 4). During the onsite surveys, these special status species were not found. Instead, Botta's pocket gopher (Thomomys bottae) and California ground squirrel (Spermophilus beecheyii), were present on the site, and, along with California mouse (Peromyscus californicus), it was determined the site could serve as a prey base for predator animals, including snakes, raptors, American badger (Taxidea taxus), and coyote (Canis latrans). Numerous invertebrate species which could provide a food source for lizards, birds and small mammals are typically found within grassland communities. A variety of birds rely on open expanses of grasslands for foraging habitat, and several species nest in grasslands. Bird species expected to occur include, mourning dove (Zenaida macroura), horned lark (Eremophila alpestris), and various species of sparrow (Emberizids). Numerous raptor species utilize grassland habitats for foraging also.

In addition, blunt-nosed leopard lizard, a fully protected species, has been known to occur within suitable habitat near the community of Cuyama to the east of the project site. A formal protocol level survey was prepared to determine presence/absence of the blunt-nosed leopard lizard within the project site and surrounding 100-foot buffer (Figure 5). Per the Blunt-nosed Leopard Lizard Protocol Survey report, the most recent occurrence, from 2007, is located over 9 miles to the northwest of the survey area, west of New Cuyama at a lower elevation and the nearest occurrence to the survey area is from 1979 and is associated with the scattered shrub habitats along the Cuyama River wash. Per the approved protocol, a known voucher site located within the Carrizo Plain National Monument was visited in May 2021 and again in mid-July 2021 to confirm blunt-nosed leopard lizard were active. Blunt-nosed leopard lizard was observed during both voucher site visits. However, no BNLL were observed during the seventeen (17) protocol surveys conducted over the survey area. The only lizard species observed during the surveys consisted of side-blotched lizards (Uta stansburiana) and four Blainville's Horned Lizard (Phrynosoma blainvillii). –Blainville's Horned Lizard is designated as a California Species of Special Concern.

FIGURE 5. BLUNT-NOSED LEOPARD LIZARD SURVEY AREA.

Jurisdictional Waters:

There are no wetland or non-wetland "other waters" features within the project area that could be jurisdictional under the federal Clean Water Act (CWA). Likewise, the project area does not support any lakes, streams, swales, or other type of water bodies that would be considered state jurisdiction under Section 1600 of the California Fish and Game Code (CFGC) or under the Porter Cologne Water Quality Act. The nearest known jurisdictional feature is the main stem of Deadman Canyon, an ephemeral watercourse, which conveys water to the Cuyama River to the north (Figure 8 in Section 4.15 Water Resources).

Impact Discussion:

(a - f). The project would not result in the loss of any rare plant communities or special status plant species. The property is not located within or adjacent to any designated Critical Habitat units. California juniper woodland can be found throughout the gentle sloping foothills surrounding the project site, however would not be impacted by the construction of the proposed exploration well. Approximately 1 acre of non-native annual grasslands would be removed in grading for the well pad. No trees would be removed and there are no jurisdictional wetlands on the parcel. No special-status plant species were observed on the property; however, the botanical survey was conducted outside the typical blooming period for some species with the potential to occur. Therefore, a botanical survey shall be conducted prior to ground disturbing activates (BIO-01). With the preconstruction survey, the project would have a *less than significant impact* on onsite vegetation.

(g, h). Although the literature review identified eight special-status wildlife species as having known occurrences in the five-mile radius from the project site, these species are not expected to occur within the project study area based on the lack of suitable habitat (e.g., dens, aquatic habitat, sandy soils, etc.), or lack of evidence that the species has utilized the project site in the past (e.g., giant kangaroo rat burrows, scat, tracks, whitewash, etc.). The literature review also identified the blunt-nosed leopard lizard, a fully protected species, as having been known to occur within suitable habitat near the community of Cuyama to the east of the project site. However, no BNLL were found during any of the seventeen (17) BNLL protocol surveys conducted by BPR biologists. Habitats and conditions observed on site lacked necessary traits to support the habitat for blunt-nosed leopard lizards. BNLL prefer habitats with a shrub component and generally have home ranges that have a positive association with shrubs such as saltbush and Ephedra. However, the survey area is nearly void of shrubs other than a few scattered Atriplex shrubs. There is also a lack of burrow density within the impact area. Therefore, impacts to BNLL are not expected to occur from the proposed project. Four Blainville's horned lizards, also known as coast horned lizards, were found during onsite surveys. Blainville's horned lizards are designated as a California Species of Special Concern (SSC). Therefore, to ensure SSC are protected during construction activities, a biological monitor will be present during initial ground disturbing activities (BIO-05). Additionally, if any SSC are harmed during project activities, project activites shall cease and a formal report shall be sent to CDFW, describing the date, time of the finding or incident. Project construction may only continue once the proper notifications have been made and the notified agencies provide approval for continuing work (BIO-06).

The issuance of this permit does not relieve the permit-holder of any duties, obligations, or responsibilities under the federal or California Endangered Species Act or any other law and the applicant must receive approval from those agencies. All necessary approvals from State and Federal Agencies would need to be obtained prior to Land Use Permit approval (BIO-02 & BIO-03). The project site does have the potential to support habitat for nesting migratory bird species. Due to the potential for nesting migratory birds within, or directly adjacent to, the project site, if construction activities are scheduled to occur during the nesting season (February 15 through September 15), a pre-construction nesting bird survey shall be conducted by a qualified biologist throughout all areas of potentially suitable

and accessible habitats within 250 feet of any proposed construction activities (BIO-04). Therefore, impacts to special status wildlife species would be *less than significant with mitigation*.

(j, k). The general area is not known to be an important wildlife corridor or provide linkage between known important disjunct wildlife habitats, but seasonal drainages such as Deadman Canyon Creek do provide migration and movement corridor habitat to a variety of wildlife. The proposed project site is small (approximately 1-acre) and located on a subject parcel that is surrounded by large undeveloped areas of widely varying terrain, and wildlife would be able to continue to move freely in the vicinity of the cultivation sites. The project would not introduce permanent light fixtures. Once target depth is reached and all data is collected, the well would be tested. ~~abandoned~~ If the drilling program is successful, the applicant will return with a new Production Plan request for the production phase. If the drilling program is not successful, the well will be abandoned. The project ~~and~~ would not result in long-term disruptions to the surrounding environment. Therefore, impacts are *less than significant*.

Cumulative Impacts. Since the project would not significantly impact biological resources onsite, it would not have a cumulatively considerable effect on the County's biological resources.

Mitigation and Residual Impact. The following mitigation measures would reduce the project's biological resource impacts to an insignificant level:

BIO-01. Pre-Construction Surveys. As proposed by the Applicant: A follow up botanical survey for special-status plant species shall be conducted the directly ~~prior~~ within 7 days of initial~~to~~ ground disturbingance activities. ~~A qualified botanist shall conduct botanical surveys during the appropriate flowering period for these species.~~ Should these or other special-status plant species be identified within or adjacent to work sites, avoid to the greatest extent feasible, as recommended by the retained botanist. If avoidance is not feasible, the Project Revegetation Plan would incorporate transplanting seeds or cuttings from impact areas to suitable habitat if necessary. PLAN **REQUIREMENTS**: This condition shall be printed on project site and building plans. **TIMING**: A pre-activity survey shall be conducted by a P&D-qualified biologist within a week of the commencement of work. **MONITORING**: A pre-activity survey report shall be submitted to P&D prior to the initiation of ground-disturbing activities.

BIO-02 Fish and Wildlife Jurisdiction Advisory. The project site is within the range of the blunt-nosed leopard lizard, a species listed as Endangered by the U.S. Fish and Wildlife Service. Based upon a report prepared by BRM, dated December 3, 2021, it has been determined that the probability for blunt-nosed leopard lizard occurrence on the site is low. The issuance of this permit does not relieve the permit-holder of any duties, obligations, or responsibilities under the federal or California Endangered Species Act or any other law. The permit-holder shall contact the necessary jurisdictional agencies to ascertain his or her level of risk under the federal and California Endangered Species Act in implementing the project herein permitted.

Indemnity for Violation of the Endangered Species Act: The applicant shall defend, indemnify and hold harmless the County or its agents, officers and employees from any and all claims, actions, proceedings, demands, damages, costs, expenses (including attorneys fees), judgments or liabilities, against the County or its agents, offices or employees brought by any entity or person for any and all actions or omissions of the applicant or his agents, employees or other independent contractors arising out of this permit alleged to be in violation of the federal or California Endangered Species Acts (16 USC Sec. 1531 et seq.; Cal. Fish and Game Code Sec. 2050 et sec.). This permit does not authorize, approved or otherwise support a "take" of any listed species as defined under the federal or California Endangered Species Acts. Applicant shall notify County immediately of any potential violation of the federal and/or California Endangered Species Act.

~~**BIO-03 Threatened and Endangered Species Approvals**. The permittee shall obtain all necessary approvals from the California Department of Fish and Wildlife, the U.S. Fish and Wildlife Service,~~

~~and/or National Marine Fisheries Service, including an Incidental Take Permit and/or Habitat Conservation Plan for the blunt-nosed leopard lizard, if required, prior to Land Use Permit issuance. **TIMING** Permittee shall provide to P&D copies of approvals obtained from CDFW, FWS and/or NMFS prior to issuance of Land Use Permit. **MONITORING:** Permittee shall provide to P&D copies of approvals from CDFW, FWS and/or NMFS. P&D staff shall confirm receipt of any necessary approvals prior to issuance of the Land Use Permit.~~

BIO-04 Nesting Bird Surveys. To avoid disturbance of nesting birds, including raptorial species, protected by the Federal Migratory Bird Treaty Act (MBTA) and Sections 3503, 3503.5, and 3513 of the California Fish and Game Code (CFGC), the removal of vegetation, ground disturbance, exterior construction activities, and demolition shall occur outside of the bird nesting season (February 1 through September 15) whenever feasible. If these activities must occur during the bird nesting season, then a pre-construction nesting bird survey shall be performed by a County-qualified biologist. Pre-construction surveys for nesting birds shall occur within the area to be disturbed and shall extend outward from the disturbance area by 500 feet. The distance surveyed from the disturbance may be reduced if property boundaries render a 500-foot survey radius infeasible, or if existing disturbance levels within the 500-foot radius (such as from a major street or highway) are such that project-related activities would not disturb nesting birds in those outlying areas. If any occupied or active bird nests are found, a buffer shall be established and demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary. The buffer shall be 300 feet for non-raptors and 500 feet for raptors, unless otherwise determined by the qualified biologist and approved by P&D. Buffer reductions shall be based on the known natural history traits of the bird species, nest location, nest height, existing pre-construction level of disturbance in the vicinity of the nest, and proposed construction activities. All construction personnel shall be notified as to the location of the buffer zone and to avoid entering the buffer zone during the nesting season. No ground disturbing activities or vegetation removal shall occur within this buffer until the County-qualified biologist has confirmed that nesting is completed, the young have fledged and are no longer dependent on the nest, or the nest fails, and there is no evidence of a second nesting attempt; thereby determining the nest unoccupied or inactive. If birds protected under MBTA or CFGC are found to be nesting in construction equipment, that equipment shall not be used until the young have fledged and are no longer dependent on the nest, and there is no evidence of a second nesting attempt. **PLAN REQUIREMENTS AND TIMING:** If construction must begin within the nesting season, then the pre-construction nesting bird survey shall be conducted no more than one week (7 days) prior to commencement of vegetation removal, grading, or other construction activities. Active nests shall be monitored by the biologist at a minimum of once per week until it has been determined that the nest is no longer being used by either the young or adults, and there is no evidence of a second nesting attempt. Bird survey results and buffer recommendations shall be submitted to County Planning and Development for review and approval prior to commencement of grading or construction activities. The qualified biologist shall prepare weekly monitoring reports, which shall document nest locations, nest status, actions taken to avoid impacts, and any necessary corrective actions taken. Active nest locations shall be marked on an aerial map and provided to the construction crew on a weekly basis after each survey is conducted. Active nests shall not be removed without written authorization from USFWS and CDFW. **MONITORING:** P&D shall be given the name and contact information for the biologist prior to initiation of the pre-construction survey. Permit Compliance and P&D staff shall review the survey report(s) for compliance with this condition prior to the commencement of ground-disturbing activities and perform site inspections throughout the construction period to verify compliance in the field.

BIO-05 Biological Monitor. To avoid direct injury and mortality of Species of Special Concern, the Project applicant shall have a qualified biologist on site to move out of harm's way wildlife of low mobility that would be injured or killed. Wildlife shall be protected and allowed to move away on its own in a

passive manner. In areas where an SSC was found, work may only occur in these areas after a qualified biologist has determined it is safe to do so. Even so, the qualified biologist shall advise workers to proceed with caution near flagged areas. A qualified biologist shall be on site during all ground-disturbing activities, including abandonment. **PLAN REQUIREMENTS / TIMING:** This condition shall be included on grading plans. The name and contact information for the biologist shall be provided to P&D prior to the preconstruction meeting. **MONITORING:** The Owner/Applicant shall submit to P&D compliance monitoring staff the name and contact information for the approved biologist prior to commencement of construction / pre-construction meeting. P&D compliance monitoring staff shall site inspect as appropriate.

BIO-06 Injured or Dead Wildlife. If any Species of Special Concern are harmed during relocation or a dead or injured species of special concern is found, work in the immediate area shall stop immediately, the qualified biologist shall be notified, and dead or injured wildlife documented immediately. A formal report shall be sent to CDFW and County P&D within 3 calendar days of the incident or finding. The report shall include the date, time of the finding or incident (if known), and location of the carcass or injured animal, and circumstances of its death or injury (if known). Work in the immediate area may only resume once the proper notifications have been made and additional mitigation measures have been identified to prevent additional injury or death. **PLAN REQUIREMENTS:** This condition shall be printed on project plans submitted for Land Use Permit Issuance. **TIMING:** The biologist shall be designated prior to issuance of grading permits. The biological components apply from the beginning of any grading or construction throughout all development activities until Final Building Inspection Clearance is issued. **MONITORING:** The Owner/Applicant shall submit to P&D compliance monitoring staff the name and contact information for the approved biologist prior to commencement of construction / pre-construction meeting. P&D compliance monitoring staff shall site inspect as appropriate.

With the incorporation of these measures, residual impacts would be insignificant.

4.5 CULTURAL RESOURCES

Will the proposal:	Poten. Signif. and Unavoid.	Signif. But Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
a. Cause a substantial adverse change in the significance of any object, building, structure, area, place, record, or manuscript that qualifies as a historical resource as defined in CEQA Section 15064.5?			X		
b. Cause a substantial adverse change in the significance of a prehistoric or historic archaeological resource pursuant to CEQA Section 15064.5?			X		
c. Disturb any human remains, including those located outside of formal cemeteries?			X		

Will the proposal:	Poten. Signif. and Unavoid.	Signif. But Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
d. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in the Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: 1) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or 2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.			X		

County Environmental Thresholds: Chapter 8 of the Santa Barbara County Environmental Thresholds and Guidelines Manual (2008, revised February 27, 2018) contains guidelines for the identification, significance evaluation, and mitigation of impacts to cultural resources, including archaeological, historic, and tribal cultural resources. In accordance with the requirements of CEQA, these guidelines specify that if a resource cannot be avoided, it must be evaluated for importance under specific CEQA criteria. CEQA Section 15064.5(a)(3)A-D contains the criteria for evaluating the importance of archaeological and historic resources. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the significance criteria for listing in the California Register of Historical Resources: (A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage; (B) Is associated with the lives of persons important in our past; (C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or (D) Has yielded, or may be likely to yield, information important in prehistory or history. The resource also must possess integrity of at least some of the following: location, design, setting, materials, workmanship, feeling, and association. For archaeological resources, the criterion usually applied is (D).

CEQA calls cultural resources that meet these criteria "historical resources". Specifically, a "historical resource" is a cultural resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources, or included in or eligible for inclusion in a local register of historical resources, as defined in subdivision (k) of Section 5020.1, or deemed significant pursuant to criteria set forth in subdivision (g) of Section 5024.1. As such, any cultural resource that is evaluated as significant under CEQA criteria, whether it is an archaeological resource of historic or prehistoric age, a historic built environment resource, or a tribal cultural resource, is termed a "historical resource".

CEQA Guidelines Section 15064.5(b) states that "a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." As defined in CEQA Guidelines Section 15064.5(b), substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired. The significance of an historical resource is materially impaired when a project: (1) demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; (2) demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources; or (3) demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

For the built environment, a project that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (Weeks and Grimmer 1995), is generally considered as mitigated to an insignificant impact level on the historical resource.

Existing Setting. For at least the past 10,000 years, the area that is now Santa Barbara County has been inhabited by Chumash Indians and their ancestors. The proposed project includes the drilling of a new test well and construction of a new approximately 250 × 350-foot well pad. Once target depth is reached and all data is collected, the only remaining permanent equipment would be the well-head. SWCA Environmental Consultants prepared a Phase 1 study and records on file at the CCIC (Central Coast Information Center of the University of California, Santa Barbara), including a cultural resources records search, a Native American Sacred Lands File search, results of tribal outreach, and the preparation of this technical report documenting the results of the inventory and providing management recommendations. Based on the Phase 1 Archeological Survey Report (SWCA, April 2021), cultural resources are not located in the vicinity of the proposed project. Based on a records search conducted at the CCIC on December 9, 2020, no previously documented cultural resources are present within a 0.25-mile radius of the project area. One previous cultural resource study was prepared with approximately 10% of the current project area (SR-01518), however, no archaeological resources were identified within the project area as a result of that pedestrian survey.

The Phase 1 archaeological survey (intensive pedestrian survey) of the project area was conducted by SWCA Cultural Resources Specialist Morgan Bird on January 5, 2021. The entire project area was accessible and included rodent burrows and disturbed soil. The entire project area has been subject to surface disturbance from agricultural practices and livestock grazing. Modern refuse and agricultural equipment (irrigation valves) were observed throughout the surface of the project area but no archaeological resources were identified within the project area during the field survey. The Phase 1 Archeological Survey included Native American outreach, specifically, the NAHC identified nine local tribal contacts, and SWCA sent a letter to each of these contacts on March 26, 2021, requesting any additional information they might have regarding resources in the area. Three responses were received, Patrick Tumamait of the Barbareño/Ventureño Band of Mission Indians, Eleanor Arrellanes of the Barbareño/Ventureño Band of Mission Indians, and Fred Collins, Spokesperson of the Northern Chumash Tribal Council. None were aware of any cultural resources in the area.

AB 52 formalizes the lead agency–tribal consultation process, requiring the County to initiate consultation with California Native American groups that are traditionally and culturally affiliated with the project, including tribes that may not be federally recognized, prior to the release of the mitigated negative declaration. On March 29, 2023, a formal notice of application completeness for the proposed project was

sent to Julie Tumamait-Stenslie, Chair, Barbareno/Ventureno Band of Mission Indians and Kenneth Kahn, Tribal Chairman of the Santa Ynez Band of Chumash Indians. The notice provided notification of the opportunity for consultation under AB 52, and included a description of the proposed project and a summary of the Phase 1 study methods and results. On May 4, 2023, the Santa Ynez Band of Chumash Indians provided a letter acknowledging no further consultation was required. A second letter was received from the Santa Ynez Band of Chumash Indians, dated October 5, 2023, after the Draft MND was released confirming no additional comments. No reply was received from the Barbareno/Ventureno Band of Mission Indians. No tribal cultural resources (TCRs) were identified on the subject parcel through the AB 52 notification process. Formal consultation ended on May 4, 2023.

Impact Discussion:

(a - d). As discussed above, the records search, Native American coordination, and field survey did not identify the presence of previously undocumented archaeological resources within the project area. As a result, the proposed project would not cause a substantial adverse change in the significance of any historical resource, cause a substantial adverse change in the significance of a prehistoric or historic archaeological resource, disturb any human remains, or cause a substantial adverse change in the significance of a tribal cultural resource. In order to comply with cultural resource policies, the development project would be conditioned with a standard archaeological discovery clause which requires that any previously unidentified cultural resources discovered during site development are treated in accordance with the County's Cultural Resources Guidelines. Impacts would be *less than significant*.

Cumulative Impacts. Since the project would not significantly impact cultural resources, it would not have a cumulatively considerable effect on the County's cultural resources with implementation of the mitigation measures described below.

Mitigation and Residual Impact. No mitigation is required, residual impacts would be insignificant.

4.6 ENERGY

Will the proposal result in:	Poten. Signif. and Unavoid.	Signif. But Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
a. Substantial increase in demand, especially during peak periods, upon existing sources of energy?				X	
b. Requirement for the development or extension of new sources of energy?				X	

Impact Discussion:

(a, b). The County has not identified significance thresholds for electrical and/or natural gas service impacts (Thresholds and Guidelines Manual). Private electrical and natural gas utility companies provide service to customers in Central and Southern California, including the unincorporated areas of Santa Barbara County. The proposed project consists of the preparation and digging of an oil & gas exploratory well. All energy used would be generated using onsite generator sets. No energy provided from Pacific Gas and Electric Company would be used during the construction or operation of the project. In summary, the project would have a negligible effect on regional energy needs. *No adverse impacts would result*.

Cumulative Impacts. The project's contribution to the regionally significant demand for energy is not considerable, and is therefore insignificant.

Mitigation and Residual Impact. No mitigation is required. Residual impacts would be insignificant.

4.7 FIRE PROTECTION

Will the proposal result in:	Poten. Signif. and Unavoid.	Signif. But Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
a. Introduction of development into an existing high fire hazard area or exposure of people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?		X			
b. Project-caused high fire hazard?		X			
c. Introduction of development into an area without adequate water pressure, fire hydrants or adequate access for fire fighting?		X			
d. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?		X			
e. Introduction of development that will substantially impair an adopted emergency response plan, emergency evacuation plan, or fire prevention techniques such as controlled burns or backfiring in high fire hazard areas?			X		
f. Development of structures beyond safe Fire Dept. response time?			X		

Existing Setting. The Cuyama Valley Rural Area experiences annual cycles of elevated fire danger. Due to its low annual precipitation rate, highly flammable vegetation, and high velocity "sundowner" and "Santa Ana" winds, the County has routinely experienced major wildfires that threaten residents' safety and property. Most of the Valley Rural Area exists within CalFire Fire State Responsibility Area Hazard Severity Zones. Fire Hazard Severity Zones are identified as "moderate", "high", and "very high" using a science-based and field-tested computer model that assigns a hazard score based on the factors that influence fire likelihood and fire behavior. Factors considered include fire history, existing and potential fuel (natural vegetation), flame length, blowing embers, terrain, and typical weather for the area. According to CalFire Hazard Severity Zone Maps, land found throughout the Cuyama Valley Rural Area is designated as either high or very high hazard severity zones.

The project site is located within a designated high fire hazard area. The proposed project site falls within the jurisdiction of the Santa Barbara County Fire Department and is serviced by Fire Station Number 41, which is located at 41 Newsome St in New Cuyama, approximately 10 miles east of the project site. Emergency access to the site would continue to be provided by the private access road south of the North Fork Vineyard on School House Canyon Road.

County Standards. The following County Fire Department standards are applied in evaluating impacts associated with the proposed development:

- The emergency response thresholds include Fire Department staff standards of one on-duty firefighter per 4000 persons (generally 1 engine company per 12,000 people, assuming three firefighters/station). The emergency response time standard is approximately 5-6 minutes.
- Water supply thresholds include a requirement for 750 gpm at 20 psi for urban single family dwellings in urban and rural developed neighborhoods, and 500 gpm at 20 psi for dwellings in rural areas (lots larger than five acres).
- The ability of the County's engine companies to extinguish fires (based on maximum flow rates through hand held line) meets state and national standards assuming a 5,000 square foot structure. Therefore, in any portion of the Fire Department's response area, all structures over 5,000 square feet are an unprotected risk (a significant impact) and therefore should have internal fire sprinklers.
- Access road standards include a minimum width (depending on number of units served and whether parking would be allowed on either side of the road), with some narrowing allowed for driveways. Cul-de-sac diameters, turning radii and road grade must meet minimum Fire Department standards based on project type.
- Two means of egress may be needed and access must not be impeded by fire, flood, or earthquake. A potentially significant impact could occur in the event any of these standards is not adequately met.

Impact Discussion:

(a - e). The proposed project site is located within a high fire hazard area within AG-II-100. Oil and Gas wells are allowable uses with Production Plans within this zone district. The site sits just outside the Russel Ranch Oil Field, with multiple wells within a mile of the proposed site. Access for emergency vehicles to the site would be maintained throughout the construction period. The project would not interfere with any local or regional emergency response or evacuation plans because the project would not result in a substantial alteration to the circulation system. Construction of the proposed exploration well presents new ignition sources that could potentially start a structure or brush fire. In order to mitigate this potentially significant impact fire protection measures shall be in place for brush or grass fires from use of heavy equipment (FIRE-01). Therefore, impacts due to fire hazard would be *less than significant with mitigation*.

Cumulative Impacts. Since the project would not create significant fire hazards, it would not have a cumulatively considerable effect on fire safety within the County.

Mitigation and Residual Impact. The following mitigation measures would reduce the project's fire hazard impacts to an insignificant level:

FIRE-01 Fire Protection. During construction, measures shall be taken to mitigate the potential for brush or grass fires from use of heavy equipment, welding, vehicles with catalytic converters, etc. These requirements include:

a. All equipment with the potential to work off-road shall be equipped with appropriate mufflers and have extinguishers mounted on each vehicle;

b. Personnel shall be briefed on the dangers of wildfire and be able to respond accordingly should the need arise;

c. On-site supervisor(s) shall have a cell phone or other means of initiating a 911 response time in a timely manner in the event of a medical emergency and/or fire;

d. All dead and decadent vegetation immediately surrounding the facility should be removed and soil disturbance should be kept at a minimum;

e. Smoking shall be in a designated area and/or in enclosed cab only;

f. Hot work permit is required ~~as needed~~;

g. A water tender would be available on each construction site during the entire phase of construction and abandonment;

h. A competent water tender operator shall be available on site during all construction and remain on site a minimum of 30 minutes after all construction has finished for the day.

PLAN REQUIREMENTS: The Permittee shall restate the provisions for fire protection on all grading and building plans. The name and telephone number of on-site supervisor shall be provided to the Fire Department. **TIMING:** Fire protection measures shall be implemented throughout construction. The name and telephone number of an on-site supervisor shall be provided to the Fire Department prior to commencement of construction or grading activities. **MONITORING:** P&D permit processing planner shall ensure measures are on plans prior to issuance of the Land Use Permit. Fire Department staff shall spot check for compliance during construction.

With the incorporation of these measures, residual impacts would insignificant.

4.8 GEOLOGIC PROCESSES

Will the proposal result in:	**Poten. Signif. and Unavoid.**	**Signif. But Mitigable**	**Insignif.**	**No Impact / Beneficial Impact**	**Reviewed Under Previous Document**
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving exposure to or production of unstable earth conditions such as landslides, earthquakes, liquefaction, soil creep, mudslides, ground failure (including expansive, compressible, collapsible soils), or similar hazards?			X		
b. Disruption, displacement, compaction or over covering of the soil by cuts, fills or extensive grading?			X		
c. Exposure to or production of permanent changes in topography, such as bluff retreat or sea level rise?				X	
d. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X	
e. Any increase in wind or water erosion of soils, either on or off the site?		X			
f. Changes in deposition or erosion of beach sands or dunes, or changes in siltation, deposition or erosion which may modify the channel of a river, or stream, or the bed of the ocean, or any bay, inlet or lake?				X	
g. The placement of septic disposal systems in impermeable soils with severe constraints to disposal of liquid effluent?				X	
h. Extraction of mineral or ore?				X	
i. Excessive grading on slopes of over 20%?			X		

Will the proposal result in:	Poten. Signif. and Unavoid.	Signif. But Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
j. Sand or gravel removal or loss of topsoil?			X		
k. Vibrations, from short-term construction or long-term operation, which may affect adjoining areas?				X	
l. Excessive spoils, tailings or over-burden?			X		

Environmental Threshold. Pursuant to the County's Adopted Thresholds and Guidelines Manual, impacts related to geological resources may have the potential to be significant if the proposed project involves any of the following characteristics:

1. The project site or any part of the project is located on land having substantial geologic constraints, as determined by P&D or PWD. Areas constrained by geology include parcels located near active or potentially active faults and property underlain by rock types associated with compressible/collapsible soils or susceptible to landslides or severe erosion. "Special Problems" areas designated by the Board of Supervisors have been established based on geologic constraints, flood hazards and other physical limitations to development.
2. The project results in potentially hazardous geologic conditions such as the construction of cut slopes exceeding a grade of 1.5 horizontal to 1 vertical.
3. The project proposes construction of a cut slope over 15 feet in height as measured from the lowest finished grade.
4. The project is located on slopes exceeding 20% grade.

Impact Discussion:

(a, I). Potential to Result in Geologic Hazards. The Cuyama Valley potentially is subject to the most severe ground shaking in the County because of its proximity to the San Andreas Fault. However, the project site is not underlain by any known fault. However, it is approximately 3.75 miles north of the South Cuyama fault zone. Liquefaction potential in the area has been determined to be low. Any potential for expansive soils would be mitigated by the use of non-expansive engineered fill. All soils-related hazards would be less than significant through the normal building permit review and inspection process. There would not be any exposure to or production of unstable earth conditions such as landslides, earthquakes, liquefaction, soil creep, mudslides or ground failure resulting from the proposed project. The proposed project would involve negligible changes in topography for flattening and compunction of the dirt pad. No structural foundation is proposed therefore, risks of geologic impacts on the development are *less than significant*.

(b, i). Potential for Grading-Related Impacts. The surface elevation is 1,983.8 ft above mean sea level (AMSL) and the Target Depth is approximately 11,000 feet below grade. Grading includes 4,521 Cy of cut and 5,482 Cy of fill to account for the 25% compaction factor for shrinkage over a 10% grade (Figure 6). Therefore 961 Cy would be imported to level the compacted pad out. During site preparation activities the proposed project site would be graded, watered and compacted to establish a level and solid foundation for the drilling rig. Material would be balanced onsite and topsoil would be stabilized. Earthmoving activities for the project would not exceed a combined total disturbance of 5.0 acres per day nor involve movement, deposition, or relocation of more than 2,500 cubic yards per day of bulk materials on any three (3) or more days. The project would involve a negligible amount of fill which would have negligible impacts on the environment. Impacted topography would be restored to match the surrounding area. Impacts would be temporary and *less than significant*.

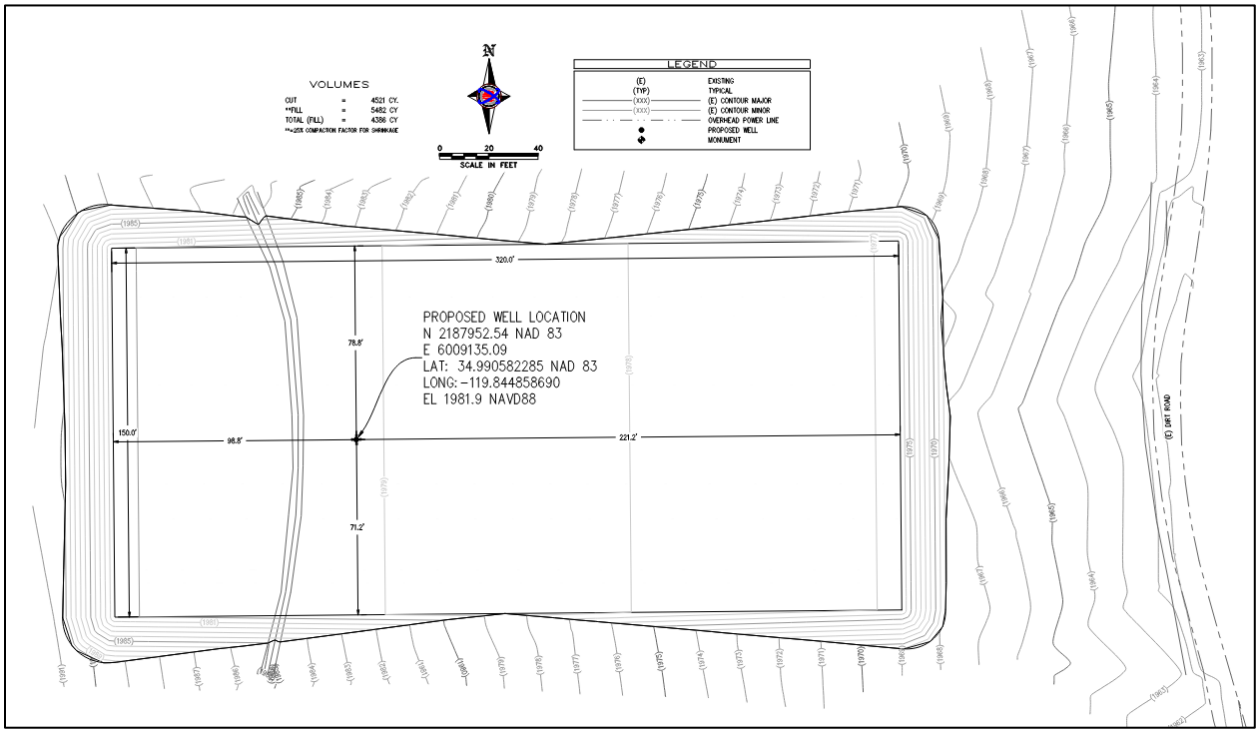


FIGURE 6. GRADING PLAN WITH TOPOGRAPHIC MAP OF PROPOSED WELL LOCATION AND GRADED PAD.

(e). Potential Erosion and Sedimentation Impacts. Grading operations that would occur on the project site would remove vegetative cover and disturb the ground surface, thereby increasing the potential for erosion and sedimentation impacts. However, the potential for the project to cause substantial erosion and sediment transport would be adequately mitigated by the County's standard erosion control and drainage requirements (GEO-01). Thus, impacts would be *less than significant with mitigation*.

(c, d, f, g, h, j, k). Other Potential Geological Hazards. The project would not cause destruction, covering or modification of any unique geologic, paleontologic, or physical features. The project would not involve the placement of septic disposal systems. No permanent extraction of soil for mineral or ore materials is proposed. This grading work would occur on relatively flat surfaces (approximately 0-10% gradients). The project is not located within the vicinity of the ocean and would not be subject to issues associated with seas-level rise. Any vibrations from construction work that would affect adjoining areas (residence) are likely to be short term, occur during daylight hours, and minimal in comparison to vibrations from the railroad adjacent to the site. *No impacts* are anticipated.

Cumulative Impacts. Since the project would not result in significant geologic impacts after mitigation, and geologic impacts are typically localized in nature, it would not have a cumulatively considerable effect on geologic hazards within the County.

Mitigation and Residual Impact. The following mitigation measure would reduce the project's geologic impacts to an insignificant level:

GEO-01 Erosion and Sediment Control Plan. Where required by the latest edition of the California Green Code and/or Chapter 14 of the Santa Barbara County Code, a Storm Water Pollution Prevention Plan (SWPPP), Storm Water Management Plan (SWMP) and/or an Erosion and Sediment Control Plan (ESCP) shall be implemented as part of the project. Grading and erosion and sediment control plans shall be designed to minimize erosion during construction and shall be implemented for the duration of the grading period and until re-graded areas have been stabilized by structures, long-term erosion control measures or permanent landscaping. The Owner/Applicant shall submit the SWPPP, SWMP or ESCP)

using Best Management Practices (BMP) designed to stabilize the site, protect natural watercourses/creeks, prevent erosion, convey storm water runoff to existing drainage systems keeping contaminants and sediments onsite. The SWPPP or ESCP shall be a part of the Grading Plan submittal and would be reviewed for its technical merits by P&D. Information on Erosion Control requirements can be found on the County web site re: Grading Ordinance Chapter 14 (http://sbcountyplanning.org/building/grading.cfm) refer to Erosion and Sediment Control Plan Requirements; and in the California Green Code for SWPPP (projects < 1 acre) and/or SWMP requirements. **PLAN REQUIREMENTS:** The grading and SWPPP, SWMP and/or ESCP shall be submitted for review and approved by P&D prior to approval of land use clearances. The plan shall be designed to address erosion, sediment and pollution control during all phases of development of the site until all disturbed areas are permanently stabilized. **TIMING:** The SWPPP requirements shall be implemented prior to the commencement of grading and throughout the year. The ESCP/SWMP requirements shall be implemented between November 1st and April 15th of each year, except pollution control measures shall be implemented year round. **MONITORING:** P&D staff shall perform site inspections throughout the construction phase.

With the incorporation of these measures, residual impacts would be insignificant.

4.9 HAZARDOUS MATERIALS/RISK OF UPSET

Will the proposal result in:	Poten. Signif. and Unavoid.	Signif. But Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
a. In the known history of this property, have there been any past uses, storage or discharge of hazardous materials (e.g., fuel or oil stored in underground tanks, pesticides, solvents or other chemicals)?			X		
b. The use, storage or distribution of hazardous or toxic materials?			X		
c. A risk of an explosion or the release of hazardous substances (e.g., oil, gas, biocides, bacteria, pesticides, chemicals or radiation) in the event of an accident or upset conditions?		X			
d. Possible interference with an emergency response plan or an emergency evacuation plan?			X		
e. The creation of a potential public health hazard?		X			
f. Public safety hazards (e.g., due to development near chemical or industrial activity, producing oil wells, toxic disposal sites, etc.)?			X		
g. Exposure to hazards from oil or gas pipelines or oil well facilities?			X		
h. The contamination of a public water supply?		X			

Existing Setting. The Applicant proposes to grade a 1-acre dirt pad and drill one new test well for oil and gas exploration approximately 11,000 feet below grade. If the drilling program is successful, the applicant will return with a new Production Plan request for the production phase. If the drilling program is not successful, the well will be abandoned. ~~Once dug, the well would be abandoned.~~ No gas production is proposed as a part of the project and no permanent facilities besides the single wellhead would remain

following successful drilling operations. Drilling would include mobilization and demobilization of the drill rig and installation of blowout prevention equipment, cementing, mud-logging, etc. required for the drilling phase.

Active well fields, and plugged and abandoned oil wells can be found throughout the Cuyama Valley Rural Area, including land designated as A-II and AC and zoned AG-II. All oil wells (abandoned, plugged, or active) are managed according to the requirements of the California Department of Conservation, Division of Geologic Energy Management Division (CalGEM)). Two oil fields, Russell Ranch and South Cuyama, are located in the area. The subject property is located at 7400 Highway 166 in Cuyama, approximately 10 miles west of the town of New Cuyama. The site currently consists of a single-family residence, vineyards, and grazing land. The project site is approximately 1 mile east of the Russel Ranch Oil Field. There are two plugged wells within 1 mile of the project site (Figure 7) and 96 wells within 2 miles of the project site. There are 9 plugged wells (8 dry holes and 1 core hole) on the subject parcel, all under different operators and Leases. The Applicant does not have any operations on the Project site currently.

The project site is located within a designated high fire hazard area. The proposed project site falls within the jurisdiction of the Santa Barbara County Fire Department and is serviced by Fire Station Number 41, which is located at 41 Newsome St in New Cuyama, approximately 10 miles east of the project site. Emergency access to the site would continue to be provided by the private access road south of the North Fork Vineyard on School House Canyon Road. The subject parcel does not contain any sites listed on the Department of Toxic Substance Control Geotracker database (Geotracker 2018) indicating some levels of existing site contamination or historical contamination. However, there is one closed cleanup site, Arco Russell Ranch (T0608300033), located approximately 1.8 miles to the east of the project site. The nearest school, Sierra Madre High, is approximately 10 miles southeast of the project site.

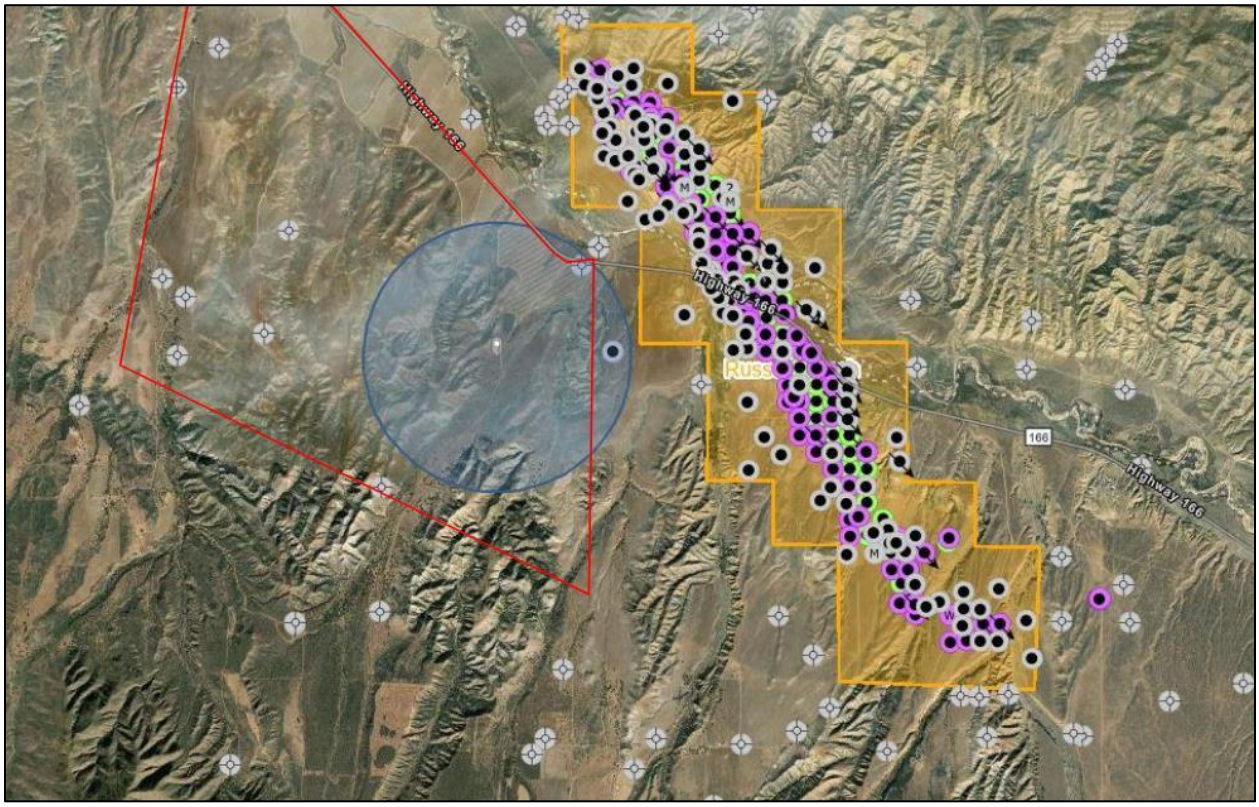


FIGURE 7. RUSSEL RANCH OIL FIELD OUTLINED IN ORANGE, EACH DOT REPRESENTS ONE OIL WELL EITHER PLUGGED (GREY), IDLE (PINK), OR ACTIVE (GREEN). THE 1-MILE BUFFER FROM THE PROJECT SITE IS SHOWN IN BLUE. GIS DATA AND PHOTO PROVIDED BY THE DEPARTMENT OF CONSERVATION'S WELL FINDER GIS SYSTEM (WELLSTAR) [HTTPS://WWW.CONSERVATION.CA.GOV/CALGEM/PAGES/WELLFINDER.ASPX]. PARCEL BOUNDARY SHOWN IN RED LINE.

For workers employed at an oil and gas field site, there is the potential to be exposed to hazardous materials. Hazardous materials are those materials considered to be toxic, corrosive, flammable, reactive, irritating, and strongly sensitizing. The use of such hazardous materials may pose a threat to human health and/or the environment through routine emissions and/or accidental releases. Natural hazards can be encountered as well. These include excessive heat (resulting in heat prostration), exposure to ultraviolet sunlight (causing sunburn), excessive cold (resulting in hypothermia), dust inhalation from high winds, wildfires in brush and forests, floods, earthquakes, landslides, poisonous vegetation (e.g., poison oak), and venomous animals (e.g., rattlesnakes and scorpions). Additional hazards are posed by operations. These include vehicle and equipment accidents, equipment noise, direct electrical hazards from power lines and generators, and exposure to chemicals in commonly used products such as gasoline, paint, and cleaning agents. Hazards may also occur due to fire, explosion, fugitive natural gas emissions, and improper storage of hazard materials and/or waste. Non-hazardous waste (primarily drilling mud and cuttings) would be a product of this phase and it would be transported to E & P Waste, 80 miles north of the site.

Regulatory Setting:

The health, safety, and environmental performance of the oil and gas industry is regulated by local, State, and Federal agencies. While oversight and continual improvements in drilling, engineering, and operations continues to lower the potential risks of oil and gas facilities to people and the environment; the inherent nature of the materials handled compel hazard and risk management. The Project would be subject to the following primary Federal, State, and local regulations pertaining to oil and gas facilities, and associated hazardous material handling and fire protection.

Federal Laws and Regulations:

Federal laws that address gas pipelines and oil and gas facilities are listed below:

- 40 Code of Federal Regulations Parts 109, 110, 112, 113, and 114 promulgated in response to the Oil Pollution Act of 1990 and pertain to the need for a Spill Prevention Control & Countermeasures Plan;
- The U.S. Environmental Protection Agency (EPA) implements the Resource Conservation and Recovery Act and Associated Hazardous and Solid Waste Amendments (40 Code of Federal Regulations 260) which regulate the generation, transportation, treatment, storage, and disposal of hazardous waste.
- The EPA enforces standards for hazardous pollutants under the National Emissions Standards for Hazardous Air Pollutants, 40 Code of Federal Regulations 61) and the requirements of the Emergency Planning and Community Right-to-Know Act which requires industry to report on the storage, use and releases of hazardous substances to federal, state, and local governments. The Santa Barbara County Air Pollution Control District is delegated authority from the EPA to implement and enforce these applicable regulations.
- Under the Occupational Safety and Health Act, the U.S. Department of Labor implements worker health and safety requirements, including those established in the Worker Health and Safety (29 Code of Federal Regulations et seq.) and Hazard Communication (29 Code of Federal Regulations 1910.1200).

California Laws and Regulations:

State laws address gas and liquid pipelines, oil and gas facilities, and hazardous materials and waste are listed below:

<u>California Health and Safety Code</u>

- Division 20, Chapter 6.5, §25100-25249, Hazardous Waste Control;

- Division 20, Chapter 6.95, §25500, et seq. Hazardous Materials Management Plan and Community Right- to-Know and Hazardous Materials Release Response Plans and Inventory (Business Plan Program);
- Proposition 65 Compliance, H&SC §25249.5 et seq;
- H&SC §§25340-25392, Carpenter-Presley-Tanner Hazardous Substance Account Act; and
- H&SC §§25531-25541, Risk Management and Prevention Program.

California Code of Regulations (CCR)

- Title 8, §1529, Asbestos Construction Standard;
- Title 8, §1532.1, Lead Construction Standard;
- Title 8, §5189, Process Safety Management of Acutely Hazardous Materials;
- Title 8, §5192, Hazardous Waste Operations and Emergency Response;
- Title 14, Division 2, Department of Conservation;
- Title 19, §2729, Employee Training Program;
- Title 22, Division 4, Chapter 30, Hazardous Wastes;
- Title 22, Division 4.5, §§66260-67786, Hazardous Waste Requirements; and
- Title 22, §66265.50-.56, Contingency/Emergency Response Plan.

County Laws and Regulations.

Santa Barbara County has established programs and plans to address oil and gas operations in the County include the following:

Petroleum Code. This code sets forth specific regulations for onshore oil and gas development that are intended to protect the health, safety, public welfare, physical environment and natural resources of the County. Sections 25-21 through 25-43 include specific requirements for well design, hazardous emission control, fire prevention, and well and equipment spacing, abandonment and restoration procedures. The Petroleum Code also provides for annual County inspections of lease sites, tanks and well sites, including associated pipelines, to ascertain conformity with the standards set forth in the Code.

Land Use and Development Code (LUDC). The Santa Barbara Land Use and Development Codes (updated June 2018) addresses codes and zoning laws applicable to the unincorporated areas of the County outside the coastal zone and the Montecito Planning Area. Development standards applicable to oil and gas pipelines are listed in Article 35.5 for Oil and Gas, Wind Energy and Cogeneration Facilities, specifically 35.52 related to oil and gas facilities, inland areas; 35.55 Findings for Oil and Gas Facilities and 35.56, Oil/Gas Land Uses – Abandonment and Removal Procedures. Relevant portions of Section 35 of the LUDC are listed in section 4.7, Land Use.

Significance Thresholds:

Impacts resulting from a risk of upset are evaluated pursuant to the California Environmental Quality Act Appendix G. As defined therein, a significant safety effect is one in which the project "create[s] a potential health hazard or involve[s] the use, production or disposal of materials which pose a hazard to people, animal or plant populations in the area affected". The Project would result in a significant impact related to hazardous materials if it:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;

- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment; or
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;

Generally, the CEQA Appendix G determination of acceptability of a "significant hazard" or impacts to a school within ¼ mile are defined by the County public safety thresholds. These thresholds provide three zones for guiding a determination of significance or insignificance, based on the estimated frequency and consequences of an accident that would cause fatalities or serious injuries to the public. Additionally, the Safety Element defines unacceptable risk in a manner that guides consistent and sound land-use decisions involving hazardous facilities. The Safety Element also defines criteria applicable to new development as well as to modifications to existing development if those modifications increase risk. The public safety thresholds do not address risk of environmental damage. In addition, the public safety thresholds do not apply to occupational safety. Occupational risk, which is governed by State and federal OSHA standards, is considered to be more voluntary and is generally judged according to more lenient standards of significance than those used for involuntary exposure.

Impact Discussion:

(a, b, f, g). The significant hazardous materials associated with the proposed Project are produced oil and produced gas. Most hazardous and potentially toxic releases would occur during the operational phase of well production. However, the proposed project does not include an operational phase because once completed and tested, if the drilling program is successful, the applicant will return with a new Production Plan request for the production phase. If the drilling program is not successful, the well will be abandoned~~the well would be abandoned~~. No storage of equipment or hazardous materials are proposed. Therefore, no Risk Analysis was prepared for the project. The project area contains nine (9) abandoned wells with no historical contamination sites according to the Department of Toxic Substance Control Geotracker database (Geotracker 2018). Therefore impacts would be *less than significant*.

(c, e, h). Construction Equipment. Hazardous materials that would be used during project construction activities include gasoline, diesel fuel, oil, lubricants, paint and small quantities of solvents. Small volumes of these materials would be temporarily stored on-site. To minimize the potential for a release, all handling and storage of these materials would be conducted in accordance with oil field best management practices including secondary containment and proper storage of materials in accordance with federal, State, and local codes and standards (WatConv-1 and WatConv-2 discussed in section 4.15). All maintenance and service personnel would be trained in the appropriate handling of these materials and how to contain spills or leaks. Any spills would be promptly cleaned up, and contaminated soil disposed of in accordance with the applicable State and federal requirements. Implementation of a Spill Prevention Control and Countermeasure (SPCC) Plan, would reduce potential impacts resulting from construction-related hazardous materials to less than significant. Project personnel would be properly trained in the handling, use, and cleanup of hazardous materials used at the plant, and in procedures to be followed in the event of a leak or spill. Adequate supplies of appropriate cleanup materials would be stored on the Project site.

Well Drilling Program. Releases during drilling activities can occur due to surface equipment failures, such as ruptured hoses or failed valves, or can be due to an uncontrolled release from a well, commonly referred to as a blowout. Adequate supplies of appropriate cleanup materials would be stored at the project site. The purpose of blow out prevention equipment is to reduce the frequency and severity of potential blowouts. These devices are installed on the top of the well and can close the well hole by shutting a valve or "shearing" off the drilling pipe, if the drilling pipe is in the hole. The use of blow out prevention equipment is required by regulating agencies when wells are being

drilled or serviced. However, like all equipment, there are times when the blow out prevention equipment does not function properly, or the configuration is such that the blow out prevention equipment does not stop the well flow. For a blowout to occur, the drill would need to pass through a pressurized reservoir. A reservoir that does not have sufficient pressure to flow to the surface cannot have a blowout. Based on existing nearby wells, pressures that would be encountered in the proposed project's drilling program are not anticipated be sufficient to produce a sustained, blowout type scenario. As such, no significant impact related to hazardous materials during well drilling is anticipated.

To comply with the requirements of Part 112, Oil Pollution Prevention of the Code of Federal Regulations Title 40 (40 CFR), a Spill Prevention, Control and Countermeasure (SPCC) Plan is required to be prepared. Part 112 establishes the requirements for procedures, methods, and equipment to assist in preventing the discharge of oil or diesel or any material containing oil from entering into or upon the navigable waters of the United States or adjoining shorelines. Part 112 applies to those owners or operators of non-transportation-related onshore and offshore facilities engaged in drilling, producing, gathering, storing, processing, refining, transferring, distributing, or consuming oil, diesel or oil products. This Plan must describe measures implemented by ERG Operating Company to prevent crude oil or other oil product discharges from occurring. Additionally, the Project would require land use approvals for construction permits, California Department of Conservation Division of Oil, Gas and Geothermal Resources oversight, and compliance with regulations including those regulations required in Assembly Bill 1960. Therefore impacts would be *less than significant with mitigation*. Sections 4.4 (Biological Resources) and 4.13 (Water Resources) address environmental impacts of an oil spill.

(d). The project site would not interfere with any emergency response or evacuation plans, nor would it create a potential public health or safety hazard because the site is approximately 0.8 miles south of Hwy 166 along School House Canyon Road. The proposed Project well development would not introduce any components that would change fire department response time and has been designed to improve site access through construction of and/or improvements of site access roads in accordance with Santa Barbara Fire Department Development Standards. Construction specifications would be developed based on site-specific data (e.g., geotechnical information, site topography, environmental limitations, etc.). Areas within the surveyed Project disturbance limits would be cleared of all vegetation and other deleterious material utilizing heavy equipment. Therefore impacts would be *less than significant*.

Cumulative Impacts. Cumulative hazardous materials impacts are not considerable with the project adherence to regulatory requirements.

Mitigation and Residual Impact. The following mitigation measures would reduce the project's effects regarding hazardous materials and/or risk of upset to an insignificant level:

RISK-1 Spill Prevention Control and Countermeasures (SPCC) Plan. A Spill Prevention, Control and Countermeasure (SPCC) Plan shall be prepared to include features and procedures for Project facilities to prevent crude oil, produced water, hazardous material or other oil product discharges from occurring, in accordance with County, State and federal requirements. The following oil spill contingency procedures shall be addressed:

a. Best management practices to minimize the potential for a release of hazardous materials (e.g., secondary containment and proper storage).

b. Training for maintenance and service personnel in appropriate handling of hazardous materials and how to contain spills or leaks.

c. Prompt control and cleanup of spills and proper disposal of any contaminated soil.

PLAN REQUIREMENTS and TIMING: The SPCC Plan shall be submitted to P&D for review and approval prior to issuance of the Zoning Clearance.

MONITORING: P&D shall verify implementation of the approved SPCC Plan through records review and site inspection as needed throughout Project operations.

With the incorporation of this measures, residual impacts would be insignificant.

4.10 LAND USE

Will the proposal result in:	Poten. Signif. and Unavoid.	Signif. But Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
a. Structures and/or land use incompatible with existing land use?			X		
b. Cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?			X		
c. The induction of substantial unplanned population growth or concentration of population?			X		
d. The extension of sewer trunk lines or access roads with capacity to serve new development beyond this proposed project?			X		
e. Loss of existing affordable dwellings through demolition, conversion or removal?			X		
f. Displacement of substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?			X		
g. Displacement of substantial numbers of people, necessitating the construction of replacement housing elsewhere?			X		
h. The loss of a substantial amount of open space?			X		
i. An economic or social effect that would result in a physical change? (i.e. Closure of a freeway ramp results in isolation of an area, businesses located in the vicinity close, neighborhood degenerates, and buildings deteriorate. Or, if construction of new freeway divides an existing community, the construction would be the physical change, but the economic/social effect on the community would be the basis for determining that the physical change would be significant.)			X		
j. Conflicts with adopted airport safety zones?			X		

Existing Setting. The Cuyama Valley is a productive approximately 300-square-mile inland agricultural valley in the northeastern portion of Santa Barbara County. The area is bounded between the Caliente Range and the Sierra Madre Mountains to the north and south respectively. The valley floor is characterized by level to rolling lowlands surrounding the Cuyama River. The Carrizo Plain National

Monument is located to the north of the Cuyama Valley, and is managed by the Bureau of Land Management (BLM); and the Sierra Madre Mountains to the south are within the Los Padres National Forest, managed by the United States Department of Agriculture Forest Service (USFS). Land use within public lands include rangeland livestock grazing of cattle, sheep, and horses, in addition to petroleum extraction and semi-primitive recreational uses (e.g., trails, campgrounds, etc.). Substantial areas of natural habitat occur within the mountainous regions.

Land use in the Cuyama Valley consists primarily of irrigated agriculture, dry farming, ranching, and rural residential development. Irrigated agriculture is a dominant land use in the Cuyama Valley, comprising approximately 23,500 acres in the Cuyama Valley (County of Santa Barbara 2012). Irrigated crops, rangeland livestock grazing and small-scale dairy operations also occur particularly in foothill areas. Extractive uses also occur within the Cuyama Valley, including petroleum and gravel mining starting in the early 1950s. Currently, there are three oil fields located in the Cuyama Basin (Morales Canyon, Russell Ranch, and South Cuyama). Gravel, sand, and gypsum are mined from alluvial deposits at several locations on the upper Cuyama River. Land use designations within the Cuyama Valley consist almost exclusively of A-II and AC outside of the townships of Cuyama and New Cuyama. Approximately 58,827 acres in the Cuyama Valley are within Williamson Act contracts.

The project site is located approximately in the rural area off of Highway 166 in Cuyama, approximately 10 miles west of the town of New Cuyama. Onsite resources and development are characterized by open rangeland and periodic well heads. Although designated as grazing land, the site does not contain enough vegetation due to drought conditions, to maintain sustainable grazing land. The project site is approximately 1-mile east of the Russel Ranch Oil Field (Figure 7 in Section 4.9 Hazardous Materials).

Environmental Threshold. The Thresholds and Guidelines Manual contains no specific thresholds for land use. Generally, a potentially significant impact can occur if a project would result in substantial growth inducing effects or result in a physical change in conflict with County policies adopted for the purpose of avoiding or mitigating an environmental effect.

Impact Discussion:

(a – j). The proposed project includes the grading of a 1-acre dirt pad area used for a single oil exploration well within a 6,565 acre Ag-II-100 zoned parcel. Oil and gas development is a compatible use in the Ag-II land use category. Additionally, there are hundreds of well sites throughout the Cuyama Valley, concentrating mostly within the three oil fields. There are two plugged wells within 1 mile of the project site (Figure 7 in Section 4.9 Hazardous Materials) and 96 wells within 2 miles of the project site. No extension of utility services is proposed and the existing access road would be used without expansion or improvements. No residential uses are within 500 feet of the project site and none would be displaced or removed as a result of the proposed project. The drilling of a single well would not induce substantial growth within the vicinity. Once constructed, the project would only require 1 daily vehicular trip (estimated at 65 miles, which is the distance from Bakersfield to the project location) for daily inspections. The site is not located within any California Military Land Uses including bases, airspaces, or special uses. There would be no economic or social effect of the loss of 1 acre portion of the land and no airports within the vicinity of the project site. The proposed exploration well would be consistent with existing uses and would not result in adverse effects to adjacent land uses or represent a significant impact to aesthetics and visual resources. No short or long-term adverse impacts to land uses would result from the proposed project. The project is compatible with existing land uses and would have *a less than significant impact*.

Cumulative Impacts. The implementation of the project is not anticipated to result in any substantial change to the site's conformance with environmentally protective policies and standards or have significant growth inducing effects. Thus, the project would not cause a cumulatively considerable effect on land use.

Mitigation and Residual Impact. No impacts are identified. No mitigation is necessary.

4.11 NOISE

Will the proposal result in:	Poten. Signif. and Unavoid.	Signif. But Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
a. Long-term exposure of people to noise levels exceeding County thresholds (e.g. locating noise sensitive uses next to an airport)?			X		
b. Short-term exposure of people to noise levels exceeding County thresholds?			X		
c. Project-generated substantial increase in the ambient noise levels for adjoining areas (either day or night)?			X		

Setting/Threshold: Noise is generally defined as unwanted or objectionable sound which is measured on a logarithmic scale and expressed in decibels (dB(A)). The duration of noise and the time period at which it occurs are important values in determining impacts on noise-sensitive land uses. The Community Noise Equivalent Level (CNEL) and Day-Night Average Level (L_{dn}) are noise indices which account for differences in intrusiveness between day- and night-time uses. County noise thresholds are: 1) 65 dB(A) CNEL maximum for exterior exposure, 2) 45 dB(A) CNEL maximum for interior exposure of noise-sensitive uses, and 3) an increase in noise levels by 3 db(A) – either individually or cumulatively when combined with other noise-generating sources when the existing (ambient) noise levels already exceed 65 db(A) at outdoor living areas or 45db(A) at interior living areas. Noise-sensitive land uses include: residential dwellings; transient lodging; hospitals and other long-term care facilities; public or private educational facilities; libraries, churches; and places of public assembly.

The proposed project site is located outside of 65 dB(A) noise contours for roadways, public facilities, airport approach and take-off zones. Surrounding noise-sensitive uses consist of vehicle travel along Hwy 166.

Impact Discussion:

(a, c). The proposed project consists of grading of the well pad~~,~~ and drilling of the well head.~~,~~ If the drilling program is successful, the applicant will return with a new Production Plan request for the production phase. If the drilling program is not successful, the well will be abandoned~~and abandonment~~. Long-term noise generated onsite would not: 1) exceed County thresholds, or 2) substantially increase ambient noise levels in adjoining areas. Noise sensitive uses on the proposed project site would not be exposed to or impacted by off-site noise levels exceeding County thresholds. Impacts would be *less than significant*.

(b). The proposed project would result in construction activities generating short-term noise impacts at the project site due to the use of heavy equipment. It is estimated that the construction of the project would take approximately 24 days (5 days for preparation and grading of the pad and 24 days of drilling the well). The project site is more than 4,000 feet from the residence to the north. Therefore, the project w~~c~~ould not cause short-term construction-related noise impacts to the residence. The highest construction noise levels would most likely result from the use of heavy construction equipment, including bulldozers, excavators, loaders, etc. No nighttime work is proposed. This potential short-term impact would be ~~reduced to a~~ *less than significant*. ~~*level with the implementation of Mitigation Measure Noise* 01, which limits the days and hours that construction (grading) operations may occur.~~

Cumulative Impacts. The implementation of the project is not anticipated to result in any substantial noise effects. Therefore, the project would not contribute in a cumulatively considerable manner to noise impacts.

Mitigation and Residual Impact. No mitigation is required. Residual impacts would be insignificant.

4.12 PUBLIC FACILITIES

Will the proposal require or result in:	Poten. Signif. and Unavoid.	Signif. But Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
a. A need for new or altered police protection and/or health care services?				X	
b. Student generation exceeding school capacity?				X	
c. Significant amounts of solid waste or breach any federal, state, or local standards or thresholds relating to solid waste disposal and generation (including recycling facilities and existing landfill capacity)?				X	
d. The relocation or construction of new or expanded wastewater treatment facilities (sewer lines, lift-stations, etc.) the construction or relocation of which could cause significant environmental effects?				X	
e. The relocation or construction of new or expanded storm water drainage or water quality control facilities, the construction of which could cause significant environmental effects?				X	

Impact Discussion:

(a-e). The proposed Project would not result in the development of habitable structures and would not increase population on the project site or in the project area. The Project would not result in a demand for law enforcement, generate additional school-age children, generate solid waste, or be a source of sewage generation. Existing service levels would be sufficient to serve the proposed project. The proposed project would not generate solid waste in excess of County thresholds. The graded pad would not cause additional stormwater concerns. No additional drainages or water quality control facilities would be necessary to serve the project. Therefore, the project would have *no impact* to public facilities.

Mitigation and Residual Impact: No impacts are identified. No mitigation is necessary.

4.13 RECREATION

Will the proposal result in:	Poten. Signif. and Unavoid.	Signif. But Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
a. Conflict with established recreational uses of the area?				X	
b. Conflict with biking, equestrian and hiking trails?				X	
c. Substantial impact on the quality or quantity of existing recreational opportunities (e.g., overuse of an area with constraints on numbers of people, vehicles, animals, etc. which might safely use the area)?				X	

Environmental Setting/Threshold. The Thresholds and Guidelines Manual contains no threshold for park and recreation impacts. However, the Board of Supervisors has established a minimum standard ratio of 4.7 acres of recreation/open space per 1,000 people to meet the needs of a community. The Santa Barbara County Parks Department maintains more than 900 acres of parks and open spaces, as well as 84 miles of trails and coastal access easements.

Impact Discussion:

(a, b). No designated parks or recreational facilities are located within the project's vicinity. Additionally, no established recreational uses (including parks, biking, equestrian or hiking trails) are located on or adjacent to the proposed project site. The Project would not result in a population increase that would contribute to significant impacts to recreation facilities. Therefore, the Project would have *no impact* on existing recreational facilities or increase the demand for recreation opportunities including biking, equestrian or hiking trails. The project would have no adverse impacts on the quality or quantity of existing recreational opportunities, either in the project vicinity or County-wide.

Mitigation and Residual Impact. No impacts are identified. Residual impacts would be insignificant.

4.14 TRANSPORTATION

Will the proposal result in:	Poten. Signif. and Unavoid.	Signif. But Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle, and pedestrian facilities?			X		
b. Conflict or be inconsistent with CEQA Guidelines Section 15064.3(b)?			X		
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X	
d. Result in inadequate emergency access?			X		

Existing Setting. The proposed project is located off of School House Canyon Road, a private and partially dirt road in Santa Barbara County. School House Canyon Road connects to Hwy 166 approximately 0.8

miles to the north of the project site, which is managed by the Santa Barbara County Transportation Division, which maintains 1,650 lane miles of roads in the unincorporated areas of Santa Barbara County. The project site is in a rural area approximately 10 miles west of the town of New Cuyama.

SBCAG is responsible for all regional transportation planning within Santa Barbara County, including identifying and funding major infrastructure improvements, determining transit needs, creating and updating bicycle and pedestrian master plans, determining the feasibility of and planning of enhancements to the passenger rail system, and developing and implementing ongoing efforts to reduce traffic congestion throughout the region (SBCAG, 2020). SBCAG adopted the *Regional Transportation Plan and Sustainable Communities Strategy* in 2017, and this plan applies to the proposed Project. Other applicable plans include the Circulation Element of the *Santa Barbara County Comprehensive Plan* (2014) and the *Montecito Community Plan* (1993).

Environmental Thresholds. According to the County's Environmental Thresholds and Guidelines Manual, a significant transportation impact would occur when:

a. Potential Conflict with a Program, Plan, Ordinance, or Policy. The SBCAG's 2040 Regional Transportation Plan and Sustainable Communities Strategy (SBCAG, 013) and the County's Comprehensive Plan, zoning ordinances, capital improvement programs, and other planning documents contain transportation and circulation programs, plans, ordinances, and policies. Threshold question "a" considers a project in relation to those programs, plans, ordinances, and polices that specifically address multimodal transportation, complete streets, transportation demand management (TDM), and other vehicle miles traveled (VMT)-related topics. The County and CEQA Guidelines Section 15064.3(a) no longer consider automobile delay or congestion an environmental impact. Therefore, threshold question "a" does not apply to provisions that address LOS or similar measures of vehicular capacity or traffic congestion.

A transportation impact occurs if a project conflicts with the overall purpose of an applicable transportation and circulation program, plan, ordinance, or policy, including impacts to existing transit systems and bicycle and pedestrian networks pursuant to Public Resources Code Section 21099(b)(1). In such cases, applicants must identify project modifications or mitigation measures that eliminate or reduce inconsistencies with applicable programs, plans, ordinances, and policies. For example, some community plans include provisions that encourage complete streets. As a result, an applicant for a multifamily apartment complex may need to reduce excess parking spaces, fund a transit stop, and/or add bike storage facilities to comply with a community plan's goals and policies.

b. Potential Impact to VMT. The County expresses thresholds of significance in relation to existing, or baseline, county VMT. Specifically, the County compares the existing, or baseline, county VMT (i.e., pre-construction) to a project's VMT. Projects with VMT below the applicable threshold would normally result in a less than significant VMT impact and, therefore, would not require further analyses or studies. Nonetheless, CEQA Guidelines Section 15064(b)(2) states, "Compliance with the threshold does not relieve a lead agency of the obligation to consider substantial evidence indicating that the Project's environmental effects may still be significant." Projects with a VMT above the applicable threshold would normally result in a significant VMT impact and, therefore, would require further analyses and studies, and, if necessary, project modifications or mitigation measures. CEQA Guidelines Section 15064.3 establish VMT as the most appropriate measure of transportation impacts under CEQA.

The County presumes that land use or transportation projects meeting any of the screening criteria would have less than significant VMT impacts and would not require further analysis. County thresholds identify Small Projects as a project that generates 110 or fewer average daily trips. The VMT thresholds of significance are for general use and should apply to most projects subject to environmental review. However, the thresholds may not be appropriate for unique projects. In such cases, CEQA Guidelines Section 15064.7(c) allows the County to use other thresholds "… on a case-by-case basis as provided in Section 15064(b)(2)." The OPR Technical Advisory recommended thresholds of significance for land use

projects including Residential, Employment, Regional Retail, Mixed-Use Projects, and Other Land Use types.

Projects subject to Absolute Thresholds and Land Use Plans. Transportation projects and some land use projects are subject to an absolute threshold of significance (i.e., total roadway VMT or total VMT). Projects and plans that exceed the thresholds of significance require project modifications or mitigation measures to avoid or reduce VMT impacts to a less-than-significant level (i.e., below the applicable threshold of significance). As discussed above, the VMT Calculator contains and, therefore, can help applicants assess the effectiveness of possible mitigation measures.

Cumulative Impacts

CEQA requires lead agencies to consider a project's individual and cumulative impacts. Specifically, CEQA Guidelines Section 15064(h)(1) states, "the lead agency shall consider whether the cumulative impact is significant and whether the effects of the project are cumulatively considerable. The County typically uses one of two methods to determine whether a project's VMT impact is cumulatively considerable. As explained below, one method is for projects subject to an efficiency-based threshold of significance. The other method is for projects subject to an absolute threshold of significance and land use plans.

c. Design Features and Hazards. Threshold "c" considers whether a project would increase roadway hazards. An increase could result from existing or proposed uses or geometric design features. In part, the analysis should review these and other relevant factors and identify results that conflict with the County's Engineering Design Standards or other applicable roadway standards.

d. Emergency Access. Threshold "d" considers any changes to emergency access resulting from a project. To identify potential impacts, the analysis must review any proposed roadway design changes and determine if they would potentially impede emergency access vehicles.

Impact Discussion:

(a). The scope of the project includes grading and compaction of the well pad and~~,~~ drilling the well~~, and abandoning the well~~ within the Russell Ranch crude oil production field. If the drilling program is successful, the applicant will return with a new Production Plan request for the production phase. If the drilling program is not successful, the well will be abandoned ~~Once drilling operations are complete, the well would be abandoned in place leaving the graded well pad and well head~~. No new operational vehicle miles would be introduced to the area besides during excavation activities. Construction equipment would access the site via School House Canyon Road connecting to Highway 166. The construction equipment would remain onsite project completion. In addition, the proposed Project would not result in an increased demand for transit services, and would have no effect air, rail, or waterborne traffic. The project would be consistent with programs, plans, ordinances, and policies related to circulation. Therefore, the small amount of traffic generated by the Project would have a *less than significant impact* to existing programs.

(b). Short-term traffic generated by the Project would be primarily from the transportation of construction equipment and materials to and from the well site, and by construction workers commuting to and from the project sites. Non-hazardous waste (primarily drilling mud and cuttings) would be a product of this phase and it would be transported to E & P Waste, approximately 80 miles north of the project site. Trucking of equipment on and off of the property would be temporarily visible to neighboring properties. Long-term traffic would likely result from periodic maintenance activities. The project would only require 1 daily vehicular trip (estimated at 65 miles, which is the distance from Bakersfield to the project location). Overall, traffic generated by the Project would be very low and would not adversely affect the operation of State Highway 166 or substantially increase the need for road maintenance. According to the Santa Barbara County Environmental Thresholds and Guidelines Manual, the proposed Project is exempt from further VMT analysis based on Step 1, Project Screening. The project would be similar to existing conditions upon completion of excavation. The proposed

project would not decrease future vehicle capacity or create long-term changes to traffic patterns or VMT. Roadway users would continue to be similar to those currently using Highway 166. No change in traffic patterns, VMT, or ADT would result from the proposed Project. The proposed project would not result in the construction of a permanent structure or use that would intensify the VMT of the area. Therefore, the project would cause a *less than significant impact* under CEQA and would not require further VMT analysis due to its nature and limited duration.

(c). The proposed project is located on a parcel used for residential and agricultural activities. Once trucks and equipment enter the site, the project would not impact traffic flow of the surrounding roads. The project would not introduce any design features or incompatible uses that would result in new hazards in the Project Study Area or vicinity. Adequate area would be available adjacent to the proposed well site to accommodate construction and maintenance vehicle parking. Adequate sight distance is provided along State Highway 166 to accommodate project-related vehicles that would enter and leave the project site from School House Canyon Road. The project would maintain sight distance, private property ingress/egress, and emergency access throughout project construction and operation. The Project does not propose a new geometric design which would increase hazardous conditions. The proposed project would have *no impact* in this regard, and no mitigation measures are required.

(d). Emergency access to surrounding areas is currently available along School House Canyon Road which is a two way road. During construction, the road would remain open and un-impacted by construction vehicles which would be stored onsite until project completion. The project would be in compliance with applicable regulations, and ensure that there would be no impacts related to traffic hazards, emergency access, and other transportation safety and access considerations. The project would not interfere with police and fire response times or school bus routes. Therefore, the proposed project impacts would be *less than significant*, and no mitigation is required.

Cumulative Impacts. The County's Environmental Thresholds were developed, in part, to define the point at which a project's contribution to a regionally significant impact constitutes a significant effect at the project level. In this instance, the project has been found not to exceed the threshold of significance for transportation. Therefore, the project's contribution to the regionally significant transportation impacts is not considerable, and is insignificant.

Mitigation and Residual Impact. No impacts are anticipated Mitigation measures are not required.

4.15 WATER RESOURCES/FLOODING

Will the proposal result in:	**Poten. Signif. and Unavoid.**	**Signif. But Mitigable**	**Insignif.**	**No Impact / Beneficial Impact**	**Reviewed Under Previous Document**
a. Changes in currents, or the course or direction of water movements, in either marine or fresh waters?			X		
b. Changes in percolation rates, drainage patterns or the rate and amount of surface water runoff?			X		
c. Change in the amount of surface water in any water body?			X		

Will the proposal result in:	Poten. Signif. and Unavoid.	Signif. But Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
d. Discharge, directly or through a storm drain system, into surface waters (including but not limited to wetlands, riparian areas, ponds, springs, creeks, streams, rivers, lakes, estuaries, tidal areas, bays, ocean, etc) or alteration of surface water quality, including but not limited to temperature, dissolved oxygen, turbidity, or thermal water pollution?		X			
e. Alterations to the course or flow of flood water or need for private or public flood control projects?			X		
f. Exposure of people or property to water related hazards such as flooding (placement of project in 100 year flood plain), accelerated runoff or tsunamis, sea level rise, or seawater intrusion?			X		
g. Alteration of the direction or rate of flow of groundwater?			X		
h. Change in the quantity of groundwater, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations or recharge interference?			X		
i. Overdraft or over-commitment of any groundwater basin? Or, a significant increase in the existing overdraft or over-commitment of any groundwater basin?			X		
j. The substantial degradation of groundwater quality including saltwater intrusion?			X		
k. Substantial reduction in the amount of water otherwise available for public water supplies?			X		
l. Introduction of storm water pollutants (e.g., oil, grease, pesticides, nutrients, sediments, pathogens, etc.) into groundwater or surface water?		X			

Existing Setting. The project site is located within the Cuyama Valley Groundwater Basin is situated between the Caliente Range to the north and the Sierra Madre Mountains to the southwest. The valley trends east and is drained by the Cuyama River which is the primary source of recharge to the groundwater basin. The basin overlies an area of approximately 147,200 acres (230 square miles) which extends into four counties, including San Luis Obispo County, Santa Barbara County, Kern County, and Ventura County. The Cuyama Valley, on average, rains less than eight inches per year. The groundwater basin has been designated by the state as having "critical overdraft." The potential flood plain of the Cuyama River covers a rather extensive area, especially south and east of New Cuyama. However, no Flood Hazards are located within the project vicinity.

Water Resources Thresholds. A project is determined to have a significant effect on water resources if it would exceed established threshold values which have been set for each over drafted groundwater basin. These values were determined based on an estimation of a basin's remaining life of available water storage.

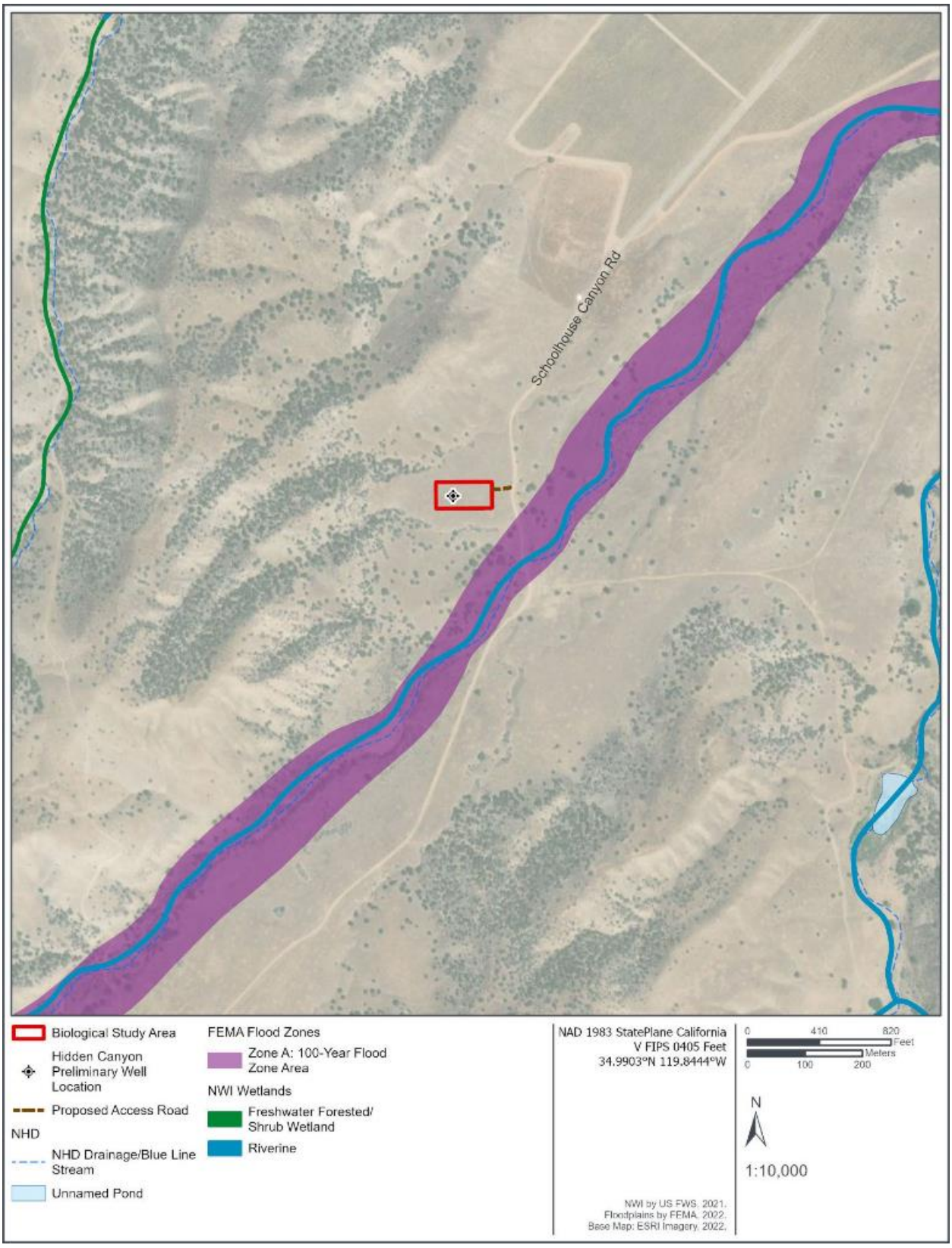


FIGURE 8. HYDROLOGY MAP WITHIN PROJECT VICINITY.

If the project's net new consumptive water use exceeds the threshold adopted for the basin, the project's impacts on water resources are considered significant.

A project is also deemed to have a significant effect on water resources if a net increase in pumpage from a well would substantially affect production or quality from a nearby well.

Water Quality Thresholds. A significant water quality impact is presumed to occur if the project:

- Is located within an urbanized area of the county and the project construction or redevelopment individually or as a part of a larger common plan of development or sale would disturb one (1) or more acres of land;
- Increases the amount of impervious surfaces on a site by 25% or more;
- Results in channelization or relocation of a natural drainage channel;
- Results in removal or reduction of riparian vegetation or other vegetation (excluding non-native vegetation removed for restoration projects) from the buffer zone of any streams, creeks or wetlands;
- Is an industrial facility that falls under one or more categories of industrial activity regulated under the NPDES Phase I industrial storm water regulations (facilities with effluent limitation; manufacturing; mineral, metal, oil and gas, hazardous waste, treatment or disposal facilities; landfills; recycling facilities; steam electric plants; transportation facilities; treatment works; and light industrial activity);
- Discharges pollutants that exceed the water quality standards set forth in the applicable NPDES permit, the Regional Water Quality Control Board's (RWQCB) Basin Plan or otherwise impairs the beneficial uses[2] of a receiving water body;
- Results in a discharge of pollutants into an "impaired" water body that has been designated as such by the State Water Resources Control Board or the RWQCB under Section 303 (d) of the Federal Water Pollution Prevention and Control Act (i.e., the Clean Water Act); or
- Results in a discharge of pollutants of concern to a receiving water body, as identified by the RWQCB.

Impact Discussion:

(a, b, c, e, f). The project includes the grading of a flat 1-acre dirt pad to facilitate the single well head. No impervious surfaces are proposed which would change the amount or direction of water movements. Therefore, the amount of stormwater discharged from the site would be limited and would not substantially alter existing drainage patterns, the course or direction of runoff water, or substantially increase or decrease the amount of water in the ephemeral drainages located adjacent to the well head. The nearest known jurisdictional feature is the main stem of Deadman Canyon, an ephemeral watercourse, what conveys water to the Cuyama River to the north. The stormwater discharges would not be a substantial source of erosion (turbidity) that would have the potential to adversely affect the water quality of the drainages near the site, which are tributaries to the Cuyama River. Within the project area, there are no wetland or non-wetland "other waters" features that could be jurisdictional under the federal Clean Water Act (CWA). Likewise, the project area does not support any lakes, streams, swales, or other type of water bodies that would be considered state jurisdiction under Section 1600 of the California Fish and Game Code (CFGC) or under the Porter

[2] Beneficial uses for Santa Barbara County are identified by the Regional Water Quality Control Board in the Water Quality Control Plan for the Central Coastal Basin, or Basin Plan, and include (among others) recreation, agricultural supply, groundwater recharge, fresh water habitat, estuarine habitat, support for rare, threatened or endangered species, preservation of biological habitats of special significance.

Cologne Water Quality Act. The project is not located within the 100-year flood zone (Figure 8). The Project would have *less than significant impacts* on existing drainage conditions at the project site.

(g - k). The Cuyama Valley Groundwater Basin is considered over drafted, however, the project would not increase consumptive use of water from the basin. During construction, water would be trucked in for use as dust control, soil conditioning, and drilling requirements. No impermeable surfaces are proposed and grading does not include major cuts which could interfere with recharge. Onsite precipitation would ultimately be returned to the ground surface and not result in substantial long-term changes to percolation conditions at or near the project sites. The project would not contribute to overdraft of groundwater resources. Overall, the Project would have *less than significant impacts* on existing groundwater conditions at the project site.

(d, l). Grading and compaction activities during construction of the Project may impact downstream water bodies. Pollutants of concern that could be generated during construction include sediment (from grading operations), trash (from construction workers and construction waste), petroleum products (from construction equipment), dry and wet concrete waste, sanitary waste (from portable toilets), and chemicals (from construction equipment coolant and concrete curing compounds). Application of standard County grading, erosion, and drainage-control measures would ensure that no significant increase of erosion or storm water runoff would occur. The contractor would be required to implement a series of erosion and sediment control best management practices (BMPs) in accordance with the Construction General Permit, and would require preparation and implementation of a Stormwater Pollution Prevention Plan (WatConv-04). Best Management Practices include reserving a space for equipment washout and storage to contain any pollutants brought to the site from equipment (WatConv-02 & WatConv-03). Therefore impacts from stormwater pollutants related to the project would be *less than significant with mitigation* and the implementation of Santa Barbara County's Standard Mitigation Measures WatConv-01 and WatConv-04, which include implementing measures to prevent water contamination during construction and preparing and implementing a SWPPP.

Cumulative Impacts. The County's Environmental Thresholds were developed, in part, to define the point at which a project's contribution to a regionally significant impact constitutes a significant effect at the project level. In this instance, the project has been found not to exceed the threshold of significance for water resources. Therefore, the project's contribution to the regionally significant issues of water supplies and water quality is not considerable, and is insignificant.

Mitigation and Residual Impact. The following mitigation measures would reduce the project's water resource impacts to an insignificant level:

WatConv-01 Sediment and Contamination Containment. The Owner/Applicant shall prevent water contamination during construction by implementing the following construction site measures:

a. All entrances/exits to the construction site shall be stabilized using methods designed to reduce transport of sediment off site. Stabilizing measures may include but are not limited to use of gravel pads, steel rumble plates, temporary paving, etc. Any sediment or other materials tracked off site shall be removed the same day as they are tracked using dry cleaning methods. Entrances/exits shall be maintained until graded areas have been stabilized by structures, long-term erosion control measures or landscaping.

b. Apply concrete, asphalt, and seal coat only during dry weather.

c. Cover storm drains and manholes within the construction area when paving or applying seal coat, slurry, fog seal, etc.

d. Store, handle and dispose of construction materials and waste such as paint, mortar, concrete slurry, fuels, etc. in a manner which minimizes the potential for storm water contamination.

PLAN REQUIREMENTS: The Owner/Applicant shall ensure all above construction site measures are printed as notes on plans. **TIMING**: Stabilizing measures shall be in place prior to commencement of construction. Other measures shall be in place throughout construction. **MONITORING**: The Owner/Applicant shall demonstrate compliance with these measures to P&D compliance monitoring staff as requested during construction.

WatConv-02 Equipment Storage-Construction. The Applicant shall designate one or more construction equipment filling and storage areas to contain spills, facilitate clean-up and proper disposal and prevent contamination from discharging to the storm drains, street, drainage ditches, creeks, or wetlands. The areas shall be no larger than 50 x 50 foot unless otherwise approved by P&D and shall be located at least 100 feet from any sensitive biological resources. **PLAN REQUIREMENTS**: The Owner/Applicant shall designate the P&D approved location on all Land Use and Grading permits. **TIMING**: The Applicant shall install the area prior to commencement of construction. **MONITORING**: P&D compliance monitoring staff shall ensure compliance prior to and throughout construction.

WatConv-03 Equipment Washout-Construction. The Applicant shall designate one or more washout areas for the washing of equipment or similar activities to prevent wash water from discharging to the drainage ditches, creeks, or seep into the ground table. Note that polluted water and materials shall be contained in these areas and removed from the site daily. The areas shall be located at least 100 feet from any storm drain, waterbody or sensitive biological resources. **PLAN REQUIREMENTS**: The Owner/Applicant shall designate the P&D approved location on all Land Use and Grading permits. **TIMING**: The Applicant shall install the area prior to commencement of construction. **MONITORING**: P&D compliance monitoring staff shall ensure compliance prior to and throughout construction.

WatConv-04 SWPPP. The Owner/Applicant shall submit proof of exemption or a copy of the Notice of Intent to obtain coverage under the Construction General Permit of the National Pollutant Discharge Elimination System issued by the California Regional Water Quality Control Board. **TIMING**: Prior to issuance of the Land Use Permit. The Owner/Applicant shall submit proof of exemption or a copy of the Notice of Intent and shall provide a copy of the required Storm Water Pollution Prevention Plan (SWPPP) to P&D. The Owner/Applicant shall keep a copy of the SWPPP on the project site during grading and construction activities. **MONITORING**: P&D permit processing planner shall review the documentation prior to issuance of the Land Use Permit P&D compliance monitoring staff shall site inspect during construction for compliance with the SWPPP.

With the incorporation of these measures, residual impacts would be insignificant.

5.0 INFORMATION SOURCES

5.1 County Departments Consulted

Fire, Public Works, Flood Control, Parks, & Environmental Health,. ~~& Los Padres Forest Watch~~

5.2 Comprehensive Plan

X	Seismic Safety/Safety Element	X	Conservation Element
X	Open Space Element	X	Noise Element
	Coastal Plan and Maps	X	Circulation Element
X	ERME		

5.3 Other Sources

X	Field work	X	Ag Preserve maps

X	Calculations	X	Flood Control maps
X	Project plans	X	Other technical references
	Traffic studies		(reports, survey, etc.)
X	Records	X	Planning files, maps, reports
X	Grading plans	X	Zoning maps
	Elevation, architectural renderings	X	Soils maps/reports
X	Published geological map/reports	X	Plant maps
X	Topographical maps	X	Archaeological maps and reports
			Other

6.0 PROJECT SPECIFIC *(short- and long-term)* AND CUMULATIVE IMPACT SUMMARY

The following is a summary of project-specific impacts:

Class I Impacts (Significant and Unavoidable): None identified.

Class II Impacts (Potentially Significant and Subject to Mitigation): Air Quality, Biological Resources, Fire Protection, Geologic Processes, Hazardous Materials/Risk of Upset, and Water Resources.

Significant direct short- and long-term project specific impacts would be reduced to a less than significant level through the implementation of the mitigation measures listed in the sections above.

Class III Impacts (Less than Significant): Aesthetics, Agriculture, Land Use, Noise, and Transportation.

The project would have no impacts on Energy, Public Facilities, and Recreation.

7.0 MANDATORY FINDINGS OF SIGNIFICANCE

Will the proposal result in:	**Poten. Signif. and Unavoid.**	**Signif. But Mitigable**	**Insignif.**	**No Impact / Beneficial Impact**	**Reviewed Under Previous Document**
1. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, contribute significantly to greenhouse gas emissions or significantly increase energy consumption, or eliminate important examples of the major periods of California history or prehistory?		X			

Will the proposal result in:	Poten. Signif. and Unavoid.	Signif. But Mitigable	Insignif.	No Impact / Beneficial Impact	Reviewed Under Previous Document
2. Does the project have the potential to achieve short-term to the disadvantage of long-term environmental goals?			X		
3. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects and the effects of probable future projects.)		X			
4. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X			
5. Is there disagreement supported by facts, reasonable assumptions predicated upon facts and/or expert opinion supported by facts over the significance of an effect which would warrant investigation in an EIR ?			X		

(1) Substantially Degrade the Quality of the Environment. The grading of the well 1-acre pad would require minimal vegetation clearing and minor grading for the pad. Once graded, drilling equipment would be used to drill an oil well about 11,000 feet deep. The proposed project does not include an operational phase~~,~~. If the drilling program is successful, the applicant will return with a new Production Plan request for the production phase. If the drilling program is not successful, the well will be abandoned. ~~once dug, the well would be abandoned.~~ No oil or gas production is proposed as a part of the project. There are no permanent facilities proposed except for the single wellhead following successful drilling operations. No storage of equipment or hazardous materials are proposed. All drilling, production and appurtenant equipment, including pipelines, designated for the exclusive use of the subject well shall be removed. The site sits just outside the Russel Ranch Oil Field, with multiple wells within a mile of the proposed site.

As discussed in Section 4.4 (Biological Resources), the project does not have the potential to substantially degrade the quality of the environment because of the lack of vegetation and habitat within the project vicinity. Although no BNLL were found during any of the BNLL protocol surveys conducted by BPR biologists, the fully protected species, has been known to occur near the community of Cuyama. All necessary approvals from State and Federal Agencies would need to be obtained prior to Land Use Permit approval (BIO-02 & BIO-03) and appropriate pre-construction surveys shall be done prior to ground disturbing activities (BIO-01 & BIO-04). These mitigation measures would reduce impacts to biological resources to less than significant levels. The proposed project would not contribute significantly to greenhouse gas emissions or significantly increase energy consumption. As discussed in Section 4.15 (Water Resources) sediment and contamination containment would be used to prevent distribution of pollutants or eroded soils into downstream water bodies. Therefore, impacts would be ***less than significant with mitigation*** identified.

(2) Disadvantage Long-term Environmental Goals. The proposed project is proposed to drill one new test well for oil and gas exploration and determine if the area is suitable for oil & gas production. The site is approximately 1 mile away from the Russel Ranch Oil Field in Cuyama. If found, another permit for operation would be required and long term goals and impacts would be assessed. The proposed project

does not have the potential to achieve short-term goals to the disadvantage of long-term environmental goals. Therefore, impacts would be ***less than significant***.

(3) Cumulative Impacts. As discussed throughout this document, because the project is an allowable use in the AG-II zone and is not an uncommon use in the area, it does not have any impacts that are individually limited, but cumulatively considerable. Any contribution of the project to significant cumulative impacts would be adequately reduced by mitigation measures identified to address project-specific impacts. Therefore, impacts would be ***less than significant with mitigation*** described within each issue area.

(4) Substantially Affect Human Beings. The proposed project would not create environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly. Project effects would be very limited in duration. Construction equipment would generate short term noise impacts to the single residence on the site; however, this effect would be minimized with the implementation of mitigation measure NOISE-02. Therefore, impacts would be ***less than significant with mitigation***.

(5) Disagreement over the Significance of an Effect. There is no disagreement supported by or predicated upon facts and/or expert opinion over the significance of an effect which would warrant investigation in an EIR. Therefore, impacts would be ***less than significant***.

8.0 PROJECT ALTERNATIVES

CEQA does not require an analysis of potential project alternatives because the proposed project would not result in potentially significant, adverse and unmitigated impacts.

9.0 INITIAL REVIEW OF PROJECT CONSISTENCY WITH APPLICABLE SUBDIVISION, ZONING AND COMPREHENSIVE PLAN REQUIREMENTS

Agriculture Policy I.D. The use of the Williamson Act (Agricultural Preserve Program) shall be strongly encouraged and supported. The County shall also explore and support other agricultural land protection programs.

Hazards and Risk Poly 4-3. All new or modified land use permits for facilities that generate hazardous waste shall incorporate waste minimization techniques to the maximum extent economically and technically feasible. New applicants shall be required to submit this information as part of their permit application. This policy shall apply to both discretionary and ministerial land use permits.

Land Use Development Policy 4. Prior to issuance of a development permit, the County shall make the finding, based on information provided by environmental documents, staff analysis, and the applicant, that adequate public or private services and resources (i.e., water, sewer, roads, etc.) are available to serve the proposed development. The applicant shall assume full responsibility for costs incurred in service extensions or improvements that are required as a result of the proposed project. Lack of available public or private services or resources shall be grounds for denial of the project or reduction in the density otherwise indicated in the land use plan. Affordable housing projects proposed pursuant to the Affordable Housing Overlay regulations, special needs housing projects or other affordable housing projects which include at least 50% of the total number of units for affordable housing or 30% of the total number of units affordable at the very low income level shall be presumed to be consistent with this policy if the project has, or is conditioned to obtain all necessary can and will serve letters at the time of final map recordation, or if no map, prior to issuance of land use permits.

Land Use Development Policy 13. Oil and gas facilities shall be dismantled and removed, their host sites cleaned of contamination and reclaimed to natural conditions, or conditions to accommodate reasonably foreseeable development, in an orderly and timely manner that avoids long-term impacts to the health, safety, and welfare of the public and environment.

Hillside & Watershed Protection Policy 2. All developments shall be designed to fit the site topography, soils, geology, hydrology, and any other existing conditions and be oriented so that grading and other site preparation is kept to an absolute minimum. Natural features, landforms, and native vegetation, such as trees, shall be preserved to the maximum extent feasible. Areas of the site which are not suited to development because of known soil, geologic, flood, erosion or other hazards shall remain in open space.

Hillside & Watershed Protection Policy 3. For necessary grading operations on hillsides, the smallest practical area of land shall be exposed at any one time during development and the length of exposure shall be kept to the shortest practicable amount of time. The clearing of land should be avoided during the winter rainy season and all measures for removing sediments and stabilizing slopes should be in place before the beginning of the rainy season.

Hillside & Watershed Protection Policy 6. Provisions shall be made to conduct surface water to storm drains or suitable watercourses to prevent erosion. Drainage devices shall be designed to accommodate increased runoff resulting from modified soil and surface conditions as a result of development. Water runoff shall be retained onsite whenever possible to facilitate groundwater recharge.

10.0 RECOMMENDATION BY P&D STAFF

On the basis of the Initial Study, the staff of Planning and Development:

____ Finds that the proposed project WILL NOT have a significant effect on the environment and, therefore, recommends that a Negative Declaration (ND) be prepared.

__X__ Finds that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures incorporated into the REVISED PROJECT DESCRIPTION would successfully mitigate the potentially significant impacts. Staff recommends the preparation of an ND. The ND finding is based on the assumption that mitigation measures will be acceptable to the applicant; if not acceptable a revised Initial Study finding for the preparation of an EIR may result.

____ Finds that the proposed project MAY have a significant effect on the environment, and recommends that an EIR be prepared.

____ Finds that from existing documents (previous EIRs, etc.) that a subsequent document (containing updated and site-specific information, etc.) pursuant to CEQA Sections 15162/15163/15164 should be prepared.

Potentially significant unavoidable adverse impact areas:

_____ With Public Hearing _____ Without Public Hearing

PREVIOUS DOCUMENT: Not Applicable

PROJECT EVALUATOR: **Katie Nall** **DATE:** June 14, 2023

11.0 DETERMINATION BY ENVIRONMENTAL HEARING OFFICER

_X_ I agree with staff conclusions. Preparation of the appropriate document may proceed.
____ I DO NOT agree with staff conclusions. The following actions will be taken:
____ I require consultation and further information prior to making my determination.

SIGNATURE:_____ **INITIAL STUDY DATE**: September 7, 2023

SIGNATURE:_____ **NEGATIVE DECLARATION DATE**: September 12, 2023

SIGNATURE:_____ **REVISION DATE:** _____

SIGNATURE:_____ **FINAL NEGATIVE DECLARATION DATE:** January 31, 2024

12.0 ATTACHMENTS

1. Vicinity Map
2. Site Plan
3. Topographic Map
4. Ag Preserve Committee Minutes
5. Air Quality Report
6. APCD Condition Letter dated June 1, 2023
7. Biological Constraints Analysis dated March 2021
8. Blunt-nosed Leopard Lizard Protocol Survey Results & Botanical Inventory Report dated December 03, 2021

- There are no existing dwellings and structures located within 1,550'
- There are no new flare gas production lines, line for production, electrical lines, and tank farms.
- Location of all accessory/ancillary facilities (including tuck parking, on-site storage, etc.) are shown on map.
- There are no proposed underground pipelines.

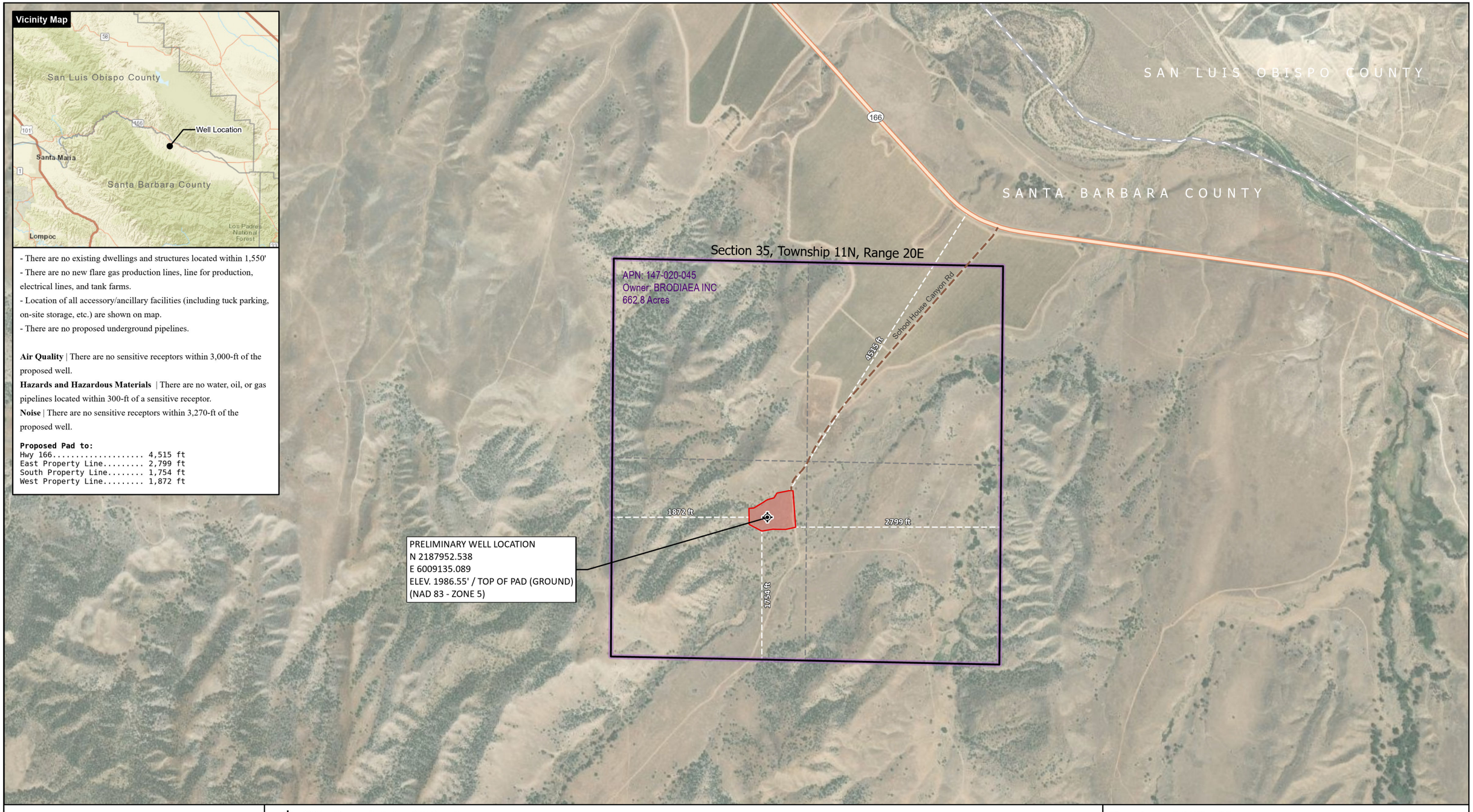
Air Quality | There are no sensitive receptors within 3,000-ft of the proposed well.

Hazards and Hazardous Materials | There are no water, oil, or gas pipelines located within 300-ft of a sensitive receptor.

Noise | There are no sensitive receptors within 3,270-ft of the proposed well.

Proposed Pad to:

Hwy 166	4,515 ft
East Property Line	2,799 ft
South Property Line	1,754 ft
West Property Line	1,872 ft



Project Name: Hidden Canyon Test Well
Company: West Bay Exploration
Company Address: 1234 Main St Citytown, St 12456
APN: 147-020-045
Field: Hidden Canyon
TRS: T11N, R28W, Sec 35

- Hidden Canyon Preliminary Well Location
- Proposed Well Pad
- APN 147-020-045
- Access Road
- Section 35 (T11N, 20E)
- Midsection Lines

Mineral Owner/Operator Signature: _____
Date: _____

Surface Owner Signature: _____
Date: _____

Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983

0 500 1,000 2,000 Feet
0 125 250 500 Meters

1:15,000
1 inch = 1,250 feet

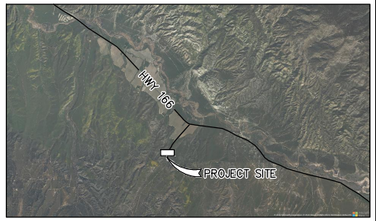
Regional Site Map

Hidden Canyon Test Well

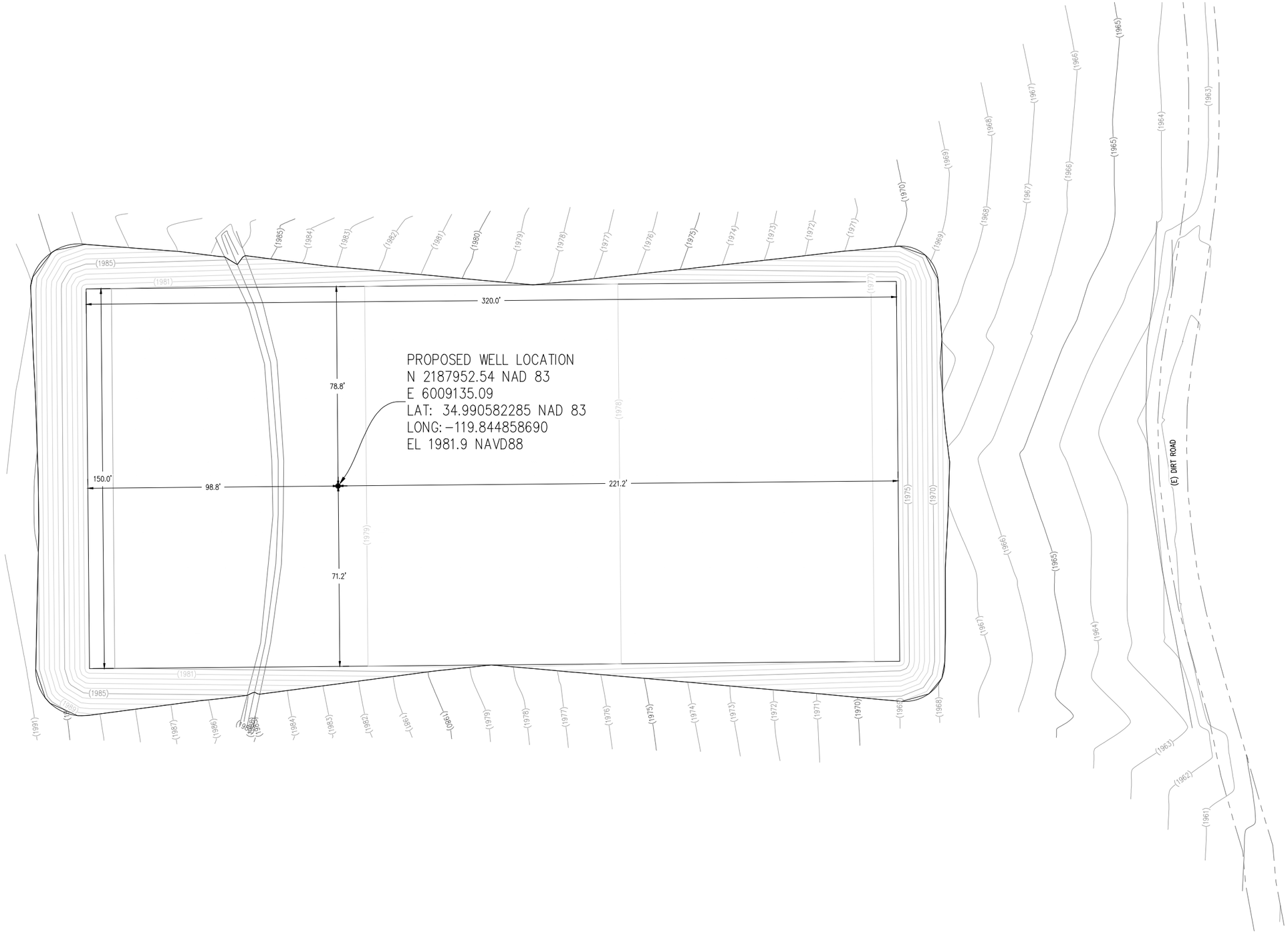
Last Updated: 1/27/2022
Aerial Basemap by ESRI, 2020

BPR CONSULTING

TOPOGRAPHIC EXHIBIT
PLANVIEW



VICINITY MAP NOT TO SCALE



VOLUMES

CUT	=	4521 CY.
**FILL	=	5482 CY
TOTAL (FILL)	=	4386 CY

**=25% COMPACTION FACTOR FOR SHRINKAGE

N

0 20 40
SCALE IN FEET

LEGEND

(E)	EXISTING
(TYP)	TYPICAL
(XXX)	(E) CONTOUR MAJOR
(XXX)	(E) CONTOUR MINOR
	OVERHEAD POWER LINE
	PROPOSED WELL
	MONUMENT

NO.	DESCRIPTION OF REVISIONS	DATE	BY
00	ISSUED FOR REVIEW	03-24-22	VAL

PREPARED BY:

GLOBAL GEOMATICS ENGINEERING, Inc.
9801 MESA OAK DR, BAKERSFIELD, CA 93311
(661)282-8400 FAX (661)282-8401

DRAWN BY:	VAL	03-28-2022
CHECKED BY:	KEM	03-28-2022

PREPARED FOR:

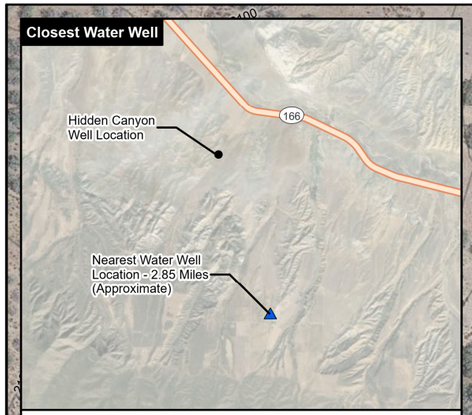
TOPOGRAPHIC EXHIBIT
PROPOSED WELL LOCATION
CUYAMA VALLEY
T.10N., R.24W, SBB&M

DATE	03-28-2022
JOB NO.	22-142
TOPOGRAPHIC EXHIBIT	
PLANVIEW	
CUYAMA VALLEY T.10N., R.24W, SBB&M	
COUNTY OF SANTA BARBARA	STATE OF CALIFORNIA
DRAWING NO.	01
REVISION NO.	01
SHEET 1 OF 1 SHEETS	

Drawing Name:I:\CAD PROJECTS\B&R Consulting\22-142 Cuyama\22-142 Topo Base_recover.dwg Last Opened: Mar 29, 2022 - 8:14am by Work

Section 35, Township 11N, Range 20E
APN: 147-020-045

Closest Water Well



- There are no existing dwellings and structures located within 1,550'
- There are no new flare gas production lines, line for production, electrical lines, and tank farms.
- Location of all accessory/ancillary facilities (including tuck parking, on-site storage, etc.) are shown on map.
- There are no proposed underground pipelines.

Air Quality | There are no sensitive receptors within 3,000-ft of the proposed well.

Hazards and Hazardous Materials | There are no water, oil, or gas pipelines located within 300-ft of a sensitive receptor.

Noise | There are no sensitive receptors within 3,270-ft of the proposed well.

Proposed Pad to:

Hwy 166	4,799 ft
East Property Line	2,965 ft
South Property Line	1,871 ft
West Property Line	2,024 ft

PRELIMINARY WELL LOCATION
34.990582°N, 119.844859°W
N 2187952.538
E 6009135.089
ELEV. 1986.55' / TOP OF PAD (GROUND)
(NAD 83 - ZONE 5)

Proposed Well Pad
310' x 140'
0.996 Acres

Schoolhouse Canyon Road

100-Year Flood Zone

Project Name:	Hidden Canyon Test Well
Company:	West Bay Exploration
Company Address:	1234 Main St Citytown, St 12456
APN:	147-020-045
Field:	Hidden Canyon
TRS:	T11N, R28W, Sec 35

- Hidden Canyon Preliminary Well Location
- Proposed Well Pad
- Proposed Access Road
- Dark Sky Compliant Lighting*
- FEMA Flood Zone A | 100-Year Flood Zone
- 10-ft Contours

*Lights not to be seen from highway 166

Mineral Owner/Operator Signature: _____
Date: _____

Surface Owner Signature: _____
Date: _____

Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983

0 75 150 300 Feet
0 15 30 60 Meters

1:2,160
1 inch = 180 feet

Detailed Site Map

Hidden Canyon Test Well

Last Updated: 11/2/2022
Aerial Basemap by Google, 2020
Flood Zone by FEMA, Sept 2021.

BPR CONSULTING

COUNTY OF SANTA BARBARA

AGRICULTURAL PRESERVE ADVISORY COMMITTEE
UNAPPROVED MINUTES

Meeting of May 11, 2023
9:00 A.M.

The regular meeting of the Agricultural Preserve Advisory Committee was called to order by Stephanie Stark at 9:04 A.M.

COMMITTEE MEMBERS	**PRESENT:**
Sergio Ricardo, Assessor's Office	×
David Lackie, Planning and Development	×
Aleks Jevremovic, County Surveyor	×
Matthew Shapero, U.C Cooperative Extension	×
Stephanie Stark, Agricultural Commissioner's	×

STAFF MEMBERS	**PRESENT**
Callie Kim, Deputy County Counsel	×
Jonathan Martin, Planning & Development	×

NUMBER OF INTERESTED PERSONS: **None**

ADMINISTRATIVE AGENDA:

I. MEETING CALLED TO ORDER: *by Committee Member, Stephanie Stark*

II. PUBLIC COMMENTS:
No Public Comment

III. MINUTES: The Minutes of April 13, 2023 will be considered.

Lackie moved, seconded by Jevremovic, and carried by a vote of 4-0-1 (Shapero abstained) to approve the April 13, 2023 minutes as amended.

IV. AGENDA MANAGEMENT – Request for continuances
APAC Considered and discussed agenda management requests.

V. CONTINUED ITEMS:

1. 84-AP-001 7300 Happy Canyon Santa Ynez
22LUP-00000-00486, 23ZCI-00007 Tina Mitchell, Planner (805) 934-6289

Consider the request of Mike Elliot, agent for the owner, Hawk Canyon 53, LLC, of Case Nos. 21LUP-00000-00486 and 23ZCI-00007 regarding the construction of a new barn of approximately 1,576 square feet and a new agricultural employee dwelling unit of approximately 1,496 square feet and its consistency with the Uniform Rules, and consider ongoing eligibility of the property as an agricultural preserve consistent with the Uniform Rules and any enforcement actions pursuant to Uniform Rule 6. The property is 130.39 acres, identified as Assessor's Parcel Number 141-090-034, zoned AG-II-100 with an AC

Comprehensive Plan designation, located at 7300 Happy Canyon Road in the Santa Ynez area, Third Supervisorial District. **(Continued from 2/9/23, and 4/13/23)**

ACTION: Lackie motioned, seconded by Shapero, and carried by a vote of 5-0 to continue the item to the June 8, 2023 APAC Agenda at the request of the applicant.

2. 01-AP-004A AG Land Properties, Inc. Lompoc

Consider the ongoing eligibility of agricultural preserve contract 01-AP-004 and its consistency with the Uniform Rules and any enforcement actions pursuant to Uniform Rule 6 following a change in ownership of three of the six parcels in the contract. The contract originally included Assessor's Parcel Numbers 099-080-008, 099-080-009, 099-080-010, 099-080-011, 099-080-012, and 099-080-013 (formerly 099-080-007 & 099-120-018). Parcels 099-080-008, 099-080-010, and 099-080-012 were sold on December 17, 2021 per document # 2021-0085891, and caused the contract to no longer be under common ownership. Because of the change in ownership, each parcel must now qualify individually for the program. The property, which consists of 316.3 acres, identified as Assessor's Parcel Numbers 099-080-008, 099-080-010, and 099-080-012, is located in the Lompoc area, Third Supervisorial District.**(Continued from 8/12/22, 12/2/22, 1/12/23, and 3/9/23)**

ACTION: Lackie motioned, seconded by Ricardo, and carried by a vote of 5-0 to continue the item to the July 13, 2023 agenda.

3. 01-AP-004A The Joseph Burrow Muscio Revocable Family Trust Lompoc

Consider the ongoing eligibility of agricultural preserve contract 01-AP-004 and its consistency with the Uniform Rules and any enforcement actions pursuant to Uniform Rule 6 following a change in ownership of three of the six parcels in the contract. The contract originally included Assessor's Parcel Numbers 099-080-008, 099-080-009, 099-080-010, 099-080-011, 099-080-012, and 099-080-013 (formerly 099-080-007 & 099-120-018). Parcels 099-080-008, 099-080-010, and 099-080-012 were sold on December 17, 2021 per document # 2021-0085891, and caused the contract to no longer be under common ownership. Because of the change in ownership, each parcel must now qualify individually for the program. The property, which consists of 484.26 acres, identified as Assessor's Parcel Numbers 099-080-009, 099-080-011, and 099-080-013, is located in the Lompoc area, Third Supervisorial District. **(Continued from 8/12/22, and 12/2/22)**

ACTION: Lackie motioned, seconded by Ricardo, and carried by a vote of 5-0 to continue the item to the July 13, 2023 APAC meeting.

II. DISCUSSION ITEMS:

4. 95-AP-024 Hidden Canyon Oil Exploration Well New Cuyama

Katie Nall, Planner (805) 884-8050

Request of Ben Ruiz, agent for the owner Brodiaea Inc. for information regarding preparation and grading of the drill site for 1 new oil exploration well, The Pad will be 0.99 acres. Once dug, the well will be abandoned. No gas production is proposed as a part of the project. There are no permanent facilities proposed expect for the well head, Would this conflict with the Agricultural Preserve contract? The property involves Assessor's Parcel Number 147-020-045. The property is 6,565.00 acres currently zoned AG-II-100 with an AC Comprehensive Plan designation. The property is located at 7400 Higway 166 in the Cuyama area, First Supervisorial District.

APAC discussed the request for one new oil exploration well, and request the applicant to return as a new item to the June 8, 2023 APAC Agenda, to discuss ongoing eligibility and consistency with Uniform Rules.

5. Discuss Streaming APAC Meetings on YouTube

APAC Committee

APAC discussed and recommended streaming future APAC meetings on YouTube.

VII. REPORTS OF COMMITTEE MEMBERS: Committee members may make reports to Committee regarding issues requiring placement on a future agenda or on general procedural matters. No official action shall be taken on any individual matter.

The next Agricultural Preserve Committee Meeting is scheduled for June 8, 2023 Agenda requests should be submitted to the South County Zoning Information Counter located at 123 East Anapamu Street, Santa Barbara, California 93101 or at the North County Zoning Information Counter located at 624 West Foster Road, Santa Maria, California 93455.

Meeting adjourned at 11:35 am

EnviroTech Consultants, Inc.

5400 Rosedale Hwy
Bakersfield, CA 93308
ph. 661.377.0073

PROJECT EMISSIONS

Project Title

Hidden Canyon Test Well
Drilling Phase

Project Location

Russell Ranch Field
Section 15 of Township 11N/Range 28W SB

April 14, 2022
Revision 02/21/2023

Submitted to:

BPR Consulting
2201 Francisco Drive, Suite 140-658
El Dorado Hills, CA 95762

Table of Contents

Tables

EXHIBITS

1.0 **INTRODUCTION**

This Air Quality study identifies the potential impacts on air quality resulting from the proposed crude oil well drill demonstration project. The proposed project is for the grading-site preparation, drilling and operational phases of one crude oil test well occupying one well pad.

The project site is located in the Russell Ranch oil field northwest of New Cuyama (City) in Santa Barbara County. The project site is located within the South Central Coast Air Basin, which is under the jurisdiction of the Santa Barbara Air Pollution Control District (SBAPCD).

This document was prepared using methodology described in the *Santa Barbara County Environmental Thresholds and Guidelines* Manual (amended January 2021) and *Scope and Content of Air Quality Sections in Environmental Documents* (January 2022 limited update).

2.0 **PROJECT DESCRIPTION**

The Project site occupies one well pad in the Russell Ranch crude oil production field. The Air Quality Study will determine the air emissions associated with the grading-site preparation, drilling and operation of one new crude oil well. Each phase of the project is detailed in the following subsections and includes worker, both employee and third-party, vehicle emissions and any haul trips.

The project to drill the exploratory oil and gas well will determine if oil is viable. If oil is not discovered, the well will be plugged and abandoned. If oil is discovered, production casing and a well head with a production tree will be installed. The well head requires a permit from SBAPCD. The project emissions include emissions from the 'oil is discovered' scenario and operational emissions for the well head.

The air emissions associated with this study include the criteria air pollutants (NOx, VOC, SOx, PM10 and CO) and greenhouse gas emissions (CO_2). CalEEMod (version CalEEMod.2020.4.0) was used to determine both the unmitigated and mitigated emissions for each construction phase and for the total project.

Preparation and grading of the drill site (5 days)

During site preparation activities the proposed project site would be graded, watered and compacted to establish a level and solid foundation for the drilling rig. Topsoil would be stabilized, consistent with SBAPCD Regulation 345 requirements and the County of Santa Barbara Grading Ordinance. Earthmoving activities for the project would not exceed a combined total disturbance of 5.0 acres per day nor involve movement, deposition, or relocation of more than 2,500 cubic yards per day of bulk materials on any three (3) or more days. Material will not be imported or exported from the construction site. Construction personnel would be notified prior to ground disturbing activities of the possibility of buried prehistoric or historic cultural or paleontological deposits and endangered species concerns.

Equipment emission sources for the preparation of the drill site are listed below:

Grading Phase						
Equipment Type	Description	Unit Amount	Total Hours	hr/day for phase per unit	HP	Load Factor
Rubber Tired Dozer	Dozer	1	60	12	default	default
Graders	Grader	1	60	12	default	default
Tractor/Loader/Backhoe	Back Hoe	1	60	12	default	default
Bore/Drill Rig	Auger Drill	1	24	4.8	default	default
Crane	30 Ton Crane Set Up	1	4	0.8	default	default
Cement and Mortar Mixers	Concrete Truck - Grouting	2	4	0.4	450	default

The worker, vendor and haul trips used a conservative estimate of 65 miles, which is the distance from Bakersfield to the project location.

Drilling of Well (24 days)

The drilling phase for the proposed project would last a total of approximately 24 days. The drilling phase would consist of mobilization and demobilization of the drill rig and for drilling and various tasks associated with the drilling phase including installation of blowout prevention equipment, cementing, mud-logging, etc. Included in the drilling phase is the installation casing annulus and a well head with a production tree.

The emission sources for the drilling phase are listed below:

Well Construction Phase						
Equipment Type	Description	Unit Amount	Total Hours	hr/day for phase per unit	HP	Load Factor
Generator Set	Genset for Main Rig Power	3	1,532	11.6	1495	default
Generator Set	Genset for Instrumentation	1	511	11.6	127	default
Forklifts	Forklift	1	128	2.9	150	default
Generator Set	Auxillary Generator for Control, Trailers	3	1,532	11.6	60	default
Other General Construction Equipment	Drillsite Lighting 4000w Light Tower	3	766	5.8	15	default
Other General Construction Equipment	Drillsite Lighting 8000w Light Tower	3	766	5.8	30	default
Tractor/Loader/Backhoe	Backhoe	1	170	3.9	default	default
Welders	Welding - Portable Welder	1	20	0.4	20	default

The worker, vendor and haul trips used a conservative estimate of 65 miles, which is the distance from Bakersfield to the project location.

Installation of Production Equipment

Other than the well head installation during the drilling phase, there will be no other production equipment installed.

Operational Phase

The operational phase includes fugitive components from inactive well head tree and one daily operator site visit. The emission factor for the well is 6.6409 lbs/day of ROG as a worst-case value, per CARB/KVB Method (Version 6.0).

The worker VMT used a conservative estimate of 65 miles, which is the distance from Bakersfield to the project location.

3.0 IMPACTS OF THE PROPOSED PROJECT

This document was prepared using methodology described in the *Santa Barbara County Environmental Thresholds and Guidelines* Manual (amended January 2021) and *Scope and Content of Air Quality Sections in Environmental Documents* (January 2022 limited update).

Thresholds of Significance

Criteria Pollutants – Construction Emissions

The SBAPCD has established the following significance thresholds for short-term/construction criteria pollutants (Table 1a). A proposed project does not have a significant air quality impact unless emissions of criteria pollutants exceed the following thresholds listed in the *Santa Barbara County Environmental Thresholds and Guidelines* Manual (amended January 2021).

Table 1: Significance Thresholds Criteria Pollutants – Construction Emissions

Pollutant / Precursor	Project Emissions Emissions (tons/year)
CO	N/A
NOx	25
VOC/ROC	25
SOx	N/A
PM_{10}	N/A
$PM_{2.5}$	N/A

Criteria Pollutants – Operational Emissions

The SBAPCD has established the following significance thresholds for long-term/operational criteria pollutants (Table 1b). A proposed project does not have a significant air quality impact unless emissions of criteria pollutants exceed the following thresholds listed in the *Santa Barbara County Environmental Thresholds and Guidelines* Manual (amended January 2021).

A proposed project will not have a significant air quality effect on the environment if the project will:

- emit (from all project sources, both stationary and mobile) less than the daily trigger for offsets or Air Quality Impact Analysis set in the APCD New Source Review Rule, for any pollutant; and
- emit less than 25 pounds per day of NOx or ROC from motor vehicle trips only; and
- have a total number of operational peak hour vehicle trips less than 800.

Table 2: Significance Thresholds Criteria Pollutants – Operational Emissions

Pollutant / Precursor	Offset Thresholds	Motor Vehicle Trips
	Emissions (lbs/day)	Emissions (lbs/day)
CO	N/A	N/A if <800 trips/day
NOx	55	25
VOC/ROC	55	25
SOx	N/A	N/A
PM_{10}	80	N/A
$PM_{2.5}$	N/A	N/A

CEQA Thresholds of Significance for GHG Emissions and Global Climate Change

There are no thresholds of significance that have been established by the SBAPCD for GHG emissions and global climate change, the project is assumed to be 'not significant' if the CO2e emissions are less than 10,000 metric tonnes/year). Additionally, based on the March 2010 amendments to the *Guidelines for the Implementation of the California Environmental Quality Act* (State CEQA Guidelines), the proposed project could potentially have a significant impact related to GHG and global climate change if it would:

- emit less than the screening significance level of 10,000 metric tons per year (MT/yr) CO2e, or
- show compliance with an approved GHG emission reduction plan or GHG mitigation program which avoids or substantially reduces GHG emissions (sources subject to the AB 32 Cap-and-Trade requirements pursuant to Title 17, Article 5 (California Cap on Greenhouse Gas Emissions and Market-based Compliance Mechanisms) would meet the criteria), or
- show consistency with the AB 32 Scoping Plan GHG emission reduction goals by reducing project emissions 15.3 percent below Business As Usual (BAU).

In order to determine whether or not a proposed project would cause an incremental contribution resulting in a significant effect on global climate change, the incremental contribution of the proposed project must be determined quantitatively and qualitatively by examining the types and levels of GHG emissions that would be generated directly and indirectly and address whether the proposed project would comply with the provisions of an adopted greenhouse reduction plan or strategy. If no such plan or strategy is applicable or has been adopted, the analysis must determine if the proposed project would significantly hinder or delay California's ability to meet the reduction targets contained in Assembly Bill 32 (AB 32). AB 32 sets target emissions and requires that GHG emitted in California be reduced to 1990 levels by the year 2020, which is 427 million metric tons of carbon dioxide equivalent ($MMTCO_2e$). The year 2020 reduction target equates to a decrease of approximately 29 percent in GHG emissions below year 2020 "business as usual" (BAU) emissions (or approximately 15 percent below the current GHG emissions). "Business as usual" (BAU) conditions are defined based on the year 2005 building energy efficiency, average vehicle emissions, and electricity energy conditions. The BAU conditions assume no improvements in energy efficiency, fuel efficiency, or renewable energy generation beyond that existing today.

Model Assumptions

Short-term construction emissions for the construction phase (grading-site preparation and drilling) emissions were determined using the latest version of the CalEEMod[1] model criterion (version CalEEMod.2020.4.0) :

- All diesel offroad construction equipment will be based on fleet average values for 2023.
- Trip length for mobile sources, including workers and vendors, and hauling is estimated to be 65 miles conservatively. The 65 miles is based on the distance between the project site and the city of Bakersfield, which is outside of the Santa Barbara County lines.
- Electricity will be generated using generator sets included in the offroad inventory of the appropriate construction phase.
- Indirect greenhouse gas emissions from electricity use, water use, and waste disposal will be zero, as the project and corresponding operations do not include any utilities or waste services.
- The disturbed areas will be watered twice per day for dust control from water trucked in to the project. The water truck trips are included in the onroad vehicle inventory mix.
- The operational phase consists of one inactive wellhead tree without any piping, wellhead, or cellar. The fugitive component emissions for the welltree were based on the BACT emission factors for well fugitive components using CARB/KVB Method for 'Composite Valve and Fitting' emission factors of 6.049 lbs/day. This value was added to the daily operational emissions to determine offset threshold level.

Air Emissions

The implementation of the proposed project would generate increases in air emissions from construction activities. The summary of mitigated emissions is in Table 2 below. The CalEEMod report detailing the emissions is included in Appendix A.

Table 3: Project Emissions - Construction

	Project Total - Mitigated						
	ROG	NOx	PM10	PM2.5	CO	CO2	GHG
	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	MT/yr	MT/yr
Construction	0.3888	5.6873	0.5558	0.1723	2.3386	984	985
CEQA Thresholds	25.0000	25.0000	N/A	N/A	N/A	10,000	10,000
Significant?	No	No	No	No	No	No	No

The construction criteria emissions for each of the pollutants is below the CEQA Threshold level and are **not significant.**

Table 4: Project Emissions - Operational

	Project Total - Mitigated						
	ROG	NOx	PM10	PM2.5	CO	CO2	GHG
	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	MT/yr	MT/yr
Operational (tons/yr)	1.3807	0.0052	0.1660	0.0179	0.0336	7	7
Operational (lb/day)	6.6126	0.0285	0.0909	0.0981	0.1841		
Offset Thresholds (lb/day)	55.0000	55.0000	80.000	N/A	N/A		
Screening Level (MT/year)						10,000	10,000
Significant?	No	No	No	No	No	No	No

The operational emissions from all project sources, both stationary and mobile, are less than the daily trigger for offsets or Air Quality Impact Analysis set in the APCD New Source Review Rule, for any pollutant and are **not significant**.

The operational vehicles emissions are less than 25 pounds per day of NOx or ROC from motor vehicle trips only and are **not significant.**

The stationary source emits less than the screening significance level of 10,000 metric tons per year (MT/yr) CO2e (listed as GHG in above table) and is **not significant**.

The number of operational peak hour vehicle trips is less than 1, which is less than the 800 peak hour trips required to perform the CO Hotspots modeling. Based on the number of vehicle trips, CO Modeling is **not required and is not significant.**

APPENDIX A

PHASE AND SUMMARY EMISSIONS - CALEEMOD

Hidden Canyon Test Well - Santa Barbara County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Hidden Canyon Test Well

Santa Barbara County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	48.13	1000sqft	1.10	48,130.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.9	**Precipitation Freq (Days)**	37
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Pad Construction and Well Drilling with installation of well head tree only

Off-road Equipment - Painting not required

Off-road Equipment - Drill Rig with 3 x 1350 bhp and 1 x 100 bhp, Genset for light towers. Based off actual equipment list.

Off-road Equipment - Cement mixer on truck

Trips and VMT - Trip lengths based on worst-case distance from Bakersfield

On-road Fugitive Dust - Unpaved road to site 1.25 miles from main paved road (<2% total distance)

Grading - Grading size of pad - no material import/export

Architectural Coating - Painting not required

Vehicle Trips - Operational requires one daily visit for inspection (1 vdt/48 ksqft = 0.02 vdt)

Vehicle Emission Factors -

Hidden Canyon Test Well - Santa Barbara County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Vehicle Emission Factors -

Vehicle Emission Factors -

Road Dust - Unpaved road to well site 1.25 miles from main paved road

Consumer Products - Consumer products, pesticides, fertilizers and degreaser will not be used at well site.

Area Coating - Architectural coatings not required

Energy Use - all electric provided by generators

Water And Wastewater - Well does not require water or electricity

Solid Waste - Well does not generate waste

Construction Off-road Equipment Mitigation - All equipment will be Tier 4F except welder. Forklift expected to be Tier 4F, but may be Tier 3.

Area Mitigation -

Operational Off-Road Equipment - no equipment required

Fleet Mix -

Stationary Sources - User Defined - Well head tree only - no connected pipes, wellhead, or cellar. BACT for Well Fugitive Components. EF based on CARB/KVB Method for 'Composite Valve and Fitting EF'.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	24065	0
tblAreaCoating	Area_Nonresidential_Interior	72195	0
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstructionPhase	NumDays	200.00	24.00
tblConstructionPhase	NumDays	4.00	5.00

Hidden Canyon Test Well - Santa Barbara County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblConstructionPhase	PhaseEndDate	4/18/2024	8/16/2023
tblConstructionPhase	PhaseEndDate	7/13/2023	7/14/2023
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblEnergyUse	LightingElect	3.08	0.00
tblEnergyUse	NT24E	3.70	0.00
tblEnergyUse	NT24NG	6.67	0.00
tblEnergyUse	T24E	1.32	0.00
tblEnergyUse	T24NG	19.51	0.00
tblGrading	AcresOfGrading	7.50	1.10
tblOffRoadEquipment	HorsePower	89.00	150.00
tblOffRoadEquipment	HorsePower	84.00	60.00
tblOffRoadEquipment	HorsePower	84.00	1,350.00
tblOffRoadEquipment	HorsePower	84.00	100.00
tblOffRoadEquipment	HorsePower	46.00	20.00
tblOffRoadEquipment	HorsePower	9.00	450.00
tblOffRoadEquipment	HorsePower	172.00	15.00
tblOffRoadEquipment	HorsePower	172.00	30.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	UsageHours	6.00	5.30
tblOffRoadEquipment	UsageHours	8.00	21.30
tblOffRoadEquipment	UsageHours	8.00	21.30
tblOffRoadEquipment	UsageHours	8.00	21.30
tblOffRoadEquipment	UsageHours	8.00	12.00
tblOffRoadEquipment	UsageHours	8.00	12.00

Hidden Canyon Test Well - Santa Barbara County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	UsageHours	6.00	7.10
tblOffRoadEquipment	UsageHours	7.00	12.00
tblOffRoadEquipment	UsageHours	8.00	0.80
tblOnRoadDust	HaulingPercentPave	100.00	98.00
tblOnRoadDust	HaulingPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	VendorPercentPave	100.00	98.00
tblOnRoadDust	WorkerPercentPave	100.00	98.00
tblOnRoadDust	WorkerPercentPave	100.00	98.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	RoadPercentPave	100	98
tblSolidWaste	SolidWasteGenerationRate	59.68	0.00
tblTripsAndVMT	HaulingTripLength	20.00	65.00
tblTripsAndVMT	HaulingTripLength	20.00	65.00
tblTripsAndVMT	HaulingTripNumber	0.00	7.00
tblTripsAndVMT	HaulingTripNumber	0.00	80.00
tblTripsAndVMT	VendorTripLength	6.40	65.00
tblTripsAndVMT	VendorTripLength	6.40	65.00
tblTripsAndVMT	VendorTripNumber	0.00	3.00
tblTripsAndVMT	VendorTripNumber	8.00	4.00
tblTripsAndVMT	WorkerTripLength	8.30	65.00
tblTripsAndVMT	WorkerTripLength	8.30	65.00
tblVehicleTrips	CC_TL	5.50	65.00
tblVehicleTrips	CNW_TL	6.40	65.00
tblVehicleTrips	CW_TL	6.60	65.00
tblVehicleTrips	ST_TR	1.99	0.02
tblVehicleTrips	SU_TR	5.00	0.02
tblVehicleTrips	WD_TR	4.96	0.02
tblWater	IndoorWaterUseRate	11,130,062.50	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.3888	5.6873	2.3386	9.7100e-003	0.7025	0.1220	0.8245	0.0835	0.1212	0.2048	0.0000	983.5411	983.5411	0.0377	3.0200e-003	985.3833
Maximum	**0.3888**	**5.6873**	**2.3386**	**9.7100e-003**	**0.7025**	**0.1220**	**0.8245**	**0.0835**	**0.1212**	**0.2048**	**0.0000**	**983.5411**	**983.5411**	**0.0377**	**3.0200e-003**	**985.3833**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.3888	5.6873	2.3386	9.7100e-003	0.4338	0.1220	0.5558	0.0511	0.1212	0.1723	0.0000	983.5400	983.5400	0.0377	3.0200e-003	985.3821
Maximum	**0.3888**	**5.6873**	**2.3386**	**9.7100e-003**	**0.4338**	**0.1220**	**0.5558**	**0.0511**	**0.1212**	**0.1723**	**0.0000**	**983.5400**	**983.5400**	**0.0377**	**3.0200e-003**	**985.3821**

Hidden Canyon Test Well - Santa Barbara County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**38.25**	**0.00**	**32.59**	**38.86**	**0.00**	**15.85**	**0.00**	**0.00**	**0.00**	**0.03**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**7-10-2023**	**9-30-2023**	6.1271	6.1271
		Highest	6.1271	6.1271

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.0000e-005	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.6000e-004	8.6000e-004	0.0000	0.0000	9.2000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	2.2800e-003	5.1800e-003	0.0332	8.0000e-005	0.1660	6.0000e-005	0.1660	0.0179	5.0000e-005	0.0179	0.0000	7.0327	7.0327	3.3000e-004	3.1000e-004	7.1343
Stationary	1.2045	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.2068**	**5.1800e-003**	**0.0336**	**8.0000e-005**	**0.1660**	**6.0000e-005**	**0.1660**	**0.0179**	**5.0000e-005**	**0.0179**	**0.0000**	**7.0335**	**7.0335**	**3.3000e-004**	**3.1000e-004**	**7.1352**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1740	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.6000e-004	8.6000e-004	0.0000	0.0000	9.2000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	2.2800e-003	5.1800e-003	0.0332	8.0000e-005	0.1660	6.0000e-005	0.1660	0.0179	5.0000e-005	0.0179	0.0000	7.0327	7.0327	3.3000e-004	3.1000e-004	7.1343
Stationary	1.2045	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.3807**	**5.1800e-003**	**0.0336**	**8.0000e-005**	**0.1660**	**6.0000e-005**	**0.1660**	**0.0179**	**5.0000e-005**	**0.0179**	**0.0000**	**7.0335**	**7.0335**	**3.3000e-004**	**3.1000e-004**	**7.1352**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**-14.41**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	7/10/2023	7/14/2023	5	5	Grading and Site Prep
2	Building Construction	Building Construction	7/14/2023	8/16/2023	5	24	Well Drilling and Completion

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1.1

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Bore/Drill Rigs	1	4.80	221	0.50
Grading	Cement and Mortar Mixers	2	0.40	450	0.56
Grading	Cranes	1	0.80	231	0.29
Grading	Graders	1	12.00	187	0.41
Grading	Rubber Tired Dozers	1	12.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	12.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	5.30	150	0.20
Building Construction	Generator Sets	3	21.30	60	0.74
Building Construction	Generator Sets	3	21.30	1350	0.74
Building Construction	Generator Sets	1	21.30	100	0.74
Building Construction	Other Construction Equipment	3	10.60	15	0.42
Building Construction	Other Construction Equipment	3	10.60	30	0.42
Building Construction	Tractors/Loaders/Backhoes	1	7.10	97	0.37
Building Construction	Welders	1	0.80	20	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	7	18.00	3.00	7.00	65.00	65.00	65.00	LD_Mix	HDT_Mix	HHDT

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Building Construction	17	20.00	4.00	80.00	65.00	65.00	65.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0232	0.0000	0.0232	0.0125	0.0000	0.0125	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.9800e-003	0.0540	0.0299	8.0000e-005		2.1900e-003	2.1900e-003		2.0200e-003	2.0200e-003	0.0000	7.3919	7.3919	2.3900e-003	0.0000	7.4517
Total	**4.9800e-003**	**0.0540**	**0.0299**	**8.0000e-005**	**0.0232**	**2.1900e-003**	**0.0254**	**0.0125**	**2.0200e-003**	**0.0145**	**0.0000**	**7.3919**	**7.3919**	**2.3900e-003**	**0.0000**	**7.4517**

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3.2 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	1.7400e-003	3.8000e-004	1.0000e-005	6.2100e-003	1.0000e-005	6.2200e-003	6.5000e-004	1.0000e-005	6.7000e-004	0.0000	0.6897	0.6897	5.0000e-005	1.1000e-004	0.7239
Vendor	6.0000e-005	2.9200e-003	6.6000e-004	1.0000e-005	0.0133	2.0000e-005	0.0134	1.4100e-003	2.0000e-005	1.4300e-003	0.0000	1.2899	1.2899	5.0000e-005	1.9000e-004	1.3475
Worker	5.1000e-004	4.7000e-004	5.1200e-003	2.0000e-005	0.0795	1.0000e-005	0.0795	8.2900e-003	1.0000e-005	8.3000e-003	0.0000	1.6033	1.6033	2.0000e-005	4.0000e-005	1.6155
Total	**5.9000e-004**	**5.1300e-003**	**6.1600e-003**	**4.0000e-005**	**0.0990**	**4.0000e-005**	**0.0991**	**0.0104**	**4.0000e-005**	**0.0104**	**0.0000**	**3.5829**	**3.5829**	**1.2000e-004**	**3.4000e-004**	**3.6868**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0104	0.0000	0.0104	5.6100e-003	0.0000	5.6100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.9800e-003	0.0540	0.0299	8.0000e-005		2.1900e-003	2.1900e-003		2.0200e-003	2.0200e-003	0.0000	7.3919	7.3919	2.3900e-003	0.0000	7.4517
Total	**4.9800e-003**	**0.0540**	**0.0299**	**8.0000e-005**	**0.0104**	**2.1900e-003**	**0.0126**	**5.6100e-003**	**2.0200e-003**	**7.6300e-003**	**0.0000**	**7.3919**	**7.3919**	**2.3900e-003**	**0.0000**	**7.4517**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	1.7400e-003	3.8000e-004	1.0000e-005	3.8800e-003	1.0000e-005	3.8900e-003	4.2000e-004	1.0000e-005	4.3000e-004	0.0000	0.6897	0.6897	5.0000e-005	1.1000e-004	0.7239
Vendor	6.0000e-005	2.9200e-003	6.6000e-004	1.0000e-005	8.3300e-003	2.0000e-005	8.3500e-003	9.1000e-004	2.0000e-005	9.3000e-004	0.0000	1.2899	1.2899	5.0000e-005	1.9000e-004	1.3475
Worker	5.1000e-004	4.7000e-004	5.1200e-003	2.0000e-005	0.0495	1.0000e-005	0.0495	5.2900e-003	1.0000e-005	5.3000e-003	0.0000	1.6033	1.6033	2.0000e-005	4.0000e-005	1.6155
Total	**5.9000e-004**	**5.1300e-003**	**6.1600e-003**	**4.0000e-005**	**0.0617**	**4.0000e-005**	**0.0618**	**6.6200e-003**	**4.0000e-005**	**6.6600e-003**	**0.0000**	**3.5829**	**3.5829**	**1.2000e-004**	**3.4000e-004**	**3.6868**

3.3 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3799	5.5871	2.2667	9.3400e-003		0.1195	0.1195		0.1188	0.1188	0.0000	947.8779	947.8779	0.0342	0.0000	948.7322
Total	**0.3799**	**5.5871**	**2.2667**	**9.3400e-003**		**0.1195**	**0.1195**		**0.1188**	**0.1188**	**0.0000**	**947.8779**	**947.8779**	**0.0342**	**0.0000**	**948.7322**

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3.3 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.5000e-004	0.0199	4.3200e-003	8.0000e-005	0.0710	1.6000e-004	0.0711	7.4600e-003	1.5000e-004	7.6200e-003	0.0000	7.8824	7.8824	5.5000e-004	1.2600e-003	8.2727
Vendor	3.7000e-004	0.0187	4.2300e-003	8.0000e-005	0.0853	1.3000e-004	0.0854	9.0400e-003	1.3000e-004	9.1700e-003	0.0000	8.2553	8.2553	3.4000e-004	1.2100e-003	8.6238
Worker	2.7300e-003	2.5200e-003	0.0273	9.0000e-005	0.4240	5.0000e-005	0.4241	0.0442	5.0000e-005	0.0443	0.0000	8.5508	8.5508	1.3000e-004	2.1000e-004	8.6160
Total	**3.3500e-003**	**0.0411**	**0.0359**	**2.5000e-004**	**0.5803**	**3.4000e-004**	**0.5806**	**0.0607**	**3.3000e-004**	**0.0610**	**0.0000**	**24.6885**	**24.6885**	**1.0200e-003**	**2.6800e-003**	**25.5125**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3799	5.5871	2.2667	9.3400e-003		0.1195	0.1195		0.1188	0.1188	0.0000	947.8767	947.8767	0.0342	0.0000	948.7311
Total	**0.3799**	**5.5871**	**2.2667**	**9.3400e-003**		**0.1195**	**0.1195**		**0.1188**	**0.1188**	**0.0000**	**947.8767**	**947.8767**	**0.0342**	**0.0000**	**948.7311**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.5000e-004	0.0199	4.3200e-003	8.0000e-005	0.0443	1.6000e-004	0.0445	4.8000e-003	1.5000e-004	4.9500e-003	0.0000	7.8824	7.8824	5.5000e-004	1.2600e-003	8.2727
Vendor	3.7000e-004	0.0187	4.2300e-003	8.0000e-005	0.0533	1.3000e-004	0.0534	5.8400e-003	1.3000e-004	5.9700e-003	0.0000	8.2553	8.2553	3.4000e-004	1.2100e-003	8.6238
Worker	2.7300e-003	2.5200e-003	0.0273	9.0000e-005	0.2640	5.0000e-005	0.2641	0.0282	5.0000e-005	0.0283	0.0000	8.5508	8.5508	1.3000e-004	2.1000e-004	8.6160
Total	**3.3500e-003**	**0.0411**	**0.0359**	**2.5000e-004**	**0.3616**	**3.4000e-004**	**0.3620**	**0.0388**	**3.3000e-004**	**0.0392**	**0.0000**	**24.6885**	**24.6885**	**1.0200e-003**	**2.6800e-003**	**25.5125**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.2800e-003	5.1800e-003	0.0332	8.0000e-005	0.1660	6.0000e-005	0.1660	0.0179	5.0000e-005	0.0179	0.0000	7.0327	7.0327	3.3000e-004	3.1000e-004	7.1343
Unmitigated	2.2800e-003	5.1800e-003	0.0332	8.0000e-005	0.1660	6.0000e-005	0.1660	0.0179	5.0000e-005	0.0179	0.0000	7.0327	7.0327	3.3000e-004	3.1000e-004	7.1343

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.96	0.96	0.96	21,239	21,239
Total	0.96	0.96	0.96	21,239	21,239

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	65.00	65.00	65.00	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.492113	0.052876	0.208088	0.152800	0.029700	0.007146	0.010959	0.006131	0.000966	0.000597	0.030829	0.003523	0.004272

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

No Hearths Installed

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1740	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.6000e-004	8.6000e-004	0.0000	0.0000	9.2000e-004
Unmitigated	4.0000e-005	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.6000e-004	8.6000e-004	0.0000	0.0000	9.2000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.6000e-004	8.6000e-004	0.0000	0.0000	9.2000e-004
Total	**4.0000e-005**	**0.0000**	**4.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**8.6000e-004**	**8.6000e-004**	**0.0000**	**0.0000**	**9.2000e-004**

Hidden Canyon Test Well - Santa Barbara County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1739					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.4000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.6000e-004	8.6000e-004	0.0000	0.0000	9.2000e-004
Total	**0.1740**	**0.0000**	**4.4000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**8.6000e-004**	**8.6000e-004**	**0.0000**	**0.0000**	**9.2000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

Hidden Canyon Test Well - Santa Barbara County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number
Well Head Stem	1

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Well Head Stem	1.2045	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.2045**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

11.0 Vegetation

apcd air pollution control district
SANTA BARBARA COUNTY

June 1, 2023

Katie Nall
Santa Barbara County
Planning and Development
123 E. Anapamu Street
Santa Barbara, CA 93101

Sent Via Email: nallk@countyofsb.org

Re: Santa Barbara County Air Pollution Control District Suggested Conditions on Hidden Canyon Test Well Production Plan, 22PPP-00000-00001

Dear Ms. Nall:

The Santa Barbara County Air Pollution Control District (District) has reviewed the referenced project, which consists of the drilling and operation of one crude oil test well occupying one well pad. The project proposes to drill the exploratory oil and gas well to determine if oil is viable. If oil is not discovered, the well will be plugged and abandoned. If oil is discovered, production casing and a well head with a production tree will be installed. The preparation and grading of the drill site is estimated to take approximately five (5) days. The drilling phase would take a total of approximately 14 days. The drilling phase would consist of mobilization and demobilization of the drill rig and for drilling and various tasks associated with the drilling phase including installation of blowout prevention equipment, cementing, mud-logging, etc. Other than the well head installation during the drilling phase, there will be no other production equipment installed. The operational phase includes fugitive components from the well head tree and one daily operator site visit. The subject property is identified in the Assessor Parcel Map Book as APN 147-020-045 and is located in the Russell Ranch oil field northwest of New Cuyama. The site will be accessed from School House Canyon Road from HWY 166.

District Authority to Construct (ATC) and Permit to Operate (PTO) permits will be required for the proposed project. Therefore, the District is a responsible agency under the California Environmental Quality Act (CEQA) for this project and will rely on the environmental document when issuing District permits.

The proposed project is subject to the following **regulatory requirements** that should be included as conditions of approval in the applicable land use permit:

1. The proposed project includes operations subject to District permitting requirements, rules, and regulations, therefore the project will be required to obtain an **Authority to Construct (ATC)** permit from the District prior to building permit issuance. Proof of receipt of the required District permits shall be submitted by the applicant to planning staff. The District permit process can take several months. To avoid delay, the applicant is encouraged to submit their Authority to Construct permit application to the District as soon as possible, see www.ourair.org/permit-applications/ to download the necessary permit application(s).

2. All portable diesel-fired construction engines rated at 50 brake horsepower or greater must have either statewide Portable Equipment Registration Program (PERP) certificates or District permits prior to grading/building permit issuance. Construction engines with PERP certificates are exempt from the District permit, provided they will be on-site for less than 12 months.

3. Asphalt paving activities shall comply with District Rule 329, *Cutback and Emulsified Asphalt Paving Materials*.

4. Construction/demolition activities are subject to District Rule 345, *Control of Fugitive Dust from Construction and Demolition Activities*. This rule establishes limits on the generation of visible fugitive dust emissions at demolition and construction sites, includes measures for minimizing fugitive dust from on-site activities, and from trucks moving on- and off-site. Please see www.ourair.org/wp-content/uploads/rule345.pdf. Activities subject to Rule 345 are also subject to Rule 302 (*Visible Emissions*) and Rule 303 (*Nuisance*).

5. At all times, idling of heavy-duty diesel trucks should be minimized; auxiliary power units should be used whenever possible. State law requires that:
   - Drivers of diesel-fueled commercial vehicles shall not idle the vehicle's primary diesel engine for greater than 5 minutes at any location.
   - Drivers of diesel-fueled commercial vehicles shall not idle a diesel-fueled auxiliary power system (APS) for more than 5 minutes to power a heater, air conditioner, or any ancillary equipment on the vehicle. Trucks with 2007 or newer model year engines must meet additional requirements (verified clean APS label required).
   - See www.arb.ca.gov/noidle for more information.

6. If the project area to be disturbed: a) is located in a geographic ultramafic rock unit; b) has naturally-occurring asbestos, serpentine, or ultramafic rock as determined by the owner/operator; or c) is discovered by the owner/operator, a registered geologist, or the Air Pollution Control Officer to have naturally-occurring asbestos, serpentine, or ultramafic rock after the start of any construction or grading; then appropriate abatement measures must be undertaken pursuant to the requirements of the Air Resources Board Air Toxic Control Measure (ATCM) for Construction, Grading, Quarrying and Surface Mining Operations (see www.arb.ca.gov/toxics/asbestos/asbestos.htm).

In addition, the District recommends that the following **best practices** be considered for inclusion as conditions of approval, in the interest of reducing emissions of criteria air pollutants, toxic air contaminants, dust and odors:

7. To reduce the potential for violations of District Rule 345 *(Control of Fugitive Dust from Construction and Demolition Activities)*, Rule 302 *(Visible Emissions)*, and Rule 303 *(Nuisance)*, standard dust mitigations (**Attachment A**) are recommended for all construction and/or grading activities. The name and telephone number of an on-site contact person must be provided to the District prior to grading/building permit issuance.

8. The State of California considers particulate matter emitted by diesel engines carcinogenic. Therefore, during project grading, construction, and hauling, construction contracts must specify that contractors shall adhere to the requirements listed in **Attachment B** to reduce emissions of particulate matter (as well as of ozone precursors) from diesel equipment. Recommended measures should be implemented to the maximum extent feasible. Prior to grading/building

permit issuance and/or map recordation, all requirements shall be shown as conditions of approval on grading/building plans, and/or on a separate sheet to be recorded with the map. Conditions shall be adhered to throughout all grading and construction periods. The contractor shall retain the Certificate of Compliance for CARB's In-Use Regulation for Off-Road Diesel Vehicles onsite and have it available for inspection.

If you or the project applicant have any questions regarding these comments, please feel free to contact me at (805) 979-8337 or via email at BarhamC@sbcapcd.org.

Sincerely,

Carly Barham

Carly Barham
Planning Division

Attachments: Fugitive Dust Control Measures
Diesel Particulate and NO_x Emission Measures

cc: William Sarraf, Supervisor, District Engineering Division (email only)
Planning Chron File

air pollution control district
SANTA BARBARA COUNTY

ATTACHMENT A
FUGITIVE DUST CONTROL MEASURES

These measures should be required for all projects involving earthmoving activities regardless of the project size or duration. Projects are expected to manage fugitive dust emissions such that emissions do not exceed APCD's visible emissions limit (APCD Rule 302), create a public nuisance (APCD Rule 303), and are in compliance with the APCD's requirements and standards for visible dust (APCD Rule 345).

- During construction, use water trucks, sprinkler systems, or dust suppressants in all areas of vehicle movement to prevent dust from leaving the site and from exceeding the APCD's limit of 20% opacity for greater than 3 minutes in any 60 minute period. When using water, this includes wetting down areas as needed but at least once in the late morning and after work is completed for the day. Increased watering frequency should be required when sustained wind speed exceeds 15 mph. Reclaimed water should be used whenever possible. However, reclaimed water should not be used in or around crops for human consumption.
- Onsite vehicle speeds shall be no greater than 15 miles per hour when traveling on unpaved surfaces.
- Install and operate a track-out prevention device where vehicles enter and exit unpaved roads onto paved streets. The track-out prevention device can include any device or combination of devices that are effective at preventing track out of dirt such as gravel pads, pipe-grid track-out control devices, rumble strips, or wheel-washing systems.
- If importation, exportation, and stockpiling of fill material is involved, soil stockpiled for more than one day shall be covered, kept moist, or treated with soil binders to prevent dust generation. Trucks transporting fill material to and from the site shall be tarped from the point of origin.
- Minimize the amount of disturbed area. After clearing, grading, earthmoving, or excavation is completed, treat the disturbed area by watering, OR using roll-compaction, OR revegetating, OR by spreading soil binders until the area is paved or otherwise developed so that dust generation will not occur. All roadways, driveways, sidewalks etc. to be paved should be completed as soon as possible.
- Schedule clearing, grading, earthmoving, and excavation activities during periods of low wind speed to the extent feasible. During periods of high winds (>25 mph) clearing, grading, earthmoving, and excavation operations shall be minimized to prevent fugitive dust created by onsite operations from becoming a nuisance or hazard.
- The contractor or builder shall designate a person or persons to monitor and document the dust control program requirements to ensure any fugitive dust emissions do not result in a nuisance and to enhance the implementation of the mitigation measures as necessary to prevent transport of dust offsite. Their duties shall include holiday and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the Air Pollution Control District prior to grading/building permit issuance and/or map clearance.

PLAN REQUIREMENTS: All requirements shall be shown on grading and building plans and/or as a separate information sheet listing the conditions of approval to be recorded with the map. **Timing**: Requirements shall be shown on plans prior to grading/building permit issuance and/or recorded with the map during map recordation. Conditions shall be adhered to throughout all grading and construction periods.

MONITORING: The Lead Agency shall ensure measures are on project plans and/or recorded with maps. The Lead Agency staff shall ensure compliance onsite. APCD inspectors will respond to nuisance complaints.

air pollution control district
SANTA BARBARA COUNTY

DIESEL PARTICULATE AND NO_x EMISSION REDUCTION MEASURES

Particulate emissions from diesel exhaust are classified as carcinogenic by the state of California. The following is a list of regulatory requirements and control strategies that should be implemented to the maximum extent feasible.

The following measures are required by state law:

- All portable diesel-powered construction equipment greater than 50 brake horsepower (bhp) shall be registered with the state's portable equipment registration program OR shall obtain an APCD permit.
- Fleet owners of diesel-powered mobile construction equipment greater than 25 hp are subject to the California Air Resource Board (CARB) In-Use Off-Road Diesel-Fueled Fleets Regulation (Title 13, California Code of Regulations (CCR), §2449), the purpose of which is to reduce oxides of nitrogen (NOx), diesel particulate matter (DPM), and other criteria pollutant emissions from in-use off-road diesel-fueled vehicles. Off-road heavy-duty trucks shall comply with the State Off-Road Regulation. For more information, see www.arb.ca.gov/msprog/ordiesel/ordiesel.htm.
- Fleet owners of diesel-fueled heavy-duty trucks and buses are subject to CARB's On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation (Title 13, CCR, §2025), the purpose of which is to reduce DPM, NOx and other criteria pollutants from in-use (on-road) diesel-fueled vehicles. For more information, see www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm.
- All commercial off-road and on-road diesel vehicles are subject, respectively, to Title 13, CCR, §2449(d)(3) and §2485, limiting engine idling time. Off-road vehicles subject to the State Off-Road Regulation are limited to idling no more than five minutes. Idling of heavy-duty diesel trucks during loading and unloading shall be limited to five minutes, unless the truck engine meets the optional low-NOx idling emission standard, the truck is labeled with a clean-idle sticker, and it is not operating within 100 feet of a restricted area.

The following measures are recommended:

- Off-road heavy-duty diesel equipment with engines meeting the CARB Tier 4 emission standards if available or Tier 3 emission standards should be used to the maximum extent feasible.
- On-road heavy-duty equipment with model year 2010 engines or newer should be used to the maximum extent feasible.
- Diesel powered equipment should be replaced by electric equipment whenever feasible. Electric auxiliary power units should be used to the maximum extent feasible.
- Equipment/vehicles using alternative fuels, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel, should be used on-site where feasible.
- Catalytic converters shall be installed on gasoline-powered equipment, if feasible.
- All construction equipment shall be maintained in tune per the manufacturer's specifications.
- The engine size of construction equipment shall be the minimum practical size.
- The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest practical number is operating at any one time.
- Construction worker trips should be minimized by requiring carpooling and by providing for lunch onsite.
- Construction truck trips should be scheduled during non-peak hours to reduce peak hour emissions whenever feasible.
- Proposed truck routes should minimize to the extent feasible impacts to residential communities and sensitive receptors.
- Construction staging areas should be located away from sensitive receptors such that exhaust and other construction emissions do not enter the fresh air intakes to buildings, air conditioners, and windows.

PLAN REQUIREMENTS AND TIMING: Prior to grading/building permit issuance and/or map recordation, all requirements shall be shown as conditions of approval on grading/building plans, and/or on a separate sheet to be recorded with the map. Conditions shall be adhered to throughout all grading and construction periods. The contractor shall retain the Certificate of Compliance for CARB's In-Use Regulation for Off-Road Diesel Vehicles onsite and have it available for inspection.

MONITORING: The Lead Agency shall ensure measures are on project plans and/or recorded with maps. The Lead Agency staff shall ensure compliance onsite. APCD inspectors will respond to nuisance complaints.

Biological Constraints Analysis for Hidden Canyon Test Well Project, Santa Barbara County, California

MARCH 2021

PREPARED FOR

BPR Consulting, Inc.

PREPARED BY

SWCA Environmental Consultants

BIOLOGICAL CONSTRAINTS ANALYSIS FOR HIDDEN CANYON TEST WELL PROJECT SANTA BARBARA COUNTY, CALIFORNIA

Prepared for

BPR Consulting, Inc.
11625 Jubilee Lane
Bakersfield, CA 93411
Attn: Benjamin Ruiz

Prepared by

SWCA Environmental Consultants
1422 Monterey Street, Suite C200
San Luis Obispo, CA 93401
(805) 543-7095
www.swca.com

March 2021

CONTENTS

Appendices

Figures

1 INTRODUCTION

SWCA Environmental Consultants (SWCA) has completed a biological constraints survey in support of the proposed Hidden Canyon Test Well Project (project) near New Cuyama, Santa Barbara County, California (Figure 1). The proposed project is located within Township 11 North, Range 28 West, Sections 34 and 35 of the Santa Maria, California U.S. Geological Survey (USGS) topographic quadrangle. The property is approximately 6 acres in size and located off Schoolhouse Canyon Road (Figure 2). The proposed project includes the drilling of a new test well and construction of a new approximately 250 × 350-foot well pad. All essential equipment will be rotated as needed throughout the project area. Once target depth is reached and all data is collected, the only remaining permanent equipment will be the well-head.

As an approved consultant with the County of Santa Barbara, SWCA has prepared this Biological Constraints Analysis (BCA) report at the request of BPR Consulting, Inc. to provide information regarding biological resources occurring or potentially occurring on the property and the associated potential constraints the resources may have on the project (project). The purpose of this document is to gather and synthesize information regarding natural resources on the property that may constrain future uses of the land. Where potential constraints to future development of the land are identified, recommendations for additional studies and avoidance and minimization measures to address the constraints are provided. It is anticipated that the biological constraints analysis will support future documentation by BPR Consulting, Inc. and coordination with the County of Santa Barbara.

1.1 Property Location and Setting

The project area is located in a rural setting of the New Cuyama Valley, approximately 10 miles west of the town of New Cuyama in northeastern Santa Barbara County (Figures 1 and 2). The area is characterized by flat lands utilized for agriculture surrounded by rolling hills cut by numerous perennial and ephemeral drainages and creeks. The Cuyama Riverbed runs in a general east–west direction on the north side of the project area and is the most prominent source of water in the immediate vicinity. Elevation within the project area is approximately 1,980 feet above mean sea level. Soils within the project area are characterized by light brown sandy silt with very few subangular shale gravels.

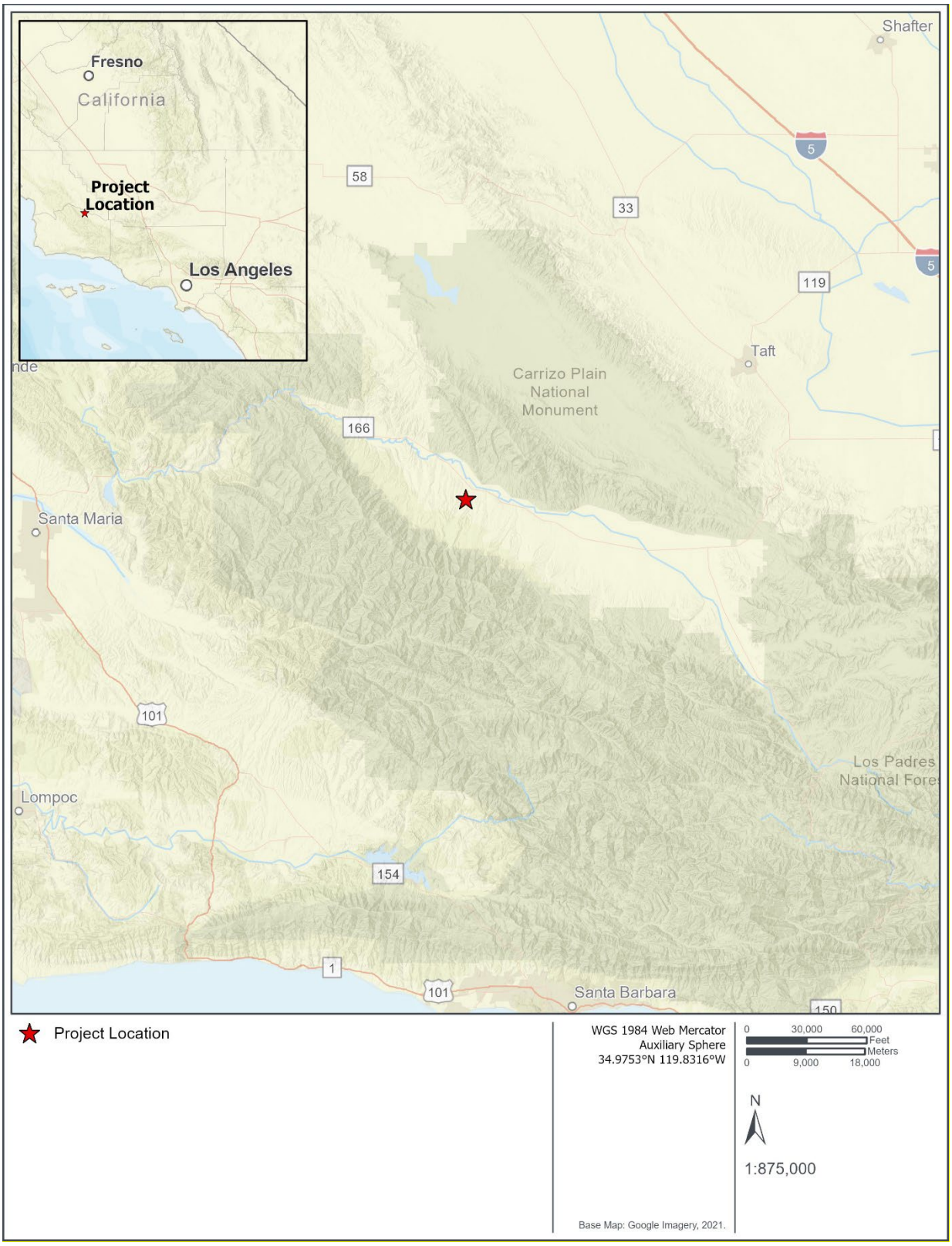


Figure 1. Project vicinity map.

Figure 2. Project location map.

2 METHODS

The information presented in this BCA is a compilation of data gathered in the field; a review of information from federal, state, and local resource agencies; and from past environmental documents prepared for nonrelated projects near the property.

Prior to conducting a site visit, SWCA performed a literature review to gain familiarity with the project area and identify target species. The review consisted of a search of the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) (USFWS 2021) data output for the property vicinity and the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) RareFind 5 (CDFW 2021) data output that focused on a five mile radius from the project site, which is situated within the Peak Mountain USGS 7.5 topographic quadrangle.

SWCA conducted a reconnaissance level survey along with Ben Ruiz of BPR Consulting, Inc. on February 12, 2021. The focus of the surveys was to identify the existing vegetative communities, inventory species of flora and fauna identified within of the proposed project area, and assess the land's potential to support rare, endangered, or otherwise sensitive biological resources.

The survey was not conducted in accordance with the USFWS *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants* (USFWS 2000) and CDFW *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW 2018). Classification of the vegetative communities was conducted in accordance with *A Manual of California Vegetation* (Sawyer et al. 2009). When necessary, the surveyor referred to *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012) for species identification.

3 RESULTS

3.1 Topography and Soils

The topography on the property is sloping with a northeast aspect. The U.S. Department of Agriculture Natural Resources Conservation Service [NRCS] maps one soil type on the parcel: Pleasanton Sandy Loam (2 to 9 percent). This is a well-drained soil with moderately slow permeability, and slow to medium runoff. Pleasanton sandy loam is not listed as a hydric soil (NRCS 2018). The soil is usually used for dry farmed grain and grain hay, wine grapes, fruits, row crops, etc. Vegetation in Pleasanton sandy loam is generally annual grasses and forbes with scattered oaks. The mapped soils are telling of the property's geographic positioning and topography. The project site is entirely comprised of annual grassland species.

3.2 Plant Communities

The proposed project site consists entirely of non-native annual grassland and did not require any mapping effort to distinguish from other habitats. The access road to the project study area would be classified as ruderal/disturbed habitat. While not located directly within the project study area, a description of California juniper woodland is provided below as it surrounds the project site and can be found in areas downhill from the project site. It appears that the project site has been subject to agricultural practices in the past, as it evident by existing irrigation line fixtures in the ground, and evidence of historic clearing activities. None of these disturbances appeared to have occurred in recent time prior to the survey. Based on the desiccation of vegetation that is cleared, it appears that this activity may have occurred several years prior and is no way related to the proposed project.

3.2.1 Non-native annual grassland

Non-native annual grasslands corresponding to the Bromus rubens - Schismus (*arabicus, barbatus*) Semi-Natural Alliance as described in the Manual of California Vegetation is the dominant vegetation community observed throughout the Study Area. The predominant associated plant species are filaree (*Erodium cicutarium*), foxtail brome (*Bromus madritensis*), red brome (*Bromus rubens*), and species of fiddleneck (*Amsinkia sp.*).

3.2.2 Ruderal/Disturbed

Ruderal/disturbed conditions are common along roadsides, in un-maintained urban areas, and other areas that have been significantly altered by construction, agriculture, ornamental landscaping, or other types of regular activities that affect plant composition and growth. If vegetated, these areas are typically dominated by non-native annual grasses and herbaceous plants adapted to the regular cycle of disturbance from traffic, grading, and weed reduction practices such as mowing and herbicide application. Typical plants consist primarily of introduced species and escaped ornamentals that exhibit clinging seeds, adhesive stems, and rough leaves that assist their invasion and colonization of disturbed or unmaintained lands. This is not a native plant community and is not described in the Manual of California Vegetation (2009) or in Holland's (1986) vegetation classification.

Ruderal or disturbed areas within the project area were present on and along the roadway and areas highly disturbed by cattle (i.e., areas surrounding cattle trails). These areas exhibited disturbed and compacted soils and were either unvegetated or contained patchy occurrences of non-native weedy plants. Plant species observed within ruderal/disturbed areas included several non-native annual grasses, vinegar weed (*Trichostema lanceolatum*), vinegar weed (*Trichostema ovatum*), summer mustard (*Hirschfeldia incana*), yellow star thistle (*Centaurea solstitialis*), and red-stemmed filaree (*Erodium cicutarium*).

3.2.3 California Juniper Woodland

While not directly within the project site, California juniper woodland corresponding to the Juniperus californica Woodland Alliance described in the Manual of California Vegetation (2009, second edition) was observed throughout the gentle sloping foothills surrounding the project site. Previous land practices within the property have resulted in the removal of individuals, evidenced by the decaying branches within a nearby drainage feature. Individual juniper shrubs are scattered in numerous areas surrounding the proposed project area but were not at cover values great enough or in areas large enough to be considered a stand. Lower shrubs observed in this community consisted of *Gutierrezia californica, Ericameria linearifolia, and Isocoma acradenia*. The herbaceous layer was dominated by non-native annuals generally consistent with the description and species discussed in Non-native Annual Grassland, above. This community has State and Global rarity status ranks of S4 and G4, respectively, and are "Apparently Secure" with fairly low risk of extinction or elimination.

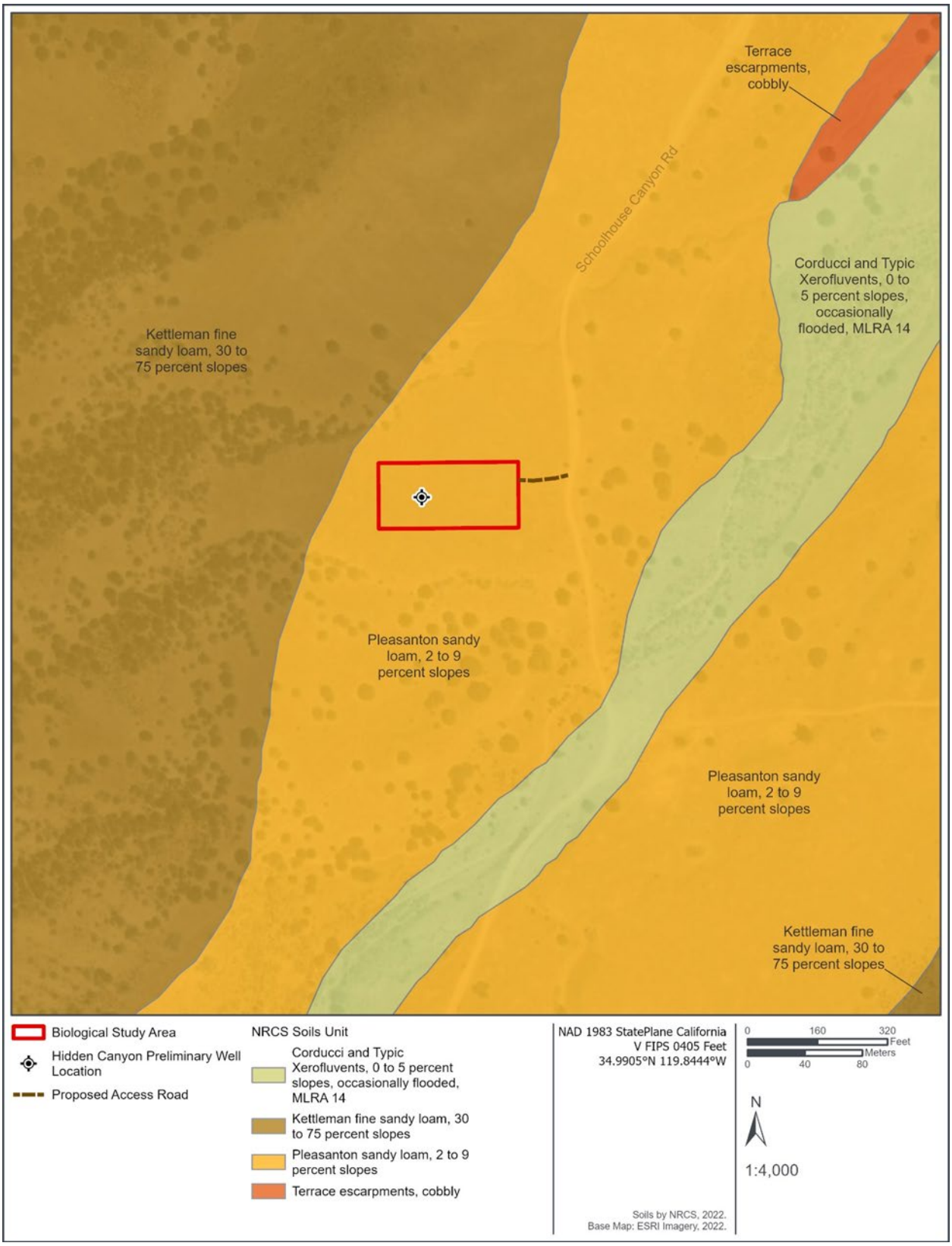


Figure 3. Soil map.

3.3 Jurisdictional Waters

Within the project area, there are no wetland or non-wetland "other waters" features that could be jurisdictional under the federal Clean Water Act (CWA). Likewise, the project area does not support any lakes, streams, swales, or other type of water bodies that would be considered state jurisdiction under Section 1600 of the California Fish and Game Code (CFGC) or under the Porter Cologne Water Quality Act.

The nearest known jurisdictional feature is the mainstem of Deadman Canyon, an ephemeral watercourse, that conveys water to the Cuyama River to the north.

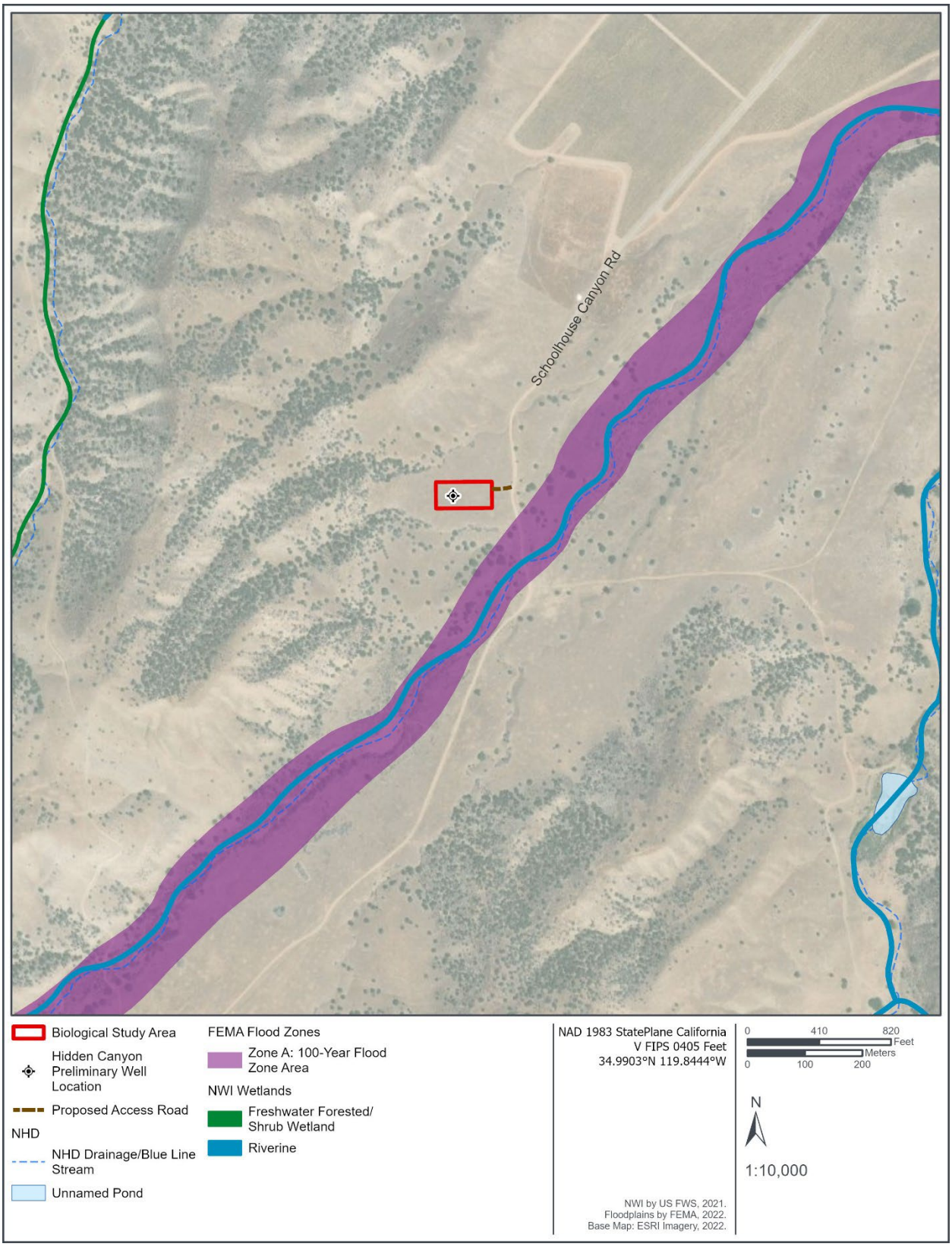


Figure 4. Hydrology Map.

3.4 Critical Habitat

Based on the IPaC and USFWS Critical Habitat Mapper (USFWS 2021), the property is not located within or adjacent to any designated Critical Habitat units.

3.5 Habitat Connectivity and Wildlife Movement Corridor

The general area is not known to be an important wildlife corridor or provide linkage between known important disjunct wildlife habitats, but seasonal drainages such as Deadman Canyon Creek do provide migration and movement corridor habitat to a variety of wildlife. The proposed project site is small (approx. 2 acres) and located on a subject parcel that is surrounded by large undeveloped areas of widely varying terrain, and wildlife will be able to continue to move freely in the vicinity of the cultivation sites.

3.6 Sensitive Natural Communities

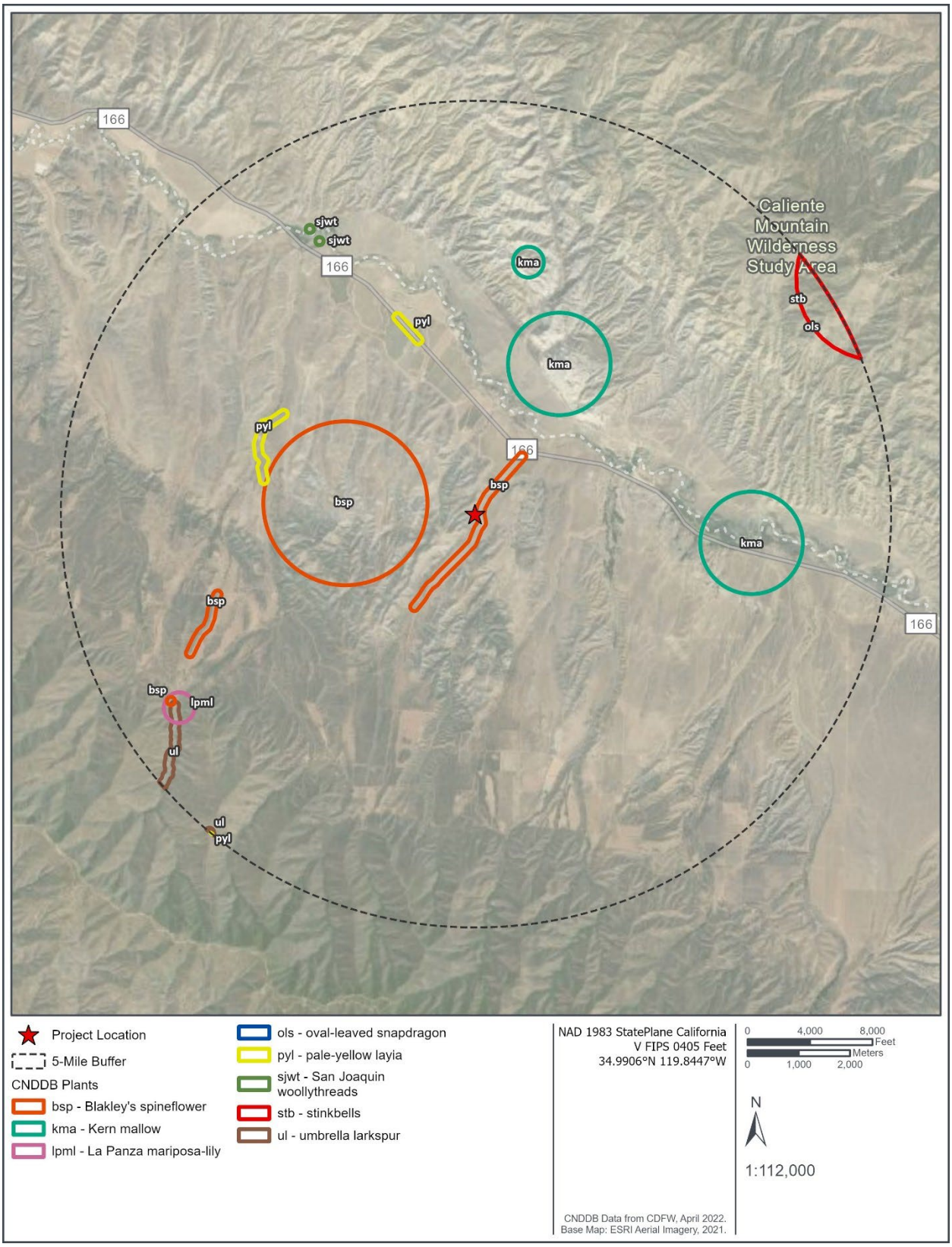
The CDFW maintains a list of special communities that ranks natural communities by their rarity or threat and applies a global and state ranking to them. The global and state ranking system does not imply that specific actions are required in review of projects that may impact the community; however, regulatory agencies may request that impacts to these communities be addressed in environmental documents. While it will not be impacted by project activities, it is important to note that California juniper woodland is in proximity to the project site. This community has State and Global rarity status ranks of S4 and G4, respectively, and are "Apparently Secure" with fairly low risk of extinction or elimination.

3.7 Special-Status Species

The following sections evaluate the property's habitats suitability to support special-status plants and wildlife. The species evaluated are based on the CNDDB and IPaC records queries and SWCA's experience and knowledge of the resources in the parcel's vicinity.

3.7.1 Special-Status Plants

Based on the CNDDB, and USFWS IPaC records searches; literature review; and SWCA's knowledge of the area, eight special-status plant species were evaluated for potential occurrence on the property. The existing conditions on the property provide suitable conditions for Blakley's spineflower (*Chorizanthe blakleyi*), kern mallow (*Eremalche parryi kernisis*), La Panza mariposa-lily (*Calochortus simulans*), oval-leaved snap dragon (*Antirrhinum ovatum*), pale yellow layia (*Layia heterotricha*), stinkbells (*Fritillaria agrestis*), San Joaquin woollythreads (*Monolopia congdonii*), umbrella larkspur (*Delphinium umbraculorum*). No special-status plant species were observed on the property. While it may be unlikely that many of these species do not occur at the site location due to the past grazing and disturbances occurring on the property, a focused botanical survey must be conducted during the normal blooming period for these species to determine presence/absence.

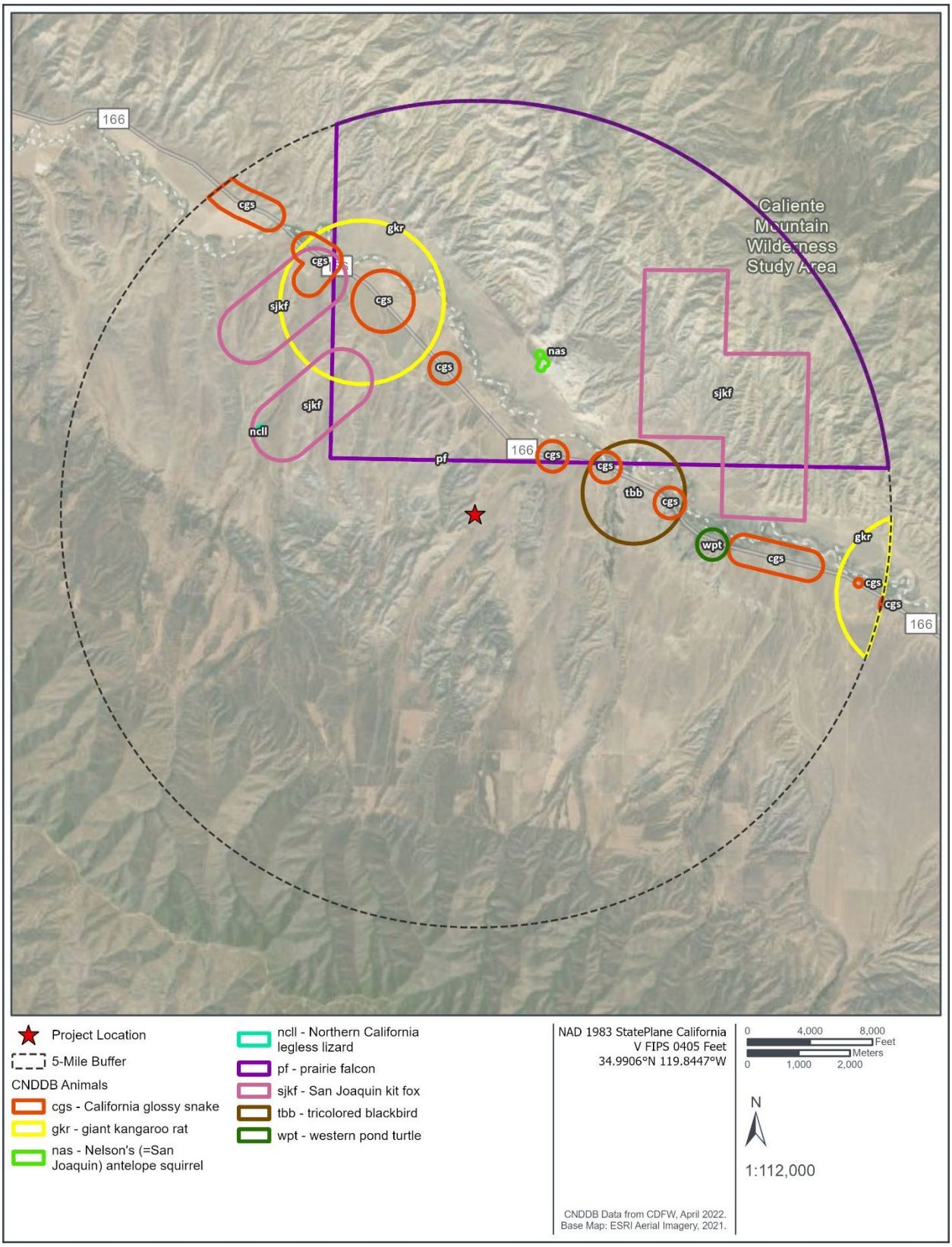

166
sjwt
sjwt
166
kma
pyl
kma
Caliente
Mountain
Wilderness
Study Area
stb
ols
pyl
166
bsp
bsp
kma
166
bsp
bsp
lpml
ul
ul
pyl
Project Location
5-Mile Buffer
CNDDB Plants
bsp - Blakley's spineflower
kma - Kern mallow
lpml - La Panza mariposa-lily
ols - oval-leaved snapdragon
pyl - pale-yellow layia
sjwt - San Joaquin woollythreads
stb - stinkbells
ul - umbrella larkspur
NAD 1983 StatePlane California V FIPS 0405 Feet
34.9906°N 119.8447°W
0 4,000 8,000 Feet
0 1,000 2,000 Meters
N
1:112,000
CNDDB Data from CDFW, April 2022.
Base Map: ESRI Aerial Imagery, 2021.

3.7.2 Special-Status Wildlife

The literature review identified eight special-status wildlife species that have known occurrences in the queried five-mile radius from the project site. In addition, blunt-nosed leopard lizard is a fully protected species that has been known to occur within suitable habitat near the community of Cuyama to the east of the project site. Although not identified within the query, it is SWCA's opinion that due to the fully protected status of this species, and the regional occurrence of this species, it should also be considered as part of this biological constraints analysis. A formal protocol level survey would be necessary to determine presence/absence of this species within the project site and surrounding 100-foot buffer.

Nesting migratory birds may also occur within or directly adjacent to the project site during the typical nesting season. No specific protocol surveys are warranted as a result of this constraints analysis; but standard avoidance and minimization measures should be implemented to ensure no impact to nesting migratory birds prior to construction.

Other special status species considered as part of the analysis are not expected to occur within the project study area based on the lack of suitable habitat (e.g., dens, aquatic habitat, sandy soils, etc.), or lack of evidence that the species has utilized the project site in the past (e.g., giant kangaroo rat burrows, scat, tracks, whitewash, etc.). No further studies are recommended for these species.


166
cgs
gkr
sjkf
nas
ncll
pf
tbb
wpt
Caliente Mountain Wilderness Study Area
Project Location
5-Mile Buffer
CNDDB Animals
cgs - California glossy snake
gkr - giant kangaroo rat
nas - Nelson's (=San Joaquin) antelope squirrel
ncll - Northern California legless lizard
pf - prairie falcon
sjkf - San Joaquin kit fox
tbb - tricolored blackbird
wpt - western pond turtle
NAD 1983 StatePlane California V FIPS 0405 Feet
34.9906°N 119.8447°W
0 4,000 8,000 Feet
0 1,000 2,000 Meters
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1:112,000
CNDDB Data from CDFW, April 2022.
Base Map: ESRI Aerial Imagery, 2021.

4 REGULATORY SETTING

The following regulatory setting provides background only for those regulations that may apply to the proposed project as currently presented.

4.1 Federal Regulations

4.1.1 Federal Endangered Species Act of 1973

The FESA provides legislation to protect federally listed plant and animal species and requires that the responsible agency or individual consult with the USFWS to determine the extent of impact to a particular species. If USFWS determines that impacts to a species would likely occur, alternatives and measures to avoid or reduce impacts must be identified. The USFWS also regulates activities conducted in federal critical habitat, which are geographic units designated as areas that support primary habitat constituent elements for listed species.

4.1.2 Migratory Bird Treaty Act of 1918

The Migratory Bird Treaty Act (MBTA) protects all migratory birds, including their eggs, nests, and feathers. The MBTA was originally drafted to put an end to the commercial trade in bird feathers, popular in the latter part of the 1800s. The MBTA is enforced by USFWS, and potential impacts to species protected under the MBTA are evaluated by USFWS in consultation with other federal agencies. On April 11, 2018, the USFWS issued guidance on the recent M-Opinion affecting MBTA implementation. The M-Opinion concludes that the take of birds resulting from an activity is not prohibited by the MBTA when the underlying purpose of that activity is not to take birds. The USFWS interprets the M-Opinion to mean the MBTA prohibitions on take apply when the purpose of the action is to take migratory birds, their eggs, or their nests. Working with other federal agencies on migratory bird conservation is an integral mission of the USFWS; therefore, the USFWS maintains that potential impacts to migratory birds resulting from federal actions should be addressed under the National Environmental Policy Act (NEPA).

4.2 State Regulations

4.2.1 California Endangered Species Act of 1970

The CESA ensures legal protection for plants listed as rare or endangered, and species of wildlife formally listed as endangered or threatened by the State of California. The state law also lists California Species of Special Concern (SSC) based on limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. Under state law, the CDFW is empowered to review projects for their potential to impact state-listed species and SSC species, and their habitats.

4.2.2 California Fish and Game Code

CFGC Section 3503 – Protections of Bird's Nests includes provisions to protect the nests and eggs of birds. Section 3503 states: "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto."

Per CFGC Section 2835, in absence of a CDFW-approved Natural Community Conservation Plan, the CDFW cannot authorize take of a Fully Protected species. CFGC Sections 3511 (birds), 4700 (mammals),

5050 (reptiles and amphibians), and 5515 (fish) include provisions to protect Fully Protected species, such as: (1) prohibiting take or possession "at any time" of the species listed in the statute, with few exceptions; (2) stating that "no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to "take" a species that has been designated as Fully Protected; and (3) stating that no previously issued permits or licenses for take of these species "shall have any force or effect" for authorizing take or possession. Unless an applicant has developed a CDFW-approved Natural Community Conservation Plan, CDFW is unable to authorize incidental take of Fully Protected species when activities are proposed in areas inhabited by those species.

The CDFW also manages the California Native Plant Protection Act of 1977 (NPPA) (CFGC Section 1900 et seq.), which was enacted to identify, designate, and protect rare plants. In accordance with CDFW guidelines, plant species with CNPS Ranks 1A, 1B, 2A, 2B, and 3 are considered "rare" under the NPPA. Impacts to plants with these rarity rankings must be fully evaluated under the California Environmental Quality Act (CEQA). Plants with CNPS Rank 4 have limited distributions but are not necessarily eligible for listing. It is recommended that impacts to plants with CNPS Rank 4 also be evaluated per CEQA.

Pursuant to Division 2, Chapter 6, Sections 1600–1602 of the CFGC, the CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife. The CDFW defines a "stream" (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." The CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." The CDFW jurisdiction within altered or artificial waterways is based upon the value of those waterways to fish and wildlife.

5 CONSTRAINTS AND RECOMMENDATIONS

The following list of biological constraints and associated recommendations was generated based on the property's existing conditions, documented occurrences of biological resources in the area, and current regulatory setting.

5.1 Special-Status Plants

No special-status plant species were observed on the property; however, since the survey was conducted outside the typical blooming period for those species with the potential to occur, the following recommendation is provided:

- Prior to construction, a botanical survey should be conducted in accordance with the USFWS *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants* (USFWS 2000) and CDFW *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW 2018). The results of the survey shall be provided to the County within 2 weeks following the completion of the last survey effort. Should any sensitive species be identified that would be impacted by the proposed project, a comprehensive mitigation plan must be provided.

5.2 Special-Status Wildlife

The project site has the potential to support the habitat for blunt-nosed leopard lizard and nesting migratory bird species. Additional surveys are warranted to determine presence/absence of blunt-nosed leopard lizard as stated in the following recommendation:

- Within one-year prior to construction, the applicant should conduct protocol survey for blunt-nosed leopard lizard following the most recent approved California Department of Fish and Wildlife protocol. At the time of this report, the most recent protocol (October 2019) is found here: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=174900. The results of this survey should be provided to the County of Santa Barbara and California Department of Fish and Wildlife, per the recommendations of the protocol.

Due to the potential for nesting migratory birds within, or directly adjacent to, the project site, the following recommendations are provided:

- If construction activities are scheduled to occur during the nesting season (February 15 through September 15), a pre-construction nesting bird survey shall be conducted by a qualified biologist throughout all areas of potentially suitable and accessible habitats within 250 feet of any proposed construction activities. The pre-construction nesting bird survey will be performed no more than 2 weeks prior to construction to determine the presence/absence of nesting birds within the project area.
- The County shall be immediately notified if any nesting bird species protected under the California Fish and Game Code or the Migratory Bird Treaty Act are observed during surveys. The County shall coordinate with USFWS and CDFW regarding appropriate avoidance measures as necessary, depending on the type of species observed and its listing status. Work activities shall be avoided within 100 feet of active passerine nests and 250 feet of active raptor nests until young birds have fledged and left the nest(s). This buffer may be reduced if determined appropriate by a qualified biologist. Readily visible exclusion zones shall be established in areas where nests must be avoided. Nests, eggs, or young of birds covered by the Migratory Bird Treaty Act and California Fish and Game Code would not be moved or disturbed until the end of the nesting season or until young fledge, whichever is later, nor would adult birds be killed, injured, or harassed at any time.

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APPENDIX A

Photographs

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Photo 1. View of the project site looking north. Vehicles in background are on School House Canyon Road.

Photo 2. View of the project site looking south. Scattered juniper trees are seen in the background.

Photo 3. View of historic agricultural practices located directly south of the project site.

Errin Briggs, Division Supervisor
County of Santa Barbara, Planning & Development, - Energy, Minerals and Compliance Division
123 E. Anapamu St.
Santa Barbara, CA 93101
805-568-2047
December 03, 2021

Subject: *Blunt-nosed Leopard Lizard Protocol Survey Results & Botanical Inventory Report at Hidden Canyon Test Well, New Cuyama, Santa Barbara County, California*

Project Contact Information

Ben Ruiz
BPR Consulting
11625 Jubilee Lane
Bakersfield, CA, US, 93311
(661)444-3239

Project Location

The 6-acre parcel just West of School House Canyon Rd. is approximately 0.85 miles southwest of CA-SR 166. The proposed well pad is approximately 0.75 miles west of Deadman Canyon. The site is 0.25 miles south of a currently active vineyard. The project is surrounded by a mixture of agricultural and natural habitats to the north, south, east, and west. The parcel is located at latitude 34.896067°N and longitude -119.599445°W.

Project Description

The following Project Description was provided to the County by the project applicant as part of their Exploratory Test Well Permit application.

Hidden Canyon Test Well – Phase 1
West Bay Exploration is proposing to grade one new well pad (1.105 acres) to drill one new test well for oil and gas exploration. The proposed well will be in Santa Barbara County, at Township 11N, Range 28W, Section 35, Lat/Long 34. 990582279/119.844858693 (NAD83) at a surface elevation of 1983.8 ft AMSL. The well pad will have the dimensions of 150' x 320'. The geological target is the Quail Canyon. The geological formation of Colgrove sandstone. The Target Depth (TD) target is 11,000 ftKB. There are no permanent facilities proposed except for the single wellhead following successful drilling operations.

Phase 1 Equipment:
Drilling rig (Ensign 540 or equivalent): CARB PERP-registered diesel-powered ICE (3x1350 bhp, 1x 100 bhp)
Site offices: (five generators less than 50 bhp each)

The access road (School House Canyon Rd.) intersects with CA State Route 166. Approximately .85 miles of the existing School House Canyon Road (to be used for ingress/egress) is fully depicted in the attached diagram. Preparation may include grading and surface preparation and is not expected to materially change any existing road dimensions. Public access to the location can be controlled by two lockable gates: one is located on the exit from Hwy 166, and one is located at the surface ownership division. During operational hours, site access will be controlled by staff on location. During non-operational hours, site access will be prohibited by the existing gates. 115 ft of access road will be graded from School House Canyon Rd. to the entrance of the well pad.
There will be designated parking for all personnel and all temporary visitors (contractors). Anyone who is to enter the site will be required to thoroughly review and sign the Job Safety Analysis. Once they have been briefed on all job site hazards; all personnel will attend a Worker Environmental Awareness Training which is required to gain access to the jobsite.

The description and schedule for all phases of the project are as follows:
Phase 1: Well Drilling
- *7 days – pad construction and site preparation*
- *37 days – Well drilling (including mobilization)*

Phase 2: Well Completion (future, contingent upon Phase 1 success)
- *10 days – Well completion (including mobilization)*
- *21 days – Production testing and formation evaluation*

Phase 3: Install Production Equipment (future, contingent upon Phase 2 success)

The current Phase 1 (Drilling Program) is expected to span the duration of 37 days, following the completion of the 7-day pad construction.

Drilling rig arrival time: Drilling rig mobilization is heavily dependent on multi-agency regulatory permitting. Due to current delays, it is impossible to estimate the rig arrival as such is contingent upon multiple agencies. Drilling will commence at the earliest culmination of regulatory permitting and drilling rig availability.

No hazardous waste is expected to be generated; Non-hazardous waste (primarily drilling mud and cuttings) will be a product of this phase and it will be transported to E & P Waste. Non-hazardous mud will be prepared by addition of dry mix (gel and polymer based) to fresh water. Mud will be used for drilling in a closed loop system. Cuttings will be transported off-site for desiccation, treatment, and analysis before hauling to an end-dump facility. Waste mud will be taken to a non-hazardous waste treatment facility for disposal. No gas production is expected as proposed well will be drilled overbalanced to maintain well control. Future production (Phase 3 development) is expected to occur using a pumpjack. If sufficient casing gas exists, such will be used to power a natural gas ICE to drive the pumpjack. If necessary, propane will be used to supplement natural gas production in the driver. Oil would be pumped into on-site tanks for transportation to a shipping facility.

Occurrence Information

The CNDDB identifies only seven (7) occurrences of BNLL within Santa Barbara County. Four of the occurrences are from 1979, with two additional occurrences from 2003 and 2007 and one occurrence with no date. The most recent occurrence from 2007 is located over 9 miles to the northwest of the survey area, west of New Cuyama at a lower elevation (CNDDB Occurrence Number 414). The nearest occurrence to the survey area is from 1979 (CNDDB Occurrence Number 36) and is associated with the scattered shrub habitats along the Cuyama River wash.

Habitat description

The 6-acre site lies at approximately 2,000 feet in elevation and in a border region between the South Coast Inner Range and the San Joaquin Valley floristic provinces. The vegetation is dominated by native and non-native annuals surrounded by California juniper woodland. The site visits conducted by BPR biologists thoroughly covered the Survey Area and associated proposed project area. BPR Botanist, Stephanie Hines identified one natural plant community within the project area: California annual grassland, which has been disturbed by agricultural practices (e.g., crops and livestock grazing). The observed conditions within these plant communities are discussed below. (See Appendix C)

- California Annual Grassland

  California annual grassland corresponding to the Annual Brome Grassland (*Bromus diandrus, hordeaceus – Brachypodium distachyon* Semi-natural Herbaceous Stands) described in the Manual of California Vegetation (2009, second edition) and the Non-native Grassland described by Holland (1986), is the major plant community present in the project area. The annual grassland habitat was dominated by non-native species including wild oat (*Avena* spp.), ripgut brome (*Bromus diandrus*), red-stemmed filaree (*Erodium cicutarium*), red brome (*Bromus madritensis*), annual fescue (*Vulpia myuros*), foxtail barley (*Hordeum murinum*), and yellow star thistle (*Centaurea solstitialis*). Native forbs observed in grassland areas included vinegar weed (*Trichostema lanceolatum*), western ragweed (*Ambrosia psilostachya*), Jimsonweed (*Datura wrightii*), Santa Barbara milk vetch (*Astralggus trichopodus*), and

doveweed (*Croton setigerus*). California grasslands can provide foraging, breeding habitat and movement opportunities for many wildlife species. Botta's pocket gopher (*Thomomys bottae*) and California ground squirrel (*Spermophilus beecheyii*), present on the site, and, along with California mouse (*Peromyscus californicus*), could serve as a prey base for predator animals, including snakes, raptors, American badger (*Taxidea taxus*), and coyote (*Canis latrans*). Numerous invertebrate species which could provide a food source for lizards, birds and small mammals are typically found within grassland communities. A variety of birds rely on open expanses of grasslands for foraging habitat, and several species nest in grasslands. Bird species expected to occur include, mourning dove (*Zenaida macroura*), horned lark (*Eremophila alpestris*), various species of sparrow (Emberizids). Numerous raptor species utilize grassland habitats for foraging also.

- Ruderal/Disturbed

  Ruderal/disturbed conditions are common along roadsides, in un-maintained urban areas, and other areas that have been significantly altered by grazing, agriculture, ornamental or other types of regular activities that affect plant composition and growth. If vegetated, these areas are typically dominated by non-native annual grasses and herbaceous plants adapted to the regular cycle of disturbance from traffic, grading, and weed reduction practices such as mowing and herbicide application. Typical plants consist primarily of introduced species and escaped ornamentals that exhibit clinging seeds, adhesive stems, and rough leaves that assist their invasion and colonization of disturbed or unmaintained lands. This is not a native plant community and is not described in the Manual of California Vegetation (2009) or in Holland's (1986) vegetation classification. These areas exhibited disturbed and compacted soils and were either unvegetated or contained patchy occurrences of non-native weedy plants. Plant species observed within ruderal/disturbed areas included the common annual grass species listed above, summer mustard (*Hirschfeldia incana*), Russian thistle (*Salsola tragus*), yellow star thistle, and red-stemmed filaree.

Survey Methodology

The Approximate 6-acre survey area was surveyed by BPR Consulting biologists following the California Department of Fish and Wildlife's October 2019 survey methodology for BNLL (refer to Appendix A). The seventeen (17) surveys were conducted from May 20 to September 15, 2021, and approximately 17 person-hours of survey effort were expended during these surveys. Per the 2019 survey protocol, surveys did not commence until after 8 am and when air temperatures reached 77 degrees Fahrenheit and each survey ended no later than 2:00 pm. All survey efforts were conducted by BPR biologist, one level II surveyor and one level 1 surveyor. Survey results are summarized within a table in Appendix A and completed survey data forms are provided within Appendix B.

Per the approved protocol, a known voucher site located within the Carrizo Plain National Monument was visited in May 2021 to confirm blunt-nosed leopard lizard were active. In addition, a second site visit to the same voucher site in mid-July 2021 was also conducted to ensure BNLL were still active. Blunt-nosed leopard lizard was observed during both voucher site visits (refer to Appendix D: Photos 5 and 6).

Results

BNLL prefer habitats with a shrub component and generally have home ranges that have a positive association with shrubs such as saltbush (*Atriplex spp.*) and Ephedra. However, the survey area is nearly void of shrubs other than a few scattered *Atriplex* shrubs.

There is also a lack of burrow density within the impact area.

No BNLL were observed during the seventeen (17) protocol surveys conducted over the survey area. The

only lizard species observed during the surveys consisted of side-blotched lizards (*Uta stansburiana*) and four Blainville's Horned Lizard (*Phrynosoma blainvillii*).

In addition, BPR conducted protocol surveys for BNLL on a separate parcel in 2021 approximately 3 miles away and no BNLL were observed during those surveys either. The results of both of these surveys indicate that BNLL may have been extirpated from the southern portion of the Cuyama Valley.

Conclusion

Based on the negative results of the seventeen (17) BNLL protocol surveys conducted by BPR biologists and the habitats/conditions observed on site, BNLL are not present within the survey area and any impacts to BNLL are not expected to occur from the proposed project.

If you have any questions about this memo, please feel free to contact me directly at 661-444-3239.

Thanks

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Protocol Survey Results *Hidden Canyon Test Well, New Cuyama, County of Santa Barbara*

APPENDIX A:

Blunt-nosed Leopard Lizard Survey Results Table

Date	Surveyor(s)	Time Start/End	Temp. (°F) Start/End	Wind Speed Start/End* Cloud Cover	BNLL Yes/No
May 20, 2021	T. Armstrong, Level I J. Claxton, Level II	9:05 a.m./ 9:36 a.m.	82.1°/86.1° air	1.2/2.2 mph < 5%	No
May 21, 2021	T. Armstrong, Level I J. Claxton, Level II	11:20 a.m./ 11:53 a.m.	79.7°/80.9° air	1.9/1.2 mph < 10%	No
May 22, 2021	T. Armstrong, Level I J. Claxton, Level II	10:08 a.m./ 10:49 a.m.	78.6°/79.1° air	1.3/2.5 mph < 5%	No
May 23, 2021	T. Armstrong, Level I J. Claxton, Level II	9:05 a.m./ 9:38 a.m.	82.5°/84.1° air	0.9/1.4 mph <15%	No
June 7, 2021	T. Armstrong, Level I J. Claxton, Level II	11:10 a.m./ 11:43 a.m.	81.3°/83.7° air	1.7/3.6 mph <15%	No
June 8, 2021	T. Armstrong, Level I J. Claxton, Level II	11:05 a.m./ 11:38 a.m.	82.5°/84.1° air	1.0/2.2 mph <5%	No
June 10, 2021	T. Armstrong, Level I J. Claxton, Level II	10:32 a.m./ 11:03a.m	79.3°/81.5° air	1.1/2.3 mph <25%	No
June 25, 2021	T. Armstrong, Level I J. Claxton, Level II	10:00 a.m./ 10:35 a.m.	78.9°/80.4° air	3.2/3.0 mph <50%	No
June 26, 2021	T. Armstrong, Level I J. Claxton, Level II	10:05 a.m./ 10:39 a.m.	79.8°/81.6° air	2.7/1.4 mph <20%	No
July 3, 2021	T. Armstrong, Level I J. Claxton, Level II	10:16 a.m./ 10:47 a.m.	80.2°/81.9° air	1.5/1.7 mph <10%	No
July 8, 2021	T. Armstrong, Level I J. Claxton, Level II	10:01 a.m./ 10:33 a.m.	82.5°/84.1° air	0.5/1.6 mph <15%	No
July 10, 2021	T. Armstrong, Level I J. Claxton, Level II	9:45 a.m./ 10:17 a.m.	81.9°/83.0° air	1.7/2.5 mph <20%	No
July 12, 2021	T. Armstrong, Level I J. Claxton, Level II	9:30 a.m./ 10:01 a.m.	83.9°/84.7° air	1.0/4.3 mph <5%	No
August 12, 2021	T. Armstrong, Level I J. Claxton, Level II	9:33 a.m./ 10:05 a.m.	84.1°/86.6° air	2.0/2.3 mph <25%	No
August 13, 2021	T. Armstrong, Level I J. Claxton, Level II	10:30 a.m./ 11:04 a.m.	80.6°/83.0° air	1.8/3.9 mph <30%	No
August 14, 2021	T. Armstrong, Level I J. Claxton, Level II	10:45 a.m./ 11:16 a.m.	82.9°/84.4° air	2.1/3.3 mph <5%	No
Sept. 18, 2021	T. Armstrong, Level I J. Claxton, Level II	10:46 a.m./ 11:18 a.m.	81.3°/83.9° air	1.8/1.3 mph <20%	No

APPENDIX B:

Blunt-Nosed Leopard Lizard Survey Reporting Forms

- May 20, 21, 22, 26 and June 7, 2021
- June 8, 10, 25, 26 and July 3, 2021
- July 8, 10 and 12, 2021
- August 12, 13, 14 2021, and September 15, 2021

Blunt-Nosed Leopard Lizard Survey Reporting Form

SURVEY DATE(S) (up to 5 days of surveys from a single site can be reported on this form):

SURVEYORS: Jon Claxton Level 2, Tyler Armstrong Level 1

SITE NAME [Please also attach or sketch a map on back]: Hidden Canyon Test Well

County: Santa Barbara **Landowner/Mgt:** Private

Quad Name: Cuyama (3411985) **Elevation:** 1983.3 FT

T 11N **R** 20E **¼ of Section** 06

UTM Zone (10,11): 11 **Datum:** NAD83 **(NAD83, NAD27, WGS84, other)**

Source (GPS, map & type, other): GPS **Point Accuracy** 3 **meters**

COORDINATES: 34.990582, -119.844859

SURVEY RESULTS

DATE	START TIME	ENDTIME	STARTAIR TEMP	END AIR TEMP	# BNLL OBSERVED Adults/Hatchlings	PERSON-HOURS (# Surveyors) X (# Hours Walked)	APPROXIMATE DISTANCE COVERED (IN TENTHS OF AMILE)
May 20, 2021	9:05am	9:36pm	79.1	81.8	0/0	1	1.5
May 21, 2021	11:20am	11:53pm	79.7	80.9	0/0	1	1.5
May 22, 2021	10:08am	10:49pm	78.6	79.1	0/0	1	1.5
May 23, 2021	9:05am	9:38pm	82.5	84.1	0/0	1	1.5
June 7, 2021	11:10am	11:43	81.3	83.7	0/0	1	1.5

TOTAL NUMBER OF OBSERVATIONS FOR THE THREE MOST COMMON LIZARD SPECIES ENCOUNTERED (combined numbers for all survey days):

Species *Uta stansburiana* Side-Blotched Lizard — Number Observed: 21

Species *Phrynosoma blainvillii* Blainville's Horned Lizard — Number Observed: 2

Species _____ — Number Observed: _____

Reporting Form Pg 2 **BNLL Survey Site Name:**

HABITAT DESCRIPTION: General description of vegetation community, overall habitat quality, surrounding land use, threats, etc: Non-native annual grassland located throughout the parcel.

HABITAT DESCRIPTION: Estimation of Average Vegetative Cover on the Site [circle the correct value]:

% Shrub: % Forb: 0-10%, 10-25%, 25-50%, 50-75%, >75%

% Grass: 0-10%, 10-25%, 25-50%, 50-75%, >75%

% Bare Ground: 0-10%, 10-25%, 25-50%, 50-75%, >75%

NOTES ABOUT THE SURVEY/HABITAT/SPECIAL-STATUS SPECIES/ETC:

No BNLL observed during these four (5) surveys.

PLEASE RETURN THIS SURVEY REPORTING FORM TO THE APPROPRIATE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE REGION AT THE FOLLOWING ADDRESS:

California Department of Fish and Wildlife
Central Region
ATTN: Habitat Conservation Planning Supervisor
1234 East Shaw Avenue
Fresno, CA 93710

OR

California Department of Fish and Wildlife
South Coast Region
ATTN: Habitat Conservation Planning Supervisor
3883 Ruffin Road
San Diego, CA 92123

*****ALL OBSERVATIONS OF BLUNT-NOSED LEOPARD LIZARDS AND OTHER SPECIAL STATUS SPECIES SHOULD BE PROMPTLY REPORTED TO THE CALIFORNIA NATURAL DIVERSITY DATABASE (CNDDB). SUBMISSION OF THIS FORM DOES NOT ENTAIL REPORTING TO THE DATABASE, WHICH IS MAINTAINED BY THE BIOGEOGRAPHIC DATA BRANCH OF CDFW. PLEASE SEE THE SURVEY PROTOCOL FOR DIRECTIONS ON REPORTING TO CNDDB.**

Blunt-Nosed Leopard Lizard Survey Reporting Form

SURVEY DATE(S) (up to 5 days of surveys from a single site can be reported on this form):

SURVEYORS: Jon Claxton Level 2, Tyler Armstrong Level 1

SITE NAME [Please also attach or sketch a map on back]: Hidden Canyon Test Well

County: Santa Barbara **Landowner/Mgt:** Private

Quad Name: Cuyama (3411985) **Elevation:** 2,473 to 2,606 FT

T 09N **R** 25W **¼ of Section** 06

UTM Zone (10,11): 11 **Datum:** WGS84 **(NAD83, NAD27, WGS84, other)**

Source (GPS, map & type, other): GPS **Point Accuracy** 3 **meters**

COORDINATES: 34.990582, -119.844859

SURVEY RESULTS

DATE	START TIME	ENDTIME	STARTAIR TEMP	END AIR TEMP	# BNLL OBSERVED Adults/Hatchlings	PERSON-HOURS (# Surveyors) X (# Hours Walked)	APPROXIMATE DISTANCE COVERED (IN TENTHS OF AMILE)
June 8, 2021	9:31am	12:42pm	78.8	80.9	0/0	1	1.5
June 10, 2021	1050:am	1:48pm	78.1	80.1	0/0	1	1.5
June 25, 2021	10:46am	1:32pm	78.6	81.9	0/0	1	1.5
June 26, 2021	9:55am	12:41pm	78.0	80.8	0/0	1	1.5
July 3, 2021	10:53am	1:55am	77.9	79.7	0/0	1	1.5

TOTAL NUMBER OF OBSERVATIONS FOR THE THREE MOST COMMON LIZARD SPECIES ENCOUNTERED (combined numbers for all survey days):

Species *Uta stansburiana* Side-Blotched Lizard Number Observed: 30

Species *Phrynosoma blainvillii* Blainville's Horned Lizard Number Observed: 0

Species _____ Number Observed: _____

Reporting Form Pg 2 **BNLL Survey Site Name:** Hidden Canyon Test Well.

HABITAT DESCRIPTION: General description of vegetation community, overall habitat quality, surrounding land use, threats, etc: Non-native annual grassland located throughout the parcel that is heavily grazed by cattle and horses. Adjacent parcels to the east and west have long history of intense agriculture.

HABITAT DESCRIPTION: Estimation of Average Vegetative Cover on the Site [circle the correct value]:

% Shrub: % Forb: 0-10-25%, 25-50%, 50-75%, >75%

% Grass: 0-10%, 10-25%, 25-50%, 50-75%, >75%

% Bare Ground: 0-10%, 10-25%, 25-50%, 50-75%, >75

NOTES ABOUT THE SURVEY/HABITAT/SPECIAL-STATUS SPECIES/ETC:

No BNLL observed during these (5) surveys.

Habitat appears to lack important features generally associated with BNLL habitat: shrubs (*Atriplex, Ephedra*, etc.) and small mammal burrows.

PLEASE RETURN THIS SURVEY REPORTING FORM TO THE APPROPRIATE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE REGION AT THE FOLLOWING ADDRESS:

California Department of Fish and Wildlife
Central Region
ATTN: Habitat Conservation Planning Supervisor
1234 East Shaw Avenue
Fresno, CA 93710

OR

California Department of Fish and Wildlife
South Coast Region
ATTN: Habitat Conservation Planning Supervisor
3883 Ruffin Road
San Diego, CA 92123

*****ALL OBSERVATIONS OF BLUNT-NOSED LEOPARD LIZARDS AND OTHER SPECIAL STATUS SPECIES SHOULD BE PROMPTLY REPORTED TO THE CALIFORNIA NATURAL DIVERSITY DATABASE (CNDDB). SUBMISSION OF THIS FORM DOES NOT ENTAIL REPORTING TO THE DATABASE, WHICH IS MAINTAINED BY THE BIOGEOGRAPHIC DATA BRANCH OF CDFW. PLEASE SEE THE SURVEY PROTOCOL FOR DIRECTIONS ON REPORTING TO CNDDB.**

Blunt-Nosed Leopard Lizard Survey Reporting Form

SURVEY DATE(S) (up to 5 days of surveys from a single site can be reported on this form):

SURVEYORS: Jon Claxton Level 2, Tyler Armstrong Level 1

SITE NAME [Please also attach or sketch a map on back]: Hidden Canyon Test Well

County: Santa Barbara **Landowner/Mgt:** Private

Quad Name: Cuyama (3411985) **Elevation:** 1983.3 FT

T 11N **R** 20E **¼ of Section** 06

UTM Zone (10,11): 11 **Datum:** NAD83 **(NAD83, NAD27, WGS84, other)**

Source (GPS, map & type, other): GPS **Point Accuracy** 3 **meters**

COORDINATES: 34.990582, -119.844859

SURVEY RESULTS

DATE	START TIME	ENDTIME	STARTAIR TEMP	END AIR TEMP	# BNLL OBSERVED Adults/Hatchlings	PERSON-HOURS (# Surveyors) X (# Hours Walked)	APPROXIMATE DISTANCE COVERED (IN TENTHS OF AMILE)
July 8, 2021	10:48am	11:19am	77.3	80.4	0/0	1	1.5
July 10, 2021	10:50am	11:21am	77.9	80.7	0/0	1	1.5
July 12, 2021	11:01am	11:32am	78.8	81.0	0/0	1	1.5

TOTAL NUMBER OF OBSERVATIONS FOR THE THREE MOST COMMON LIZARD SPECIES ENCOUNTERED (combined numbers for all survey days):

Species *Uta stansburiana* Side-Blotched Lizard — Number Observed: 11

Species *Phrynosoma blainvillii* Blainville's Horned Lizard — Number Observed: 0

Species _____ — Number Observed: _____

Reporting Form Pg 2 **BNLL Survey Site Name:** Hidden Canyon Test Well

HABITAT DESCRIPTION: General description of vegetation community, overall habitat quality, surrounding land use, threats, etc: Non-native annual grassland located throughout the parcel that is heavily grazed by cattle and horses. Adjacent parcels to the east and west have long history of intense agriculture uses.

HABITAT DESCRIPTION: Estimation of Average Vegetative Cover on the Site [circle the correct value]:

% Shrub: % Forb: 0-0-10%, 10-25%, 25-50%, 50-75%, >75% 10-

% Grass: 0-10%, 25%, 25-50%, 50-75%, >75% 10-25%,

25-50%, 50-75%, >75%

% Bare Ground: 0-10%, 10-25%, 25-50%, 50-75%, >75

NOTES ABOUT THE SURVEY/HABITAT/SPECIAL-STATUS SPECIES/ETC:

No BNLL observed during these three (3) surveys.

Habitat appears to lack important features generally associated with BNLL habitat: shrubs (*Atriplex, Ephedra*, etc.) and small mammal burrows.

PLEASE RETURN THIS SURVEY REPORTING FORM TO THE APPROPRIATE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE REGION AT THE FOLLOWING ADDRESS:

California Department of Fish and Wildlife
Central Region
ATTN: Habitat Conservation Planning Supervisor
1234 East Shaw Avenue
Fresno, CA 93710

OR

California Department of Fish and Wildlife
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ATTN: Habitat Conservation Planning Supervisor
3883 Ruffin Road
San Diego, CA 92123

*****ALL OBSERVATIONS OF BLUNT-NOSED LEOPARD LIZARDS AND OTHER SPECIAL STATUS SPECIES SHOULD BE PROMPTLY REPORTED TO THE CALIFORNIA NATURAL DIVERSITY DATABASE (CNDDB). SUBMISSION OF THIS FORM DOES NOT ENTAIL REPORTING TO THE DATABASE, WHICH IS MAINTAINED BY THE BIOGEOGRAPHIC DATA BRANCH OF CDFW. PLEASE SEE THE SURVEY PROTOCOL FOR DIRECTIONS ON REPORTING TO CNDDB.**

Blunt-Nosed Leopard Lizard Survey Reporting Form

SURVEY DATE(S) (up to 5 days of surveys from a single site can be reported on this form):

SURVEYORS: Jon Claxton Level 2, Tyler Armstrong Level 1

SITE NAME [Please also attach or sketch a map on back]: Hidden Canyon Test Well

County: Santa Barbara **Landowner/Mgt:** Private

Quad Name: Cuyama (3411985) **Elevation:** 2,473 to 2,606 FT

T 09N **R** 25W **¼ of Section** 06

UTM Zone (10,11): 11 **Datum:** WGS84 **(NAD83, NAD27, WGS84, other)**

Source (GPS, map & type, other): GPS **Point Accuracy** 3 **meters**

COORDINATES: 34.990582, -119.844859

SURVEY RESULTS

DATE	START TIME	ENDTIME	STARTAIR TEMP	END AIR TEMP	# BNLL OBSERVED Adults/Hatchlings	PERSON-HOURS (# Surveyors) X (# Hours Walked)	APPROXIMATE DISTANCE COVERED (IN TENTHS OF AMILE)
August 12, 2021	11:00am	11:32am	78.6	80.9	0/0	1	1.5
August 13, 2021	10:54am	10:26am	79.2	81.8	0/0	1	1.5
August 14, 2021	10:45am	11:15am	80.1	81.8	0/0	1	1.5
Sept. 15, 2021	10:46am	11:17am	81.4	81.6	0/0	1	1.5

TOTAL NUMBER OF OBSERVATIONS FOR THE THREE MOST COMMON LIZARD SPECIES ENCOUNTERED (combined numbers for all survey days):

Species *Uta stansburiana* Side-Blotched Lizard — Number Observed: 19

Species *Phrynosoma blainvillii* Blainville's Horned Lizard — Number Observed: 0

Species _____ — Number Observed: _____

Reporting Form Pg 2 **BNLL Survey Site Name:** Hidden Canyon Test Well

HABITAT DESCRIPTION: General description of vegetation community, overall habitat quality, surrounding land use, threats, etc: Non-native annual grassland located throughout the parcel. Adjacent parcels to the east and west have long history of agricultural uses.

HABITAT DESCRIPTION: Estimation of Average Vegetative Cover on the Site [circle the correct value]:

% Shrub: % Forb: 0-10%, 10-25%, 25-50%, 50-75%, >75% 10-
% Grass: 0-10%, 25%, 25-50%, 50-75%, >75% 10-25%,
0-10%, 25-50%, 50-75%, >75%

% Bare Ground: 0-10%, 10-25%, 25-50%, 50-75%, >75%

NOTES ABOUT THE SURVEY/HABITAT/SPECIAL-STATUS SPECIES/ETC:

No BNLL observed during these four surveys. Habitat appears to lack important features generally associated with BNLL habitat: shrubs (*Atriplex, Ephedra*, etc.) and small mammal burrows.

PLEASE RETURN THIS SURVEY REPORTING FORM TO THE APPROPRIATE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE REGION AT THE FOLLOWING ADDRESS:

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Central Region
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San Diego, CA 92123

*****ALL OBSERVATIONS OF BLUNT-NOSED LEOPARD LIZARDS AND OTHER SPECIAL STATUS SPECIES SHOULD BE PROMPTLY REPORTED TO THE CALIFORNIA NATURAL DIVERSITY DATABASE (CNDDB). SUBMISSION OF THIS FORM DOES NOT ENTAIL REPORTING TO THE DATABASE, WHICH IS**

APPENDIX C:

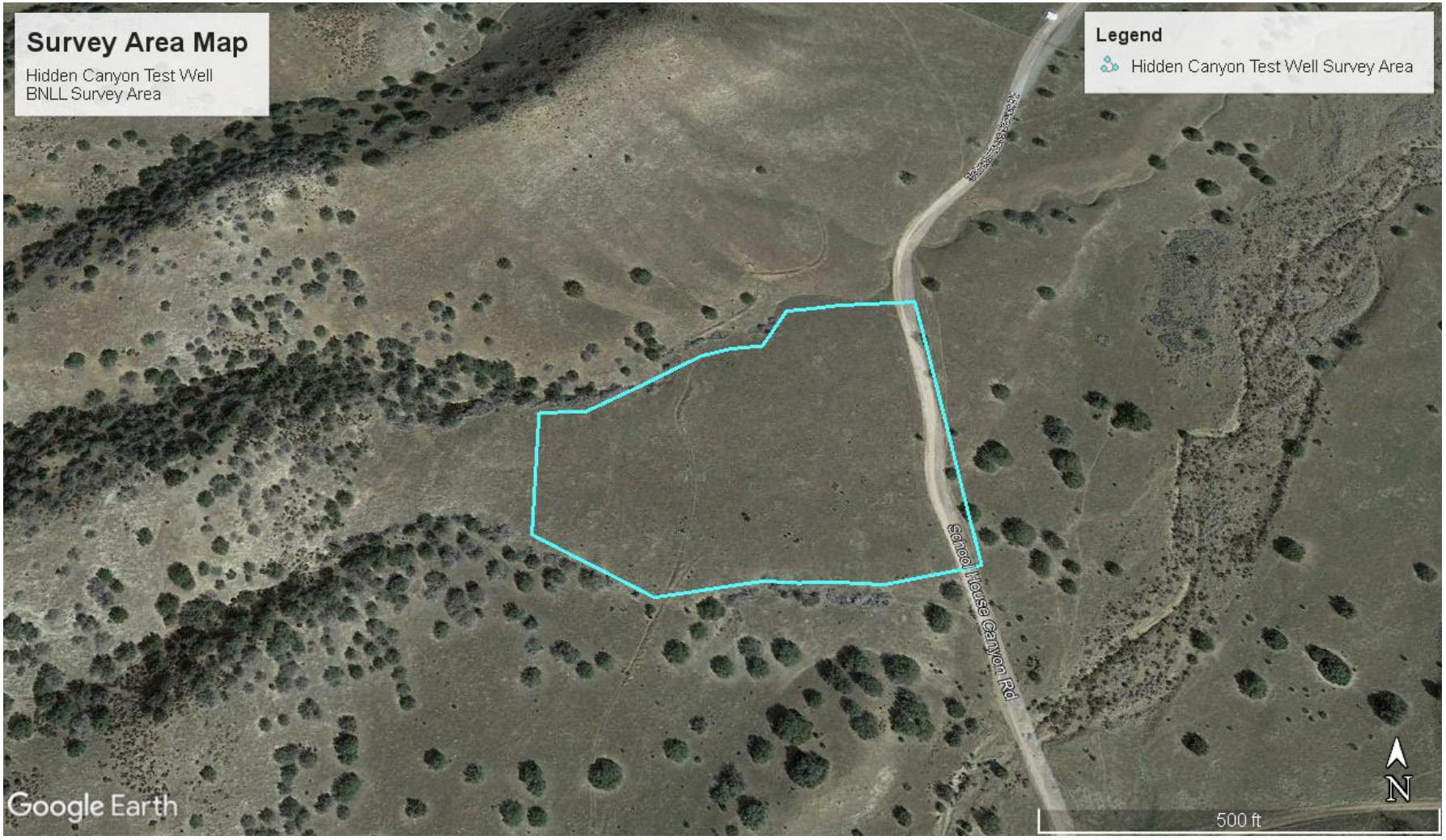
Botanical Inventory

Scientific Name	Common Name	Annual or perennial	Native (yes/no)	Special Status (yes/no)
Asteraceae				
Chaenactis glabriuscula var. *megacephala*	yellow pincushion	Annual	Yes	No
Ericameria linearifolia	interior goldenbush	Perennial	Yes	No
Layia platyglossa	coastal tidytips	Annual	Yes	No
Lasthenia californica ssp. *californica*	California goldfields	Annual	Yes	No
Uropappus lindleyi	silver puffs	Annual	Yes	No
Boraginaceae				
Amsinckia menziesii	small flowered fiddleneck	Annual	Yes	No
Amsinckia tessellata var. *gloriosa*	bristly fiddleneck	Annual	Yes	No
Cryptantha circumscissa	cushion cryptantha	Annual	Yes	No
Pectocarya penicillata	winged comb seed	Annual	Yes	No
Plagiobothrys canescens var. *canescens*	Valley popcornflower	Annual	Yes	No
Brassicaceae				
Lepidium nitidum	shining pepperweed	Annual	Yes	No
Sisymbrium irio	London rocket	Annual	No	No
Cactaceae				
Cylindropuntia californica var. *parkeri*	cane cholla	Perennial	Yes	No
Caryophyllaceae				
Loeflingia squarrosa	spreading loeflingia	Annual	Yes	No
Cucurbitaceae				
Marah fabacea	California man-root	Perennial	Yes	No
Cupressaceae				
Juniperus californica	California juniper	Perennial	Yes	No
Fabaceae				

Acmispon wrangelianus	Chilean trifoil	Annual	Yes	No
Astragalus lentiginosus var. *nigricalycis*	black hair milkvetch	Perennial	Yes	No
Lupinus bicolor	bicolored lupine	Annual	Yes	No
Lupinus microcarpus var. *microcarpus*	Valley lupine	Annual	Yes	No
Trifolium albopurpureum	rancheria clover	Annual	Yes	No
Geraniaceae				
Erodium cicutarium	red stemmed filaree	Annual	No	No
Erodium moschatum	white stemmed filaree	Annual	No	No
Liliaceae				
Dichelostemma capitatum ssp. *capitatum*	blue dicks	Perennial	Yes	No
Montiaceae				
Calandrinia menziesii	red maids	Annual	Yes	No
Orobanchaceae				
Castilleja exserta ssp. *exserta*	owl's clover	Annual	Yes	No
Papaveraceae				
Eschscholzia californica	California poppy	Annual	Yes	No
Plantaginaceae				
Plantago erecta	California plantain	Annual	Yes	No
Poaceae				
Bromus madritensis ssp. *rubens*	foxtail brome	Annual	No	No
Hordeum marinum	seaside barley	Annual	No	No
Schismus arabicus	Arabian grass	Annual	No	No
Polygonaceae				
Chorizanthe uniaristata	one awn spineflower	Annual	Yes	No
Eriogonum fasciculatum	California buckwheat	Perennial	Yes	No
Eriogonum elongatum var. *elongatum*	long stemmed buckwheat	Perennial	Yes	No
Lastarriaea coriacea	leather spineflower	Annual	Yes	No

APPENDIX D:

Maps and Site Photos


Survey Area Map
Hidden Canyon Test Well
BNLL Survey Area
Legend
Hidden Canyon Test Well Survey Area
School House Canyon Rd
Google Earth
500 ft
N

Photos of blunt-nosed leopard lizard at voucher site located in Carrizo Plain National Monument. Photo on left taken May 29, 2021, and photo on right taken July 14, 2021.