UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
BAKERSFIELD FIELD OFFICE

Environmental Assessment

Holmes Western Oil Corporation
Midway Sunset; Sundry to Upgrade Leutholtz Lease Pipelines
DOI-BLM-CA-C060-2016-0013-EA

Chapter 1. Purpose and Need

INTRODUCTION

PURPOSE AND NEED

Holmes Western Oil Corporation (Holmes Western) has submitted one (1) Sundry Notice of Intent (Sundry) that proposes to upgrade water disposal pipelines on the Leutholtz federal mineral lease (CALA034993A) on BLM administered lands in Section 22, T11N, R23W, SBBM. Habitat and surface disturbance will occur in negligible amounts (less than 0.001 acres), where it is necessary to place pipeline in previously undisturbed areas behind a power pole and electrical box and within saltbush shrub. During installation of new pipeline, burial will be necessary under four previously disturbed road crossings.

The purpose of the proposed action is to provide Holmes Western with the authority to replace existing water disposal pipeline with an upgraded fiberglass reinforced piping system on their federal mineral lease, which is necessary to supply energy resources to the American public. The need for the proposed action is to respond to the Sundry submitted by the proponent to conduct operations on public lands administered by the BLM Bakersfield Field Office.

This environmental assessment (EA) has been prepared in compliance with the National Environmental Policy Act (NEPA) and other relevant federal and state laws and regulations. The purpose of this document is to disclose and analyze the environmental consequences that are anticipated from the removal of an existing poly-pipeline water disposal system and installation of a new fiberglass reinforced (fiberspar) pipeline water disposal system.

Conformance with BLM land use plans

The proposed action has been reviewed for conformance with the Bakersfield Resource Management Plan approved on December 22, 2014; it has been determined that the proposed action conforms with the land use plan, terms, and conditions as required by 43 CFR 1610.5. The proposed action and modifications were specifically provided for in the following land use plan decision:

[MM-O-1] *"Facilitate reasonable, economical, and environmentally sound exploration and development of leasable minerals while minimizing impacts to other resources."*

Relationship to Statutes, Regulations and Other Plans

<u>Oil and Gas Laws and Regulations</u>

The BLM manages lands that contain a number of extractable minerals including oil and gas. These minerals are managed in accordance with the *Mineral Leasing Act* of 1920, as amended; the *Mining and Minerals Policy Act* of 1970; the *Federal Onshore Oil and Gas Leasing Reform Act* of 1987; 43 CFR,

Onshore Orders 1-8, NEPA; the *Energy Policy Act* of 2005; and other laws, regulations, orders, and also in accordance with all applicable state, county, and local laws and ordinances. BLM requires existing lessees to strictly adhere to all laws, regulations, and policies that govern oil and gas leases, while at the same time recognizing that existing leases grant the lessee certain rights. No additional requirements can be placed on an existing lessee that conflict with the rights already granted to the lessee.

Onshore Order No. 1 identifies the requirements necessary for approving proposed oil and gas exploration, development, and servicing wells on all Federal and Indian oil and gas leases. This includes all components required for the management of fluid minerals including: completed Form 3160-3, well plat, drilling plan, surface use plan, bonding, operator certificate, onsite inspection, processing, reclamation, and Sundries. Onshore Order No.1 also identifies processing timelines and valid period of approvals.

Endangered Species Act

The Endangered Species Act of 1973 (ESA) requires federal agencies to complete formal consultation with the United States Fish and Wildlife Service (FWS) for any action that "may affect" federally listed species or critical habitat. The ESA also requires federal agencies to use their authorities to carry out programs for the conservation of endangered and threatened species.

BLM completed formal consultation with the FWS for the Caliente RMP; the proposed action is in accordance with provisions of the Caliente RMP Biological Opinion. Furthermore, if it is determined that a specific oil and gas project "may affect" listed species in Kern or Kings County, California, the action may be covered by the 2001 Oil and Gas Programmatic Biological Opinion (1-1-01-F-0063).

Due to the "zero-impact" potential to Threatened and Endangered species habitat, this project will not need coverage under the 2001 Oil and Gas Programmatic Biological Opinion.

Clean Air Act

The San Joaquin Valley Unified Air Pollution Control District has state air quality jurisdiction over the project area. Section 176(c) of the Clean Air Act (CAA), as amended (42 U.S.C. 7401 et seq.) and regulations under 40 CFR part 93, subpart W, with respect to conformity of general Federal actions to the applicable State Implementation Plan (SIP) apply to projects within nonattainment and maintenance areas. Under those authorities "no department, agency or instrumentality of the Federal Government shall engage in, support in any way or provide financial assistance for, license or permit, or approve any activity which does not conform to an applicable implementation plan." Under CAA 176(c) and 40 CFR part 93 subpart W, a Federal agency must make a determination that a Federal action conforms to the applicable implementation plan before the action is taken.

National Historic Preservation Act of 1966, as amended

Section 106 of the National Historic Preservation Act (NHPA) requires agencies to make a reasonable and good faith effort to identify historic properties that may be affected by an agency's undertakings and take those effects into account in making decisions. The BLM process for implementing this NHPA requirement is set forth in the *State Protocol Agreement Among the California State Director of the Bureau of Land Management and the California State Preservation Officer and the Nevada State Historic Preservation Officer (2014).*

Clean Water Act

The Clean Water Act of 1977 establishes authority to regulate any action where pollutants may be discharged into waters of the United States. Section 303 or the federal Clean Water Act requires states to adopt water quality standards that "consist of the designated uses of the navigable waters involved and the water quality criteria for such waters based upon such uses." In California, these water quality standards

and the administrative policies and procedures for protecting state waters are disclosed in regional water quality control board basin plans. Hence, California's basin plans serve as regulatory references for meeting both State and federal requirements for water quality control (40 CFR Parts 130 and 131). These basin plans establish standards for ground waters in addition to surface waters, unlike the federal program.

The State may exempt specific aquifers from specific beneficial use designations if certain criteria are met, such as high TDS, contamination, low yield, and regulation as a geothermal energy source or exemption for the purpose of underground fluid injection pursuant to 40 CFR, Section 146.4 (CRWQCB – CVR, 2004).

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) of 1974 regulates the nation's public drinking water supply to protect public health. SDWA authorizes the US EPA to set national health-based standards for drinking water to protect against both naturally-occurring and man-made contaminants that may be found in drinking water. Importantly, the SDWA sets a framework for the Underground Injection Control (UIC) program to control the injection of wastes into ground water. The UIC program provides for the protection of all aquifers containing formation waters with less than 10,000 milligrams-per-liter total dissolved solids (mg/l TDS).

States can apply to US EPA for "primacy," authority to implement SDWA within their jurisdictions, if they can show that they will adopt standards at least as stringent as US EPA's. California has received primacy and therefore oversees the UIC program. All proposed Class II injection wells must undergo a comprehensive review by the Department of Conservation, Division of Oil, Gas, and Geothermal Resources. Also, all injection projects must be reviewed annually: operators must demonstrate that the injection is confined to the intended zone and that mechanical integrity for the well has been maintained.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act of 1976 establishes a regulatory structure for the management and disposal of solid and hazardous wastes. Solid wastes consist of any discarded material, including soil, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities. Solid wastes include both hazardous and nonhazardous waste. A waste may be considered hazardous if it is ignitable, corrosive, reactive, or contains certain amounts of toxic chemicals. Subtitle C of the RCRA creates a cradle-to-grave management system for hazardous waste, governing the generation, transportation, treatment, storage, and disposal of hazardous wastes. Subtitle D regulates the management of nonhazardous solid waste, establishing minimum federal technical standards and guidelines for state solid waste plans in order to promote environmentally sound management of solid waste.

Chapter 2. Proposed Action and Alternatives

ALTERNATIVE 1: PROPOSED ACTION

The BLM proposes to approve one (1) Sundry Notice of Intent (Sundry) submitted by Holmes Western Oil Corporation (Holmes Western) to upgrade pipelines on their Leutholtz federal mineral lease (CALA034993A) on BLM administered lands in Section 22, T11N, R23W, SBBM.

Holmes Western proposes to re-route new lines so they will be along existing roadways and well pads. Approximately 1.14 miles of 4" fiberspar pipeline will be installed to replace the existing poly-pipeline used for water disposal for wells Letholtz WD #4, Leutholtz WD #224, and Leutholtz WD #224, and Leutholtz #245; all pipeline will be removed and installed by hand.

The new 4" fiberspar pipeline will be placed directly onto ground surface and, where necessary, buried under four previously disturbed road crossings where existing pipeline is currently placed. During installation of new pipeline, undisturbed areas will be crossed behind a power pole and electrical panel and through a small area of saltbush shrub where it is necessary to access the tie-in location; total disturbance will not reach 0.001 acres. In areas of no previous disturbance, crews will travel only by foot and upgrade water disposal pipeline by hand; all vehicles and equipment will be confined to existing roads and well pads. The old lines will be disconnected and removed from the Leutholtz lease.

Holmes Western proposes to implement all "Avoidance and Mitigation Actions" listed in consulting biologist Lisa M. Ashley's *Sensitive Species Review Form*:

1. As close to the beginning of the project as possible, but not more than 14 days prior to project activities, a qualified biologist will conduct a final pre-construction survey to ensure that no special-status wildlife species have recently occupied the project sites.
2. All small mammal burrows that may serve as potential for special-status species will be avoided by project activities. Burrows identified near work areas will be flagged for avoidance during final pre-construction surveys.
3. An Environmental Awareness Program will be conducted to orient all employees involved in project activities in the field. The program will consist of a brief presentation in which biologists knowledgeable of endangered species biology and legislative protection will explain endangered species concerns. The program will also include a discussion of special-status plants and sensitive wildlife species. Species biology, habitat needs, status under the Endangered Species Act, and measure being taken for the protection of these species and their habitats as a part of the project will be discussed.
4. All project activities will be confined to the approved project site, and within existing pre-disturbed areas (i.e. existing access roads, well pads, etc.). No vehicle parking, off-road travel or other project activities will take place outside disturbed areas.
5. Minimize damage or impact to saltbush shrubs during water disposal pipeline replacement activities.
6. Holmes Western will implement the following measures adapted from the USFWS's *Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (USFWS 2011):
   a. Project activities should avoid den(s) that could be used by San Joaquin Kit Fox
   b. Protective exclusion zones will be placed around all known and potential dens identified during pre-construction surveys. Exclusion zones should be comprised of large flagged stakes connected by rope or cord, or by survey laths or wooden stakes prominently flagged with survey ribbon. Exclusion zones will be implemented at the following distances measured outward from the entrance:

Potential or Atypical Den	50 feet
Known den	100 feet

   c. Exclusion zones must be observed. Only essential vehicle operation on existing roads and foot traffic should be permitted within the exclusion zones. Otherwise, all construction, vehicle operation, material storage, or any other type of surface disturbing activity should be prohibited or greatly restricted within exclusion zones.

d. Exclusion zones around kit fox dens will be maintained until all project related activities have been completed. At that time, all staking will be removed to avoid attracting subsequent attention to the dens.
e. If a natal/pupping den is discovered within the project sites, or within 200-feet of work areas, the BLM should be notified immediately. Under no circumstances should the den be disturbed or destroyed without prior authorization from the USFWS and CDFW.
f. Destruction of any known or natal/pupping den requires take authorization/permit from the USFWS and CDFW.
g. If take authorization/permit has been obtained from the USFWS and CDFW for San Joaquin Kit Fox:
    1. Destruction of potential dens may proceed without monitoring, unless other restrictions were issued with the authorization/permit.
    2. Known dens occurring within the footprint of the project must be monitored for three (3) days with tracking medium or an infra-red beam camera to determine the current use. If no kit fox activity is observed during this period, the den should be destroyed immediately to preclude subsequent use.
    3. Alternatively, dens in the buffer area(s) should not be excavated. Dens may be temporarily blocked to preclude access, entry, and use by kit fox during project activities. Covers should be installed no more than 14 days prior to the start of project activities and remain in place for the duration of the project, after which they will be removed.
    4. If NO take authorization has been issued by the USFWS and CDFW for San Joaquin Kit Fox, then potential dens should be monitored as if they were known dens. If no kit fox activity is observed at the potential den(s) during monitoring, the dens should be destroyed immediately to preclude subsequent use, or alternatively the dens should be temporarily blocked to prevent use during project activities. Project activities may proceed.

7. All excavated steep-walled holes or trenches in excess of three feet in depth left open for more than one (1) work day will be provided with one or more escape ramps constructed of earth fill or other material to prevent entrapment of endangered species or other animals. Ramps will be located at no greater than 1000 foot intervals (for pipelines etc.) and at not less than 45 degree angles. Trenches will be inspected for entrapped wildlife each morning prior to onset of construction activities and immediately prior to the end of each working day. Before such holes or trenches are filled they will be inspected thoroughly for entrapped animals. Any animals discovered will be allowed to escape voluntarily without harassment before construction activities resume, or removed from the trench or hole by a qualified biologist and allowed to escape unimpeded.
8. All construction pipes, culverts, or similar structure stored at the construction site overnight having a diameter of four (4) inches or greater will be inspected thoroughly for wildlife species before being buried, capped, or otherwise used or moved in any way. Pipes laid in trenches overnight will be capped. If during construction a wildlife species is discovered inside a pipe, that section of pipe will not be moved or, if necessary, moved only once to remove it from the path of construction activity, until the wildlife species has escaped.
9. Pre-construction nesting surveys will be conducted for migratory bird species in the project sites and buffer areas. If ground disturbing activities occur during breeding season (February through

mid-September), surveys for active nests will be conducted by a qualified biologist, no more than 14 days prior to the start of project activities.

a. If no nests or nesting birds are found, project activities may proceed and no further mitigation measures will be required.
b. If a migratory bird species is observed and suspected to be nesting, a 250-foot buffer area will be established to avoid impacts to the active nest. If active nest sites are found, a 500-foot exclusion buffer zone will be established. No project activities will occur within these buffer zones until young birds have fledged.

10. Project-related vehicles will observe a 20-mph speed limit in all project areas, except on County roads and State and Federal highways, to avoid impacts to special-status wildlife species.
11. Hazardous materials, fuels, lubricants, and solvents that spill accidently during project-related activities will be cleaned up and removed from the project sites as soon as possible according to applicable Federal, State and local regulations.
12. All food-related trash items such as wrapper, cans bottles or food scraps generated during project activities will be disposed of only in closed containers and regularly removed from the project site. Food items may attract wildlife species onto a project site, consequently exposing such animals to increased risk of injury or mortality. No deliberate feeding of wildlife will be allowed.
13. To prevent harassment or mortality of wildlife species via predation, or destruction of their dens or nests, no domestic pets will be permitted on the project site.

Design Features/Additional Conditions of Approval (COAs) for Surface

Mitigation measures are divided into five phases: Biological Monitoring, Cultural Resources, Construction, and Management of Noxious Weeds.

<u>Biological monitoring</u>
A qualified biologist will be required to conduct a pre-activity survey no more than 14-days prior to project implementation to ensure no Threatened or Endangered species or BLM sensitive species are currently utilizing the area.

Biological monitors will be deployed at the construction site prior to surface disturbing activities to ensure no BLM special status species will be subject to “take” during construction activities. Animals at the project site will be detected and monitored for avoidance by watching their activities. Construction will not proceed in a manner that would result in take. Activities that could result in mortality would not proceed until the animal has moved outside of the area of surface disturbance.

<u>Cultural Resources</u>
In the event of inadvertent discovery of cultural resources during project implementation, the BLM Field Office Cultural Staff (661-391-6000) and the BLM Field Office Manager (661-391-6000) shall be immediately notified by personnel responsible for the project. All work at the site of discovery and in any other locations where damage to the cultural resource could occur shall also cease until written approval by the BLM.

<u>Construction</u>
Project site boundaries shall be clearly delineated by stakes, flagging and/or rope or cord to minimize inadvertent degradation or loss of adjacent habitat during construction. The operator will limit vegetation removal and the degree of surface disturbance wherever possible.

All disturbed soil material will be placed in an area where it can be retrieved without creating additional undue surface disturbance.

With the overall objective of minimizing surface disturbance and retaining land stability and productivity, the operator shall utilize equipment that is appropriate to the scope and scale of work being done for roads and well pads (utilize equipment no larger than needed for the job).

All pipelines will be removed upon lease abandonment.

All permanent above-ground structures (e.g., production equipment, etc.) not subject to safety requirements should be painted to blend with the natural color of the landscape. The paint used will be a color which simulates "Standard Environmental Colors." The color selected for the Leutholtz lease is Sand Beige.

There is a blue-line drainage directly west of the 245 well pad. **Installation of pipeline should not impact the bed and/or banks of this drainage.**

Management of Noxious Weeds

Use of pesticides and herbicides shall comply with all applicable Federal and State laws and requires a separate EA prior to their use. Pesticides and herbicides shall be used only in accordance with their registered uses within limitations imposed by the Secretary of the Interior. Prior to the use of the pesticides, the holder shall obtain from the Authorized Officer, written approval of a Pesticide Use Proposal Plan showing the type and quantity of material to be used, pest(s) to be controlled, method of application, locations of storage and disposal of containers, and any other information deemed necessary by the Authorized Officer.

Only those chemicals (pesticides and herbicides) listed on the BLM approved label list are authorized for use on public lands. A Pesticide Use Proposal must be submitted for each chemical used, and it cannot be used until approval has been obtained in writing from the Authorized Officer. The proposal needs to identify any surfactants or dyes used in the spraying operation. Applicator(s) of chemicals used must have completed pesticide certification training and have a current up to date Certified Pesticide Applicator's License. Pesticide and herbicide application records for the areas and acres treated must be submitted to the Authorized Officer each year. This includes the following:

Brand or Product name
EPA registration number
Total amount applied (use rate #A.I./acre)
Date of application
Location of application
Size of area treated
Method of treatment (air/ground)
Name of applicator
Certification number and dates
Costs to treatment
Amount of surfactants or dyes used in spraying operation

The record information must be recorded no later than 14 calendar days following the pesticide or herbicide application and must be maintained for ten years.

Final Reclamation

Disturbed lands will be re-contoured back to conform with existing undisturbed topography unless an alternative landform is approved by BLM.

Before the location has been reshaped and prior to redistributing the topsoil, the operator will rip or scarify the drilling platform and access road on the contour, to a depth of at least 12 inches. The rippers are to be no farther than 24 inches apart.

Distribute the topsoil evenly over the entire location and other disturbed areas. Prepare the seedbed by disking to a depth of 4-to-6 inches following the contour. This area should be reseeded with locally collected seed. In the absence of locally collected seed, certified seed with a minimum germination rate of 80% and a minimum purity of 90% will be used. On BLM surface or in lieu of a different specific mix desired by the surface owner, the seed mix should include only native species, including *Atriplex polycarpa* (common saltbush). Collected seed or seed mix will be broadcast and secured to a depth of 0.5 inch, preventing soil and seed losses. Seed should be applied at a rate of approximately 12 lbs per acre. Reseeded areas should be protected from livestock to allow plants (especially shrubs) to successfully re-establish.

All soil treatments and seeding will occur within October and/or November to minimize soil erosion and seed predation.

The operator will follow the above guidance to specifically achieve the following:

1. The reclaimed area shall be stable and exhibit none of the following characteristics:
    a. Large rills or gullies (greater than 6 inches deep).
    b. Perceptible soil movement or head cutting in drainages.
    c. Slope instability on, or adjacent to, the reclaimed area in question.

2. The soil surface must be stable and have adequate surface roughness to reduce runoff and capture rainfall and snow melt. Additional short-term measures, such as the application of mulch, shall be used to reduce surface soil movement.

3. Vegetation production and species diversity (including shrubs) shall approximate the surrounding undisturbed area (50-150% of the adjacent species composition and cover). The vegetation shall stabilize the site and support the planned post disturbance land use, provide for natural plant community succession and development, and be capable of renewing itself. This shall be demonstrated by:
    a. Successful onsite establishment of species included in the planting mixture or other desirable species.
    b. Evidence of vegetation reproduction, either spreading by rhizomatous species or seed production.

The reclaimed landscape shall have characteristics that approximate the visual quality of the adjacent area with regard to location, scale, shape, color and orientation of major landscape features and meet the needs of the planned post disturbance land use.

ALTERNATIVE 2: NO ACTION

Under this alternative, BLM would not approve the one (1) Sundry submitted by Holmes Western. By denying the application, the federal lessee/operator would be denied the opportunity to reduce the risk of leaks and facilitate early detection of leaks. Denying the Sundry would expose Holmes Western and BLM administered lands to greater susceptibility of leaks in undisturbed habitat and difficult leak detection, given that existing pipeline is located away from roads and well pads in listed species habitat.

Chapter 3. Affected Environment

This chapter briefly describes the physical and regulatory environment for elements that may be affected by the proposed action.

The following elements of the human environment were considered but determined to be either not present or unaffected by the proposed action and will therefore not be addressed further in this analysis. This project location does not occur within a designated Area of Critical Environmental Concern or within the National Landscape Conservation System (NLCS). The project does not contain essential fish habitat, and there are no wetlands or riparian zones in the project area. The project would not affect low income or minority populations. The project area is not currently allotted for livestock grazing. Cultural resource inventory was conducted for the Area of Potential Effect (APE) for the proposed action (BLM CRIR#LLCAC06000-947) and no cultural resources were discovered. As a result, cultural resources will not be impacted. Certified letters containing a description of potential oil field activities for an area that includes the project location were mailed to affiliated tribes. None of the recipients responded to indicate that places of traditional cultural or religious significance are present. As a result, cultural resources or tribal values will not be impacted.

General Description of the Project Area

The project area is located within the Midway Sunset Oil Field in Southwest Kern County. The project is situated within a moderately developed oil field with numerous access roads and production facilities. The terrain is flat, and the vegetation consists of saltbush scrub and non-native annual grassland.

Air Quality

The proposed project area is located in Kern County, California, and within the San Joaquin Valley Air Basin. At the state level, air regulatory duties lie with the California Air Resources Board (CARB) and at the federal level with the U.S. Environmental Protection Agency (EPA), Region IX. Oversight authority for air quality matters in California has been delegated to the county (District) level. The BLM has air program responsibilities through its permitting programs and Clean Air Act (CAA) requirements to analyze all actions for conformity to air quality plans. The BLM is further committed to comply with the procedures outlined in a recent Air Quality MOU (effective June 23, 2011) with the DOI, the USDA, and the EPA; this MOU outlines a common framework for analyzing and mitigating impacts to air quality and AQRVs associated with Federal oil and gas decisions through the NEPA process.

The federal Clean Air Act (CAA), as amended, and the California Clean Air Act (CCAA) contain the primary provisions relating to air quality. Provisions of the federal CAA that apply to BLM actions include the National Ambient Air Quality Standards (NAAQS), nonattainment area designation, the development of state implementation plans (SIPs), prevention of significant deterioration (PSD), air toxics, and federal conformity. The U.S. EPA, CARB, and regional air districts have issued rules to implement federal and state Clean Air Acts.

EPA uses these “criteria pollutants" as indicators of air quality, and has established for each of them a maximum concentration above which adverse effects on human health may occur. These threshold concentrations are called National Ambient Air Quality Standards (NAAQS). One set of limits (primary standard) protects health; another set of limits (secondary standard) is intended to prevent environmental and property damage. Under the federal CAA, the U.S. EPA has established NAAQS for seven criteria pollutants: ozone, respirable particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), carbon monoxide, nitrogen dioxide, lead, and sulfur dioxide. California has established state Ambient Air Quality Standards for the same criteria pollutants, plus an additional 3 pollutants (visibility reducing particulates, sulfates, and hydrogen sulfide). States may have standards that are more restrictive than the federal thresholds, but

they cannot be less restrictive. Although more stringent, the State standards have no specific dates to attain, unlike federal standards. Under State law, designations are made by pollutant, rather than by averaging time. A geographic area that meets or exceeds the primary standard is called an attainment area; areas that do not meet the primary standard are called nonattainment areas (http://www.epa.gov/air/caa/peg/).

Federal air quality standards for $PM_{2.5}$ and ozone have been exceeded in the San Joaquin Valley air basin due to locally generated and/or transported in pollutants. This has resulted in the current designation of the air basin as a federal non-attainment area for $PM_{2.5}$ and ozone under the NAAQS. The air basin has recently been designated as a federal maintenance area for PM_{10}. Based on the EPA 2010 designations, the primary pollutants of concern in the Project area are 8-hour Ozone, PM_{10}, and $PM_{2.5}$. The remaining criteria pollutants are either unclassified, or in attainment with the NAAQS.

The proposed project areas are within the EPA Pacific Southwest Region 9 Planning Area; a State Implementation Plan (SIP) has been prepared for the planning area, which identifies sources of emissions and control measures to reduce emissions. In 2007 CARB adopted the State Strategy for achieving emissions reductions toward bringing these areas into attainment with federal standards for ozone and $PM_{2.5}$. The SIP mainly addresses stationary sources that have been identified as major contributors affecting regional air quality, such as power plants, facilities, etc.

District air quality plans that have recently been adopted and are relevant to the proposed Project include the *SJVAPCD 2007 Ozone Plan*, the *2007 PM10 Maintenance Plan*, and the *2012 PM2.5 Plan*. These plans outline the strategy for achieving federal air quality standards by specific dates and identify control measures to reduce criteria pollutant emissions. Control measures identified in the *2007 Ozone Plan* reduce ozone precursor emissions, NOx and Volatile Organic Compounds (VOCs). Particulate matter attainment strategies include control measures to reduce dust from unpaved roads and construction activities.

Applicable SJVAPCD Rules to Implement Air Quality Plans

Once air quality attainment demonstration Plans are adopted, the reductions necessary to meet the respective reduction mandates contained in the Plan(s) are achieved through prohibitory rules created and enforced by the local air quality board/APCD. Compliance with applicable Rules, Regulations, and land use and zoning requirements ensures continued movement towards achieving the SJVAPCD attainment goals. Examples of SJVAPCD rules that may be applicable to the proposed Project are described below.

> *Rule 4101(Visible Emissions):* The purpose of this rule is to prohibit the emissions of visible air contaminants to the atmosphere.
>
> *Regulation VIII (Fugitive PM_{10} Prohibitions):* The purpose of Regulation VIII is to reduce ambient concentrations of particulate matter (PM_{10}) by requiring actions to prevent, reduce, or mitigate anthropogenic fugitive dust emissions. Regulation VIII rules pertinent to the proposed Project include, but are not limited to, the following:
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> *Rule 8021 (Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities):* This rule limits fugitive dust emissions (PM_{10}) from construction, demolition, excavation, extraction, and other earthmoving activities. This rule applies to any such activity and other earthmoving activities, including, but not limited to, land clearing, grubbing, scraping, travel on-site, and travel on access roads to and from the site.
>
> *Rule 8031 (Bulk Materials):* The purpose of this rule is to limit fugitive dust emissions from the outdoor handling, storage, and transport of bulk materials.

Conformity Determination
The classification of any area as a federal nonattainment and/or maintenance area brings an additional requirement for federal agencies. Section 176(c) of the CAA, as amended (42 U.S.C. 7401 et seq.), and regulations under 40 CFR, part 93, subpart W, state that "no department, agency or instrumentality of the federal Government shall engage in, support in any way or provide financial assistance for, license or permit, or approve any activity which does not conform to an applicable implementation plan." This means that under the CAA 176(c) and 40 CFR, part 93, subpart W (conformity rules), federal agencies must make a determination that proposed actions in federal nonattainment areas conform to the applicable EPA approved implementation plans (if pertinent) before the action is taken.

Soil Resources
The project location occurs within Soil Map Unit #192 – Guijarral-Klipstein complex, 2 to 5 percent slopes. Guijarral soils are found on fan remnants, consisting of alluvium derived from calcareous sedimentary rock. They are considered nonsaline to very slightly saline and well drained. Runoff potential is very low to low.

Map Unit #192 has a water erosion K factor of 0.24. Values of K can range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water. Therefore, project area soils have a moderate potential for water erosion.

Map Unit #192 is assigned to wind erodibility group 3. A wind erodibility group consists of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The wind erodibility group provides an indication of how susceptible areas disturbed by construction activities are to wind erosion. Soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible. Therefore, there is a moderately high potential for wind erosion on the project site.

Soils have varying levels of disturbance across the lease. There are portions of the landscape that are compacted and scraped bare for vehicle access and oil production facilities. Other areas are dominated by non-native annual grassland with variable densities of saltbush shrubs. There are no wetlands present.

Water Quality
The project is located on the southern end of the Tulare Lake Basin. This essentially closed Basin is bound by the Diablo and Temblor Ranges on the west, by the San Emigdio and Tehachapi Mountains on the south, and by the Sierra Nevada Mountains on the east and southeast. Major ground water basins underlie the valley floor, and there are scattered smaller basins in the foothill areas and mountain valleys.

Generally, the quality and the beneficial uses of the deep ground waters remain the same as before man entered the valley (CRWQCB – CVR, 2004). A few areas of the Basin have ground waters that are naturally unusable or of marginal quality for certain beneficial uses. The paramount water quality problem in the Basin is the accumulation of salts. Nonpoint source discharges contribute the largest portion of the waste load to surface and ground water resources in the Tulare Lake Basin. In the central and west-side portions of the San Joaquin Valley, where the Concoran Clay confining layer exists, water quality is generally better beneath the clay than above it (DWR, 2003). Along the east-side of the valley, soil permeability is higher and depth to groundwater is shallower, increasing the risk of contamination from surface activities.

The proposed project is near the southwestern edge of the Kern County Subbasin. This subbasin is bound on the north by the Kern County line, on the east and southeast by granitic bedrock of the Sierra Nevada foothills and Tehachapi Mountains, and on the southwest and west by the marine sediments of the San

Emigdio Mountains and Coast Ranges. From oldest to youngest, the shallow to intermediate depth water-bearing deposits include the Olcese and Santa Margarita Formations (drinking water only in northeastern subbasin), the Tulare Formation (western subbasin), the Kern River Formation (eastern subbasin), older alluvium/stream deposits, and younger alluvium and flood basin deposits (DWR, 2006). The aquifers in this subbasin are generally quite thick, commonly exceeding 1,000 feet in depth. The maximum thickness of freshwater-bearing deposits (4,400 feet) occurs at the southern end of the subbasin (DWR, 2003).

There is no usable groundwater within the Leutholtz lease. Additionally, there are no rivers, lakes, or streams in the project area that contain surface water year round. However, there is one unnamed intermittent drainage that comes within 50 feet of the 245 well pad.

Since there are no anticipated impacts to water quality from the proposed action, this resource will not be discussed further in this document.

Biological Resources

The project is proposed on BLM surface in an area identified as a habitat corridor in the Bakersfield RMP and the *Recovery Plan for Upland Species of the San Joaquin Valley, California*, meaning that the location is considered a habitat linkage for threatened and endangered species in the southern San Joaquin Valley. The habitat disturbance threshold for corridors (green zone) is 25 percent of any 640-acre section, aliquot section, or aggregate of adjacent aliquot sections (Bakersfield RMP, p. 21, BR-D-6).

The *Sensitive Species Review Form* (SSRF) submitted by consulting biologist Lisa M. Ashley on November 4, 2015, indicates that one field survey was conducted on September 22, 2015 and another was conducted on October 30, 2015. A project-specific onsite inspection was conducted by BLM Natural Resource Specialists Dave Faires and Tiera Arbogast and BLM Ecologist Ryan Klausch on November 13, 2015.

No Federally listed plant species are known to occur in the project area. San Joaquin woolly-threads (*Monolopia congdonii*), Hoover's woolly-star (*Eriastrum hooveri*), California jewelflower (*Caulanthus californica*), Kern mallow (*Eremalche kernensis*) and Bakersfield cactus (*Opuntia basilaris*) are not known to occur in the general project area; this determination is based on the *Recovery Plan for Upland Species of the San Joaquin Valley, California* (*Recovery Plan*; U.S. Fish & Wildlife Service, 1998), the California Natural Diversity Database (CNDDB), and surveys on adjacent public lands by former BLM employee Russell Lewis.

Special status plants are not expected to occur on the project site, though with seasonal/annual variability, it can be difficult to tell if the site actually contains the target species. Annual populations move around in time and space, are mostly present as seeds in the seed bank, and may only be evident in good years. Because of this, there is a possibility that these species are present within the project area.

San Joaquin kit fox (*Vulpes macrotis mutica*) is known to occur in the project area, though no individuals or signs of this species were observed during the project-specific field surveys. The project area is within the western Kern County kit fox core, and CNDDB identifies this species in the project area. San Joaquin antelope squirrel (*Ammospermophilus nelsoni*) are known to occur in localized areas in the vicinity of the lease according to the SSRF.

Blunt-nosed leopard lizard (*Gambelia sila*) are not believed to currently occur in the project area. According to prior surveys in the area conducted by Diane Mitchell, Ph.D, none have been observed in over 10 years of work in the lease area.

There are no records of Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*) or giant kangaroo rat (*Dipodomys ingens*) in the general area. No signs of these species were observed during the onsite.

Plant species observed during the field surveys conducted by Lisa Ashley include: *Amsinckia menziesii* var. *intermedia* (fiddleneck), *Atriplex polycarpa* (allscale), *Bromus madritensis ssp. Rubens* (red brome), *Bromus diandrus ssp. rigidus* (rip-gut brome), *Erodium cicutarium* (redstem filaree), *Lactuca serriola* (prickly lettuce), *Salsola tragus* (Russian thistle), *Schismus arabicus* (Meditteranean grass), and *Solanum elaeagnifolium* (silverleaf nightshade). Animal species observed in the area include: *Uta stansburiana* (common side-blotched lizard).

Chapter 4. Environmental Impacts

Air quality
Proposed Action:
Project emissions would include NOx, VOCs/ROG, PM_{10} and $PM_{2.5}$ associated with combustion sources such as, equipment trucks, materials trucks, vacuum trucks, crew trucks/vehicles, welding trucks, and portable lift equipment. Support vehicle use on unpaved access roads would generate small amounts of particulate emissions and could carry soils onto paved roads which would increase entrainment PM_{10} emissions. In addition, vehicles and heavy equipment used for grading and the hauling of materials emit various precursor emissions for ozone and $PM_{2.5}$. Direct emissions from the proposed action would be temporary, localized, and minimal.

The SJVAPCD (San Joaquin Valley Air Pollution Control District) requires all construction work (earth moving) to follow Rule Eight which details requirements for PM_{10}, $PM_{2.5}$, and fugitive dust minimization. Applicant compliance with Rule Eight would minimize particulate emissions that impact air quality. Measures commonly used to abate fugitive dust include watering unpaved access roads in the project area, and watering prior to excavation and trenching, and during backfilling while compacting. Projects less than 5 acres are considered by the SJVAPCD as insignificant in regards to PM_{10} and $PM_{2.5}$ emissions.

As described in Chapter 3, air quality rules that are applicable to the proposed action include Rules 4101, 8021, and 8031. When permitting with the SJVAPCD is initiated, all VOCs and NOx emissions will be evaluated per the SJVAPCD's calculation methodologies; any increase in emissions would be fully offset during the air permitting process. Implementation of this existing regulatory mechanism would offset the increase in potential emissions related to the proposed project. Furthermore, this compliance with existing regulatory requirements would not contribute substantially to existing non-attainment of federal air quality standards nor prevent timely attainment of federal air quality standards.

Therefore, the proposed project is consistent with the SIP and emissions would not exceed the *de minimis* emission levels and are exempt from conformity determination (40 CFR Part 93.153). As a result no formal conformity analysis or determination is required.

No Action:
There would be no additional impacts to air quality from the no action alternative.

Soils
Proposed Action:
Impacts to soils as a result of the proposed action would be minimal. Some soil would be blown across the landscape as a result of travel on unpaved roads, but soil erosion would be reduced by complying with SJVAPCD Regulation VIII. All cross-county construction would be conducted on foot, thereby avoiding

compaction of native soils. Only a small amount of already disturbed soils would be impacted as a result of underground pipe burial; a total of four underground road crossings are proposed.

No Action:
Soils would be subject to an increased likelihood of contamination as a result of the no action alternative due to the susceptibility of older pipelines to leaks. Without replacement of the old pipelines, leaks are likely to necessitate the removal of native soils.

Biological Resources
Proposed Action:
As previously stated, special status plants are not expected to occur on the project site, though with seasonal/annual variability, it can be difficult to tell if the site actually contains the target species. Annual populations move around in time and space, are mostly present as seeds in the seed bank, and may only be evident in good years. Although there is possibility for special status plants to occur on the project site, the "zero-impact" methodology to be used would cause minimal (less than 0.001acres) of disturbance during removal of old pipeline and installation and burial of new pipeline. Upon abandonment of the lease, the lands would be reclaimed to their pre-construction state.

The proposed action occurs in potential San Joaquin kit fox foraging habitat and there is some potential for and San Joaquin antelope squirrel to occur in the project vicinity. Since an endangered species may be affected by the proposed action and the project is in Kern County, the project is eligible for coverage under the 2001 Oil and Gas Programmatic Biological Opinion. Compliance with the Project Specific Provisions of this Opinion is required. Any impacts to potential listed species habitat in exceedance of 0.001 acres will be compensated by the purchase of mitigation land from a BLM-approved mitigation bank.

Direct impacts to listed species are not anticipated. All burrows would be avoided by project activities, and personnel would observe a 20 mph speed limit on lease roads. If special status species are observed during project implementation, activities that may result in "take" may not proceed the animal has voluntarily left the area.

A preliminary estimate of compensation is 0 compensation acres (0 permanent acres compensated at 3:1 = 0 + 0 temporary acres compensated at 1.1:1 = 0 + 0 replacement acres). In accordance with the O&G Programmatic Biological Opinion, BLM requires the compensation be provided within six months of project completion.

No Action:
There would be an increased potential for impacts to habitat and wildlife from production fluid leaks as a result of the no action alternative. By not installing new pipeline, the area is subject to higher risk of pipe failure or leakage that would inundate the area adjacent to and down slope from the pipeline; this would destroy habitat and possibly cause direct harm to special status species.

CUMULATIVE IMPACTS
Air Quality
The cumulative effects analysis area for air resources is the San Joaquin Valley air basin. This area includes the San Joaquin Valley, CA (extreme) federal 8-hour ozone nonattainment area; the San Joaquin Valley, CA federal $PM_{2.5}$ nonattainment area; and the federal San Joaquin Valley, CA PM_{10} maintenance area. The proposed action is not anticipated to result in a substantial increase in criteria pollutant emissions. The expected emission levels from the proposed action are within the levels in the SIP attainment demonstrations. Furthermore, these emission levels are also within the federal PM_{10} maintenance area and the 8-hour ozone and $PM_{2.5}$ nonattainment areas cumulative NAAQS emissions

standards and are not likely to result in or contribute to exceedance of the National Ambient Air Quality Standards. Therefore, the proposed action would not contribute to cumulative effects to air quality in the San Joaquin Valley air basin.

Soils
The direct and indirect effects of the proposed action are limited to some fugitive dust emissions and the burial of piping under four small sections of previously disturbed ground. However, dust emissions will be minimized by complying with SJVAPCD Regulation VIII. Adverse cumulative impacts to topsoil are not expected, nor will this project contribute to any cumulative effects to soils..

Biological Resources
No direct impacts to threatened and/or endangered species are expected. Compliance with the Condtions of Approval for this project would avoid the possibility of indirect effects to special status species.

Chapter 5. Public Involvement

Recipients of Native American Notification Letters
Mr. Neil Peyron, Chairperson, Tule River Reservation
Ms. Kerri Vera, Environmental Department, Tule River Reservation
Ms. Gloria Morgan, Cultural Resources representative, Tejon Indian Tribe
Mr. Ruben Barrios, Chairperson, Santa Rosa Rancheria
Mr. Hector Lalo Franco, Cultural Resources Specialist, Santa Rosa Rancheria
Ms. Shana Brum, Archaeologist, Santa Rosa Rancheria

PERSONS, GROUPS, AND AGENCIES CONSULTED
Gabriel Garcia, Bakersfield Field Office Manager
Steve Larson, Assistant Field Manager, Resources
John Hodge, Assistant Field Manager, Minerals
Terry Destrampe, Holmes Western
Dawna Melton, Holmes Western
Lisa M. Ashley, Consulting Biologist

SUMMARY OF PUBLIC PARTICIPATION
The BLM posts a copy of each Application for Permit to Drill (APDs) in the public area (front lobby) of the Bakersfield Field Office for a 30-day period. In addition, this project was listed on the California NEPA web list beginning on November 13, 2015.

LIST OF PREPARERS
Tiera Arbogast, Natural Resource Specialist
Tamara Whitley, Archaeologist

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