

Appendix C. Central Coast Oil and Gas Stipulations and Mitigation

NO SURFACE OCCUPANCY

I. No Surface Occupancy (Recreation & Public Purposes Lease)

All or a portion of this lease has been identified by the RMPA as containing Recreation & Public Purpose Leases with this stipulation prescribed. No new surface disturbing activity is allowed on the lease. This stipulation may be granted exception, modified, or waived as follows:

(ref. NSO Terms Common to All, next page)

II. No Surface Occupancy (Area of Critical Environmental Concern)

All or a portion of this lease has been identified by the RMPA (e.g., Areas of critical environmental concern with this stipulation prescribed) as containing unique or significant natural or cultural values. No new surface disturbing activity is allowed on the lease. This stipulation may be granted exception, modified, or waived as follows:

(ref. NSO Terms Common to All, next page)

III. (a) No Surface Occupancy (Critical Habitat)

All or a portion of this lease has been identified by the RMPA (e.g., threatened and endangered species critical habitat with this stipulation prescribed) as containing unique or significant natural values. No new surface disturbing activity is allowed on the lease. This stipulation may be granted exception, modified, or waived as follows:

(ref. NSO Terms Common to All, next page)

(b) No Surface Occupancy (Better and Higher Surface Use)

All or a portion of this lease has been identified by the RMPA as containing BLM developed recreation and administrative sites, or special status split estate lands (e.g., state parks, county parks, conservation easements, land trusts, and scenic designations) with this stipulation prescribed. No new surface disturbing activity is allowed on the lease. This stipulation may be granted exception, modified, or waived as follows:

(ref. NSO Terms Common to All, next page)

IV. No Surface Occupancy (Hydrology)

All or a portion of this lease has been identified by the RMPA (ref. Figure 2-5) as (1) 12-digit Hydrologic Unit Codes (HUCs) intersecting EPA impaired, perennial surface waters (BLM surface and split estate); (2) 12-digit HUCs intersecting non-impaired, perennial surface waters that intersect split estate; (3) 0.25 miles from non-impaired, perennial surface waters; and (4) 0.25 miles from eligible Wild and Scenic Rivers; and (5) 12-digit HUC subwatersheds with this stipulation prescribed. No new surface disturbing activity is allowed on the lease. This stipulation may be granted exception, modified, or waived as follows:

(ref. NSO Terms Common to All, next page)

NSO Terms - Common to All:

Exception: The Authorized Officer may grant an exception if after discussion with an appropriate agency (e.g., CDFW, SHPO, and USFWS) it decides that an environmental review determines the action as proposed or conditioned would not impair the values present because of temporary conditions.

Modification: The Authorized Officer may modify this stipulation to allow surface use on a portion or even all of the lease if an environmental review determines the action as proposed or conditioned would not impair the values present.

Waiver: The Authorized Officer may grant a waiver if an environmental review determines the values for which the NSO was applied no longer exist.

Objective: To minimize or eliminate adverse effects on unique or significant natural and cultural resources that are incompatible with fluid mineral development.

Application: The NSO-General stipulation would be applied when adequate protection of surface resources cannot be provided through mitigation, and fluid mineral development of the lease from an off-site location is recommended. If there is no surface location available for directional drilling, the land would not be leased.

Review Process: Any proposed surface-disturbing activity would be reviewed to determine whether it is in compliance with the NSO stipulation. If the review determines the proposed action would not impair the values present and would be consistent with the management of the ACEC or area of ecological or cultural importance, exception or modification may be granted. Any decision to grant an exception or modification would be based on field inspection and inventory and the NEPA review process.

CONTROLLED SURFACE USE

CSU – Defense

All or a portion of this lease contains federal mineral estate under the surface administration of the Department of Defense. Surface disturbing activities may be moved, modified, or prohibited at the discretion of the Base Commander(s) to ensure these activities do not interfere with military activity on the base and to ensure personnel safety. Furthermore, processing times for proposed actions may be delayed beyond established standards to accommodate review and coordination with the Base Commander(s). This stipulation shall not be modified or granted exception; however, it may be waived as follows:

Waiver: The Authorized Officer may grant a waiver to this stipulation if the surface administration changes from the Department of Defense to another entity.

Objective: To minimize or eliminate conflict between fluid mineral development and military base operations.

Application: The CSU-Defense stipulation would be applied to federal reserved mineral estate under the surface administration of the Department of Defense. Coordination with local government agencies regarding the development of stipulations would be at the discretion of the base commander.

When a tract of land on a military installation is nominated for lease sale, the legal description of the tract of interest would be forwarded to the attention of the base commander. The base commander would respond to the BLM with the recommended wording of the CSU-Defense stipulation. The wording would vary based on the base mission and would be applied to the entire military installation or to a limited portion of the parcel, at the discretion of the base commander. The BLM may alternatively identify in advance of lease sale offerings the terms and conditions applicable to military installations and thus be able to offer the leases for bid with advance disclosure of the terms and conditions.

Review Process: Generally, the following procedure would be used to approve surface disturbing activities on leases with the CSU-Defense stipulation. The proposed activity would be reviewed to determine if the mission of the military installation would be affected. The review process would involve meetings coordinated by the BLM between the lessee and the representatives of the military base to determine impacts and potential effects.

Approval: If the review determines that the mission of the military installation would not be affected Bureau approval of the proposed activity would normally be granted within 30 days of the review. If the review determines that the mission of the military installation would be adversely affected, the BLM would coordinate with the Base Commander and the applicant to modify the proposal. Modifications may include movement of activities, seasonal restrictions, on-site mitigation, and/or other forms of minimization. Modified proposals would be developed cooperatively with the applicant to ensure that the modified project still meets the applicant's objective.

CSU – Protected Species

All or a portion of the lease occurs within the range of one or more plant or animal species that are either listed or proposed for listing as threatened or endangered by the USFWS. A list of such species will be provided at the time of leasing and updated as necessary over the term of the lease. To determine whether species on this list or their habitat are present, a preliminary environmental review will be conducted for all surface disturbing activities. Presence of habitat or species may result in the proposed action being moved, modified, or delayed to mitigate project effects.

The BLM may consider voluntary compensatory mitigation proffered by a project proponent as part of a proposed design feature of a project. Compensatory mitigation is “voluntary” when a project proponent’s activities, payments, or in-kind contributions to conduct offsite actions to minimize the impacts of a proposed action are free of coercion or duress, including the agency’s withholding of authorization for otherwise lawful activity, or the suggestion that a favorable outcome is contingent upon adopting a compensatory mitigation program.

Prohibition of all surface disturbing activities on the lease will only occur as needed to avoid jeopardizing the continued existence of a listed or proposed species, or when the proposed action is inconsistent with the recovery needs of a species as identified in an approved USFWS Recovery Plan through consultation with USFWS. Furthermore, processing times for proposed actions may be delayed beyond established standards to accommodate species surveys, and consultation or conferencing with the USFWS. This stipulation shall not be waived; however, it may be modified or an exception may be granted as follows:

Exception: The Authorized Officer may grant an exception if an environmental review determines the action as proposed or conditioned would have no effect on listed or proposed species.

Modification: The Authorized Officer may modify this stipulation to reflect new information with regard to the range of listed or proposed species through the expansion or reduction of lands subject to this stipulation for a specific species.

Objective: To minimize or eliminate adverse effects associated with fluid mineral development on federally proposed and listed species.

Application: At the time of leasing, the CSU-Protected Species stipulation would be attached to all leases within the range of federally listed or proposed species. A list of protected species found within the Field Office boundary would be included with the stipulation for each lease at the time of leasing. This list may be updated at the time of APD/NOS submittal.

Review Process: Generally, the following process would be used to approve surface-disturbing activities on leases with the CSU-Protected Species stipulation. The proposed activity would be reviewed to determine if listed or proposed species would be affected. This review may involve site-specific surveys for plant and animal species conducted according to established methods that may specify certain seasons or other conditions. In some cases, this may mean that a survey cannot be completed until the next growing season for some plant species or after seasonal appearance for some animal species.

If the review determines that listed or proposed species would not be affected, an exception to the stipulation and approval of the application would normally be granted within 30 days of the review.

If the review were to determine that listed or proposed species may be affected, but in a beneficial, insignificant, or benign manner, and written concurrence is received from the USFWS, approval of the application would normally be granted within 30 days of receiving USFWS concurrence. There is no regulatory timeframe for USFWS to provide their written concurrence.

If it is determined that a listed or proposed species may be adversely affected, the BLM would work with the applicant to modify the proposal to minimize impacts. Modifications may include movement of activities, seasonal restrictions, mitigation, or other forms of minimization. Modified proposals would be developed with the applicant to ensure that the modified project

still meets the applicant's objective. If the modified project would still adversely affect a listed or proposed species, the BLM would begin formal consultation or conference with the USFWS.

Coordination with the USFWS on Listed Species: Currently there are two options for meeting the formal consultation requirement. A new consultation may be initiated or a previously completed formal consultation may be used.

If a new consultation were initiated, the USFWS would issue a document, called the biological opinion. The USFWS has up to 135 days to complete a biological opinion, and it may request a 60-day extension. Extensions beyond 195 days require the consent of an applicant. A previously completed formal consultation may also be used to meet the formal consultation requirement.

Upon completion of a new consultation or determination that a previously completed consultation can be used, approval of the application will normally be granted within 30 days. If the new consultation concludes that a listed species may be jeopardized, then surface disturbance will be prohibited on the lease.

Surface disturbance will also be prohibited if the consultation concludes that the proposed action is inconsistent with the recovery needs of the listed species as identified in an approved USFWS Recovery Plan. Although Recovery Plans are not requirements, BLM has voluntarily chosen to apply their recommendations through the land use plan, and these recommendations are reflected in this stipulation.

Coordination with the USFWS on Proposed Species: BLM policy requires a conferencing with the USFWS on any action that may adversely affect proposed species. Depending on the complexity of the situation, a conference may be completed in a single telephone conversation or may require the time frames of a consultation. Generally, on completion of the conference, approval of the application will be granted within 30 days.

If the conference were to show that a proposed species may be jeopardized, surface-disturbing activities would be prohibited on the lease.

Final Approval: Final approval of applications that would have no effect on listed or proposed species would normally be granted within 30 days of the review. Final approval for projects that may affect listed or proposed species in a beneficial, insignificant, or benign manner would normally be granted within 30 days of receiving USFWS written concurrence.

For projects that require consultation or conference with the USFWS, final approval would normally be granted within 30 days of consultation or conference completion. Conditions of approval would include any conditions specified by the BLM or USFWS for minimizing impacts.

CSU – Critical Habitat

All or a portion of this lease lies within an area that is designated as critical habitat, or is proposed for designation as critical habitat by the USFWS. A list of these areas affecting this lease will be provided at the time of leasing and will be updated as necessary over the term of the lease. Any proposed surface disturbing activity occurring on the affected portions of this lease will be reviewed to determine if the activity would affect designated or proposed critical habitat. Determination of effects to designated or proposed critical habitat may result in the proposed action being moved, modified, seasonally restricted, or delayed. Consultation or conference with the USFWS is required if designated or proposed critical habitat may be affected.

The BLM may consider voluntary compensatory mitigation proffered by a project proponent as part of a proposed design feature of a project. Compensatory mitigation is “voluntary” when a project proponent’s activities, payments, or in-kind contributions to conduct offsite actions to minimize the impacts of a proposed action are free of coercion or duress, including the agency’s withholding of authorization for otherwise lawful activity, or the suggestion that a favorable outcome is contingent upon adopting a compensatory mitigation program.

Prohibition of all surface disturbing activities on the lease will only occur as needed to avoid destroying or adversely modifying critical habitat or proposed critical habitat, or when the proposed action is inconsistent with the recovery needs identified in an approved USFWS Recovery Plan based on consultation with USFWS. Furthermore, processing times for proposed actions may be delayed beyond established standards to accommodate species surveys, and consultation or conferencing with the USFWS. This stipulation shall not be waived; however, it may be granted exception or modified as follows:

Exception: The Authorized Officer may grant an exception if an environmental review determines the action as proposed or conditioned would have no effect on critical habitat or proposed critical habitat.

Modification: The Authorized Officer may modify this stipulation to reflect new information with regard to the critical habitat or proposed critical habitat through the expansion or reduction of lands subject to this stipulation for a specific species.

Objective: To minimize or eliminate adverse effects associated with fluid mineral development on habitat designated as critical, or is proposed for designation as critical habitat by the USFWS.

Application: The CSU-Critical Habitat stipulation would be applied to leases in areas that are designated as critical habitat or that are proposed for designation as critical habitat for certain species. A list of species and parcels would be included with the stipulation for each lease. The USFWS designates or proposes critical habitat according to the regulations found in 50 CFR 424. Critical habitat is one of the following:

- Specific areas within the geographical area currently occupied by a species, at the time it is listed in accordance with the Endangered Species Act, on which are found those physical or biological features (i) essential to the conservation of the species and (ii) that may require special management considerations or protection, and

- Specific areas outside the geographical area occupied by a species at the time it is listed upon a determination by the Secretary that such areas are essential for conservation of the species (50 CFR 424.02).

Review Process: Generally, the following process would be used to approve surface-disturbing activities on leases with the CSU-Critical Habitat stipulation. The proposed activity would be reviewed to determine if designated or proposed critical habitat would be affected. This review may involve site-specific surveys for plant and animal species, conducted according to established methods, which may specify certain seasons or other conditions. In some cases this may mean that a survey cannot be completed until the next growing season for some plant species or after seasonal appearance for some animal species.

If the review determines that designated or proposed critical habitat will not be affected, an exception to the stipulation would be granted, and approval of the application will normally be granted within 30 days of the review.

If the review determines that designated or proposed critical habitat may be affected, but in a beneficial, insignificant, or benign manner, and written concurrence is received from the USFWS, the application would normally be approved within 30 days of receiving USFWS concurrence. There is no regulatory timeframe for USFWS to provide their written concurrence.

If it is determined that designated or proposed critical habitat may be adversely affected, BLM would work with the applicant to modify the proposal to minimize impacts. Modifications may include relocating activities, seasonal restrictions, mitigation, and other forms of minimization. Modified proposals would be developed with the applicant to ensure that the modified project still meets the applicant's objective. If the modified project were to still adversely affect designated or proposed critical habitat, the BLM would initiate formal consultation or conference with the USFWS.

Coordination with the USFWS on Designated Critical Habitat: The BLM is required to initiate formal consultation with the USFWS for any action that may affect designated critical habitat. As a result of the consultation, the USFWS would issue a biological opinion within 135 days, and it may request a 60-day extension. Extensions beyond 195 days require the consent of an applicant.

As part of the biological opinion, the USFWS would determine if the proposed action would be likely to destroy or adversely modify critical habitat. Destruction or adverse modification of critical habitat means a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species. Such alterations include those adversely modifying any of the physical or biological features that were the basis for determining the habitat to be critical (50 CFR 402.02).

If consultation concludes that critical habitat would be destroyed or adversely modified, then surface disturbance would be prohibited on the affected portion of the lease. Surface disturbance also would be prohibited if the consultation were to conclude that the proposed action is

inconsistent with the recovery needs of the listed species, as identified in an approved USFWS recovery plan.

Coordination with the USFWS on Proposed Critical Habitat: BLM policy requires conferencing with the USFWS on any action that may adversely affect proposed critical habitat. Depending on the complexity of the situation, a conference may be completed in a single telephone conversation or may require the time frames of a consultation. Generally, on completion of the conference, the application would be approved within 30 days. If the conference were to show that proposed critical habitat would be destroyed or adversely modified, then surface disturbance would be prohibited on the affected portion of the lease.

CSU – Sensitive Species

All or a portion of this lease is within the range of one or more plant or animal species that are either federal candidates for listing as threatened or endangered (federal candidate), are listed by the State of California as threatened or endangered (state listed), or are designated by the BLM as sensitive (BLM sensitive). A list of species will be provided at the time of leasing and updated as necessary over the term of the lease. To determine whether species on this list or their habitat are present, a preliminary environmental review will be conducted for all surface disturbing activities. Presence of habitat or species may result in the proposed action being moved more than 200 meters (656 feet) but not more than a quarter-mile or off of the lease and prohibition of activities during seasonal use period. Furthermore, processing times for proposed actions may be delayed beyond established standards to accommodate species surveys, and coordination with the USFWS and California Department of Fish and Game. This stipulation shall not be waived; however, it may be granted exception or modified as follows:

Exception: The Authorized Officer may grant an exception if an environmental review determines the action as proposed or conditioned would have no effect on federal candidate, state listed, and BLM sensitive species.

Modification: The Authorized Officer may modify the stipulation to reflect new information with regard to federal candidate, state listed or BLM sensitive species lists. Furthermore, the authorized officer may modify the maximum distance that a potential location could be moved to extend farther than the stated quarter-mile to maintain the sensitive species protection goals.

Objective: To minimize or eliminate adverse effects associated with fluid mineral development on federal candidate, state listed, and BLM sensitive species.

Application: The CSU-Sensitive Species stipulation would be attached to all leases that are within the range of a federal candidate, state listed or BLM sensitive species. A list of sensitive species within the Field Office boundary would be included with the stipulation for each lease when the lease is issued.

Review Process: Generally the following process would be used to approve surface-disturbing activities on leases with the CSU-Sensitive Species stipulation. The proposed activity would be reviewed to determine if special status species would be affected. This review may involve site specific surveys for plant and animal species, conducted according to established methods that

may specify certain seasons or other conditions. In some cases this may mean that a survey cannot be completed until the next growing season for some plants or after seasonal appearance for some animal species.

If the review determines that a special status species may be adversely affected, then surface disturbing activities may be relocated up to a quarter-mile, but not off the lease, and certain surface disturbing activities may be prohibited during seasonal periods. BLM policy may also require coordination with the USFWS or California Department of Fish and Game.

CSU – Priority Species, Plant Communities and Habitats

All or a portion of the lease has been identified by the current RMP (i.e., ACECs and areas of ecological importance with this stipulation prescribed) as containing priority species, plant communities, or habitat that may be adversely affected by fluid mineral development. A list of affected parcels or portions of the lease will be provided at the time of leasing. To identify the possibility of adverse impact resulting from fluid mineral development, a preliminary environmental review will be conducted for all surface disturbing activities. Identification of adverse impacts may result in the proposed action being moved, modified, seasonally delayed, or prohibited from all or a portion of this lease. Furthermore, processing times for proposed actions may be delayed beyond established standards to accommodate species surveys. This stipulation shall not be waived, but may be granted exception or modified as follows:

Exception: The Authorized Officer may grant an exception if an environmental review determines the action as proposed or conditioned would have no effect on priority species, plant communities, or habitats.

Modification: The Authorized Officer may modify the stipulation to reflect new information with regard to the presence of priority species, plant communities, or habitat through the expansion or reduction of lands subject to this stipulation.

Objective: To minimize or eliminate adverse effects associated with fluid mineral development on priority species, plant communities, or habitat.

Application: The CSU-Priority Species, Plant Communities and Habitats stipulation would be applied to specific areas that contain unique or significant biological and botanical values as described in the RMP (i.e., ACECs and areas of ecological importance).

Review Process: Generally the following process would be used to approve surface-disturbing activities on leases with the CSU- Priority Species, Plant Communities and Habitats stipulation: The proposed activity would be reviewed to determine if the values for which the area was recognized would be affected. This review may involve site-specific surveys for plant species, conducted according to established methods, which may specify certain seasons or other conditions. In some cases this may mean that a survey cannot be completed until the next growing season for some plants species. If the review were to determine that the values for which the area was recognized may be adversely affected, then surface-disturbing activities may be moved, modified, or prohibited on portions of or the entire lease and certain activities may be prohibited during seasonal periods.

CSU – Raptor

All or a portion of this lease has been identified as an important raptor foraging, wintering, or nesting area. Any proposed surface disturbing activity will be reviewed to determine if the activity would affect raptor foraging, wintering, or nesting habitat. Determination of effects to raptor foraging, wintering, or nesting habitat may result in the proposed action being moved more than 200 meters (656 feet) but not more than a half-mile and prohibition of activities during seasonal use period. This stipulation may be granted exception, modified, or waived as follows:

Exception: The Authorized Officer may grant an exception if the operator submits a plan that demonstrates that impacts from the proposed action are minimal or can be adequately mitigated.

Modification: The Authorized Officer may modify the distance and other provisions of this stipulation based on new information and increasing or decreasing levels of the impacts anticipated from fluid mineral development.

Waiver: The Authorized Officer may waive the stipulation should new information show the area no longer contains sensitive raptor habitat for foraging, winter roosting, or nesting.

Objective: To minimize or eliminate adverse effects associated with fluid mineral development on sensitive raptor foraging areas, winter roosting areas, or nest sites.

Application: The CSU-Raptor stipulation would be applied to lands that have been identified as important raptor foraging, wintering, or nesting areas. Such lands include, but are not limited to, the Hopper Mountain, Kaweah, Kettleman Hills, Chico Martinez, Temblor, Caliente Mountain, and the San Joaquin River Gorge areas.

Review Process: Generally, the following process would be used to approve surface-disturbing activities on leases with the CSU-Raptor stipulation. The proposed activity would be reviewed to determine if sensitive raptor foraging areas, winter roosting areas, or nest sites would be affected. If the review were to show that sensitive raptor use areas may be adversely affected, then surface-disturbing activities may be relocated up to one-half mile or certain activities may be prohibited during seasonal periods. Modified proposals would be developed with the applicant to ensure that the modified project still meets the applicant's objective.

Different raptor species and different individuals vary in their sensitivity and ability to habituate to disturbances. Type and extent, duration and timing, and visibility of disturbance and influence of other environmental factors, such as topography, also affect the significance of the disturbance in any particular case. Often, moving an activity out of visibility, such as behind a topographic feature, would be sufficient. Delaying certain new activities until young birds have fledged is also a common tactic. Movement of surface-disturbing activities to retain roost trees or hunting perches may also be used.

The following species or groups of species would be eligible for protection under the CSU-Raptor stipulation: golden eagle, bald eagle, black-shouldered kite, northern harrier, sharp-shinned hawk, Cooper's hawk, northern goshawk, red-shouldered hawk, red-tailed hawk, Swainson's hawk, rough-legged hawk, ferruginous hawk, osprey, American kestrel, merlin, prairie falcon, peregrine falcon, and all owl species.

CSU – Known Cultural Resources

All or a portion of the lease contains National Register-listed or potentially eligible cultural properties that may be adversely affected by fluid mineral development. A list of affected parcels or portions of the lease will be provided at the time of leasing. To identify the possibility of adverse impacts resulting from fluid mineral development, a preliminary cultural resource review/survey will be conducted for all surface disturbing activities. Identification of adverse impacts may result in the proposed action being moved or modified. Surface-disturbing activities would be prohibited on the portion of the lease where National Register-listed properties or properties potentially eligible for listing on the National Register occur. This stipulation may be modified, waived, or granted exception as follows:

Exception: The Authorized Officer may grant an exception, with concurrence from the California State Historic Preservation Office and Native American tribes, if a subsequent formal eligibility evaluation indicates the cultural property is ineligible.

Modification: The Authorized Officer may modify the stipulation to reflect new information from formal eligibility evaluations for cultural properties through the expansion or reduction of land where surface disturbing activities would be prohibited.

Waiver: The Authorized Officer may grant a waiver to the stipulation should the results of formal eligibility evaluation determine all cultural properties ineligible for listing on the National Register.

Objective: To minimize or eliminate adverse effects associated with fluid mineral development on known National Register-listed or potentially eligible cultural properties.

Application: The CSU–Known Cultural Resources stipulation would be applied to lands that contain known National Register-listed or potentially eligible cultural properties. The locations and number of acres affected would be determined at the leasing stage.

Review Process: Generally, the following process would be used to approve surface-disturbing activities on leases with the CSU-Known Cultural Resources stipulation. The proposed surface disturbing activity would be reviewed to determine if a known National Register- listed or potentially eligible cultural property would be affected. If the review were to show that the cultural property may be adversely affected, then surface-disturbing activities would be relocated or modified. Surface-disturbing activities would be prohibited on the lease only where the proposed action would be likely to destroy or adversely affect a known National Register listed property or properties found eligible for listing on the National Register.

CSU – Existing Surface Use/Management

All or a portion of the lease contains federal mineral estate underlying surface with an established use or management that may be incompatible with fluid mineral development. A preliminary environmental review will be conducted for all surface disturbing activities to identify possible conflict between surface use and fluid mineral development. Surface disturbing activities may be moved, modified, or prohibited to accommodate the existing surface use should

the Authorized Officer determine the incompatibility of these uses. Specifically, fluid mineral development shall not occur:

- (1) Closer to any development (e.g., public highway, institution, place of public assembly, or occupied dwelling) than allowed by the county/city regulation or statute applicable to the area in which the proposed action occurs (including those exceptions where closer spacing is allowed);
- (2) In a manner that significantly and adversely impacts natural and/or cultural resources of which the surface owner/administrator is charged with the management and protection;
or
- (3) In a manner that significantly and adversely impacts existing recreation opportunity of which the surface owner/administrator is charged with the management and protection.

Furthermore, processing times for proposed actions may be delayed beyond established standards to accommodate review and coordination with the surface owner/administrator. This stipulation shall not be waived, but may be granted exception or modified as follows:

Exception: The Authorized Officer may grant an exception where a surface use agreement exists between the lessee and surface owner/administrator that allows for the proposed fluid mineral development. Furthermore, exception may be granted where the proposed action is deemed, following an environmental review, to have discountable or insignificant impacts on the existing surface use.

Modification: The Authorized Officer may modify this stipulation to further restrict surface use for mineral development on a portion of or all the lease if a more stringent requirement with regard to the location of facilities is deemed necessary following an environmental review (e.g., greater than county/city restrictions on fluid mineral development).

Objective: To minimize or eliminate conflict between fluid mineral development and existing surface uses on both public lands and split estate over federal minerals, and to reduce impacts associated with fluid mineral resource development on the owners/occupants within a dwelling or structure on split estate lands.

Application: The CSU-Existing Surface Use/Management stipulation would be applied to areas where the authorized officer determines that pre-existing surface management uses/conditions would be incompatible with or preclude oil and gas operations from using the surface of a portion or even all of the leased land. The locations and number of acres affected would be determined at the leasing stage.

Review Process: Generally the following process would be used to approve surface-disturbing activities with the CSU-Existing Surface Use/Management stipulation. The proposed activity would be reviewed cooperatively with the surface manager to determine if it is compatible with the existing uses/conditions, and if not, the activity would be moved or possibly even denied/rejected.

CSU – Well Stimulation Technologies

In reservoirs that have previously undergone hydraulic fracturing, matrix fracturing, or matrix acidization (collectively Well Stimulation Technologies, or WST) or the geologic setting indicates a probability that WST will be required for extraction; oil and gas permit applications that propose the completion or recompletion of a production well will not be approved until BLM receives sufficient information on proposed or anticipated site-specific WST activities and an associated plan to monitor and mitigate for impacts to groundwater and surface water resources. The operator may meet these data requirements by providing BLM with information required by California State Senate Bill 4 (SB4) for either the well under consideration or a nearby well targeting the same reservoir. Applicable SB4 information includes, but is not limited to, the permit application, Water Management Plan, Water Monitoring Plan, and, if available, the State-approved SB4 permit. BLM may require the operator to move the proposed well more than 200 meters, modify, or delay the well completion activity in order to minimize the potential for adverse impacts to water resources.

Exception: The authorized officer may grant an exception to this stipulation if the operator demonstrates that there are no water resources with the potential to be impacted by WST activities on the well under consideration.

Modification: The authorized officer may modify this stipulation if the operator demonstrates that the well under consideration will not be subject to WST activities despite the filing of an application in the target reservoir. If the total surface disturbance is increased beyond that analyzed for the project proposed, the operator will submit a Sundry Notice to define its proposal for activities that require additional surface disturbance.

Waiver: The authorized officer may grant a waiver to this stipulation if the operator demonstrates that there are no water resources with the potential to be impacted by WST activities on any portion of the lease.

Objective: To analyze the potential for WST activities to impact water resources on public lands and to minimize the likelihood of such impacts.

Application: The CSU-Well Stimulation Technologies stipulation would be applied to reservoirs that have previously undergone WST or the geologic setting indicates a probability that WST will be required for extraction. The parcels and number of acres affected would be determined at the leasing stage.

Review Process: Generally the following process would be used to approve surface-disturbing activities with the CSU-Well Stimulation Technologies stipulation. The proposed activity would be reviewed to determine if it within a reservoir that has previously undergone WST or if the geologic setting indicates a probability that WST will be required for extraction. If the review indicates that WST will likely be required for extraction, then surface disturbing activities would be prohibited until the BLM receives sufficient information on proposed or anticipated site-specific WST activities and an associated plan to monitor and mitigate for impacts to ground water and surface water resources.

MITIGATION MEASURES

Energy and Minerals

Applicable to all Alternatives:

EM-1 Review Mineral Potential. A lease application shall include a review of historic and recent mining activity within or directly adjacent to the lease boundary. The review shall also include a review of mineral resource potential for metallic deposits, sand and gravel, diatomaceous earth, building stone and other industrial minerals. The review may include opportunities to share access roads and to locate new well sites to avoid areas with moderate to high potential for these resources.

Geology

Applicable to Alternatives A, B, C, E and F:

GEO-1 Avoid Active Fault Zones. The applicant shall provide documentation to BLM that the location and trend of the proposed well will not be within or enter into and have adequate setback from an active Alquist-Priolo Earthquake Fault Zone, unless the applicant can show to BLM's satisfaction that the well drilling or stimulation treatment (including hydraulic fracturing) will not be affected by rupture of a known fault, seismically induced ground shaking, and/or ground failure. The Application for Permit to Drill (APD) shall include a geologic report identifying Alquist-Priolo faults and proximity to access roads and drill pads.

Applicable to all Alternatives:

GEO-2 Prepare an Earthquake Response Plan. For well sites located within 1.0 mile of an Alquist-Priolo Earthquake Fault Zone prepare and submit to the BLM for approval an Earthquake Response Plan outlining post-earthquake inspection and repair plans to evaluate any damage that has occurred. The plan shall include spill prevention, control and countermeasure plans to address hazardous materials associated with well drilling and well stimulation activities.

Applicable to all Alternatives:

GEO-3 Prepare a Geotechnical/Geologic Report. As part of the APD for well drilling the applicant shall submit to BLM a geotechnical and geologic report addressing potential geologic hazards, including liquefaction and expansive soil risk, at new facilities, pipelines, or tank batteries. Landslide hazard areas and potentially unstable slopes shall be identified and evaluated for access roads and drill pads.

Hazardous Materials and Public Safety

Applicable to all Alternatives:

- PS-1 Prepare and Submit SWPPP and SPP.** A Storm Water Pollution Prevention Plan (SWPPP) would be required for grading and ground disturbance activities exceeding 1 acre. The SWPPP should include a project-specific Spill Prevention Plan (SPP, per CCFO BMPs and SOPs) covering grading for access roads and drill pads, well drilling, and well stimulation.
- PS-2 Prepare and Submit SPCC Plan.** Well field staging yards and storage tank batteries containing greater than 1,320 gallons will require a Spill Prevention, Control, and Countermeasures (SPCC) Plan.
- PS-3 Pipeline Safety.** New interconnecting pipeline should be design to allow passage of internal inspection tools (smart pigs) to detect internal and external anomalies.
- PS-4 High Consequence Areas.** Remotely operated isolation valves should be provided for any designated High Consequence Areas (HCAs) defined per USDOT PHMSA criteria.
- PS-5 Hydrogen Sulfide and Flammable Gas Hazards.** For High Consequence Areas (HCAs) resulting from produced gas hazards, H₂S and/or flammable gas detection should be considered to protect the public. In addition to the normal transmission pipeline ROW warning posts, signage indicating a hydrogen sulfide hazard should be posted where public access is allowed.
- PS-6 Pipeline Integrity.** Crash barriers should be provided along roads where pipelines are exposed.

Air Quality and Atmospheric Conditions

Applicable to all Alternatives:

- AQ-1 Control or Suppress Fugitive Dust.** Comply with a Fugitive Dust Control Plan that addresses emissions of fugitive dust during all stages of oil and gas development, including the implementation of the standard and enhanced dust control strategies identified by the local air district. The Fugitive Dust Control Plan would reduce PM₁₀ and PM_{2.5} during construction and operations. Examples of such measures include:
- limiting the speeds of construction vehicles on unpaved surfaces to 15 miles per hour,
 - posting visible speed limit signs at construction site entrances,

- during grading, use water, as necessary, on disturbed areas in construction sites to control visible plumes,
- suspending excavation and grading activities when winds exceed 20 miles per hour,
- limiting the size of area subject to excavation, grading, or other construction disturbance at any one time to avoid excessive dust,
- applying non-toxic soil stabilizers or soil weighting agents according to manufacturers' specifications to all construction areas that have been previously graded and are inactive for ten days or more,
- covering or treating soil storage piles with appropriate dust suppressant compounds,
- using wind erosion control techniques (such as windbreaks, water, dust suppressants, and/or vegetation) where soils are disturbed in construction, access and maintenance routes, and materials stock pile areas
- covering all trucks hauling dirt, sand, soil, or other loose materials,
- using enclosures, covers, flexible intermediate bulk containers, or rigid intermediate bulk containers for the storage, handling, and transfer of bulk dry materials such as sand, gravel and other dry additives used in well stimulation treatments,
- expeditiously removing the accumulation of mud or dirt from adjacent public streets at least twice every 24 hours when construction activities are occurring,
- inspecting and washing construction equipment vehicle tires, as necessary, so they are free of dirt before entering paved roadways, if applicable,
- providing gravel ramps of at least 20 feet in length at tire washing/cleaning stations, and ensuring construction vehicles exit construction sites through treated entrance roadways, unless an alternative route has been approved by appropriate lead agencies, if applicable,
- using sandbags or equivalent effective measures to prevent runoff to roadways in construction areas adjacent to paved roadways; ensure consistency with the project's Storm Water Pollution Prevention Plan, if such a plan is required for the project, and
- limiting operating hours and engine run-time for heavy equipment.

AQ-2 Control Off-Road Vehicle Engine Exhaust. Use off-road equipment with low-emission engines during all stages of oil and gas development. Potential strategies include relying on electricity from the distribution grid for power instead of using portable generators and requiring all off-road diesel engines to meet the most stringent of applicable Federal or State standards. Use equipment meeting at a minimum the Tier 3 (with proper diesel particulate controls), or better (Tier 4) California Emission Standards for Off-Road Compression-Ignition Engines as specified in California Code of Regulations (CCR) Title 13, Division 3, Chapter 9, Article 4, Sec. 2423(b)(1).

Consider using electric vehicles where possible. In addition, if not already supplied with a factory-equipped diesel particulate filter, all construction equipment shall be outfitted with Verified Diesel Emissions Control Strategies (VDECS) devices certified by ARB. Any emissions control device used shall achieve emissions reductions that are no less than what could be achieved by a Level 3 VDECS diesel emissions control strategy for a similarly sized engine as defined by ARB regulations. Plan construction scheduling to minimize vehicle trips. Limit idling of heavy equipment to less than 5 minutes and verify through inspections. Maintain and tune engines per manufacturer's specifications to perform at ARB and/or U.S. EPA certification levels, prevent tampering, and conduct unscheduled inspections to ensure these measures are followed.

- AQ-3 Offset Emissions to Reduce Residual Impacts.** Use offsets or emission reduction credits to further reduce the residual impact of emissions from stationary sources, portable equipment and mobile sources related to oil and gas development. This may include participating in a proposed or established program for offsetting criteria air pollutants consistent with local air pollution control district or air quality management district recommendations.

Soil Resources

Applicable to all Alternatives:

- S-1 Prepare and Submit SWPPP.** A Stormwater Pollution Prevention Plan (SWPPP) would be required for grading and ground disturbance activities exceeding 1 acre. The SWPPP should delineate and address the BLM's soil resource BMPs and SOPs (Appendix D).
- S-2 Prepare and Submit Reclamation Plan.** A surface reclamation plan should be developed addressing the interim or final restoration guidelines established by BLM (Appendix D, Section 1.8.8).

Visual Resource Management

Applicable to all Alternatives:

- VR-1 Construction Activities.** Locate construction sites and all staging and material and equipment storage areas, including storage sites for excavated materials, away from areas of high public visibility. If visible from nearby roads, residences, public gathering areas, or recreational areas, facilities, or trails, construction sites, and staging and storage areas should be visually screened with fencing of an appropriate design and color for each specific location.
- VR-2 Vegetation Removal.** Remove only the minimum amount of vegetation necessary for construction. Conserve topsoil located in areas containing sensitive habitat, to the

extent such areas are not already avoided, and reuse it as cover on disturbed areas to facilitate re-growth of vegetation.

Limit Disturbance Areas. Delineate the boundaries of all areas to be disturbed with stakes and flagging (no marking of natural features) before construction and in consultation with a visual resources specialist. Locate parking areas and staging and disposal sites in areas approved by the visual resources specialist. Confine all disturbances by vehicles and equipment to the delineated areas.

Minimize Road Impacts. New and existing roads that are planned for construction, widening, or other improvements should not extend beyond the delineated limits as described above. All vehicles passing or turning around should do so within the delineated limits or in previously disturbed areas. Where new access is required outside of existing roads or the construction zone, the route should be clearly marked (e.g., staked and flagged) before the start of construction and in consultation with a visual resources specialist.

VR-3 Revegetate Temporarily Disturbed Areas. Revegetate all areas subject to temporary disturbance to pre-disturbance grade and conditions. The goal of revegetation is to minimize visual impacts by re-establishing the pre-existing colors, textures, and forms of the landscape. Visually integrate adjacent edges by removing lines of demarcation.

VR-4 Color Contrast of Land Scars. Where construction would unavoidably create land scars visible from sensitive public viewing locations, treat disturbed soils with an appropriate material (Natina Concentrate, Eonite, Permeon, or similar) to reduce the visual contrast created by lighter-colored disturbed soils and rock with darker soil and vegetated surroundings.

VR-5 In-line Views of Land Scars. Land scars could result from construction of access roads, for example, and those roads should be constructed at appropriate angles from the originating, primary travel facilities to minimize extended, in-line views of newly graded terrain. All new access roads should be evaluated for their visibility from sensitive viewing locations prior to final design. “Drive and crush” access is a feasible measure to avoid access road scars where grading or vegetation removal are not required.

VR-6 Construction Marking of Natural Features. Do not apply paint or permanent discoloring agents to rocks or vegetation to indicate survey or construction activity limits or for any other purpose.

VR-7 Waste Control. Place all trash and food-related waste in self-closing containers to be removed weekly or as needed.

VR-8 Night Lighting. Avoid night lighting where possible and minimize it under all circumstances. Consistent with safety and security considerations, install lighting such that: (a) lamps and reflectors are not visible from beyond the construction site or facility; (b) lighting does not cause excessive reflected glare; (c) direct lighting does not illuminate the nighttime sky; and (d) permanent light sources that are used are below 3,500 Kelvin color temperature (warm white) and are full cutoff fixtures.

Limit always-on security lighting to one low-wattage, fully shielded, full cutoff light fixture at main entrances to facilities. Include security lighting that is motion-activated (and only through the use of passive infrared sensors) and controlled as specific zones such that only targeted areas are illuminated. Do not utilize other lighting on a nightly basis when a facility is not occupied.

VR-9 Project Design. Use proper design fundamentals to reduce the visual contrast to the characteristic landscape through: proper siting and location; reduction of visibility; repetition of form, line, color, and texture of the landscape; and reduction of unnecessary disturbance. Design strategies that can address these fundamentals may be based on the following factors.

- **Earthwork.** Select locations and alignments that fit into the landforms to minimize the sizes of cuts and fills.
- **Vegetation Manipulation.** Use existing vegetation to screen graded areas and facilities from public viewing to the extent feasible. Feather and thin the edges of cleared areas and retain a representative mix of plant species and sizes.
- **Facilities.** Minimize the number of facilities. Use natural, self-weathering materials and/or chemical treatments on surfaces to reduce color contrast (see Mitigation Measure VR-10). Use road aggregate and concrete colors that match the color of the characteristic landscape surface or apply appropriate colorants such as Natina Concentrate.
- **Reclamation and Restoration.** Blend disturbed areas into the characteristic landscape. Replace soil, brush, rocks, and natural debris over these disturbed areas. Newly introduced plant species should be of a form, color, and texture that blend with the landscape.

VR-10 Surface Treatment. Treat the surfaces of all facilities visible to the public such that their colors minimize visual contrast by blending with the characteristic landscape, and their colors and finishes do not create excessive glare.

Special Management Areas

Applicable to Alternatives B, C, E and F:

SMA-1 Apply Lease Stipulations within ACECs and RNAs. Prior to granting an oil and gas lease within the boundary of an Area of Critical Environmental Concern or a Research

Natural Area, the BLM shall determine whether lease stipulations are needed to reduce or avoid impacts to the special designation's resource values. If lease stipulations are recommended, one of the following measures shall be applied to the lease: No Surface Occupancy, Controlled Surface Use, or Timing Limitation. Lease stipulations shall comply with the guidelines that are fully described in Appendix C (Central Coast Oil and Gas Stipulations).

Applicable to Alternatives C, D, E and F:

SMA-2 Apply CSU-Existing Surface Use/Management Stipulation along National Trails. Prior to granting an oil and gas lease within 1,000 feet of a national historic trail or national recreation trail, the BLM shall determine whether a Controlled Surface Use (CSU)-Existing Surface Use/Management stipulation shall be applied to that lease. If the BLM determines that a CSU stipulation shall be applied to all, or part, of a lease, it shall comply with the guidelines that are fully described in Appendix C (Central Coast Oil and Gas Stipulations).

Social and Economic Conditions

Applicable to Alternatives B, C, E, and F:

SE-1 Enhance Surface Owner and Local Jurisdiction Outreach During Split Estate Lease Processing. In addition to existing BLM plans, procedures, and recommendations related to implementation of fluid mineral leasing and land use planning, including the Instruction Memorandum (IM) providing guidance and procedures for implementation of fluid mineral leasing and land use planning recommendations within the Split Estate Report to Congress dated December 2006, BLM CCFO staff shall take the following actions to further enhance public outreach and agency coordination during preparation and finalization of each issued split estate lease:

- The CCFO shall initiate outreach efforts (e.g., mailed notices, in-person meetings, site visits) to split-estate surface owners and all vested parties to ensure their fullest involvement in the decision-making process for all split estate leases.
- The CCFO will meet and/or contact local government officials for each new split estate lease application to seek ways of ensuring split estate leases are consistent with the land use planning and community goals of the affected jurisdiction. CCFO staff will maintain a consistent rapport (e.g., through regular coordination and update notifications) with local officials regarding the status of the split estate lease until the lease is issued.

Transportation and Access

Applicable to all Alternatives:

TR-1 Travel Routes and Access to Open Lands. Existing roads should be used to the maximum extent possible, but only if in safe and environmentally sound locations and manners. If existing BLM travel routes or access points currently available for public use under the applicable RMP are disrupted temporarily or permanently by oil and gas leases, developers and/or lease holders shall be required to provide alternate replacement transportation routes and ensure continued public access to previously accessible public lands. All new transportation routes or access roads required as part of developing an oil and gas lease area shall be designed and constructed to all appropriate BLM standards.

Wild and Scenic Rivers

Applicable to Alternatives C, D, E, and F:

WSR-1 Apply Lease Stipulations along Eligible NWSR Segments. Oil and gas lease stipulations shall be required as a Condition of Approval within 0.25 miles¹ of an eligible NWSR segment. Prior to granting an oil and gas lease, the BLM shall identify one of the following stipulations to be applied to the lease permit: No Surface Occupancy or Controlled Surface Use. Lease stipulations shall comply with the guidelines that are fully described in Appendix C (Hollister Oil and Gas Stipulations).

¹ Designated protection boundaries for federally administered rivers generally average one-quarter mile on either bank in the lower 48 states and one-half mile on rivers outside national parks in Alaska (National Wild and Scenic Rivers System at <http://www.rivers.gov/wsr-act.php>).