# Section 368 Energy Corridor Revisions RMPA/EIS Planning Criteria

December 2023

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# Section 368 Energy Corridor Revisions RMPA/EIS Planning Criteria

Section 202 of the Federal Land Policy and Management Act (FLPMA) requires the BLM to develop land use plans, also known as resource management plans (RMPs), to guide the BLM's management of public lands. The Section 368 Energy Corridor Revisions Resource Management Plan Amendments and associated Environmental Impact Statement (Section 368 Energy Corridor Revisions RMPA/EIS) Project (Project) is a planning effort that will evaluate changes to the Section 368 energy corridor designations for seven corridors. This effort will consider taking into account management considerations for corridor designation, the recommendations provided in the regional review Final Report (including consideration of the siting principles), and the management direction within the land use plans to be amended under the RMPA/EIS. Section 202 of FLPMA requires the BLM to develop RMPs, to guide the BLM's management of public lands. Corridor designation does not authorize any ground-disturbing activities; however, the analysis in the RMPA/EIS will consider the effects likely to occur from future energy infrastructure development within the energy corridors under each alternative. The BLM solicits public comment on the following proposed planning criteria, which will be used in the development of the RMPA/EIS.

The planning criteria lay the groundwork to guide effects analysis by identifying preliminary management concerns and their analytical frameworks. Planning criteria are the constraints, standards, and guidelines that determine what the BLM will or will not consider during its planning process. As such, they establish parameters, help focus analysis of the issues identified in scoping, and structure the preparation of the EIS. Planning criteria help guarantee that the EIS process is consistent with applicable law, regulation, and policy and provide the opportunity to describe the framework the BLM will use to analyze issues in the NEPA document. The BLM's land use planning regulations (43 CFR 1600), which implement section 202 of FLPMA, require the BLM to publish, and provide for public review of, the proposed planning criteria that will guide the BLM's land use planning process. This notice fulfills the BLM's obligation under FLPMA and the BLM's planning regulations (43 CFR 1610.2(f) and 43 CFR 1610.4–2) to notify the public of its proposed planning criteria.

Over the course of the scoping period, as further planning criteria are determined or developed, such criteria will be announced and added to this list.

## Administrative Designations

Designations identify geographic areas of public land where management is directed toward one or more priority resource values or uses (43 CFR 1601.0-5(n)(1)). The purpose of a designation is to identify where the BLM has decided that management will be prioritized toward the management of specific resource values or uses. Assumptions common to all administrative designations include:

- The BLM would not create overlapping administrative designations with decisions in this RMPA. Overlapping administrative designations are considered conflicting decisions as it is generally impracticable to identify the same area as being prioritized for two separate uses. The BLM would address this by removing other existing administrative designations from new locations for Section 368 energy corridors identified under the action alternatives.

## Areas of Critical Environmental Concern (ACECs)

### *How would the alternatives to the existing Section 368 energy corridor designation affect ACECs?*

*Geographic and Temporal Scale of Analysis*

- The geographic analysis area is the decision area (i.e., BLM-administered lands within the existing energy corridors and any proposed alternative corridors) for each Section 368 energy corridor evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- ACECs are managed to protect the identified values for which they were designated such as high levels of recreation or valuable natural, historic, or cultural resources.
- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects likely to occur from future project development within/adjacent to an ACEC boundary.

*Analysis Methodology and Techniques*

- List and map the locations of ACECs within the decision area for each corridor.
- Define any special management needed to protect or maintain each ACEC's relevant and important values.
- Consider whether or not ACEC boundaries should be adjusted to avoid conflicting management direction between the corridor designation and ACEC designation.
- For each corridor within the decision area, determine whether specific management activities or the lack of management direction would affect the "*relevant and important values*" (ACEC designation information) within each ACEC.

*Units of Measure*

- Acres

*Relevant Data and Information to Be Used*

- Geospatial data for ACEC boundaries with overlapping acreages of the decision area

- Information related to identified values for which the ACECs were designated

*Analytical Conclusions to Be Answered*

- Analyze how changes to corridor designation under each alternative within the decision area would impact the relevant and important values for each ACEC.
- If ACEC designation is modified to designate new areas of corridor, consider mitigation measures to protect resources.

*Analysis Display*

- Figures will be used to show the overlap of the decision area for each corridor and the ACECs.
- The analysis will be presented through text and tables that describe the impacts that each alternative within the decision area would have on the relevant and important values identified for each ACEC.

## Herd Management Areas (HMAs)

***How would the alternatives to the existing Section 368 energy corridor designation affect HMAs?***

*Geographic and Temporal Scale of Analysis*

- The geographic analysis area is the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each Section 368 energy corridor evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- The existing wild horse and burro HMA population size is largely kept in check by a lack of resources and predation and/or gathers.
- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on HMAs likely to occur from future project development.

*Analysis Methodology and Techniques*

- Changes in forage availability and utilization
- Changes in herd size

*Units of Measure*

- Acres

*Relevant Data and Information to Be Used*

- Geospatial data for HMA acres
- BLM HMA statistics

*Analytical Conclusions to Be Answered*

- Analyze whether or not changes to energy corridor designation within the decision area under each alternative would impact wild horses and burros or HMAs.

*Analysis Display*

- Figures will be used to show the overlap of the decision area for each corridor and the HMAs.
- The analysis will be presented through text and tables that describe the impacts that each alternative within the decision area would have on HMAs, wild horses and burros, and their required resources (e.g., food and water).

## Special Recreation Management Areas (SRMAs)

***How would the alternatives to the existing Section 368 energy corridor designation affect SRMAs?***

*Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each Section 368 energy corridor evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- Trends in recreational demands will continue. Changing access to BLM-administered lands due to the designation of energy corridors may increase recreational demand in some areas, while decreasing demand in other areas.
- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on SRMAs likely to occur from future project development.

*Analysis Methodology and Techniques*

- Quantitatively and qualitatively compare acres of SRMAs within the decision area to characterize impacts to recreation opportunities and access from future development of energy transport infrastructure within designated energy corridors.
- Qualitatively compare SRMA user conflicts that could be caused by alternatives within the decision area.
- Consider whether or not SRMA boundaries should be adjusted to avoid conflicting management direction between the corridor designation and SRMA designation.

*Units of Measure*

- Acres and types of recreation

*Relevant Data and Information to Be Used*

- Geospatial data for the SRMAs intersected by the decision area for each corridor
- Information on existing recreation opportunities within the decision area for recreation service providers other than the BLM
- Road and trail networks for areas where designated travel for recreation (such as off highway vehicle [OHV], all-terrain vehicle [ATV]/utility task vehicle [UTV], and mountain bike) use is occurring
- Existing rights-of-way (ROWs) (e.g., transmission lines, pipelines) within the SRMAs that are located within the decision area

*Analytical Conclusions to Be Answered*

- Analyze how changes to corridor designation under each alternative within the decision area would impact SRMAs and their associated recreational activities.
- If SRMA designation is removed to designate new areas of corridor, consider mitigation measures to protect recreational opportunities.

*Analysis Display*

- Figures will be used to show the overlap of the decision area for each corridor and the SRMAs.
- The analysis will be presented through text and tables that describe the impacts that each alternative within the decision area would have on SRMAs.

## Research Natural Areas

### *How would the alternatives to the existing Section 368 energy corridor designation affect Research Natural Areas?*

*Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each Section 368 energy corridor evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- Research Natural Areas are typically allowed to be dominated by natural processes with minimal human intervention.
- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on Research Natural Areas likely to occur from future project development.

*Analysis Methodology and Techniques*

- Use geospatial overlays of Research Natural Areas with the decision area for each corridor.

- Qualitatively evaluate how alternatives to existing energy corridor designation might impact research opportunities in the Research Natural Areas.

*Units of Measure*

- Acres and miles

*Relevant Data and Information to Be Used*

- Geospatial data for Research Natural Areas
- Information related to scientific research opportunities in the Research Natural Areas

*Analytical Conclusions to Be Answered*

- Analyze how changes to energy corridor designation within the decision area under each alternative would impact scientific research opportunities in Research Natural Areas.

*Analysis Display*

- The analysis will be presented through text and tables that describe the impacts that each alternative would have on Research Natural Areas.

## Right-of-Way (ROW) Corridors

***How would the alternatives to the existing Section 368 energy corridor designation affect ROWs?***

***How would the alternatives to the existing Section 368 energy corridor impact local corridor designation if it were changed to a Section 368 energy corridor?***

*Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each of the Section 368 energy corridors evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- In general, requests for ROWs will continue to increase due to renewable energy-related, residential, and commercial development, and public lands that interface with areas of increasing population and development.
- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on existing and future ROWs likely to occur from future project development.

*Analysis Methodology and Techniques*

- Geospatial analysis for existing and proposed ROWs as well as ROW avoidance and exclusion areas within the decision area for each corridor.

- Analyze ROW capacity issues within the decision area for each corridor under each alternative.

*Units of Measure*

- Numbers, miles, and widths of ROWs

*Relevant Data and Information to Be Used*

- Existing and proposed ROW within the decision area for each corridor
- Existing ROW avoidance and ROW exclusion areas within the decision area for each corridor
- Information from the applicable RMPs and other relevant documents

*Analytical Conclusions to Be Answered*

- Compare the areas available or unavailable for ROWs and utility corridors within the decision area for each corridor under each alternative.

*Analysis Display*

- The analysis display will consist of maps showing ROW avoidance areas, ROW exclusion areas, and existing ROWs for the decision area for each corridor. Text and tables of these attributes will also be provided.

# Air Quality

***How would the alternatives to the existing Section 368 energy corridor designation affect air quality?***

*Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each of the Section 368 energy corridors evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- Prescribed burning would follow Local/State Smoke Management Program regulations and permit conditions.
- Wildland fires would continue to occur.
- Air quality and visibility trends would follow the trends estimated by the Environmental Protection Agency (EPA) in the most recent regional haze modeling.
- BLM-authorized activities would not result in exceedances of National Ambient Air Quality Standards (NAAQS) or worsen the maintenance/nonattainment status.

- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on air quality likely to occur from future project development.

*Analysis Methodology and Techniques*

- Discuss baselines and trends for criteria air pollutants and air quality related values such as visibility and acid depositions.
- Provide a quantitative discussion of the nature and type of air impacts based on alternatives to the existing energy corridor designation within the decision area under each alternative.
- Provide a qualitative discussion of fugitive dust and wildland fires from natural processes.
- Consider management practices to prevent unnecessary or undue degradation of the resource or meet the air quality standards of the Clean Air Act.

*Units of Measure*

- Tons of criteria pollutant emissions
- Tons of fugitive dust/wildland fires emissions, if available

*Relevant Data and Information to Be Used*

- Nonattainment Areas for Criteria Pollutants *(Green Book)*
- Maps of State and Federal Area Designations
- Trends in air concentrations for criteria pollutants *(Air Data)*
- Trends in visibility, FLM Environmental Database
- Trends in acid depositions, *FLM Environmental Database*
- Acres of land use allocations
- Emission factors *(AP-42)*
- Emissions inventory data at the county level and for each alternative

*Analytical Conclusions to Be Answered*

- The analysis will evaluate how changes to energy corridor designation within the decision area under each alternative would impact air quality and visibility.

*Analysis Display*

- Existing criteria pollutant emissions by planning area county
- Air monitoring data for the past 3 years compared with the NAAQS
- Trends in ozone and particulate matter concentrations
- Trends in visibility
- Trends in acid depositions (wet and dry)
- Tables of emissions by BLM-authorized activity

# Climate Change and Greenhouse Gases

***How would the alternatives to the existing Section 368 energy corridor designation affect climate change?***

*Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each of the Section 368 energy corridors evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- For cumulative effects analysis purposes, greenhouse gas (GHG) emissions from other federal, state, and private lands would follow current trends.
- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on climate change likely to occur from future project development.

*Analysis Methodology and Techniques*

- Quantitatively assess GHG emissions from typical construction and operation activities within energy corridors based on other similar projects.
- For context, compare emissions from BLM-authorized activities with GHG emissions at other geographic scales (such as the BLM, state, U.S., and global) and other equivalency metrics (such as emissions from home energy use, emissions avoided by wind turbines, or carbon sequestered by acres of U.S. forests annually).

*Units of Measure*

- Metric tons of carbon dioxide, methane, and nitrous oxide emissions along with combined carbon dioxide equivalent ($CO_2e$)

*Relevant Data and Information to Be Used*

- National Oceanic and Atmospheric Administration (NOAA) State Climate Summaries
- BLM Specialist Report on Annual Greenhouse Gas Emissions and Climate Trends
- Fourth National Climate Assessment, Southwest Region (Gonzalez et al. 2018)
- Local Climatological Data
- Cooperative Climatological Data Summaries, Temperature and Precipitation
- Climate Change 2021: The Physical Science Basis (IPCC 2021)
- Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2020 (EPA 2022)
- Greenhouse Gas Inventory Data Explorer
- Emission Factors for Greenhouse Gas Inventories

*Analytical Conclusions to Be Answered*

- The analysis will evaluate whether or not alternatives to the existing energy corridor designation within the decision area under each alternative would result in a change in GHG emissions.

*Analysis Display*

- Graphical displays of annual temperatures and precipitation
- Tables of GHG emissions

# Congressional Designations

## California Desert National Conservation Lands (CDNCLs)

### *How would the alternatives to the existing Section 368 energy corridor designation affect CDNCLs?*

*Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each Section 368 energy corridor evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- The CDNCL, managed as a component of the National Conservation Lands System, will continue to contain nationally significant landscapes with outstanding cultural, ecological, and scientific values.
- Trends in demand for recreational use of the CDNCL will continue into the foreseeable future.
- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on CDNCLs likely to occur from future project development.

*Analysis Methodology and Techniques*

- Evaluate whether changes to energy corridor designation within the decision area under each alternative would impact the conservation goals for the CDNCL, as well as recreational use and other activities associated with the CDNCL.

*Units of Measure*

- Acres

*Relevant Data and Information to Be Used*

- Geospatial data for the areas of ROW avoidance, exclusion, and utility corridors in the CDNCL within the decision area
- Information from the applicable RMPs and other relevant documents

*Analytical Conclusions to Be Answered*

- Analyze how alternatives to the existing energy corridor designation within the decision area under each alternative would impact the CDNCL.

*Analysis Display*

- The analysis will be presented through text that describes the impacts that changes to the existing energy corridors within the decision area under each alternative would have on the CDNCL.
- In addition, the analysis will provide a table summarizing the impacts on the CDNCL by each corridor.
- Maps depicting the CDNCL boundary and the decision area will be included as part of the analysis.

## National Conservation Areas (NCAs)

***How would the alternatives to the existing Section 368 energy corridor designation affect NCAs?***

*Geographic and Temporal Scale of Analysis*

- The geographic analysis area is decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each Section 368 energy corridor evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- Consistent with BLM Manual 6220, National Monuments, National Conservation Areas, and Similar Designations (BLM 2017), the BLM will manage NCAs in accordance with any applicable laws and regulations and in a manner that protects the values for which the NCAs were designated.
- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on NCAs likely to occur from future project development.

*Analysis Methodology and Techniques*

- List and map the locations of the NCAs in the decision area for each corridor.
- Define any management needed to protect or maintain the values of the NCAs.
- Determine whether specific management activities or the lack of management direction would impact the values of the NCAs.

*Units of Measure*

- Acres

*Relevant Data and Information to Be Used*

- NCA inventories and monitoring reports for BLM-managed lands within the decision area
- Geospatial data for NCA boundaries and other land use allocations that could impact the values of the NCAs where they overlap the decision area

*Analytical Conclusions to Be Answered*

- Analyze how changes to the energy corridor designation within the decision area under each alternative would impact the NCAs.

*Analysis Display*

- Figures will be used to show the overlap of the decision area and the NCAs.
- The analysis will be presented through text and tables that describes the impacts that each alternative within the decision area would have on the values identified for each NCA.

## National Scenic and Historic Trails

***How would the alternatives to the existing Section 368 energy corridor designation affect National Scenic Trails and National Historic Trails?***

*Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each Section 368 energy corridor evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- NSTs and NHTs are likely to remain the same, pending congressional designation.
- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on NSTs and NHTs likely to occur from future project development.

*Analysis Methodology and Techniques*

- List and map the locations of the NSTs and NHTs in the decision area for each corridor.
- Determine whether the management direction for the decision area under each alternative meets the requirements and purposes set forth in the National Trails System Act, FLPMA, and other laws and policies applicable to NSTs and NHTs.

*Units of Measure*

- Miles and/or acres

*Relevant Data and Information to Be Used*

- Geospatial data for NSTs and NHTs and the decision area
- All relevant NST and NHT planning documents

*Analytical Conclusions to Be Answered*

- Analyze how changes to the existing energy corridor designation within the decision area under each alternative would impact NSTs or NHTs.

*Analysis Display*

- The analysis will be presented through text, maps, and tables that describe the impacts that alternatives to the existing energy corridor designation within the decision area under each alternative would have on the NSTs and NHTs.

## National Monuments

***How would the alternatives to the existing Section 368 energy corridor designation affect National Monuments?***

*Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each Section 368 energy corridor evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- Consistent with BLM Manual 6220, National Monuments, National Conservation Areas, and Similar Designations (BLM 2017), the BLM will manage National Monuments in accordance with any applicable laws and regulations and in a manner that protects the values for which the National Monuments were designated.
- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on National Monuments likely to occur from future project development.

*Analysis Methodology and Techniques*

- List and map the locations of the National Monuments within the decision area for each corridor.
- Consider management practices to protect or maintain each National Monument's monument objects as described in the monument proclamation.

*Units of Measure*

- Miles and/or acres
- Monument objects

*Relevant Data and Information to Be Used*

- Geospatial data for National Monument boundaries where it overlaps with the decision area

*Analytical Conclusions to Be Answered*

- Analyze how changes to the existing energy corridor designation within the decision area under each alternative would impact the monument objects as described in the monument proclamation for each National Monument.

*Analysis Display*

- Figures will be used to show the overlap of the decision area and the National Monuments.
- The analysis will be presented through text and tables that describes the impacts that each alternative within the decision area would have on the monument objects as described in the monument proclamation identified for each National Monument.

## National Scenic Areas

### *How would the alternatives to the existing Section 368 energy corridor designation affect National Scenic Areas?*

*Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each Section 368 energy corridor evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- The development of recreation, livestock grazing, and utility infrastructure would continue to be the primary types of projects that could affect National Scenic Areas within the decision area.
- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on National Scenic Areas likely to occur from future project development.

*Analysis Methodology and Techniques*

- Compare the levels of change to the landscape characteristic that could occur under differing visual resource management (VRM) classifications to assess the effects on scenic quality of the National Scenic Areas resulting from changes to the existing energy corridors within the decision area. These changes to the characteristic landscape could decrease the scenic quality inventory key factor scores (specifically vegetation, adjacent scenery, and cultural modification) and lead to diminishing scenic quality, where the designated VRM class objectives

would allow these types of management activities. Discuss effects on scenic quality qualitatively.

- Qualitatively analyze effects on sensitivity and distance zones using the best available data.
- Where land and resource use and development occur, consider management practices to meet visual resource management objectives.

*Units of Measure*

- Acres of proposed VRM class objectives within Class A, B, and C scenic quality areas

*Relevant Data and Information to Be Used*

- Geospatial data for National Scenic Areas
- VRI, including scenic quality, VRM classes, and, as available, recreation experience baseline studies for the National Scenic Areas within the decision area.

*Analytical Conclusions to Be Answered*

- Qualitatively evaluate the level of impact to visual values within the National Scenic Areas from changes to the existing energy corridor designation within the decision area under each alternative.
- Compare the scenic quality scores (A, B, or C) with the VRM class allocations across alternatives to identify areas and acres of potential impacts.
- Evaluate the management of other resources and discretionary uses, and how those might impact scenic quality in a narrative format.

*Analysis Display*

- Tables and maps will be developed to display the potential impacts to scenic quality ratings and the proposed VRM classes within the National Scenic Areas caused by alternatives to the existing energy corridor designation within the decision area under each alternative.

## National Historic Landmarks

***How would the alternatives to the existing Section 368 energy corridor designation affect National Historic Landmarks?***

*Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each Section 368 energy corridor evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- NHLs are likely to remain the same, pending congressional designation.

- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on NHLs likely to occur from future project development.

*Analysis Methodology and Techniques*

- Primary analysis methodologies will include Geospatial overlays for NHLs with the decision area for each corridor.
- Qualitatively discuss potential impacts of corridor development on NHLs.

*Units of Measure*

- Acres

*Relevant Data and Information to Be Used*

- Geospatial data for NHLs within the decision area
- Information related to the importance of the NHLs

*Analytical Conclusions to Be Answered*

- The analysis will provide a description of how the NHLs would be impacted by alternatives to the existing energy corridor designation within the decision area under each alternative.

*Analysis Display*

- Figures will be used to show the overlap of the decision area for each corridor and the NHLs.
- The analysis will be presented through text and tables that describe the impacts that each alternative within the decision area would have on NHLs.

## Wilderness Areas

### *How would the alternatives to the existing Section 368 energy corridor designation affect Wilderness Areas?*

*Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each Section 368 energy corridor evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- Consistent with BLM Manual 6340, Management of Designated Wilderness Areas (BLM 2012a), the BLM will manage Wilderness Areas to preserve the wilderness character of the designated areas. Wilderness Areas will remain the same, unless modified through congressional action.

- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on Wilderness Areas likely to occur from future project development.

*Analysis Methodology and Techniques*

- List and map the locations of the Wilderness Areas within the decision area for each corridor
- Determine whether the management direction for the decision area for each corridor protects the wilderness character of the Wilderness Areas.
- Consider any management practices needed to protect or maintain the wilderness character of the designated areas.
- Determine whether specific management activities or the lack of management direction associated with changes to the existing energy corridor designation within the decision area under each alternative would impact the wilderness character of the Wilderness Areas.

*Units of Measure*

- Acres

*Relevant Data and Information to Be Used*

- Inventory forms or background information for Wilderness Areas within the decision area
- Geospatial data of Wilderness Areas within the decision area

*Analytical Conclusions to Be Answered*

- Analyze how changes to the existing energy corridor designation within the decision area under each alternative would impact the naturalness, size, and opportunities for solitude or primitive and unconfined recreation of Wilderness Areas.

*Analysis Display*

- Maps depicting Wilderness Area boundaries and the decision area will be included as part of the analysis.
- A table displaying Wilderness Areas total acreages and acreages intersected by the decision area.

## Wilderness Study Areas (WSAs)

### *How would the alternatives to the existing Section 368 energy corridor designation affect WSAs?*

*Geographic and Temporal Scale of Analysis*

- The geographic analysis area is the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each Section 368 energy corridor evaluated in this planning effort.

- The temporal scale of the analysis will be the life of the plan.

*Relevant Assumptions*

- Consistent with BLM Manual 6330, Management of Wilderness Study Areas (BLM 2012b), the BLM will manage WSAs so as to not impair their suitability for preservation as wilderness until Congress either designates or releases all portions of WSAs from further consideration for wilderness.
- WSAs are likely to remain the same, pending congressional action.
- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on WSAs likely to occur from future project development.

*Analysis Methodology and Techniques*

- List and map the locations of the WSAs in the decision area. Determine whether the management direction for the decision area for each corridor protects the suitability of each WSA for preservation as wilderness.
- Consider any management practices needed to protect or maintain the wilderness characteristics of the WSAs.
- Determine whether specific management activities or the lack of management direction associated with alternatives to the existing energy corridor designation within the decision area under each alternative would affect the wilderness characteristics for WSAs.

*Units of Measure*

- Acres and/or miles

*Relevant Data and Information to Be Used*

- WSA inventories and monitoring reports for BLM-managed lands within the planning area
- Geospatial data for WSAs
- Acres of WSAs intersected by the decision area, with overlapping acreages of other land use allocations

*Analytical Conclusions to Be Answered*

- Analyze how changes to the existing energy corridor designation within the decision area under each alternative impact each WSA.

*Analysis Display*

- Maps depicting WSA boundaries and the decision area will be included as part of the analysis.
- The analysis will be presented through text and tables that describes the impacts that changes to the existing energy corridor designation within the decision area under each alternative would have on each WSA.

## Wild and Scenic Rivers and Eligible Rivers

### *How would the alternatives to the existing Section 368 energy corridor designation affect Wild and Scenic Rivers and eligible rivers?*

*Geographic and Temporal Scale of Analysis*

- The geographic analysis area is the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each Section 368 energy corridor evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- The BLM will manage all suitable stream segments as required by the Wild and Scenic Rivers Act and BLM Manual 6400, Wild and Scenic Rivers – Policy and Program Direction for Identification, Evaluation, Planning, and Management (BLM 2012c).
- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on WSRs and Eligible Rivers likely to occur from future project development.

*Analysis Methodology and Techniques*

- List and map the locations of the suitable WSR segments and the decision area.
- Determine whether the decision area for each corridor protects outstanding remarkable values (ORVs) of suitable WSRs.
- Define any special management needed to protect or maintain the ORVs of suitable WSRs. The BLM will determine whether specific management activities or the lack of management direction associated with changes to the existing energy corridor designation within the decision area under each alternative would affect the ORVs, free-flowing condition, or classification of suitable WSRs that do not receive special management attention.

*Units of Measure*

- Miles and/or acres

*Relevant Data and Information to Be Used*

- Geospatial data for suitable river corridors on BLM-administered lands
- Miles of suitable river corridors by administrative unit and tentative classification (wild, scenic, or recreational)
- Geospatial data for suitable river corridors with overlapping acreages of other land use allocations for the decision area

*Analytical Conclusions to Be Answered*

- Analyze how changes to the existing energy corridor designation within the decision area under each alternative would impact the suitable WSR segments.

*Analysis Display*

- The analysis will be presented through text and tables that describes the impacts alternatives to the existing energy corridor designation within the decision area under each alternative would have on the suitable WSR segments.
- Maps depicting WSRs and the decision area for each corridor will be included as part of the analysis.

## Cultural Resources

***How would the alternatives to the existing Section 368 energy corridor designation affect cultural resources?***

*Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each Section 368 energy corridor evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- Cultural resources within the decision area are known or can reasonably be projected, based on existing resource data and previous survey coverage.
- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on cultural resources likely to occur from future project development.

*Analysis Methodology and Techniques*

- Provide a base quantitative assessment of impacted resources using geospatial analysis and visualization for known cultural resources overlaid on corridor spatial data. Qualitative data includes resource types and National Register of Historic Places (NRHP) status (i.e., listed, eligible, not eligible) and will be assessed in conjunction with quantitative data for each corridor and recommended revisions.
- Calculate projected numbers of sites and site densities within the decision area based on known cultural resources and previous survey coverage to provide a reasonable projection of impacted cultural resources based on counts and NRHP status.
- Conduct geospatial viewshed analyses where listed historical structures or other areas of traditional tribal concern outside decision area may be visually impacted by corridor designation changes.

*Units of Measure*

- Resource geospatial locations
- Resource area coverage, e.g., site sizes

- Acres of corridor previously surveyed / unsurveyed
- NRHP status
- Visual impact presence/absence

*Relevant Data and Information to Be Used*

- Existing geospatial data from BLM, State historic preservation office (SHPO), and other State institutions with data holdings. Includes detailed site locations, areas, and NRHP status.
- Undigitized Class I and II survey data from corresponding BLM field offices. Includes site locations, eligibility status, survey coverage.
- Land Management Data
- Geospatial data for ACECs with a cultural resource component
- Geospatial data for National Monuments
- Geospatial data for NHTs
- Geospatial data for NHLs

*Analytical Conclusions to Be Answered*

- The analysis will determine, in detail, the extent and degree to which changes to the existing energy corridor designation within the decision area under each alternative would impact cultural resources.

*Analysis Display*

- The analysis will be presented in a narrative format proceeding from known resources to projected resources, and finally an assessment of visual impacts.
- The narrative will be supplemented with tables and detailed maps (where resource location sensitivity permits).

# Ecological Resources

## Vegetation

### *How would the alternatives to the existing Section 368 energy corridor designation affect vegetation?*

*Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each corridor evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- Current trends in vegetation communities will continue, as will trends for risk factors such as climate change, human development, drought, wildfire, and invasive species spread.
- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on vegetation communities likely to occur from future project development.

*Analysis Methodology and Techniques*

- Quantitatively and qualitatively, assess the relationship between future development of energy transport infrastructure and vegetation communities present.
- To the extent possible, use geospatial data to assess type and amount of vegetation communities intersecting, and potentially impacted by, the decision area for each corridor under each alternative.

*Units of Measure*

- Acres or miles of habitat

*Relevant Data and Information to Be Used*

- Geospatial data for habitat for vegetation communities from LANDFIRE and other relevant sources

*Analytical Conclusions to Be Answered*

- Quantitatively and qualitatively, discuss how changes to the existing energy corridor designation within the decision area under each alternative would impact vegetation communities by type.

*Analysis Display*

- Table of acres of vegetation communities intersected for each corridor under each alternative
- Mapping of vegetation community intersections with each corridor under each alternative

## Aquatic Resources

***How would the alternatives to the existing Section 368 energy corridor designation affect aquatic resources?***

*Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each corridor evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- Current trends in aquatic habitat and populations will continue, as will trends for existing stressors such as climate change, human development, drought, wildfire, and invasive species spread.
- Corridor designation will avoid or minimize impacts to perennial and intermittent aquatic habitats. Corridor designation does not authorize any activities; however, the analysis will consider the effects on aquatic communities likely to occur from future project development.

*Analysis Methodology and Techniques*

- Quantitatively and qualitatively assess the relationship between future development of energy transport infrastructure and habitat for aquatic habitat and species.
- To the extent possible, use geospatial data for aquatic habitat to assess amount of habitat intersecting, and potentially impacted by, the decision area for each corridor under each alternative.

*Units of Measure*

- Acres or miles of habitat

*Relevant Data and Information to Be Used*

- Geospatial data for surface water features (US Geologic Survey) and wetland habitat (USFWS)

*Analytical Conclusions to Be Answered*

- Quantitatively and qualitatively, discuss how changes to the existing energy corridor designation within the decision area under each alternative would impact aquatic species and their habitat.

*Analysis Display*

- Table of acres or miles of aquatic habitat intersections for each corridor under each alternative.

## Wildlife

### *How would the alternatives to the existing Section 368 energy corridor designation affect wildlife?*

*Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each corridor evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- Current population trends will continue, as will trends for population risk factors such as climate change, human development, drought, wildfire, and invasive species spread.
- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on those resources likely to occur from future project development.

*Analysis Methodology and Techniques*

- Quantitatively and qualitatively assess the relationship between future development of energy transport infrastructure and habitat for wildlife species.
- To the extent possible, use geospatial data for species' habitat to assess amount of habitat intersecting, and potentially impacted by, the decision area for each corridor under each alternative.

*Units of Measure*

- Acres of habitat

*Relevant Data and Information to Be Used*

- Geospatial data for big game migration corridors and winter habitat identified from USGS and currently applicable state agency sources.
- National Audubon Society Important Bird Areas geospatial data.
- Geospatial data for upland game birds and waterfowl (from currently applicable state agency sources if possible or USGS GAP Analysis Project predicted habitat for representative species).

*Analytical Conclusions to Be Answered*

- Quantitatively and qualitatively discuss how changes to the existing energy corridor designation within the decision area under each alternative would impact habitat for wildlife species.

*Analysis Display*

- Table of acres of species-specific big game migration corridors and winter habitat intersections for each corridor under each alternative.
- Table of Important Bird Area names and acreage intersections for each corridor under each alternative.
- Table of acres of species-specific upland game bird and waterfowl habitat intersections for each corridor under each alternative.
- Mapping of big game migration corridors, big game winter habitat, Important Bird Areas, and species-specific habitat intersections for each corridor under each alternative.

## Special Status Species

### *How would the alternatives to the existing Section 368 energy corridor designation affect special status species?*

*Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each corridor evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- Current population trends will continue, as will trends for population risk factors such as climate change, human development, drought, wildfire, and invasive species spread.
- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on those resources likely to occur from future project development.

*Analysis Methodology and Techniques*

- Quantitatively and qualitatively assess the relationship between future development of energy transport infrastructure and habitat for special status species.
- To the extent possible, use geospatial data for species' habitat to assess amount of habitat intersecting, and potentially impacted by, the decision area for each corridor under each alternative.

*Units of Measure*

- Acres or miles of habitat

*Relevant Data and Information to Be Used*

- Geospatial data for habitat for special status species (e.g., designated critical habitat, greater sage-grouse PHMA and GHMA, etc.)
- Acres of vegetation types (e.g., LANDFIRE), which could be used as an indicator for suitable habitat in the absence of species-specific spatial data

*Analytical Conclusions to Be Answered*

- Quantitatively and qualitatively discuss how changes to the existing energy corridor designation within the decision area under each alternative would impact habitat for special status species.

*Analysis Display*

- Table of acres or miles of species-specific habitat intersections for each corridor under each alternative.

- Mapping of species-specific habitat intersections for each corridor under each alternative.

# Environmental Justice

***What is the environmental justice population in the analysis area, and would the alternatives to the existing Section 368 energy designations result in disproportionate or adverse impacts on environmental justice populations?***

*Geographic and Temporal Scale of Analysis*

- The environmental justice analysis area includes census block groups within a 2-mile buffer (one mile either side of the center line) of BLM-administered lands within the existing energy corridor and any proposed alternative corridor for each Section 368 energy corridor evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on low-income, minority, and Tribal populations likely to occur from future project development.

*Analysis Methodology and Techniques*

- Identify minority populations using both the Council on Environmental Quality guidance (CEQ 1997) and BLM guidance (BLM 2022) by collecting census block group and census tract data from the US Census Bureau on the number of individuals who identify as one or more minority ethnicities or races (American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic) within the 2-mile buffer.
- Identify low-income populations using both the Council on Environmental Quality guidance (CEQ 1997) and BLM guidance (BLM 2022) by collecting census block group and census tract data from the US Census Bureau on the number of individuals who fall below the poverty line within the 2-mile buffer.

*Units of Measure*

- Number of individuals who identify as one or more minority ethnicities or races.
- Number of individuals who fall below the poverty line.

*Relevant Data and Information to Be Used*

- The analysis will use the most recent low-income and minority data from the US Census to provide a snapshot of the impacts in each 2-mile buffer as though they were to occur in that year.
- To determine potential adverse and disproportionate impacts on environmental justice communities in the decision area, data on environmental impacts from changes in designated corridors will be collected from other resource topic areas.

*Analytical Conclusions to Be Answered*

- Analyze whether there are significant environmental and socioeconomic impacts that could result from changes to the existing energy corridor designation under each alternative, and whether those impacts are disproportionate and adverse on environmental justice communities.

*Analysis Display*

- The analysis will be presented in a table, when possible, and discussed quantitatively and qualitatively.
- Maps will be provided on the environmental justice analysis area and will highlight any identified environmental justice populations.

# Human Health and Safety

***How would alternatives to the existing Section 368 corridor designations affect human health and safety in the decision area?***

*Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each Section 368 energy corridor evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on human health and safety likely to occur from future project development.

*Analysis Methodology and Techniques*

- Consider general factors that could impact human health and safety (e.g., worker injuries, exposure to hazardous materials or contaminated sites, electrical shock, electric and magnetic fields, fire risk, and public access to transmission structures and substation equipment) and identify health and safety requirements for energy corridor development.
- Consider site-specific hazards associated with geologic features (e.g., volcanic, seismic, and landslide hazards, fault crossings, liquefaction), and identify site-specific requirements for mitigation these hazards.

*Units of Measure*

- Injuries/yr and fatalities/yr (for comparison with average values for construction and light industry operations)
- Nearest active volcano
- Seismic hazard - probabilities of exceeding 16%g within 50 years along proposed corridor routes

- Presence of active fault crossing along corridor routes
- Liquefaction and landslide potential along corridor routes

*Relevant Data and Information to Be Used*

- Federal and state regulations governing human health and safety requirements.
- Information from the applicable RMPs and other relevant documents

*Analytical Conclusions to Be Answered*

- Analyze how changes to energy corridor designation under each alternative within the decision area would impact human health and safety.

*Analysis Display*

- The analysis will be presented through text and tables that describe the impacts that each alternative within the decision area would have on human health and safety.

# Hydrology

***How would the alternatives to the existing Section 368 energy corridor designation affect hydrological resources?***

*Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each corridor evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- Hydrologic conditions may range from those associated with typical or normal climatic conditions to those of extreme events, including effects from drought or flooding at various time scales.
- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on hydrological resources likely to occur from future project development.

*Analysis Methodology and Techniques*

- Qualitatively review existing data and current conditions and trends, summarizing watersheds of the decision area for each corridor with respect to locations and flows of streams (perennial and ephemeral) and springs, the locations and pumping rates of wells.
- Consider management practices to avoid adverse impacts to or attain the least level of adverse impacts possible upon water resources and meet water quality standards of the Clean Water Act.

*Units of Measure*

- Miles of perennial streams
- Miles of ephemeral streams
- Miles of modified drainages due to corridor construction activities
- Stream flow measurements
- Number of springs
- Spring flow measurements
- Acre-feet per year of irrigation well pumping

*Relevant Data and Information to Be Used*

- The Gold Book
- U.S. Geological Survey (USGS) and state geological surveys reports and data
- Locations of irrigation wells
- USEPA map of sole source aquifer locations
- USGS principal aquifer maps
- National Hydrography Dataset for surface waters
- USGS wild and scenic river information
- USGS river flow data and water quality data
- Field characterization of flows in ungauged perennial or ephemeral streams

*Analytical Conclusions to Be Answered*

- The analysis will draw conclusions about the qualitative changes to the water resources in the decision area that could result from changes to the existing energy corridor designation under each alternative, including the quality and quantity of both surface water systems, including playas, and groundwater systems.

*Analysis Display*

- Maps as needed to illustrate the locations of key surface water resources and/or any surface water bodies that are significantly at risk due to land disturbance activities or other impacts.

# Lands and Realty

***How would the alternatives to the existing Section 368 energy corridor designation affect lands and realty?***

*Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each corridor evaluated in this planning effort.

- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- Demand for new ROWs and other land use authorizations (including renewable energy development) will remain stable or increase throughout the life of the plan.
- Expanding uses such as residential and commercial development, particularly within the decision area and the Southwest in general, increases the demand for ROWs and renewable energy development on the BLM-managed lands to accommodate those uses.
- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on hydrological resources likely to occur from future project development on lands and realty.

*Analysis Methodology and Techniques*

- Query the BLM's Legacy Rehost System (LR2000) database and conduct a geospatial analysis to determine acres of ROWs and land use authorizations, ROW exclusion areas, and ROW avoidance areas within the decision area.
- Conduct a geospatial analysis for acres of designated and de facto (corridors with existing ROWs) utility corridors within the planning area.
- Conduct a Geospatial analysis for acres of land not managed by the BLM within the decision area.
- Conduct a quantitative analysis to compare a change in land use authorizations and utility corridors within the decision area.
- Conduct a qualitative analysis to describe impacts on lands and realty actions based on actions under other resource programs within the decision area. Analyze land tenure by comparing land tenure criteria within the decision area and assessing the BLM's ability to engage in land exchanges.
- Conduct a Geospatial analysis for lands suitable for renewable energy development within the decision area.
- Determine if changes to the existing energy corridors under each alternative would be in proximity to suitable development areas for renewable energy development (e.g., wind and solar), communication sites, and other uses to provide energy transmission connectivity.

*Units of Measure*

- Acres

*Relevant Data and Information to Be Used*

- Geospatial data for the acres of ROW avoidance, exclusion, and utility corridors in the decision area for each corridor
- Geospatial data for areas suitable for renewable energy developments
- Information from the applicable RMPs and other relevant documents

*Analytical Conclusions to Be Answered*

- Compare the acres available or unavailable for utility corridors, other ROWs, and renewable energy developments within the decision area for each designated energy corridor under each alternative.
- Analyze land tenure by comparing the land tenure criteria for each corridor within the decision area under each alternative and the opportunity those criteria will provide the BLM the ability to engage in land acquisitions and exchanges.
- Qualitatively discuss the extent to which changes to the existing energy corridor designation within the decision area under each alternative would or would not change opportunities for land use authorizations.

*Analysis Display*

- The analysis display will consist of maps and tables showing ROW avoidance areas, ROW exclusion areas, areas suitable for renewable energy developments, and the decision area.
- Written criteria will be established to guide how the acquisition of inholdings will be considered.

## Lands with Wilderness Characteristics

***How would the alternatives to the existing Section 368 energy corridor designation affect lands with wilderness characteristics (naturalness, outstanding opportunities for solitude, or primitive and unconfined recreation)?***

*Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each Section 368 energy corridor evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- Trends in demand for recreational use will continue into the foreseeable future and will alter the landscape over time through increased human presence, vehicle use, and road use in certain areas.
- Corridor does not authorize any ground-disturbing activities; however, the analysis will consider the effects on lands with wilderness characteristics likely to occur from future project development.

*Analysis Methodology and Techniques*

- List and map the locations of the lands with wilderness characteristics in the decision area.
- Determine whether the management direction for the decision area protects the suitability of the lands with wilderness characteristics to still meet the

requirements of naturalness, size, and opportunities for solitude or primitive and unconfined recreation to be considered wilderness.

- Define the management needed to protect or maintain the lands with wilderness characteristics.
- Determine whether specific management activities or the lack of management direction associated with changes to the existing energy corridor designation within the decision area under each alternative would affect the lands with wilderness characteristics.

*Units of Measure*

- Acres

*Relevant Data and Information to Be Used*

- Inventory forms or background information for lands with wilderness characteristics within the decision area
- Geospatial data of lands with wilderness characteristics

*Analytical Conclusions to Be Answered*

- Analyze how changes to the existing energy corridor designation within the decision area under each alternative would impact the naturalness, size, and opportunities for solitude or primitive and unconfined recreation of lands with wilderness characteristics.

*Analysis Display*

- A map displaying lands with wilderness characteristics within the decision area for each corridor.
- A table displaying lands with wilderness characteristics and acreages within the decision area for each corridor.

## Livestock Grazing

### *How would the alternatives to the existing Section 368 energy corridor designation affect livestock grazing?*

*Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each Section 368 energy corridor evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- There may be minor discrepancies between the actual acres of allotments within the decision area and the geospatial data layers.

- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on livestock grazing likely to occur from future project development.

*Analysis Methodology and Techniques*

- Changes in forage availability
- Changes in water availability
- Extent of land use allocations

*Units of Measure*

- Number and size (acres) of allotments that are administered by the BLM, including those that overlap another agency-managed surface
- Acres available and unavailable for grazing
- Total permitted animal unit months (AUMs)
- Acres of land use allocations
- Acres of anticipated vegetation management

*Relevant Data and Information to Be Used*

- Types of uses that could be developed within the Section 368 energy corridors
- Acres and miles of land use allocations within the decision area

*Analytical Conclusions to Be Answered*

- Analyze the potential impacts on livestock grazing operations from changes to the existing energy corridor designation within the decision area under each alternative.
- Analyze impacts on livestock operations from management decisions for other resource areas related to the decision area.

*Analysis Display*

- Tables and maps illustrating grazing allotments and AUMs related to the decision area.

## Military Lands

***How would the alternatives to the existing Section 368 energy corridor designation affect military training flight operations?***

*Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each Section 368 energy corridor evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- The military training flight operations will continue into the foreseeable future.
- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on military flight operations likely to occur from future project development.

*Analysis Methodology and Techniques*

- List and map the locations of military flight operation routes within the decision area to determine whether changes to the existing energy corridor designation under each alternative would affect military training flight operations.

*Units of Measure*

- Acres and/or linear miles

*Relevant Data and Information to Be Used*

- Geospatial data for the overlap of military flight training operation routes with the decision area
- Information from the Department of Defense (DoD), applicable BLM RMPs, and other relevant documents

*Analytical Conclusions to Be Answered*

- Analyze how changes to the existing energy corridor designation within the decision area under each alternative would impact ongoing military training flight operations, particularly those involving low-level flights.

*Analysis Display*

- The analysis display will consist of maps showing military training flight operation areas overlaying the decision area as well as a table with acreages and/or linear miles of these attributes.

# Noise

***How would alternatives to the existing Section 368 corridor designations affect noise in the decision area?***

*Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each Section 368 energy corridor evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on noise likely to occur from future project development.

*Analysis Methodology and Techniques*

- Discuss baseline and trends for ambient noise levels within the decision area for each corridor under each alternative.
- Provide discussion of noise levels expected from construction and operation activities for energy transport development within energy corridors.

*Units of Measure*

- Decibel A (dBA) noise levels

*Relevant Data and Information to Be Used*

- Distances to nearby receptors, such as residences or sensitive habitats
- Typical background noise levels by land use
- Typical noise levels from construction and operation activities within energy corridors

*Analytical Conclusions to Be Answered*

- Analyze how changes to energy corridor designation under each alternative within the decision area would impact noise.

*Analysis Display*

- The analysis will be presented through text, tables, and figures that describe the impacts that each alternative within the decision area would have on noise.

## Paleontology

***How would alternatives to the existing Section 368 corridor designations affect paleontological resources in the decision area?***

*Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each Section 368 energy corridor evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on paleontological resources likely to occur from future project development.

*Analysis Methodology and Techniques*

- Conduct geospatial data for Potential Fossil Yield Classification (PFYC) within the decision area.
- Consider factors that could impact paleontological resources (e.g., construction activities conducted through medium to high potential fossil beds, erosion of fossil beds due to grading and vegetation clearing, and the unauthorized

collection of scientifically important fossils due to increased access to fossil localities).

*Units of Measure*

- PFYC Classes for each corridor under each alternative

*Relevant Data and Information to Be Used*

- Federal statutes and regulations governing the management of paleontological resources on BLM-managed lands as well as BLM guidance and manuals related to paleontological resources
- Geospatial data for PFYC Classes
- Information from the applicable RMPs and other relevant documents
- Information related to the importance of the paleontological resources within the decision area

*Analytical Conclusions to Be Answered*

- Analyze how changes to energy corridor designation under each alternative within the decision area would impact paleontological resources.

*Analysis Display*

- Figures will be used to show the overlap of the decision area for each corridor and PFYC Classes.
- The analysis will be presented through text and tables that describe the impacts that each alternative within the decision area would have on paleontological resources.

# Recreation

### *How would alternatives to the existing Section 368 corridor designations affect recreation in the decision area?*

*Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each Section 368 energy corridor evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- Visitation to recreational sites will continue (and will likely increase) in the foreseeable future.
- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on recreation likely to occur from future project development.

*Analysis Methodology and Techniques*

- List designated areas where people recreate within the decision area, including national parks and monuments, historic sites, memorials, scenic areas, wild and scenic rivers, scenic and historic trails, and conservation areas (e.g., wildlife refuges, wilderness areas, preserves, primitive areas).
- List visitor use statistics at individual recreation areas within the decision area and/or visitor use statistics at the state-level (where available) to evaluate potential impacts.
- Consider management practices to avoid adverse impacts to or attain the least level of adverse impacts possible on recreation within the decision area under each alternative.

*Units of Measure*

- Acres of recreation areas within the decision area
- Number of visitors to recreation sites

*Relevant Data and Information to Be Used*

- Geospatial data for recreation areas
- Visitor use statistics from BLM, USDA Forest Service, and National Park Service

*Analytical Conclusions to Be Answered*

- Analyze how changes to the existing energy corridor designation within the decision area under each alternative would impact recreation.

*Analysis Display*

- The analysis will be presented through text that describes the impacts that alternatives to the existing energy corridor designation within the decision area under each alternative would have on recreation.
- Tables and maps summarizing the impacts on recreation may be included as part of the analysis.

## Social and Economic Values

***How would the alternatives to the existing Section 368 energy corridor designation affect social and economic values?***

*Geographic and Temporal Scale of Analysis*

- The socioeconomic analysis area will consist of the counties within the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each Section 368 energy corridor evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- Expenditures on wages and salaries, and on the procurement of materials and services will be modeled as a direct, annual stimulus to the economy to analyze the impacts. Actual spending levels and the associated contributions would vary by year. The model will provide an estimate of the total economic on local economies with the best information available.
- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on social and economic values likely to occur from future project development.

*Analysis Methodology and Techniques*

- Estimate the economic impacts of changes to existing designated energy corridors under each alternative using the IMPLAN economic impact model. The model tracks inter-industry and consumer spending in a local or regional economy, allowing the estimation of indirect and induced economic impacts in the economy that result from changes in economic activity. Outputs of the IMPLAN model include employment, labor income, value added, and gross regional economic output.

*Units of Measure*

- Number of employees (full-time equivalent jobs) and in 2023 dollars, labor income, value added, and gross regional economic output.

*Relevant Data and Information to Be Used*

- Publicly available data on electric transmission line and gas pipeline expenditure per mile in 2023 dollars will be used in association with mileage data under each alternative

*Analytical Conclusions to Be Answered*

- Analyze the direct, indirect, and induced jobs, income, value added, and economic output that would be created from changes to existing designated energy corridors under each alternative.

*Analysis Display*

- The input data used in the IMPLAN model will be provided in tables and discussed in paragraph form. The output data will also be displayed in a table and interpreted in paragraph form.

# Soils, Geology and Minerals

***How would the alternatives to the existing Section 368 energy corridor designation affect soils, geological, and minerals resources?***

*Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each corridor evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- Climate conditions which may affect erosion rates may range from those associated with typical or normal seasonal conditions to those of extreme events, including effects from drought or flooding at various time scales.
- Best management practices (BMPs) will be followed for any earthmoving, excavation, use and storage of fuels or other chemicals, or other activities that may soil resources. The BMPs may include those based on federal, state, local, BLM or other requirements.
- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on soils, geology, and minerals likely to occur from future project development.

*Analysis Methodology and Techniques*

- Qualitatively review existing data and current conditions and trends within the decision area.

*Units of Measure*

- Acres of land subjected to earthmoving, excavation, and other disturbance activities.

*Relevant Data and Information to Be Used*

- Locations of any unique geological features or prime farmland or other farmland
- The Gold Book
- U.S. Geological Survey and state geological surveys reports and data.

*Analytical Conclusions to Be Answered*

- Qualitatively analyze changes to the soil and geologic resources in the decision area that could result from changes to the existing energy corridor designation under each alternative.

*Analysis Display*

- Maps as needed to illustrate the locations of key resource aspects and/or any significant land disturbance activities.

# Travel and Transportation Management

***How would alternatives to the existing Section 368 corridor designations affect travel and transportation management in the decision area?***

*Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each corridor evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on travel and transportation likely to occur from future project development.

*Analysis Methodology and Techniques*

- Identify major transportation network infrastructure for each corridor within the decision area, including railroads, highways (interstate, U.S. highways, and state highways), and airports.
- Consider factors that could impact travel and transportation management (e.g., roadway systems, traffic volumes and congestion, road safety, and maintenance).
- Consider general access road requirements for energy corridor development and their potential impacts on travel, transportation, and access.

*Units of Measure*

- Number of workers and/or daily trips that could be required for future project development

*Relevant Data and Information to Be Used*

- Federal and state regulations applicable to major transportation network infrastructure
- Geospatial data for major transportation network infrastructure
- Information from the applicable RMPs and other relevant documents

*Analytical Conclusions to Be Answered*

- Analyze how changes to energy corridor designation under each alternative within the decision area would impact travel and transportation management.
- Consider mitigation measures to minimize impacts on transportation, travel management, and access if new areas of corridor are identified under any of the alternatives.

*Analysis Display*

- Figures will be used to show the transportation network in the vicinity of each of the corridors under each alternative.
- The analysis will be presented through text and tables that describe the impacts that each alternative within the decision area would have on transportation and travel management.

# Tribal Uses

***How would the alternatives to the existing Section 368 energy corridor designation affect tribal uses?***

*Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each corridor evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- Sacred sites or properties of traditional, religious, or cultural importance to Tribes within the decision area are known or can reasonably be projected, based on existing resource data, survey coverage, and Tribal consultation.
- Avoidance provides the best management practice for resource protection where possible: alternatives in existing energy corridor designation will have variable impacts on resources based on spatial association with known and projected resource locations and densities.
- Visual design considerations to minimize visual contract and to protect scenic quality for visual areas of cultural significance to Tribes.
- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on Tribes likely to occur from future project development.

*Analysis Methodology and Techniques*

- Invite Tribes affiliated to the decision area to formal government-to-government consultations and include Tribes in all public outreach for planning efforts to identify and protect sacred sites or properties of traditional religious, or cultural importance to Tribes.
- Develop agreement documents for Tribes to access areas with sacred or cultural significance to practice traditional ceremonies, hunting and fishing, and gathering of plant or minerals of cultural significance.
- Consider management measures to ensure that traditional use of sacred sites or properties of traditional, religious, or cultural importance by Tribes may continue under alternatives to the existing energy corridor designations.

*Units of Measure*

- Resource geospatial locations
- Acres of corridor previously surveyed / unsurveyed
- Visual impact presence/absence

*Relevant Data and Information to Be Used*

- Existing information from previous Tribal Consultations with BLM, SHPO, and Federally Recognized Tribes affiliated with the decision area
- Information from Federally Recognized Tribes official websites and other publications
- Existing geospatial data from BLM, SHPO, and other State institutions with data holdings. Includes detailed site locations, areas, and NRHP status
- Undigitized Class I and II survey data from corresponding BLM field offices (includes site locations, eligibility status, survey coverage)
- Geospatial data for ACECs with a cultural resource component, NHTs, byways, and rivers intersecting the decision area

*Analytical Conclusions to Be Answered*

- Analyze potential impacts on sacred sites or properties of traditional, religious, or cultural significance to Tribes that could result from changes to the existing energy corridor designation under each alternative.

*Analysis Display*

- Description of Tribes affiliated with the decision area
- Description of cultural resources already identified or potentially of concern to Tribes that may be impacted physically or visually by changes to the existing energy corridor designation within the decision area under each alternative.
- Description of potential areas that have been identified or may be identified as being significant and potentially impacted physically or visually by changes to existing energy corridor designation under each alternative.
- Description of other opportunities Tribes may be interested in working with BLM to establish for energy corridor designations (i.e., access agreements, hunting/fishing/gathering rights, hiring tribal contractors for the project, community outreach for cultural awareness, etc.).
- Any other items of concern identified by Tribes through previous consultations for the Section 368 energy corridors.

# Visual Resource Management (VRM)

***How would the alternatives to the existing Section 368 energy corridor designation affect visual resources?***

*Geographic and Temporal Scale of Analysis*

- The geographic analysis scale is the decision area (i.e., BLM-administered lands within the existing energy corridor and any proposed alternative corridor) for each corridor evaluated in this planning effort.
- The temporal analysis scale is the life of the plan.

*Relevant Assumptions*

- The continuation of current population trends and associated development.
- Increased visitation and recreational use of public lands.
- Changes in vegetation due to increased drought and wildfires attributed to climate change.
- Visual design considerations to minimize visual contrast and to protect scenic quality will be utilized in any proposed energy transport projects.
- A contrast rating analysis will be used to evaluate proposed projects to reduce visual contrast and to conform with visual resource inventory ratings (VRI) and visual resource management (VRM) objectives.
- Corridor designation does not authorize any ground-disturbing activities; however, the analysis will consider the effects on visual resources likely to occur from future project development.

*Analysis Methodology and Techniques*

- Establish the area of potential visual effect for a viewshed analysis.
- Identify visual resource inventory (VRI), visual management objectives and other visual protection measures within the decision area.
- Determine the type of project actions to be evaluated: pipeline, transmission and associated features, roads, buildings, etc.
- Collect baseline visual information and describe landscape character areas within the potentially affected area.
- If needed, select example Key Observation Points (KOPs) and consult BLM visual resources staff to describe the affected viewer groups and their experiences and activities at sensitive KOP’s.
- Establish the visual baseline existing conditions.
- Analyze potential impacts on visual resources that could result from changes to the existing energy corridor designation under each alternative
- Identify BMPs to offset visual impacts.

*Units of Measure*

- English and metric units (Miles and Kilometers, Feet and Meters)
- VRM management classifications intersecting with the corridors provided in acres/hectares
- National scenic trails, byways, and rivers intersecting with the corridors provided in miles/kilometers

*Relevant Data and Information to Be Used*

- Detailed VRI and VRM data in Resource Management Plans specific to the decision area
- Potential consultation with affected viewer groups

*Analytical Conclusions to Be Answered*

- Quantitatively and qualitatively discuss how changes to the existing energy corridor designation within the decision area under each alternative would impact the visual environment associated with scenic values found within landscape areas and the potential impacts to viewer groups. Types of areas that may be affected are Wilderness Areas and Scenic Trails, Byways and Wild and Scenic Rivers. Potential viewer groups may include recreationists, tourists, traditional and cultural communities, etc.
- The intent would be to address whether alternatives meet the management objective discussed in the VRI. If not, apply project scale mitigation by using the BLM Energy BMPs and Artificial Lighting at Night (ALAN) guidelines.

*Analysis Display*

- The analysis will be presented through maps, text, and tables that describe the impacts that each alternative within the decision area would have on visual resources.