

Section 368 Corridor Study

Environmental Science Division

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Section 368 Corridor Study

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NOTATION

The following is a list of acronyms, abbreviations, and units of measure used in this document. Some acronyms used only in tables may be defined only in those tables.

GENERAL ACRONYMS AND ABBREVIATIONS

ACEC	Area of Critical Environmental Concern
AC	alternating current
BLM	Bureau of Land Management
BMP	best management practice
CIEE	California Institute for Energy and Environment
DC	direct current
DOD	U.S. Department of Defense
DOE	U.S. Department of Energy
DOI	U.S. Department of the Interior
EIS	environmental impact statement
EPAct	Energy Policy Act of 2005
ESA	Endangered Species Act
FLPMA	Federal Land Policy and Management Act
FR	<i>Federal Register</i>
FS	U.S. Forest Service
GHMA	General Habitat Management Area
GIS	geographic information system
IOP	interagency operating procedure
ISA	Instant Study Area
LMP	Land Management Plan
MOU	Memorandum of Understanding
NEPA	National Environmental Policy Act
PEIS	programmatic environmental impact statement
PHMA	Priority Habitat Management Area

RFI	Request for Information
RMP	Resource Management Plan
ROD	Record of Decision
ROW	right-of-way
USC	<i>United States Code</i>
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WECC	Western Electricity Coordinating Council

UNITS OF MEASURE

ft	foot (feet)
in.	inch(es)
km	kilometer(s)
kV	kilovolt(s)
mi	mile(s)
MW	megawatt(s)

EXECUTIVE SUMMARY

ES.1 BACKGROUND AND SCOPE OF THE CORRIDOR STUDY

To comply with Section 368(a) of the Energy Policy Act of 2005 (EPAct), the U.S. Departments of Energy (DOE) and the Interior (DOI), and the U.S. Forest Service (FS) identified energy corridors (commonly referred to as “Section 368” or “west-wide” energy corridors) for oil, gas, and hydrogen pipelines, and electricity transmission and distribution facilities. In January 2009, the Bureau of Land Management (BLM) and FS designated 6,000 miles of Section 368 corridors on Federal lands in the 11 contiguous western states through two Records of Decisions (RODs) and associated land use plan amendments (Figure ES-1). EPAct also established a process for ongoing corridor reviews, corridor modifications, and identification of new corridors.

Also in 2009, several non-profit organizations filed a lawsuit challenging the designation of the corridors. In 2012, the court dismissed the case pursuant to a Settlement Agreement. The Settlement Agreement designated a number of requirements, including completion of a corridor study. This Corridor Study supports EPAct, the Settlement Agreement, and the goals of President Obama’s Executive Order 13604, “Improving Performance of Federal Permitting and Review of Infrastructure Projects” (U.S. President 2012), and the President’s June 2013 Memorandum to Executive Departments and Agencies, “Transforming our Nation’s Electric Grid through Improved Siting, Permitting, and Review” (The White House 2013).

In addition, Section 368(a) of the Energy Policy Act, along with Executive Order 13604, the June 2013 Presidential Memorandum, and the Settlement Agreement, all call for periodic ongoing reviews of the energy corridors. One provision of the Settlement Agreement was a requirement that the BLM, FS, and DOE establish an interagency Memorandum of Understanding (MOU) to explain how the agencies will review the Section 368 corridors on a regional basis to assess the need for corridor revisions, deletions, or additions. This MOU, signed in June 2013 describes the interagency process for conducting these reviews, the types of information and data to be considered, and the process for incorporating resulting recommendations in BLM and FS land use plans. The priority regions for the Regional Periodic Reviews are defined in Figure ES-2.

Information on the energy corridors, the Settlement Agreement, this Corridor Study, and the Regional Periodic Reviews can be found on the BLM Electric Transmission Facilities & Energy Corridors web page at <http://www.blm.gov/wo/st/en/prog/energy/transmission.html> and the West-wide Energy Corridor (WWEC) Information Center website at <http://www.corridoreis.anl.gov/>.

The Corridor Study evaluates whether the Section 368 corridors are achieving their purpose to promote environmentally responsible corridor-siting decisions and to reduce the proliferation of dispersed ROWs crossing Federal lands. The Corridor Study establishes baseline data and presents opportunities and challenges for further consideration during the Regional

Periodic Reviews to be conducted by the BLM and FS. Specifically, this Corridor Study evaluates:

- The opportunity for more effective corridor utilization through innovative use of space to maximize the use of designated Section 368 corridors to the extent possible;
- The siting principles and their overall usefulness;
- The types and numbers of projects within the corridors, as well as widths, lengths, and spacing of existing ROWs within the corridors;
- Where the corridors are being over- or under-utilized; and
- The use of IOPs.¹

The study encompasses the period from January 2009 to October 2014 and evaluates whether the Section 368 corridors are achieving their purpose of promoting environmentally responsible corridor siting decisions and reducing the proliferation of dispersed rights-of-way (ROWs) crossing Federal lands. It also establishes a baseline of current conditions and identifies considerations and areas which should be explored in more detail during future Regional Periodic Reviews of energy corridors to be conducted by the BLM and FS.

To serve as the foundation for the Corridor Study, the BLM, FS, and DOE published a Request for Information (RFI) in March 2014 to solicit information from interested stakeholders. In addition, data calls were sent to all BLM State Offices and FS Regional Offices regarding use of Section 368 corridors, including requests for geographic information system (GIS) or other relevant digital spatial data. The data collection was supplemented with telephone interviews with agency field staff. On-the-ground fieldwork was not conducted due to limited available funds and staff.

¹ On-the-ground field inspections and verifications were not conducted as part of the Corridor Study due to limited available funds and staff; however, it is strongly recommended that they be conducted as part of the Regional Periodic Reviews.

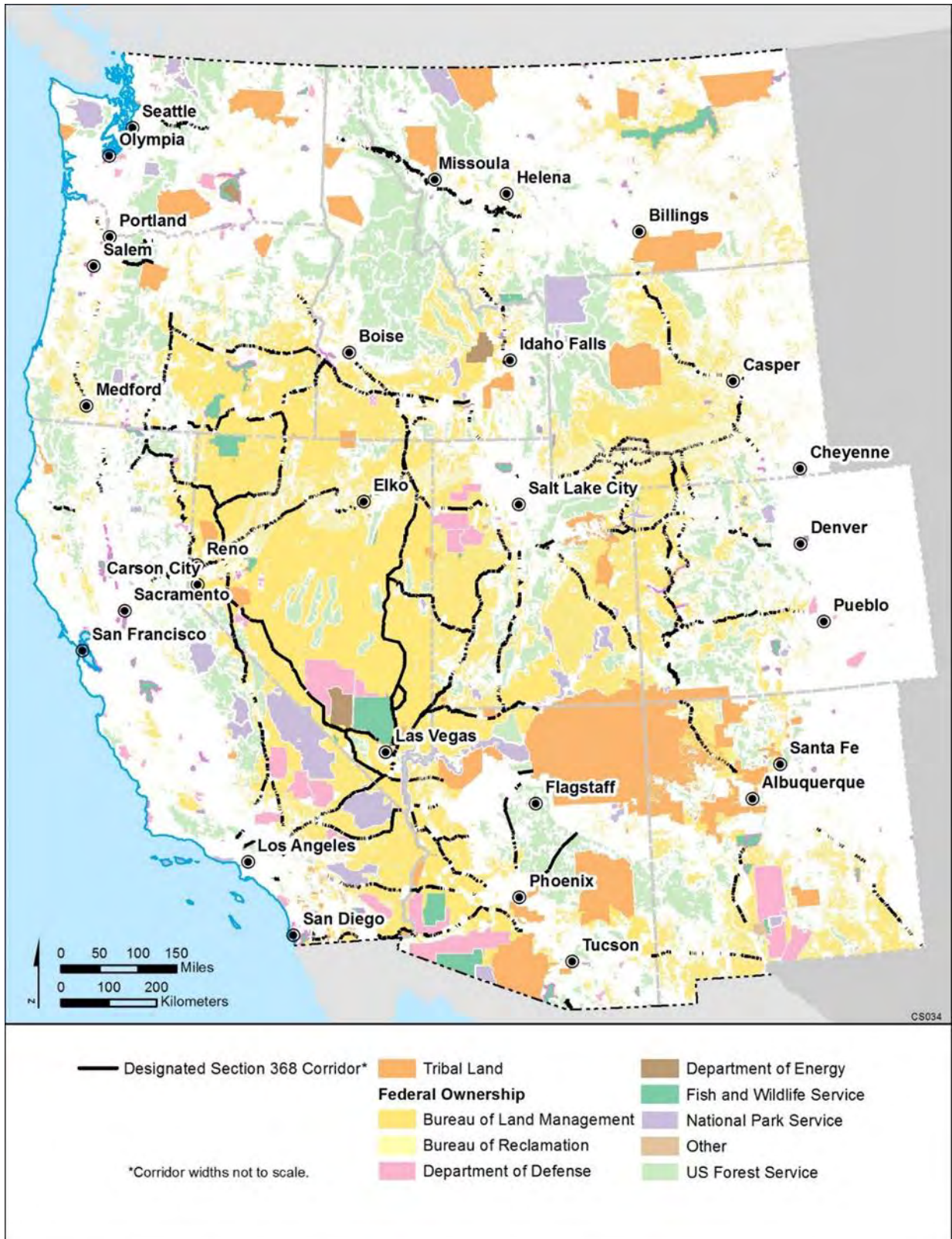
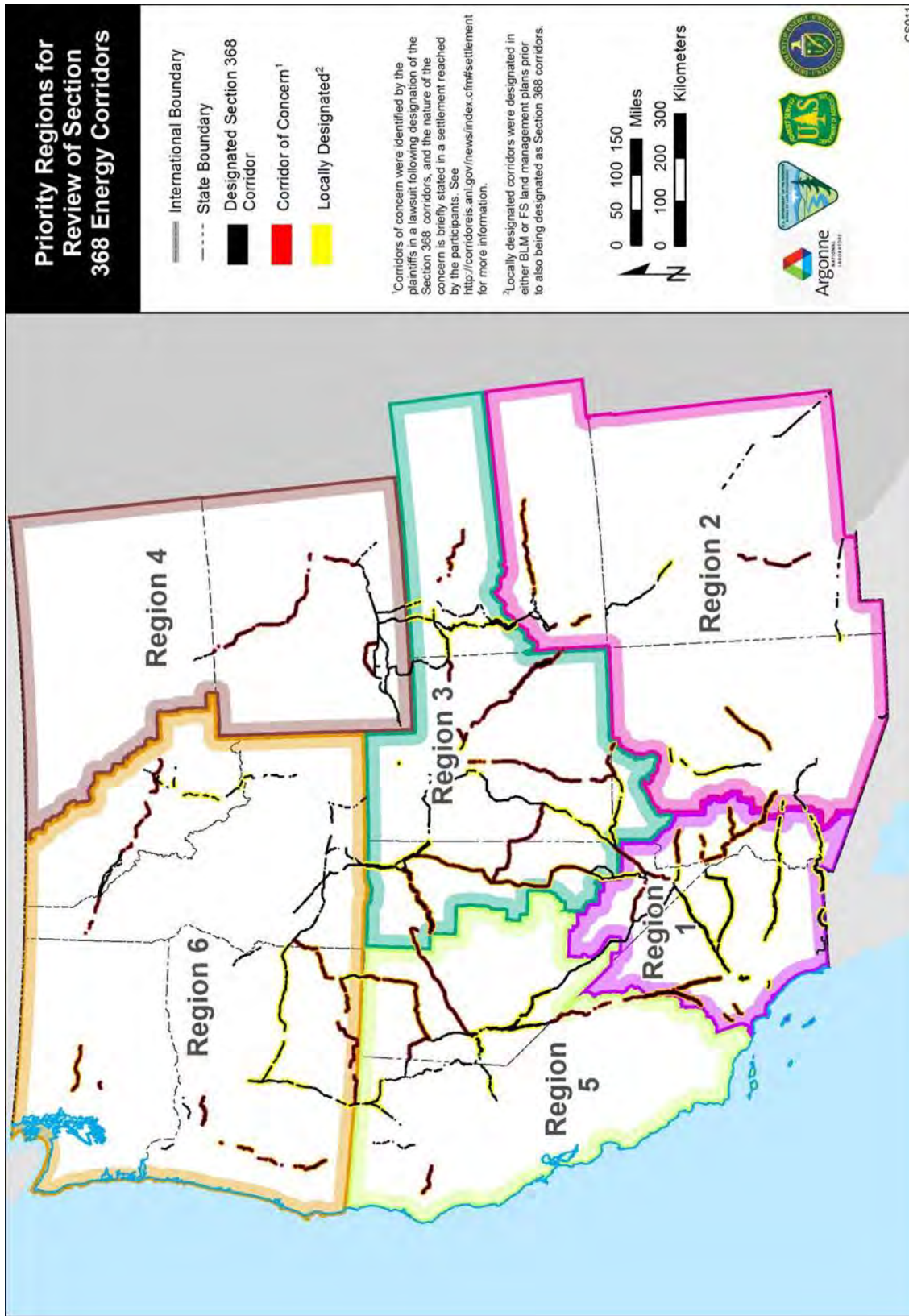


FIGURE ES-1 Designated Section 368 Corridors with Federal Jurisdictions and Tribal Land



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FIGURE ES-2 Priority Regions for the Review of Section 368 Corridors

ES.2 STUDY RESULTS TO BE EVALUATED IN REGIONAL PERIODIC REVIEWS

Section 3 of this Corridor Study identifies challenges related to ROW siting within Section 368 corridors, Section 368 corridor modification, and varying degrees of knowledge regarding Section 368 corridors between BLM offices and National Forests as the primary drivers impeding the effectiveness and usefulness of the designated corridors. Also, it is noted that there is wide variation in the level of outreach, familiarity with, and incorporation of mandatory Interagency Operating Procedures (IOPs) into project authorizations sited within corridors, and variances in the extent to which corridors are being modified in the land use planning process. An evaluation of the opportunities and challenges raised by stakeholders in response to the RFI and the BLM and FS field staff is presented in Section 4. Section 4.4 identifies considerations to address the study findings and alleviate those challenges to encourage more efficient and effective use of Section 368 Corridors.

The BLM and the FS intend to periodically review the Section 368 corridors on a regional basis to assess the need for corridor revisions, deletions, or additions. Those future reviews will be completed subject to availability of appropriated funds. The Corridor Study will be used to inform the Regional Periodic Reviews of the Section 368 corridors. The MOU regarding regional periodic reviews includes a Work Plan for conducting the regional reviews which directs the Interagency Workgroup to examine the new relevant information, the Section 368 corridor study, and public input, and based on this information will develop recommendations for any revisions, deletions, or additions to the Section 368 corridors. These upcoming regional reviews should focus on identifying over-utilized corridors, address siting conflicts, and include on-the-ground field inspections. Detailed reviews of official government land records, and GIS data of existing and proposed ROWs also should be conducted.

The questions below are provided as a springboard to be evaluated during regional periodic reviews of the corridors. It is anticipated that local expertise and a closer vantage point to the regional landscape may avail more opportunities to improve processes to address congestion within Section 368 corridors, to implement corridor modifications through land use planning amendments and revisions, and to incorporate IOPs into project authorizations. During the Regional Periodic Reviews the agencies should ask:

- What opportunities are available in each priority region to conduct co-location exercises (initiated at the pre-application process) to reduce bottlenecks and better ensure that multiple projects could be located in the same corridor?
- How can agencies within each priority region seek opportunities to site ROW projects parallel to corridor centerlines where feasible? Can targeted on-the-ground inspections be conducted during regional reviews to identify siting inefficiencies and siting opportunities?
- Would regional land use plan review and/or conducting targeted on-the-ground inspections assist in identifying existing or anticipated siting conflicts related to adjacent uses which may not be compatible with siting major linear infrastructure (e.g., oil and gas well pads, meteorological towers, substations,

compressor stations, etc.)? What have agency offices considered to determine appropriate siting distances between linear infrastructure as well as buffer distances from non-linear structures and the corridors?

- What effect would implementing minimum spacing (consistent with accepted industry standards) between ROW projects have on corridors? For example, the 2012 WECC new Adjacent Transmission Circuits definition that reduced the separation distance between centerlines from 1,500 to 250 ft. Have agency offices explored opportunities to adopt spacing standards and/or seek to incentivize more efficient use of the corridors?
- Would modifying corridors, where feasible, allow for more uniform corridor width? The study found a number of siting constraints which result in portions of corridors with reduced widths. Some of these “pinch points” were identified when corridors were originally designated in 2009 and others are the result of more recent siting constraints.
- What success have agencies had with engaging industry and other technical experts to explore challenges and opportunities related to implementing project design alternatives, such as expanded use of DC current where feasible, undergrounding portions of high-voltage cables where feasible, and use of tower types with reduced footprints and/or visually less intrusive as well as modified or emerging materials? What can agencies do to incentivize uses within corridors?
- Would mapping Section 368 corridors and authorized rights-of-way within the corridors through established standards for GIS data collection, analysis, and retention/tracking provide a benefit? Have the agencies explored future opportunities to provide a simple and cost-effective platform to display corridor centerline locations, ROW authorizations, and environmental data for the 11 western states? Could a web-based mapping tool for Section 368 corridors be developed to provide convenient access to relevant and current data?
- Could on-the-ground field inspections and review of government land records during regional reviews help the agencies focus on identifying over-utilized corridors?
- What can be done to improve corridor connectivity across administrative jurisdictions? For instance, can BLM and FS collaborate with Reclamation to identify and designate corridors across Reclamation-administered land to connect with existing designated segments? Could this process also be applied to other Federal and State agencies where gaps in corridors prevent corridor use or where there are inconsistencies in siting and evaluation of proposed projects crossing Federal lands?

- How should agencies update and expand education, training and guidance on Section 368 corridors, either on an intra-agency basis or inter-agency basis? The Corridor Study found there is some confusion and/or a lack of understanding by some agency personnel regarding the Settlement Agreement requirements and the process for addressing use of Corridors of Concern as well as designating new corridors or modifying and deleting corridors. There is similar confusion and/or misunderstanding with respect to implementing the IOPs. Some of this may be due to turnover in managers and staff since 2009.
- How can the FS explore the challenges and opportunities to expand and improve siting projects on National Forests?
- Is there new and relevant information to incorporate since 2014? The Regional Periodic Reviews should include new and relevant information from 2015 and beyond to continue to seek further improvement of the corridors, to protect public lands and better serve the nation's energy needs. *The timeframe considered for the Corridor Study was 2009 to 2014. Energy development and associated infrastructure are dynamic environments. Agency actions and public opinions regarding land uses and siting opportunities and constraints on federal lands constantly evolve and should be reflected in the Regional Periodic Reviews.*

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1 BACKGROUND

1.1 SECTION 368 ENERGY POLICY ACT OF 2005

On August 8, 2005, the President signed into law the Energy Policy Act (EPAcT) of 2005 (*United States Code*, Title 42, Section 15801 et seq. [42 USC 15801 et seq.]). Section 368(a) of EPAcT (42 USC 15926) directed the Secretaries of Agriculture, Commerce, Defense, Energy, and the Interior to designate corridors for oil, gas, and hydrogen pipelines, and electricity transmission and distribution facilities (major linear projects) on Federal land in the 11 contiguous western states. The Secretaries were also directed to perform any environmental reviews required to complete the designation of Section 368 corridors, incorporate the Section 368 corridors into land use plans, and establish a process for identifying new Section 368 corridors.

1.2 PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

The Bureau of Land Management (BLM), U.S. Department of Energy (DOE), U.S. Forest Service (FS), U.S. Department of Defense (DOD), and the U.S. Fish and Wildlife Service (USFWS) prepared a programmatic environmental impact statement (PEIS) to conduct a detailed environmental analysis at the programmatic level. These agencies concluded that preparing a PEIS to examine region-wide environmental concerns was appropriate to facilitate designation of energy corridors, even in the absence of on-the-ground environmental impacts resulting from the designation. A Notice of Intent to Prepare a Programmatic Environmental Impact Statement was published in the *Federal Register* on September 28, 2005, to inform the public about the proposed action and to initiate the scoping process. In 2008, the BLM and the DOE issued a final programmatic environmental impact statement (Final PEIS) (DOE and DOI 2008). The DOE and the BLM were lead agencies in preparation of the Draft and Final programmatic EIS. The FS, DOD, and USFWS participated as cooperating agencies. The PEIS identified potential corridors; evaluated effects of potential future development within designated corridors; identified mitigation measures for such effects; and developed interagency operating procedures (IOPs) applicable to planning, construction, operation, and decommissioning of future projects within the corridors.

Based upon the information and analyses developed in the PEIS, the U.S. Department of the Interior (DOI) approved a Record of Decision (ROD) on January 14, 2009, that amended 92 BLM land use plans and designated approximately 6,000 mi of Section 368 corridors on BLM-administered lands (BLM 2009). The affected states include Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming. The FS also issued a ROD on January 14, 2009, which amended 38 FS land use plans and designated approximately 990 mi of Section 368 corridors on National Forest System lands in 10 states (FS 2009). The designated corridors are depicted in Figure 1-1. The RODs stated that the agencies intended to produce an interagency Memorandum of Understanding (MOU) for implementation of the RODs. Documents related to the PEIS, the January 2009 RODs, and

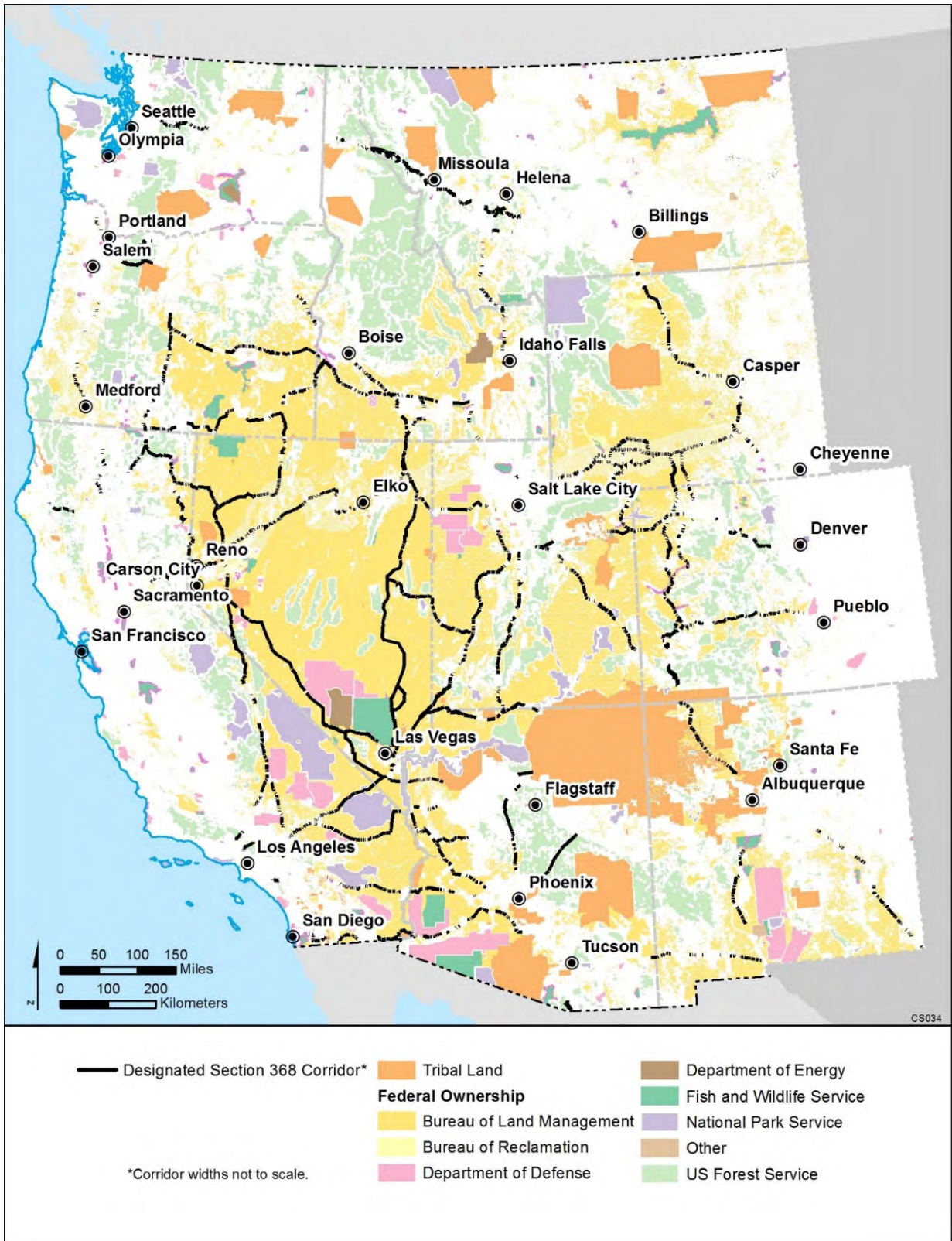


FIGURE 1-1 Designated Section 368 Corridors with Federal Jurisdictions and Tribal Land

Section 368 Corridors originally designated in 2009 are hosted on the Energy Corridor Information Center web site at www.corridoreis.anl.gov.

1.2.1 Corridor Siting Process

During preparation of the PEIS, the agencies used the following four-step process to identify Section 368 corridor locations (See Figure 1-2):

Step 1: Develop an “unrestricted” conceptual West-wide network of energy transportation paths, addressing the need to connect energy supply areas (regardless of the sources) with demand centers via long-distance transportation.

Step 2: Refine and revise the locations of individual segments from the conceptual network defined in Step 1 to avoid non-Federal land as well as major known, conflicting environmental, land use, and regulatory requirements.

Step 3: Local Federal land managers adjust preliminary corridor locations identified in Step 2 to further avoid important or sensitive resources, to ensure consistency with resource management objectives described in each unit’s land use plans, and to ensure compatibility among adjacent Federal lands.

Step 4: Agencies further evaluate and revise corridor locations in response to concerns expressed by the public, states, tribes, local governments, non-governmental organizations, and other stakeholders. Refine corridor locations to incorporate new information from Federal land and resource managers to ensure consistency with local Federal land management responsibilities and to avoid sensitive resources to the fullest extent possible.

The BLM and FS RODs designated corridors at specified corridor widths, centerlines, and compatible uses for Section 368 corridors. The Section 368 corridors are considered preferred locations for energy transport corridors on lands managed by the BLM and FS, but they do not confine all future projects to the designated corridor. In addition, EPA established a process for ongoing corridor reviews, corridor modifications, and new corridors. The Final PEIS and January 2009 RODs were the starting point for this effort.

Section 368 energy transport corridors are typically intended for long-distance transport of oil, gas, or hydrogen pipelines, or high-voltage electric transmission lines that cross multiple jurisdictions, including more than one Federal land management agency. Not all agency-designated linear facility corridors meet the criteria for Section 368 energy transport corridors, but they do serve a useful purpose from an infrastructure permitting and land use planning standpoint. Corridors that are not designated as Section 368 corridors follow current agency practices. Applicants identify and evaluate right-of-way (ROW) alternatives and identify their preferred project-specific ROWs. Federal land managers evaluate the ROW proposals and work with the applicants to identify an acceptable ROW route based on consistency with approved land use plans or through a potential plan amendment consistent with the National

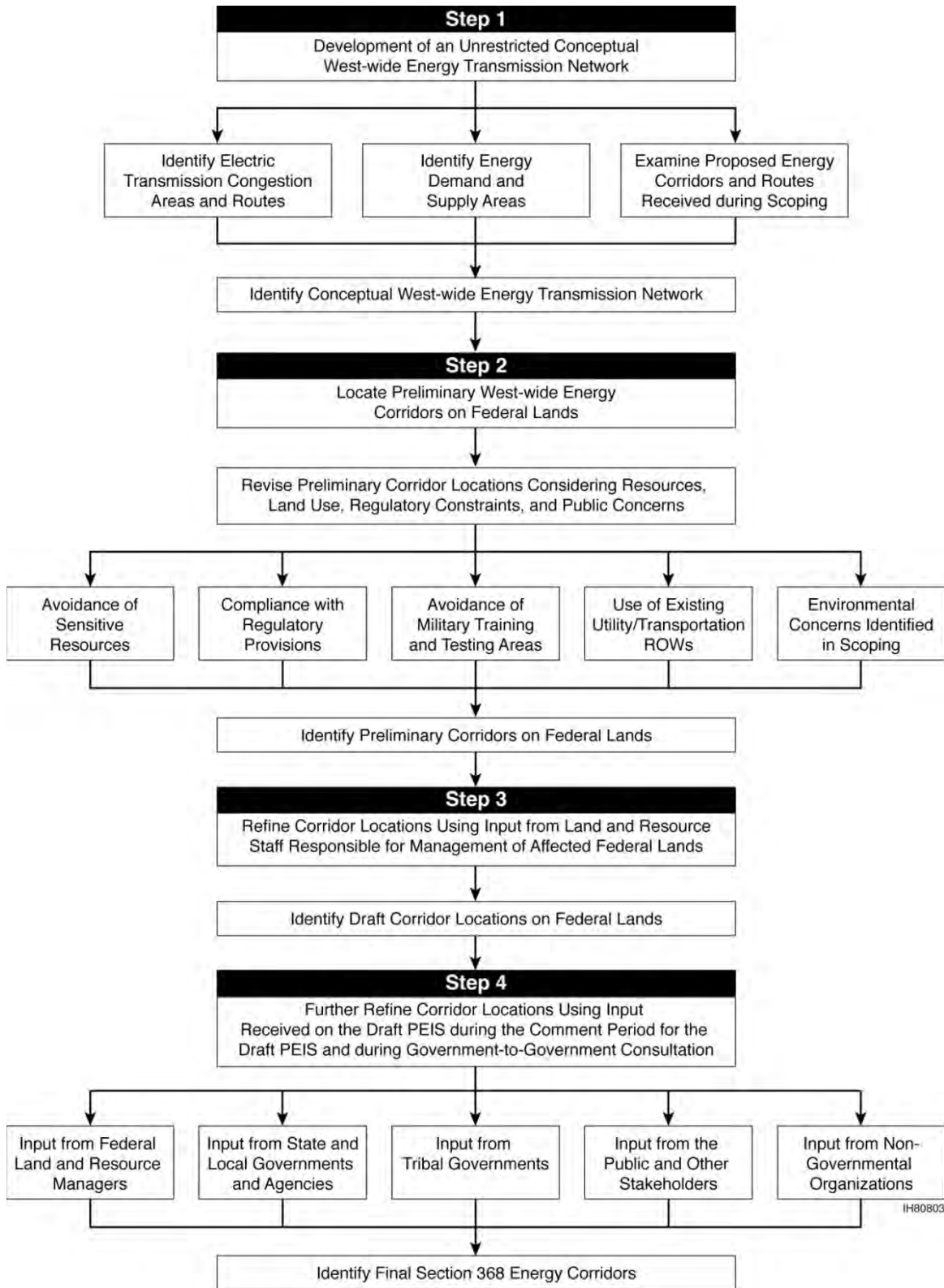


FIGURE 1-2 Four-Step Corridor Siting Process for Identifying Section 368 Energy Corridor Locations (DOE and DOI 2008)

Environmental Policy Act (NEPA) process. Amendment of land use plans to incorporate project-specific ROWs are conducted on a project-by-project and agency-by-agency basis.

1.3 SETTLEMENT AGREEMENT

On July 7, 2009, several parties,² consisting primarily of non-governmental organizations, filed a complaint against the DOE, DOI, BLM, U.S. Department of Agriculture (USDA), and FS challenging the PEIS, and BLM and FS RODs, and associated energy corridor designations (*Wilderness Society v. United States Department of the Interior*, No. 3:09-cv-03048-JW (N.D. Cal.)) pursuant to EPAct, NEPA, the Endangered Species Act (ESA), and the Federal Land Policy and Management Act (FLPMA). On July 11, 2012, the BLM, FS, and DOE (hereafter referred to as the “Agencies”), and the U.S. Department of Justice developed a Settlement Agreement (Settlement)³ with the Plaintiffs that specifies certain actions the Agencies must take.

The five principal components of the Settlement require the Agencies to:

1. Complete an interagency MOU addressing regional periodic corridor reviews,
2. Update agency guidance,
3. Update agency training,
4. Complete a corridor study, and
5. Undertake Regional Periodic Reviews.

The primary objective of the Settlement is to ensure that revisions, deletions, and additions to Section 368 corridors consider the following siting principles:

1. Location of Section 368 corridors in favorable landscapes,
2. Facilitation of renewable energy projects where feasible,
3. Avoidance of environmentally sensitive areas to the maximum extent practicable,

² Plaintiffs include The Wilderness Society, BARK, Center for Biological Diversity, Defenders of Wildlife, Great Old Broads for Wilderness, Klamath-Siskiyou Wildlands Center, National Parks Conservation Association, National Trust for Historic Preservation, National Resources Defense Council, Oregon Natural Desert Association, Sierra Club, Southern Utah Wilderness Alliance, Western Resource Advocates, Western Watersheds Project, and County of San Miguel, Colorado.

³ United States District Court for the Northern District of California, San Francisco Division, 2012, *The Wilderness Society, et al., v. U.S. Department of the Interior, et al.*, No. 3:09-cv-03048 JW, Joint Motion to Dismiss Case Pursuant to Fed. R. Civ. P. 41(a)(2), July 9.

4. Diminution of the proliferation of dispersed ROWs crossing the landscape, and
5. Improvement of the long-term benefits of reliable and safe transmission.

In addition, the Plaintiffs identified 36 of the 119 corridors as “corridors of concern” because of environmental concerns such as special status species habitat, proximity to specially sensitive areas, designated areas, impacts on water or cultural resources, and proximity and of benefit to coal-fired generating stations.

This Corridor Study satisfies the fourth principal component of the Settlement and is intended to assess the efficient and effective use of the Section 368 corridors and provides findings as well as considerations when conducting future regional reviews. The time horizon considered in the Corridor Study was January 2009 to October 2014, and was contingent upon the availability of appropriated funds. The Corridor Study evaluates whether the Section 368 corridors are achieving their purpose to promote environmentally responsible corridor-siting decisions and to reduce the proliferation of dispersed ROWs crossing Federal lands. The Corridor Study establishes baseline data and presents opportunities and challenges for further consideration during the Regional Periodic Reviews to be conducted by the BLM and FS. In addition, the Agencies will develop a corridor monitoring plan to support the Corridor Study. Specifically, this Corridor Study evaluates:

The opportunity for more effective corridor utilization through innovative use of space to maximize the use of designated Section 368 corridors to the extent possible;

The siting principles listed above and their overall usefulness;

The types and numbers of projects within the corridors, as well as widths, lengths, and spacing of existing ROWs within the corridors;

Where the corridors are being over- or under-utilized; and

The use of IOPs.⁴

1.4 OTHER RELEVANT STUDIES

President Obama’s 2012 Executive Order 13604, “Improving Performance of Federal Permitting and Review of Infrastructure Projects,” orders significant reduction in the aggregate time required to make decisions in the permitting and review of infrastructure projects by the Federal Government, while improving environmental and community outcomes. In addition, the June 2013 Presidential Memorandum, “Transforming our Nation’s Electric Grid through

⁴ On-the-ground field inspections and verifications were not conducted as part of the Corridor Study due to limited available funds and staff; however, it is strongly recommended that they be conducted as part of the Regional Periodic Reviews.

Improved Siting, Permitting, and Review,” reinforces the direction to improve the Federal siting, permitting, and review processes for transmission projects that may cross multiple governmental jurisdictions over hundreds of miles and calls for robust collaboration among Federal, State, local, and tribal governments to be a critical component of the effort (The White House 2013).

Section 368(a) of EPO Act, along with the 2012 Executive Order 13604, the June 2013 Presidential Memorandum, and the Settlement Agreement, all call for periodic ongoing reviews of the energy corridors. The BLM, FS, and DOE identified and prioritized regions where corridors will be reviewed to assess the need for corridor revisions, deletions, or additions. As stated in the Settlement, the Agencies will consider new information in their Regional Periodic Reviews. Examples of recent studies that should be considered in the Regional Periodic Reviews include, but are not limited to, those listed below.

Western Electricity Coordinating Council (WECC) Study: As an initial response, DOE asked the WECC to assist in this effort by identifying potential energy corridors, or potential preferred locations of future infrastructure (e.g., pipelines, electricity transmission lines, and associated infrastructure) by leveraging WECC’s geographic information system (GIS)-based environmental datasets and geospatial optimization tools. The WECC results included GIS data for 27 potential energy corridors connecting 19 hubs in the 11 western states and an accompanying report (WECC 2014). GIS data for each corridor was provided. The corridor locations were specified as centerlines using geographic coordinates; widths, however, were not specified.

Argonne National Laboratory (Argonne) Report about WECC Study: Argonne was tasked by DOE to analyze the proposed energy corridors in the WECC report in five topic areas: Federal land jurisdiction, existing Section 368 corridors, existing transmission lines, previously studied corridor locations, and protected areas. Results included a GIS database (Kuiper et al. 2014). While the WECC Study and Argonne’s Study were informative about corridors in the western United States, including factors and data developed after the PEIS, EPO Act Section 368(a) requires considerably more study and stakeholder input for changes in corridor designation to be completed.

National Electric Transmission Congestion Study: This study provides information about transmission constraints and congestion on a 3- to 5-year return interval in four major regions of the country, excluding Texas (DOE 2014).

Rural Utilities Service Macro-Corridor Study: The purpose of the Macro-Corridor Study is to identify areas that appear to be suitable for siting transmission (or other linear) facilities based on regulatory, environmental, engineering, and economic constraints (USDA undated).

Siting for Tribal Planners Guidance Manual: The objective of this manual is to provide tribes with the guidance and information needed for siting energy transport facilities on tribal lands (DOI 2010).

An Analysis of West-Wide Energy Corridor 30-52: This Sonoran Institute report (2015) analyzes the potential for the Arizona segment of Section 368 Corridor 30-52 to deliver power to markets in Arizona and California, and the potential environmental impacts if transmission lines are developed in the corridor. Corridor 30-52 has potential for additional transmission capacity, and the Sonoran Institute concludes that the corridor can improve congestion issues and facilitate the increase in renewable energy generation. Drawbacks to development in this corridor are limited to navigating developed areas and locating infrastructure in close proximity to Interstate 10.

2 METHODOLOGY

2.1 REQUEST FOR INFORMATION

The BLM, FS, and DOE (the Agencies) published a Request for Information (RFI) for the West-Wide Energy Corridor Review in the *Federal Register* on March 28, 2014 (79 FR 17567). The purpose of the RFI was to solicit information that will assist the Agencies in the development of the Corridor Study and to provide the foundation for the Regional Periodic Reviews. Specifically, the RFI asked the public to consider the following questions:

- Are there any new or updated compatible, publicly available spatial data that may be utilized to inform the Section 368 Corridor Study?
- Are there any other types of projects (other than 100-kV or higher electric transmission lines and oil, gas, and hydrogen pipelines, 10 in. or more in diameter, that have been authorized on Federal lands) that the Agencies should consider to assess the use of Section 368 Corridors?
- Are there methods the Agencies should consider using to evaluate the effectiveness of the IOPs?
- Is there any other publicly available information that the Agencies should consider as part of the initial Regional Periodic Review, including review of the IOPs, and if so, where or how can it be found, and what parts of it are relevant to this RFI?
- Are there any laws, regulations, or other requirements that have been implemented since issuance of the BLM and FS RODs in January 2009 that the Agencies should consider when reviewing Section 368 Corridors?
- Are there any additional regional stakeholders that the Agencies should consider for stakeholder engagement during Regional Periodic Reviews?
- Are there any additions, deletions, or revisions the Agencies should consider making to the IOPs that were adopted in the BLM and FS RODs, and what is the rationale for those changes?
- Are there any comments on the new IOPs submitted by the Plaintiffs who are parties to the Settlement?

Responses were received from 20 individuals and groups, including members of the public; local, State and Federal agencies; and industry and environmental groups. In addition, The Wilderness Society submitted more than 13,000 individual comment letters as part of a campaign. Information provided by commenters or comments raised through the RFI that are relevant to the Corridor Study were considered and are summarized in Section 3 of this study.

2.2 BUREAU OF LAND MANAGEMENT AND FOREST SERVICE DATA CALL

Initial data calls went to BLM State Offices and FS Regional Offices in September and October 2014 regarding the use of Section 368 corridors. These offices forwarded them to BLM District and Field Offices and to FS National Forest Supervisors' Offices. The data call included an initial questionnaire that was to be completed and submitted to the Agencies. The questionnaire addressed knowledge of Section 368 corridors within individual BLM offices and/or National Forests, familiarity with IOPs, corridor use, and why corridors may have been over- or under-utilized since their designation in the BLM and FS RODs.

Nearly all BLM Field Offices with a Section 368 corridor responded to the questionnaire. Based on these responses, some BLM offices were contacted to request a follow-up telephone conference call to review individual BLM office responses, as well as to request completion of a second questionnaire which included targeted questions based on the responses from the initial questionnaire. In general, BLM offices were contacted for a follow-up interview if the initial questionnaire responses indicated:

- Interest in locating new projects within Section 368 corridors by ROW applicants;
- Specific reasons listing why the corridors were or were not being utilized;
- Congestion issues within the corridors; or
- Land use decisions that resulted in additions, deletions, or modifications to the corridors.

Appendices A and B of this Corridor Study include both the initial and follow-up questionnaires.

Approximately half of the FS National Forests with a Section 368 corridor were able to provide responses to the initial questionnaire. For the most part, no follow-up was needed from the National Forests that provided an initial response. Therefore, most of the information provided in this Corridor Study is based on the responses from BLM offices and represents a strong sample providing a good indication of Section 368 corridor use, rather than a complete inventory.

Both the questionnaire and interviews were aimed at gathering the following information:

- The types and numbers of authorized projects sited inside and outside Section 368 corridors;
- The width and length of projects sited inside and outside the corridors;
- Spatial data, locational information, and characteristics (e.g., length and width) of the corridors;

- Where the corridors are being over- or under-utilized;
- Where authorized uses deviated from the corridors or did not use the corridors and the reasons for deviation or non-use;
- Uses approved within corridors other than major linear projects (including attendant facilities such as substations) and whether corridor compatibility was assessed for those uses; and
- Use of IOPs for authorized projects to inform recommendations from Regional Periodic Reviews regarding additions, deletions, or revisions to IOPs.

When warranted, additional information was requested from individual BLM offices and National Forests, including GIS data, information about active or pending projects, and information in response to questions that arose during interviews.

The responses received by the individual BLM offices and National Forests were used to indicate where Section 368 corridors are over- or under-utilized, to assess the overall effectiveness of the corridors, and to identify Agency considerations for future Regional Periodic Reviews. Because of limited funds and staff, on-the-ground field examinations of corridors were not conducted as part of this study.

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3 RESULTS

3.1 SECTION 368 CORRIDOR USE

Since the BLM and FS RODs were signed in 2009, some BLM offices have granted multiple ROWs within Section 368 corridors, have many pending applications for ROWs within the corridors, and have had interest from industry in the corridors, while other BLM offices have had little to no interest in the corridors. The reasons why corridors have been over- or under-utilized vary among BLM offices and regions. To assist in the assessment of effective use of Section 368 corridors, this section presents an overview of the reasons why the corridors are used or not used and identifies which ones have received interest from applicants and which ones have had limited or no activity since 2009. Information from responses to questionnaires received from BLM offices and National Forests is summarized in Appendices C and D. A summary of the GIS data provided from BLM offices is provided in Appendix E.

BLM offices and National Forests have indicated that applicants have used or proposed to use Section 368 corridors for the following reasons:

- Avoidance of potential resource issues,
- Expedited permitting process,
- Favorable topography for siting and co-locating facilities and infrastructure,
- Ease of industry project planning,
- Reduced costs,
- Most direct path to the intended destination,
- Minimization of disturbance to currently undisturbed land,
- Establishment of areas where utilities can cross Federal lands,
- Allowance for co-location of facilities and infrastructure, and
- Compliance with FLPMA.

Many BLM offices indicated that existing and proposed ROWs usually constitute only a portion of Section 368 corridors. In addition, projects may not follow a single Section 368 corridor for long distances due to physical limitations or congestion. Table 3-1 lists Section 368 corridors currently in use or that have been proposed for use since designation.⁵

⁵ The data is based on the responses to questionnaires and follow-up interviews and may not represent all granted or pending projects because 100% feedback was not received from BLM offices or National Forests.

TABLE 3-1 Section 368 Corridors in Use or Proposed by Applicants since Designation^a

BLM Office/ National Forest	State/Region	Corridor	Description ^b	Utilization
<i>Projects Completed or Approved</i>				
Arizona Strip DO	Arizona	113-116	Sun River to Beaver Dam 138/69-kV ROW grant	
Arizona Strip DO	Arizona	113-116	12.4-kV Dixie Power Project	Partially within the corridor.
Gila DO, Safford FO	Arizona	81-213	SunZia application	
Colorado River Valley FO	Colorado	113-276	235-kV ROW grant	ROW is only partially within the corridor.
Burley FO	Idaho	49-112	Approved for Gateway West.	Partial use of the corridor.
Ely DO	Nevada	110-114	New substation developed to wind energy project in Spring Valley.	
Ely DO	Nevada	110-233 37-232	Online project, 500-kV line completed in 2014. Approved ROW for 230-kV line and water pipeline in lower sections as part of the Southern Nevada Water Authority Groundwater Development Project.	
Ely DO	Nevada	232-233E	Approved ROW in the lower section of the corridor for the Kane Springs Water Project.	
Ely DO	Nevada	232-233W 110-114	Approved ROW to the USAF for a 69-kV line.	
Salt Lake FO	Utah	114-241	UNEV Pipeline PacifiCorp Mona to Oquirrh Transmission Line Project Magnum Gas Storage Project underground natural gas pipeline	All partially within the corridor.
St. George FO	Utah	113-114	UNEV Pipeline ROW grant Kern River Pipeline IPP 500-kV Transmission Line	ROW is at least partially within the corridor.

TABLE 3-1 (Cont.)

BLM Office/ National Forest	State/Region	Corridor	Description ^b	Utilization
Grand Staircase- Escalante National Monument	Utah	68-116	Several ROW grants issued for smaller projects.	Partial use of the corridor.
Cedar City FO	Utah	113-114	Existing 500-kV transmission line Kern River Pipeline	Full or partial use of the corridors.
		114-241	IPP 500-kV Transmission Line 345-kV Sigurd to Red Butte UNEV petroleum pipeline Other smaller ROW projects	
Richfield FO	Utah	116-206	345-kV Sigurd to Red Butte	
Rawlins FO	Wyoming	78-255	Approved for Gateway West.	
Rawlins FO	Wyoming	78-138	Approved for Gateway West.	
Casper FO	Wyoming	78-255	Gateway West	
Casper FO	Wyoming	79-216	WAPA substation High Plains Power for connected distribution lines	The ROW is completely within the corridor. Completely within the corridor for the WAPA substation; partially within corridor for High Plains Power.
Ely DO	Nevada	110-233	Considered by NV Energy and LS Power.	
Dixie National Forest	Region 4	113-114	Kern River Pipeline IPP 500-kV Transmission Line	
Uinta-Wasatch- Cache National Forest	Region 4	114-241	UNEV Pipeline PacifiCorp Mona to Oquirrh Transmission Line Project Holly Energy products pipeline ROWs Magnum Gas Storage Project underground natural gas pipeline	
Application Submitted				
AZ Strip DO	Arizona	113-116 & 68-116	Lake Powell water pipeline ROW application	Partially within the corridor.

TABLE 3-1 (Cont.)

BLM Office/ National Forest	State/Region	Corridor	Description ^b	Utilization
AZ Strip DO	Arizona	113-116	12.4-kV Dixie Power Project	Partially within the corridor.
Gila DO, Safford FO	Arizona	81-213	Southline application	SunZia would be outside the corridor. Southline would be partially inside the corridor in one alternative.
Ridgecrest FO	California	23-106	Two pending applications	
Palm Springs-South Coast FO	California	30-52	Twenty-four ROW applications	Two applications would be completely within the corridor. Others would be partially within the corridor.
Uncompahgre FO	Colorado	130-131N 134-139	Proposed upgrade of existing facilities.	Completely within the Section 368 corridors.
White River FO	Colorado	132-133	Considered for use by TransWest Express.	
White River FO	Colorado	126-133 132-276	Considered for TransWest Express. Considered for Gateway South.	Both projects partially within corridors.
Southern Nevada DO	Nevada	18-224	Six pending ROWs	
Southern Nevada DO	Nevada	224-225	Eight pending ROWs	
Southern Nevada DO	Nevada	37-232	Two pending ROWs	
Southern Nevada DO	Nevada	37-232N	One pending ROW	
Southern Nevada DO	Nevada	37-223S	Three pending ROWs	
Southern Nevada DO	Nevada	37-39	One pending ROW	

TABLE 3-1 (Cont.)

BLM Office/ National Forest	State/Region	Corridor	Description ^b	Utilization
Southern Nevada DO	Nevada	225-231	One pending ROW	
Southern Nevada DO	Nevada	27-225	Three pending ROWs	Three ROW grants encumber Corridor 27-225 with non-linear features related to renewable energy development.
Southern Nevada DO	Nevada	223-224	Five pending ROWs	
Southern Nevada DO	Nevada	39-113	Five pending ROWs	
Southern Nevada DO	Nevada	39-231	Six pending ROWs	
Southern Nevada DO	Nevada	47-231	Two pending ROWs	
Salt Lake FO	Utah	66-209 66-212 66-259 114-241	TransWest Express Gateway South Zephyr TransWest Express Zephyr Transmission Line	
Richfield FO	Utah	116-206	Gateway South Zephyr	Full or partial use for all projects.
St. George FO	Utah	113-114	Considered for the 600-kV TransWest Express. Considered for Zephyr.	At least partially in corridor for every project.
Vernal FO	Utah	126-218 126-258	Considered for TransWest Express 600 kV. Considered for Gateway South 500 kV. Considered for Zephyr 500 kV.	

TABLE 3-1 (Cont.)

BLM Office/ National Forest	State/Region	Corridor	Description ^b	Utilization
Grand Staircase- Escalante National Monument	Utah	68-116	Application received for a large buried water pipeline and supporting infrastructure, including transmission lines. Application proposed to upgrade facilities on an existing transmission line.	
Cedar City FO	Utah	113-114 114-241	Considered for TransWest Express 600 kV. Considered for Zephyr 500 kV.	
Casper FO	Wyoming	78-255	Will be used by the Gateway West.	
Rawlins FO	Wyoming	78-255	Proposed for Gateway South.	
Rawlins FO	Wyoming	78-138	Proposed for Gateway South. Proposed for TransWest Express.	
Rawlins FO	Wyoming	73-133	Proposed for Gateway South. Proposed for TransWest Express.	
Rock Springs	Wyoming	121-221	Pending project for a 16-in. and 24-in. pipeline	
Grand Mesa, Uncompahgre, and Gunnison NF	Region 2	130-131N 131-134	The Tri-State 230-kV upgrade to the Montrose-Nucla-Cahone	Partial location in corridor.
Dixie National Forest	Region 4	113-114	TransWest Express application	FS prefers TransWest locate outside the corridor. Applicant prefers to use the corridor.
<i>In Discussion with Applicant or Interest Expressed</i>				
EI Centro FO	California	115-238	Being considered for use by Southwest Transmission Partners, LLC.	
Barstow FO	California	23-25 27-225 27-266 27-41	Three projects potentially interested in one or more corridors.	

TABLE 3-1 (Cont.)

BLM Office/ National Forest	State/Region	Corridor	Description ^b	Utilization
Eagle Lake FO	California	15-104	One proposed project, no application	
Little Snake FO	Colorado	73-133 138-143 133-142 126-133 132-133	These corridors considered for use by several ROW applicants, including TransWest Express and Gateway South.	Considered for partial use.
Grand Jct. FO	Colorado	132-136	Some interest for small, local projects	Partial use of corridor.
Boise DO	Idaho	11-228	Considered for Boardman to Hemingway.	
Boise DO	Idaho	2-36 36-228	Considered for alternatives in the Gateway West Segment 8 & 9 Supplemental EIS.	
Burley FO	Idaho	112-226 111-226	Interest for SWIP	
Burley FO	Idaho	49-202 49-112 112-226 36-226	Interest for Gateway West	
Jarbidge FO	Idaho	36-112 36-228	Considered by Gateway West.	
Jarbidge FO	Idaho	29-36 36-226	Considered for SWIP.	
Pocatello FO	Idaho	49-202	Considered by Gateway West.	
Shoshone DO	Idaho	36-112 49-112 112-226	Considered for use by Gateway West.	Portions of some corridors may be used by Gateway West. Some have existing ROW's.
Las Cruces DO	New Mexico	81-213	Considered for Southline ROW application.	
Las Cruces DO	New Mexico	81-272	Considered for SunZia ROW application.	

TABLE 3-1 (Cont.)

BLM Office/ National Forest	State/Region	Corridor	Description ^b	Utilization
Vale DO	Oregon	11-228 250-251	Considered for Boardman to Hemingway.	
Rawlins DO	Wyoming	78-255 78-138 73-138	Considered for Gateway West and Gateway South.	
San Bernardino NF	Region 5	108-267	Has been considered by some applicants.	
Humboldt-Toiyabe NF	Region 4	15-104	Alturas 120-kV transmission line-portion of the corridor used as an alternative in DEIS.	
<i>Project Proposed but Withdrawn</i>				
Yuma FO	Arizona	115-238	Considered for North Gila to Imperial Valley No. 2 (NGIV2) transmission line project, but rejected by the applicant.	
Bishop FO	California	18-23	In 2008, a 500-kV Vulcan Transmission Line was proposed from Salt Wells and Fernley, Nevada, to Bishop, California, but was withdrawn due to the financial crisis and redirected monies.	
Boise DO	Idaho	36-228 29-36	Some interest, but none used.	
Upper Snake FO	Idaho	50-203	Some interest for MSTI Project.	Project was canceled.
Butte FO	Montana	51-204	Considered for MSTI Project.	Project was canceled.
Dillon FO	Montana	50-203 50-51	Some interest for MSTI Project.	Project was canceled.
Salt Lake FO	Utah	116-206	Portions of the corridor were considered for the PacifiCorp Mona to Oquirrh Transmission Line Project.	The corridor was eliminated from consideration during environmental analysis.
Casper FO	Wyoming	79-216	Considered for Gateway West.	

TABLE 3-1 (Cont.)

BLM Office/ National Forest	State/Region	Corridor	Description ^b	Utilization
San Juan NF	Region 2	130-274	Some interest by transcontinental pipeline company in 2011 but no follow-up	Mountainous terrain cited as reason for not using corridor.
<p>^a Abbreviations: DEIS = draft environment impact statement; DO = District Office; EIS = environmental impact statement; FO = Field Office; NF = National Forest; ROW = right-of-way; USAF = U.S. Air Force; WAPA = Western Area Power Association.</p>				
<p>^b Gateway West = Gateway West Transmission Line Project (230 kV/500 kV); SunZia = SunZia Southwest Transmission Project (500 kV); Southline = Southline Transmission Project (345 kV; 115–230 kV); TransWest Express = TransWest Express Transmission Project (600 kV); Gateway South = Energy Gateway South Transmission Line Project (500 kV DC); Zephyr = Zephyr Power Transmission Project (500 kV DC); SWIP = Southwest Intertie Project (500 kV); MSTI = Mountain States Transmission Intertie Project—cancelled (500 kV); Boardman to Hemingway = Boardman to Hemingway Transmission Line Project or B2H Project (500 kV).</p>				

The study found that many proponents focus on fulfilling the objectives of the project rather than aligning themselves within a Section 368 corridor even when a corridor appears to be proximately available. Listed below are examples of reasons reported by respondents for non-use of Section 368 corridors; Figure 3-1 depicts examples of some of these reasons. In some cases, limitations of the designated corridors were known at the time they were developed and designated, but they were deemed to be the best alternative based on recommendations of project participants, public comment, and available information. The BLM and FS recommend due consideration be given to the feedback below during the regional reviews.

Routing Challenges

- The routing of some Section 368 corridors to avoid tribal lands can result in less direct corridors that require crossing additional miles of Federal and other land ownership or inefficient corridor alignment (Figure 3-1 A).
- Gaps in Section 368 corridor routes across private or other non-Federal lands, or terminating them in these locations, make them unattractive to applicants (Figure 3-1 B). The applicants would have to perform additional analyses for land not included in the Section 368 corridors. This removes the benefit of the Section 368 corridors to applicants (e.g., expedited permitting process). Gaps along Section 368 corridors force applicants to consider alternate routes not within designated corridors.
- A corridor that ends in a specially designated area, private, or other non-Federal lands, or ends without a connection or hub is unattractive to an applicant. In at least one case, applicants have proposed a different route that does not use the Section 368 corridor (Figure 3-1 C).
- Terrain and topography issues (e.g., mountainous terrain).
- When a Section 368 corridor is interconnected with private land, it is often easier to move the ROW and not use the Section 368 corridor than it is to acquire a private easement.
- Physical bottlenecks prohibit additional ROWs from being located in a Section 368 corridor (Figure 3-1 D).
- Conflict between BLM and State and local landowners, especially for large-scale projects that involve many BLM offices and local jurisdictions.
- Lack of coordination among Federal agencies, resulting in a corridor that is designated by one agency but not another and that is therefore non-continuous and potentially less desirable or unusable.

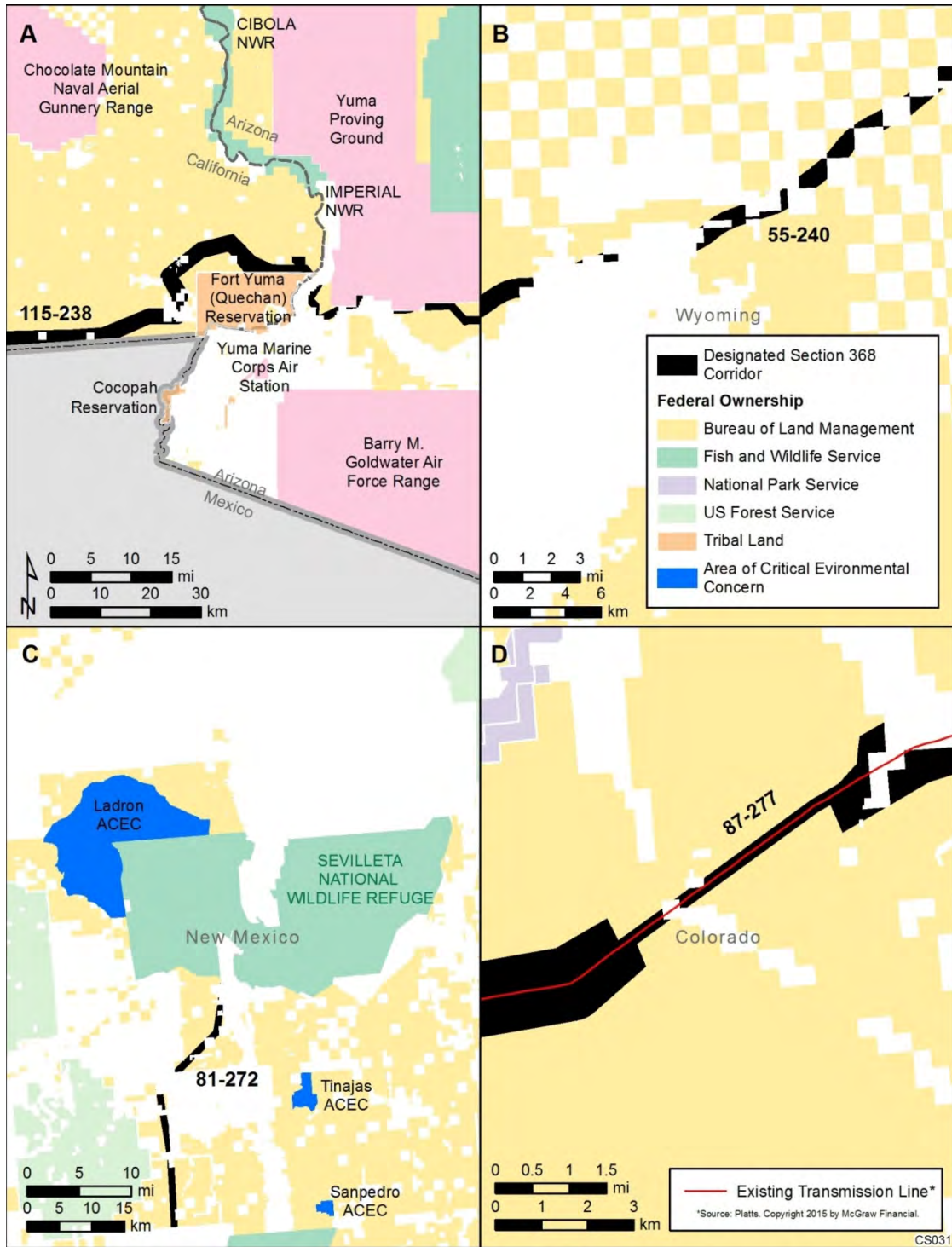


FIGURE 3-1 Examples of Some Corridor Issues Reported by Respondents ([A] Corridor 115-238 routing around the Fort Yuma (Quechan) Reservation [Southwest Arizona/Southeast California], [B] discontinuous corridors in a region with checkerboard and other gaps in Federal jurisdictions (Western Wyoming), [C] Corridor 81-272 ending at Sevietta National Wildlife Refuge (South Central New Mexico), and [D] bottleneck in Corridor 87-277 [Central Colorado])

Resource Concerns

- Recent considerations for special status species, mainly greater sage-grouse habitat (Figure 3-2A).
- Cultural resource issues.
- Avoidance of environmentally sensitive areas.
- Avoidance of areas with land use management issues, such as tribal lands or lands used for military training.

Corridor Spacing

- Need for additional space between new projects and existing utilities to keep their power rating⁶ or to meet safety requirements.
- Congestion issues preventing a new ROW.
- Incompatibility of pipelines with transmission line projects.
- “Cherry-picking” of routes that allows utilities to meander across a corridor and that prevents co-location of other lines (Figure 3-2 B).

Corridor Location

- Interest in transmission routes by utilities does not align with the Section 368 corridor locations.
- Proximity to existing facilities (such as tie-ins⁷).

Other Issues

- Cost.
- Corridor did not meet the needs of the specific project.

⁶ Power rating for transmission lines refers to the maximum sustained current the line can carry and not exceed its limiting temperature or violate its minimum clearance, under assumed environmental conditions (CIEE 2012).

⁷ A “tie-in” is a transmission line connecting two or more power systems (EIA 2015).

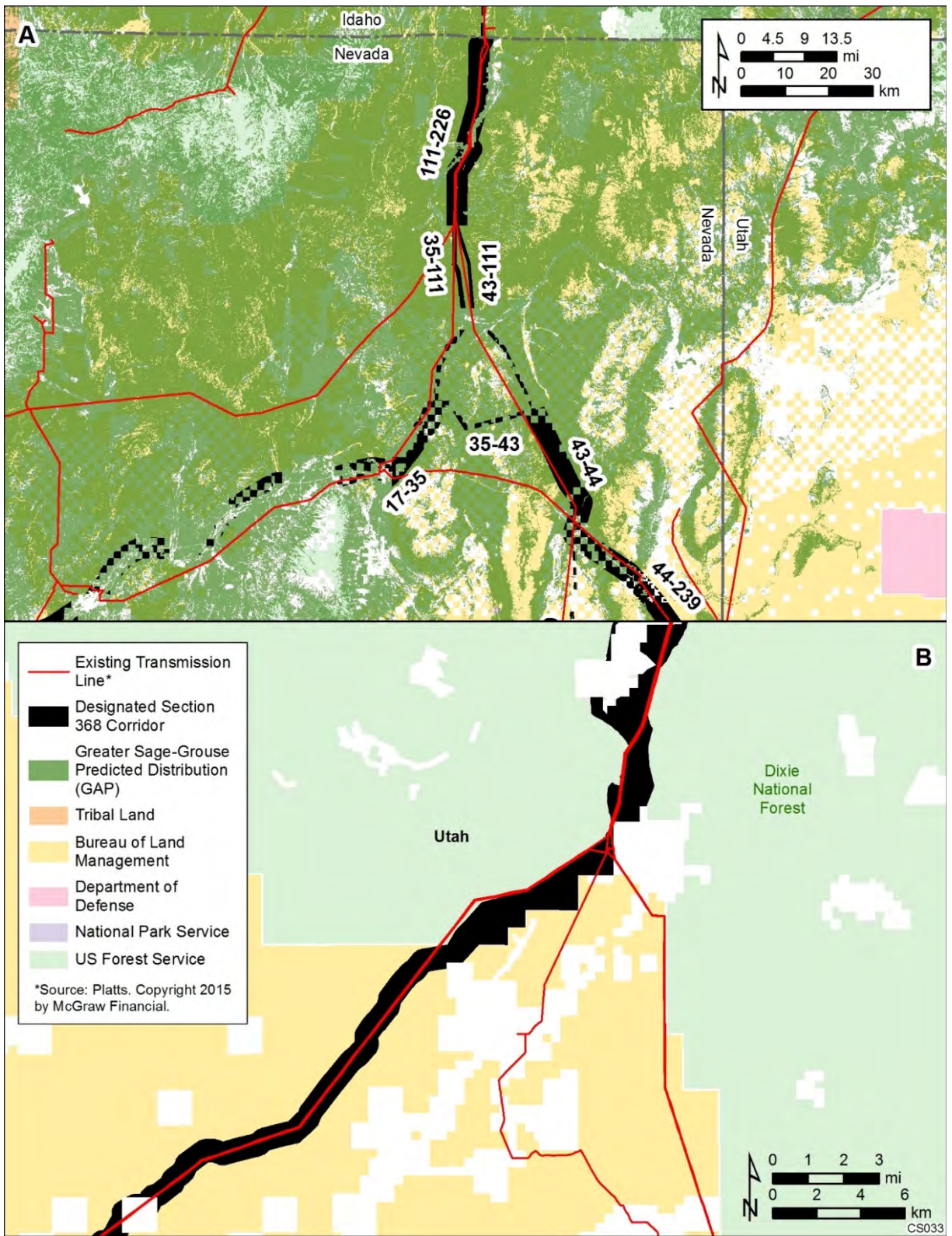


FIGURE 3-2 Examples of Corridor Resource and Spacing Concerns ([A] greater sage-grouse habitat in the vicinity of corridors in northeast Nevada, [B] cherry-picking in Corridor 113-114 [Utah])

Table 3-2 lists corridors (by BLM office and National Forest) for which limited or no interest in additional transmission or pipelines has been shown since they were designated (January 2009–October 2014).⁸ However, many Section 368 corridors were sited where linear facilities already existed at the time of designation, so the corridors listed in Table 3-2 do not necessarily indicate that the corridors are empty or under-utilized. On-the-ground field inspections and determinations of corridor capacity should be considered and evaluated during the regional reviews. Appendices C and D identify Section 368 corridors that had existing infrastructure when the corridors were designated through the ROD.

In addition, some corridors have been actively pursued by industry resulting in potential overcrowding limitations due to existing infrastructure. Table 3-3 lists some of the Section 368 corridors that may be over-utilized and may not be able to accommodate additional ROW development. During the Regional Periodic Reviews, these corridors may require additional analysis, such as on-the-ground field inspection, to determine whether or not the corridors can be modified to mitigate some of the spacing issues. Other over-utilized corridors may be identified during the regional review process.

3.1.1 Section 368 Corridor Use by Region

As required by the Settlement Agreement, the BLM, FS, and DOE identified and prioritized regions where corridors will be reviewed. Figure 3-3 shows the location of the Priority Regions, and Figures 3-4 through 3-9 depict each Priority Region within the Section 368 corridors. The 2013 MOU, “Memorandum of Understanding among the United States Department of the Interior Bureau of Land Management, United States Department of Agriculture Forest Service, and United States Department of Energy, Regarding Regional Periodic Reviews, Including Review of Interagency Operating Procedures, for Section 368 Corridors,” included a Work Plan for the Regional Periodic Reviews (Attachment A to the MOU). Table 3-4 illustrates that as of October 2014, Priority Regions 1, 3, and 6 have had the greatest interest in the Section 368 corridors and have received the most applications for use of the corridors.

3.1.2 Interstate Transmission Projects

In addition, applicants have submitted applications for interstate transmission projects that require long-distance corridors for electrical transmission. These projects propose to use Section 368 corridors for portions of the corridor route and will also likely require easements on private lands, as well as amendments to BLM and FS land use plans:

- Boardman to Hemingway Transmission Line Project (Figure 3-10)
- Energy Gateway South Transmission Line Project (Figure 3-11)

⁸ Although the data is available with considerable research, the questionnaire responses and follow-up interviews were inconsistent regarding pre-designation use of Section 368 corridors.

TABLE 3-2 Section 368 Corridors with No Activity since Designation^{a,b}

BLM Office/National Forest	State/Region	Corridor
Arizona Strip DO	Arizona	116-206
Kingman FO	Arizona	41-46 41-47 46-269 46-270 47-231
Lake Havasu FO	Arizona	41-46 41-47 46-269 30-52
Phoenix DO Hassayampa FO	Arizona	30-52 46-269 46-270 61-207
Phoenix DO Lower Sonoran FO	Arizona	115-208 115-238
Ridgecrest FO	California	18-23 ^c 23-25
Alturas FO	California	15-104 7-8
Bishop FO	California	18-23 ^c
Redding FO	California	101-263 261-262
Palm Springs–South Coast	California	115-238
Grand Junction FO	Colorado	132-133 132-276
Gunnison FO	Colorado	87-277
Little Snake FO	Colorado	132-276 144-275 ^c
Kremmling FO	Colorado	144-275 ^c
Tres Rio FO	Colorado	130-131N 130-274
Uncompahgre FO	Colorado	130-131S 130-274 130-274E 132-136 134-136 136-139 139-277 136-277

TABLE 3-2 (Cont.)

BLM Office/National Forest	State/Region	Corridor
Boise DO	Idaho	24-228
Coeur d'Alene FO	Idaho	229-254
Billings FO	Montana	79-216
Butte FO	Montana	51-205 229-254
Missoula FO	Montana	229-254
Winnemucca DO	Nevada	16-24 17-35 15-17 16-104 16-17 17-18
Carson City DO	Nevada	15-17 15-104 17-18 18-224 18-23
Elko DO	Nevada	17-35
Ely DO	Nevada	37-232 39-113 44-110 113-114 113-116 232-233E 232-233W
Albuquerque DO	New Mexico	80-273 81-272
Farmington DO	New Mexico	80-273
Pecos DO	New Mexico	89-271
Burns DO	Oregon	7-24 11-228
Vale DO	Oregon	24-228 7-24 16-24
Eugene DO	Oregon	4-247
Lakeview DO	Oregon	7-11 7-24
Medford DO	Oregon	4-247
Roseburg DO	Oregon	4-247

TABLE 3-2 (Cont.)

BLM Office/National Forest	State/Region	Corridor
Salem DO	Oregon	5-201 4-247 10-246 ^c 230-248
Cedar City FO	Utah	110-114
Fillmore FO	Utah	116-206 110-114
Moab FO	Utah	66-212
Monticello FO	Utah	66-212
Salt Lake FO	Utah	116-206 44-239
Price FO	Utah	66-212
Kanab FO	Utah	116-206
St. George FO	Utah	113-116
Vernal FO	Utah	126-217 126-218
Cody FO	Wyoming	79-216
Worland FO	Wyoming	79-216
Rawlins FO	Wyoming	129-218 129-221 138-143 73-129 73-133 78-85
Kemmerer FO	Wyoming	121-240 218-240 55-240
Rock Springs FO	Wyoming	121-220 121-221 121-240 126-218 129-221 218-240 219-220 220-221
Beaverhead-Deerlodge NF	Region 1	51-204 229-254
Idaho Panhandle NF	Region 1	229-254 229-254N 229-254S

TABLE 3-2 (Cont.)

BLM Office/National Forest	State/Region	Corridor
Lolo NF	Region 1	229-254 229-254N 229-254S
Arapaho-Roosevelt NF	Region 2	144-275
Medicine Bow-Routt NF	Region 2	144-275
Grand Mesa, Gunnison, Uncompahgre NF	Region 2	87-277 130-131S 130-274 130-274E 134-136 134-139
Ashley NF	Region 4	218-240
Inyo NF	Region 5	18-23
Lassen NF	Region 5	3-8
Shasta-Trinity NF	Region 5	261-262 3-8 101-263

^a Abbreviations: DO = District Office, FO = Field Office; NF = National Forest.

^b Corridors within several National Forests in Region 4 may have been used or considered for use by multiple proponents; however, with the exception of the Dixie and Humboldt-Toiyabe National Forests, no National Forests indicated any use. The regional office response described ongoing activity generally and by National Forest, but not by Section 368 corridor.

^c Corridors may not be able to accommodate additional ROWs.

TABLE 3-3 Corridors with Potential Overcrowding Limitations

Corridor	State	Width	Limiting Factor That Could Prevent Development
18-23	CA	1,320 ft	The corridor is occupied with 800-kV DC and 230-kV AC transmission lines. The corridor has width restrictions along two segments of the corridor, but the majority of the corridor can accommodate additional lines.
8-104	CA	500 ft	The corridor is occupied with a 230-kV transmission line and an 8-in. pipeline.
39-231	NV	500 ft	Through Sunrise Mountain, the corridor is occupied with a 500-kV DC transmission line and two 500-kV AC transmission lines. The change proposed in the ongoing Resource Management Plan revision would expand the width of the corridor. There still may be constraints due to topography and land status (e.g., private, non-BLM administered land).
27-225	NV	3,500 ft	Through Ivanpah Valley (just north of the California/Nevada state line), the 3,500-ft-wide corridor is occupied by non-linear features related to renewable energy development.
113-114	UT	4,000–10,000 ft	The corridor is constrained in the vicinity of Dixie National Forest by roadless areas on each side, and a National Historic Landmark. FS has already denied additional ROWs. The corridor could also possibly be constrained where it crosses sage grouse habitat on BLM lands in Iron County.
144-275	CO	200 ft	A section of the corridor has an existing and proximate 345-kV transmission line.
10-246	OR	1,320 ft	The corridor is occupied with at least two transmission lines (500 kV and 230 kV).
102-105	WA	500 ft	The corridor is occupied with a 500-kV transmission line and limited to “upgrade only.”

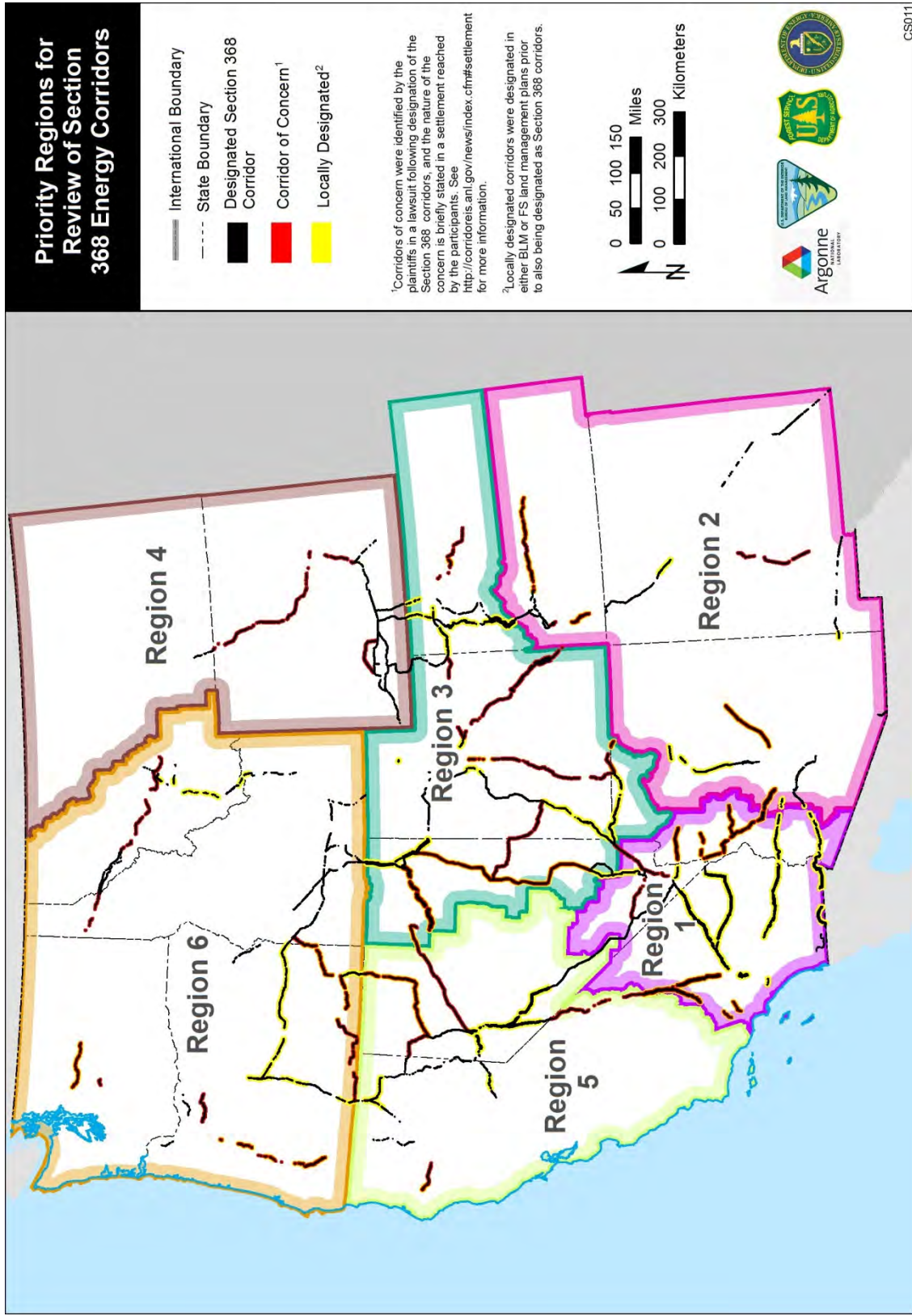


FIGURE 3-3 Priority Regions for the Review of Section 368 Corridors

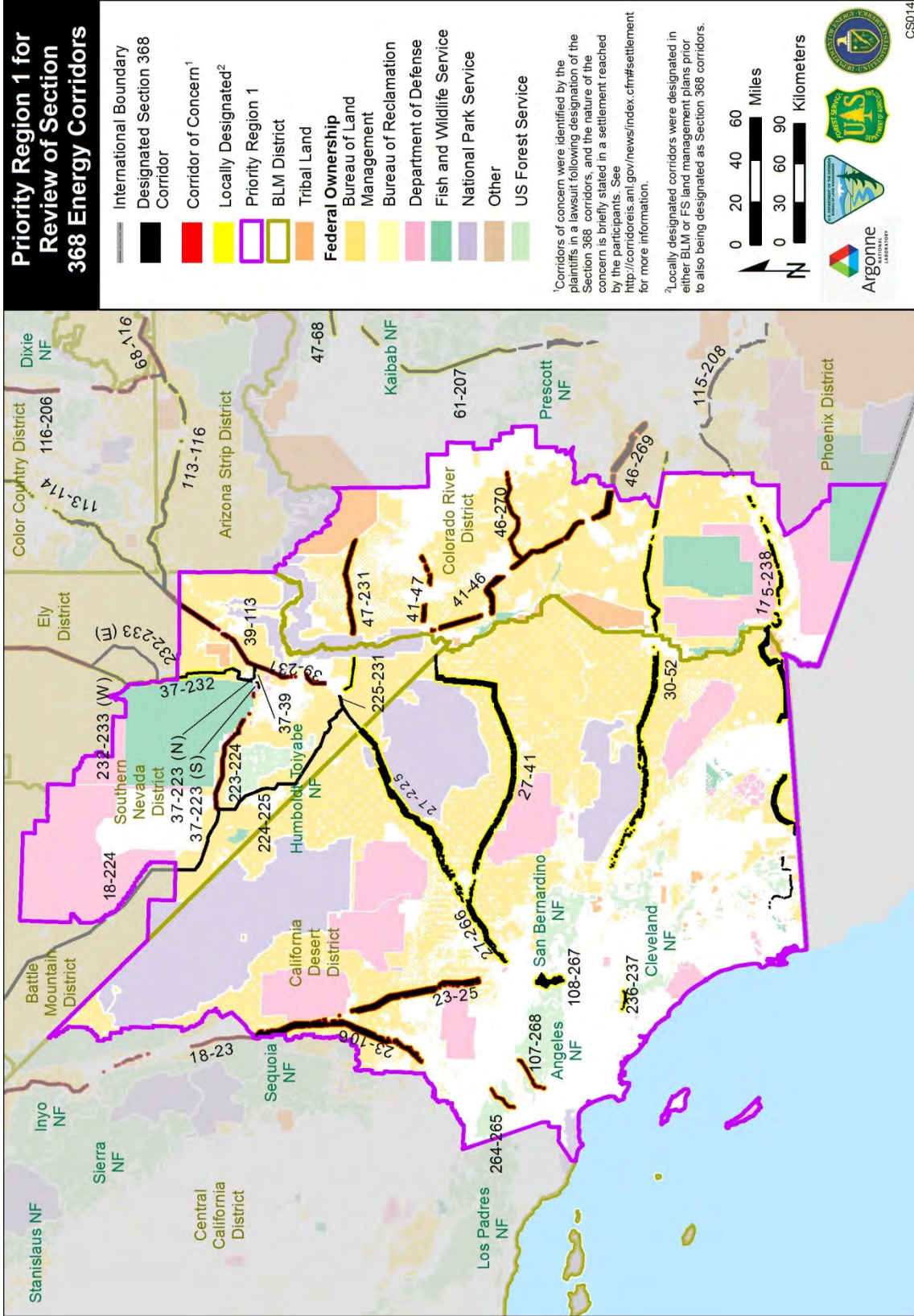


FIGURE 3-4 Priority Region 1 for Review of Section 368 Energy Corridors

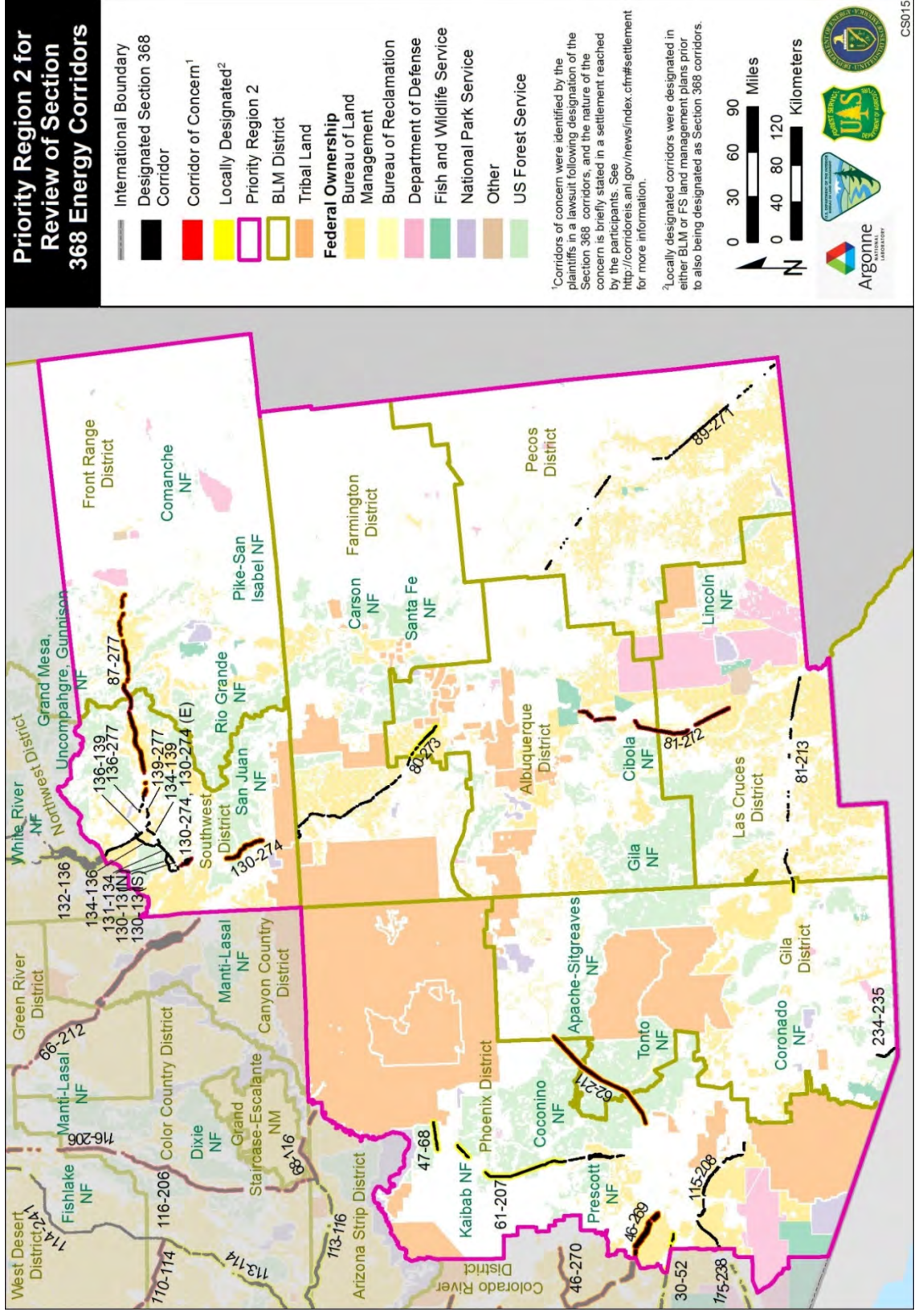


FIGURE 3-5 Priority Region 2 for Review of Section 368 Energy Corridors

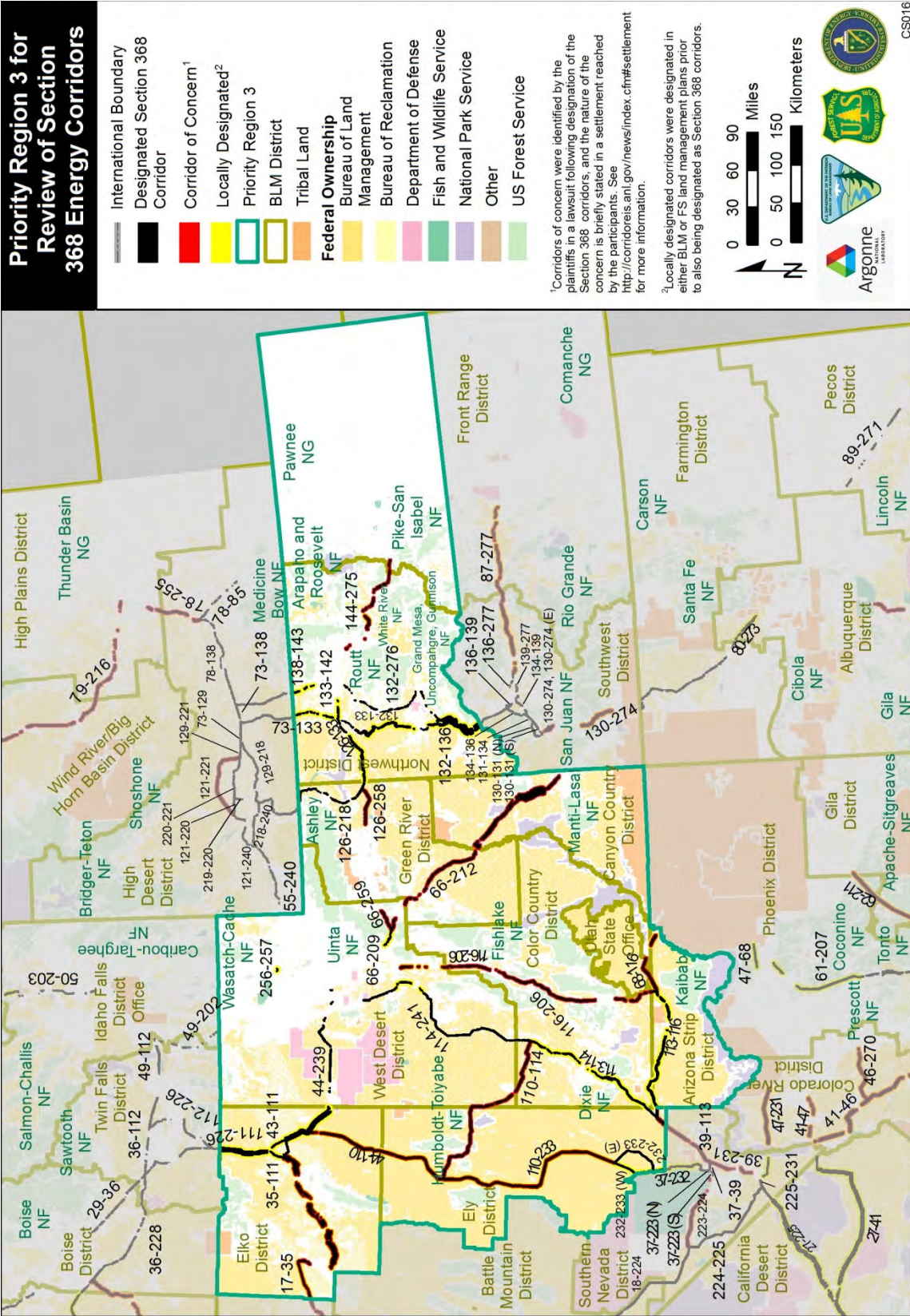


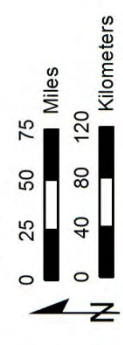
FIGURE 3-6 Priority Region 3 for Review of Section 368 Corridors

Priority Region 4 for Review of Section 368 Energy Corridors

- International Boundary
- Designated Section 368 Corridor
- Corridor of Concern¹
- Locally Designated²
- Priority Region 4
- BLM District
- Tribal Land
- Federal Ownership**
- Bureau of Land Management
- Bureau of Reclamation
- Department of Defense
- Fish and Wildlife Service
- National Park Service
- Other
- US Forest Service

¹Corridors of concern were identified by the plaintiffs in a lawsuit following designation of the Section 368 corridors, and the nature of the concern is briefly stated in a settlement reached by the participants. See <http://corridors.eia.gov/news/index.cfm#settlement> for more information.

²Locally designated corridors were designated in either BLM or FS land management plans prior to also being designated as Section 368 corridors.



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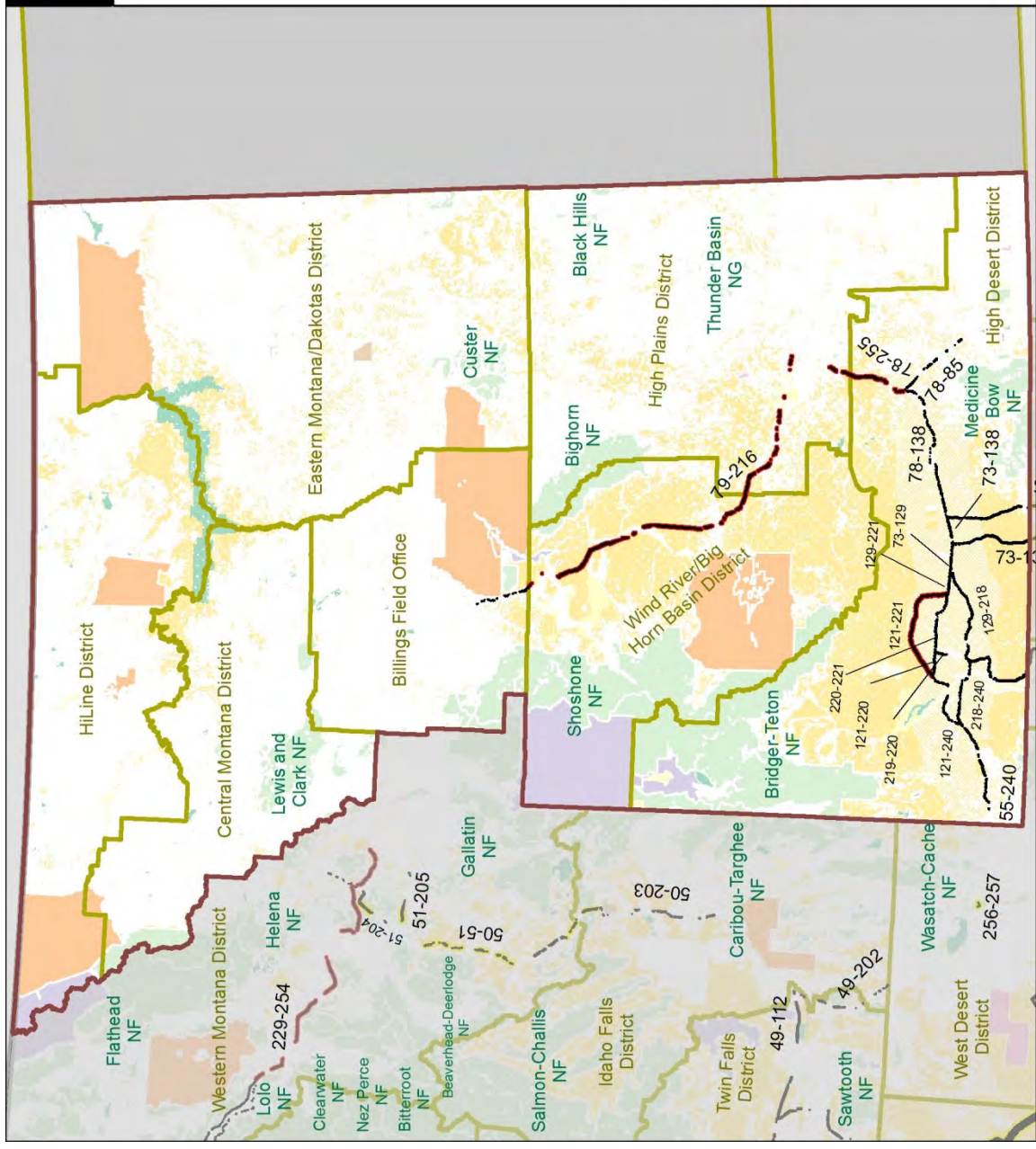


FIGURE 3-7 Priority Region 4 for Review of Section 368 Corridor

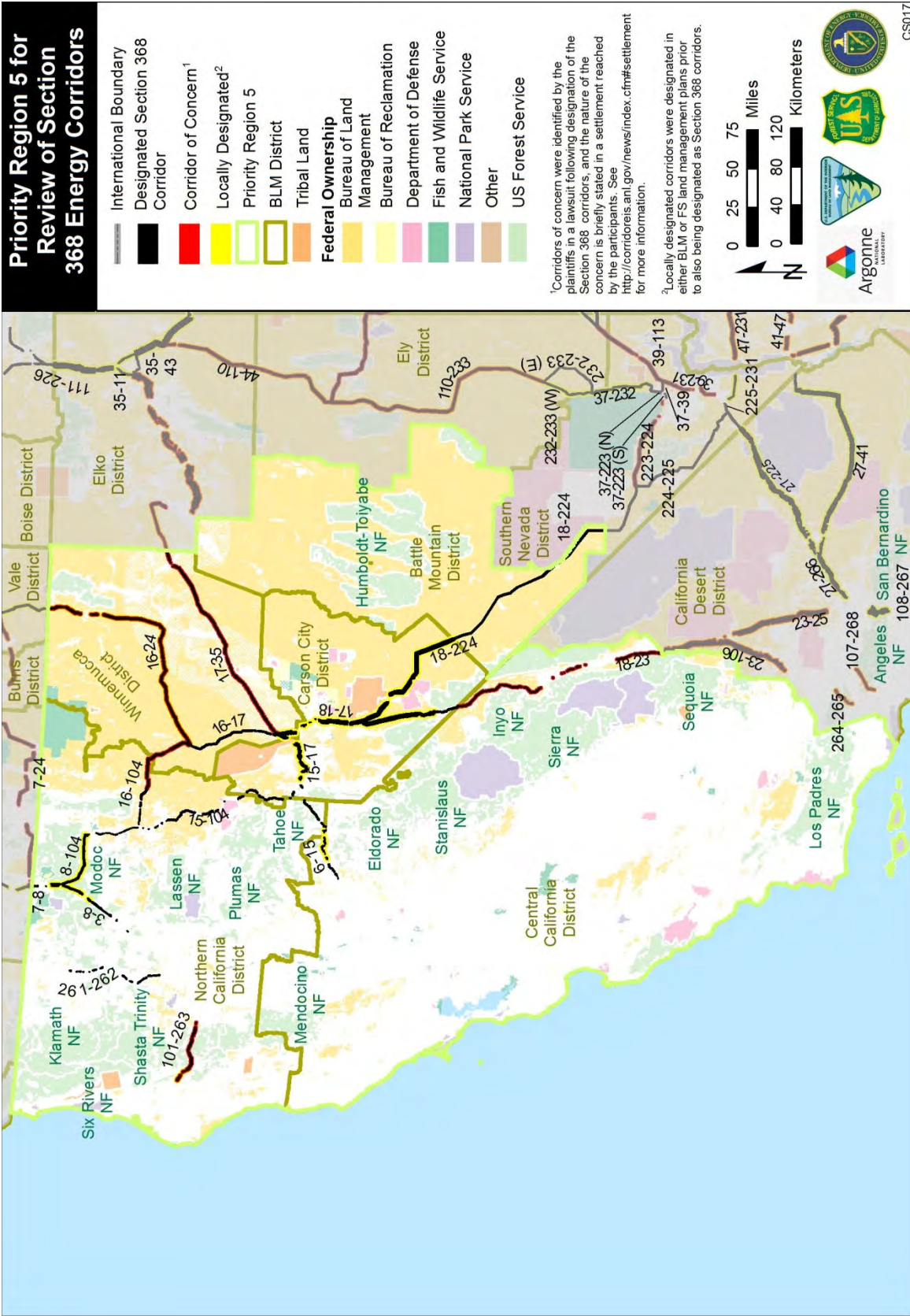
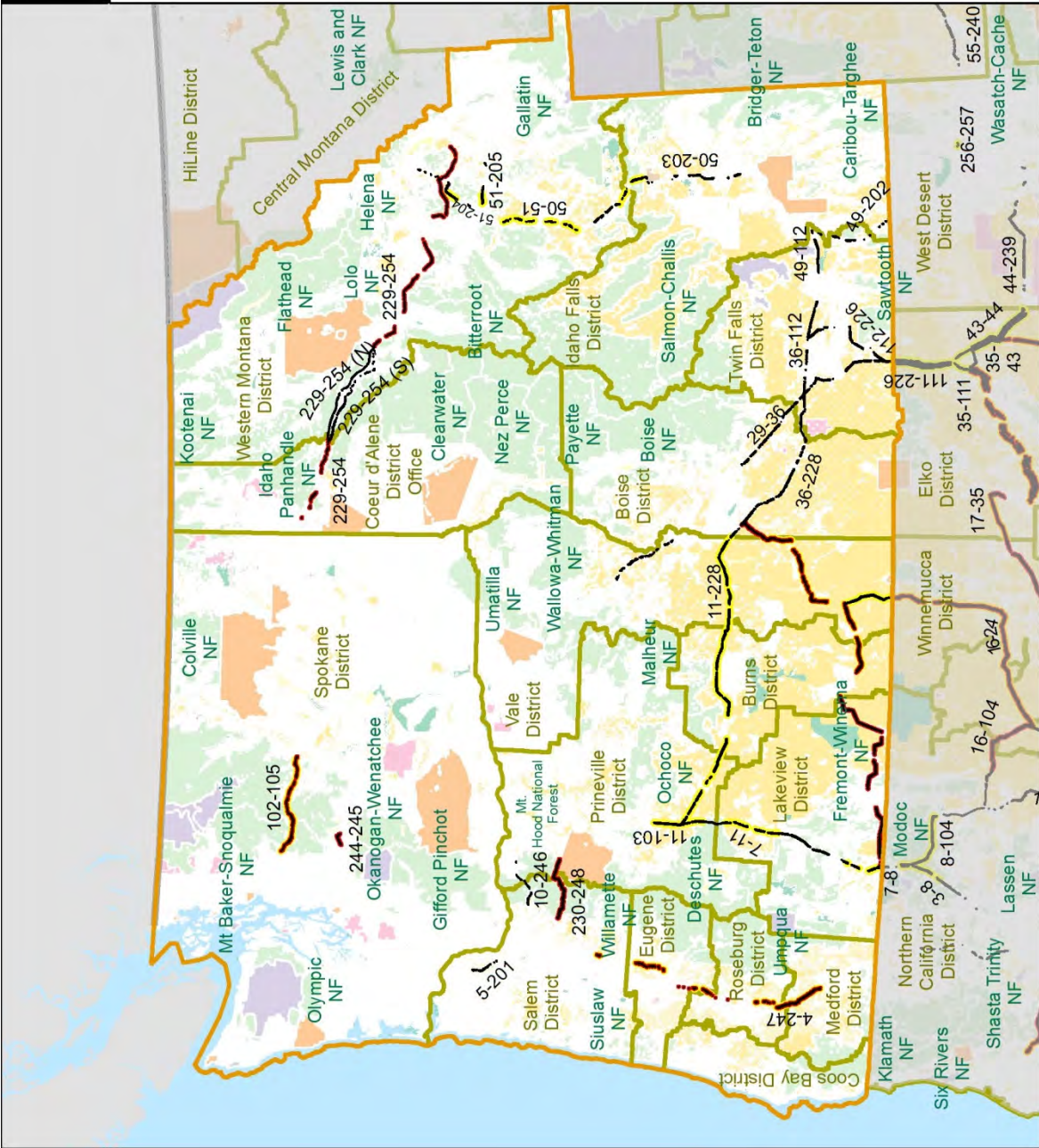


FIGURE 3-8 Priority Region 5 for Review of Section 368 Energy Corridors

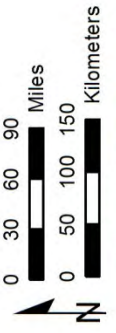
Priority Region 6 for Review of Section 368 Energy Corridors



- International Boundary
- Designated Section 368 Corridor
- Corridor of Concern¹
- Locally Designated²
- Priority Region 6
- BLM District
- Tribal Land
- Federal Ownership**
- Bureau of Land Management
- Bureau of Reclamation
- Department of Defense
- Fish and Wildlife Service
- National Park Service
- Other
- US Forest Service

¹Corridors of concern were identified by the plaintiffs in a lawsuit following designation of the Section 368 corridors, and the nature of the concern is briefly stated in a settlement reached by the participants. See <http://corridors.ani.gov/news/index.cfm#settlement> for more information.

²Locally designated corridors were designated in either BLM or FS land management plans prior to also being designated as Section 368 corridors.



CS019

FIGURE 3-9 Priority Region 6 for Review of Section 368 Energy Corridors

TABLE 3-4 Section 368 Corridor Use by Priority Region

Priority Region	Number of Section 368 Corridors Considered or Used for Projects ^a	Region Description
1	20	Southern California, Southern Nevada, and western Arizona
3	19	Eastern Nevada, Utah, Northern Colorado, and Arizona Strip
6	17	Oregon, Washington, Idaho, and Western Montana
4	8	Eastern Montana and Wyoming
2	6	Eastern Arizona, Southern Colorado, and New Mexico
5	3	Northern California and Western Nevada

^a The number of Section 368 corridors considered or used for projects is based on responses to questionnaires and follow-up interviews with the BLM and FS.

- Gateway West Transmission Line Project⁹ (Figure 3-12)
- Southline Transmission Project (Figure 3-13)
- SunZia Southwest Transmission Project¹⁰ (Figure 3-14)
- TransWest Express Transmission Project¹¹ (Figure 3-15)

Some BLM offices identified BLM National Project Managers as a better source of information for Section 368 corridors. Often, BLM offices manage smaller, local transmission and corridor projects, while the Section 368 corridors have been used for large, interstate projects that are frequently managed by BLM National Project Managers and coordinated through the District and State Offices. The BLM’s National Project Managers provide data for this study regarding approved and pending infrastructure projects within designated corridors. Some BLM offices indicated that Section 368 corridors are often suited for large-scale projects that move high-voltage transmission across long distances and that are not located near the transmission needs of the individual field offices.

⁹ The BLM released its ROD for Segments 1 through 7 and Segment 10 (in Idaho and Wyoming) for the Gateway West Transmission Line Project on November 14, 2013; Segments 8 and 9 of the project in southwestern Idaho are currently undergoing environmental review.

¹⁰ The BLM released its ROD to approve the SunZia project on January 25, 2015.

¹¹ The Notice of Availability for the TransWest Express Transmission Project Final Environmental Impact Statement (EIS) was published on May 1, 2015. Current maps on the TransWest website show an agency-preferred route that is not present in the latest GIS data or maps on the EIS website. For example, the agency-preferred route follows the loop west of Corridor 113-114, which bypasses Dixie National Forest.

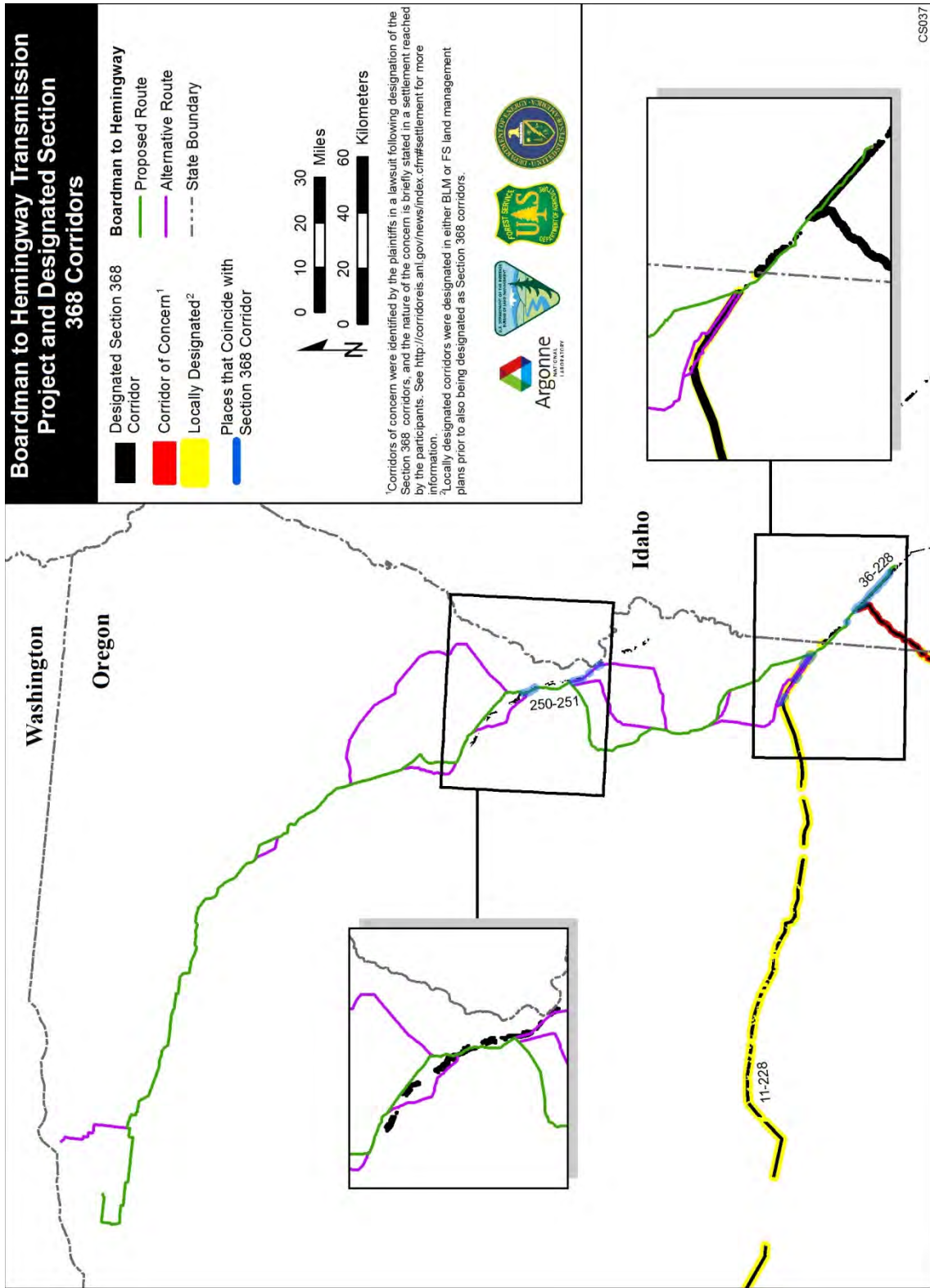


FIGURE 3-10 Boardman to Hemingway Transmission Line Project and Designated Section 368 Corridors

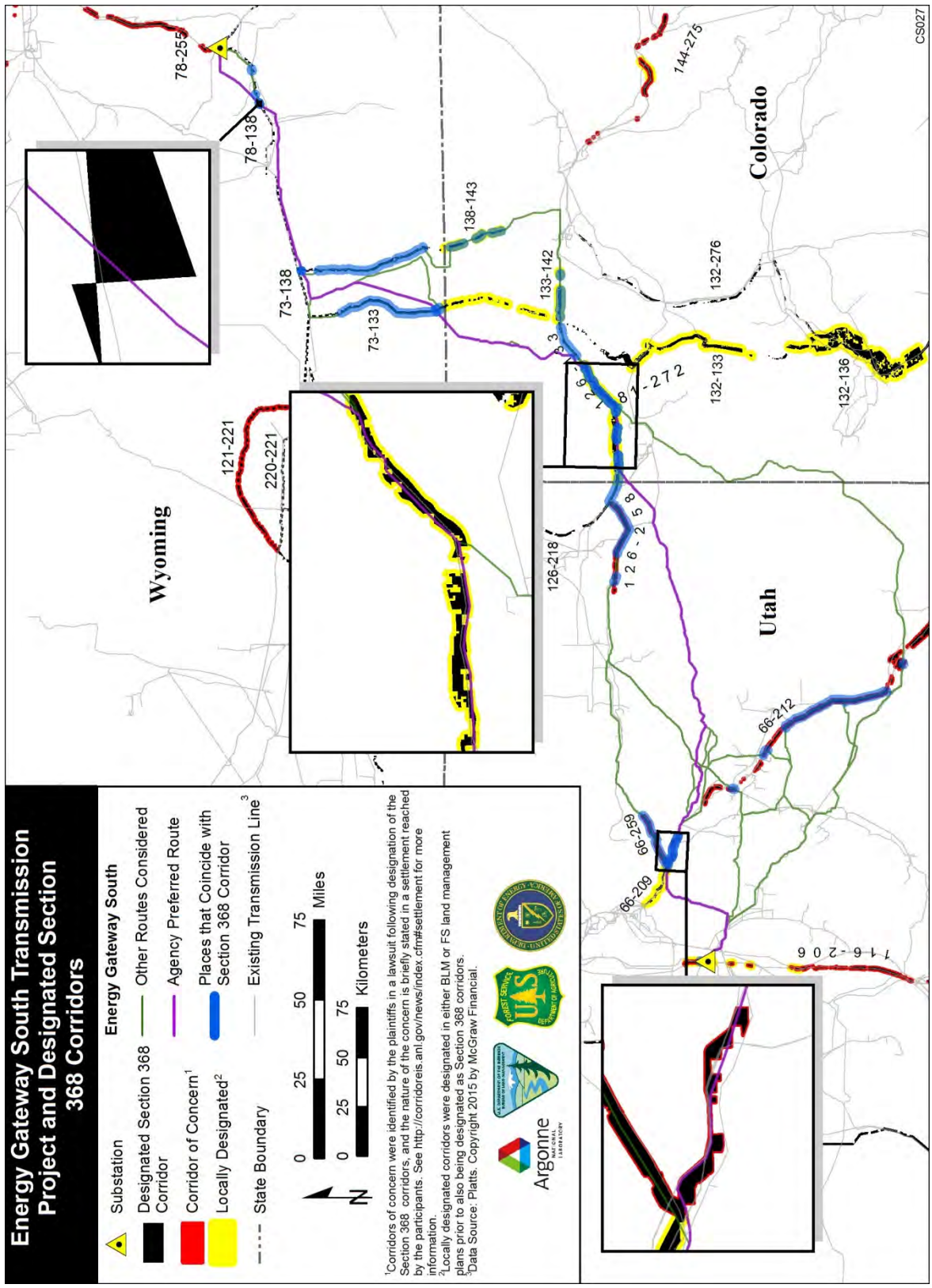


FIGURE 3-11 Energy Gateway South Transmission Line Project and Designated Section 368 Corridors

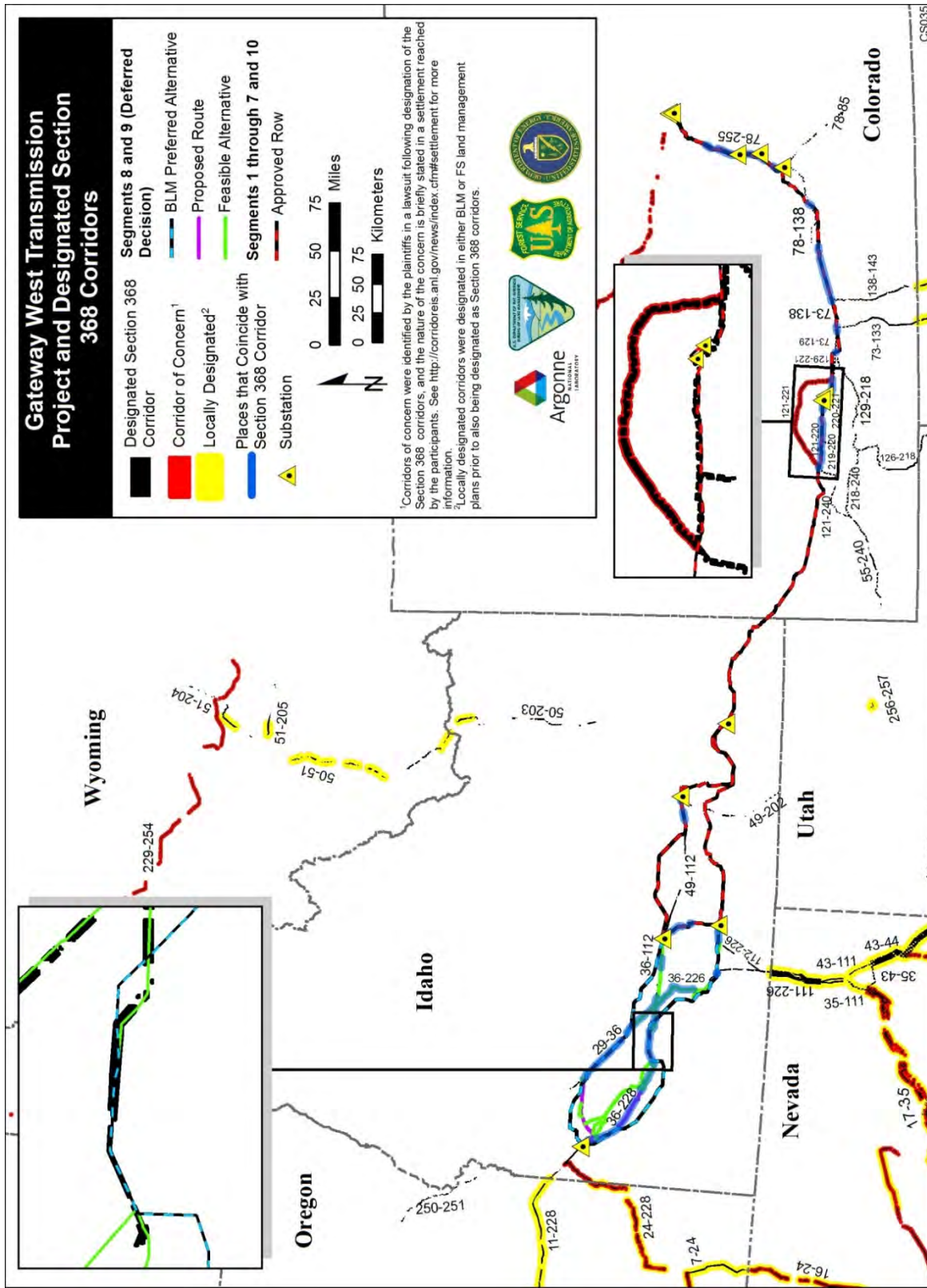


FIGURE 3-12 Gateway West Transmission Project and Designated Section 368 Corridors

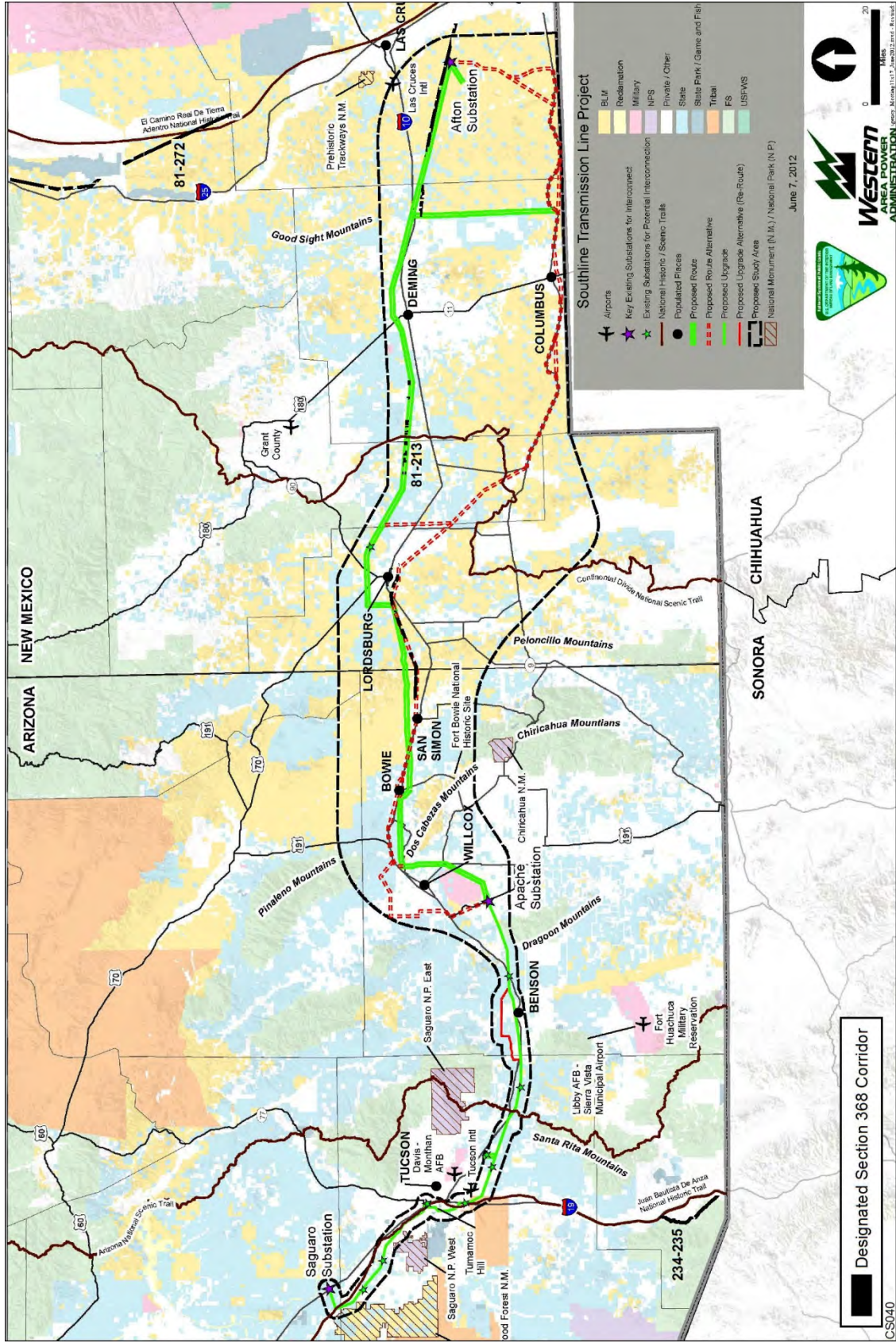


FIGURE 3-13 Southline Transmission Project and Designated Section 368 Corridors (Adapted from BLM 2015)

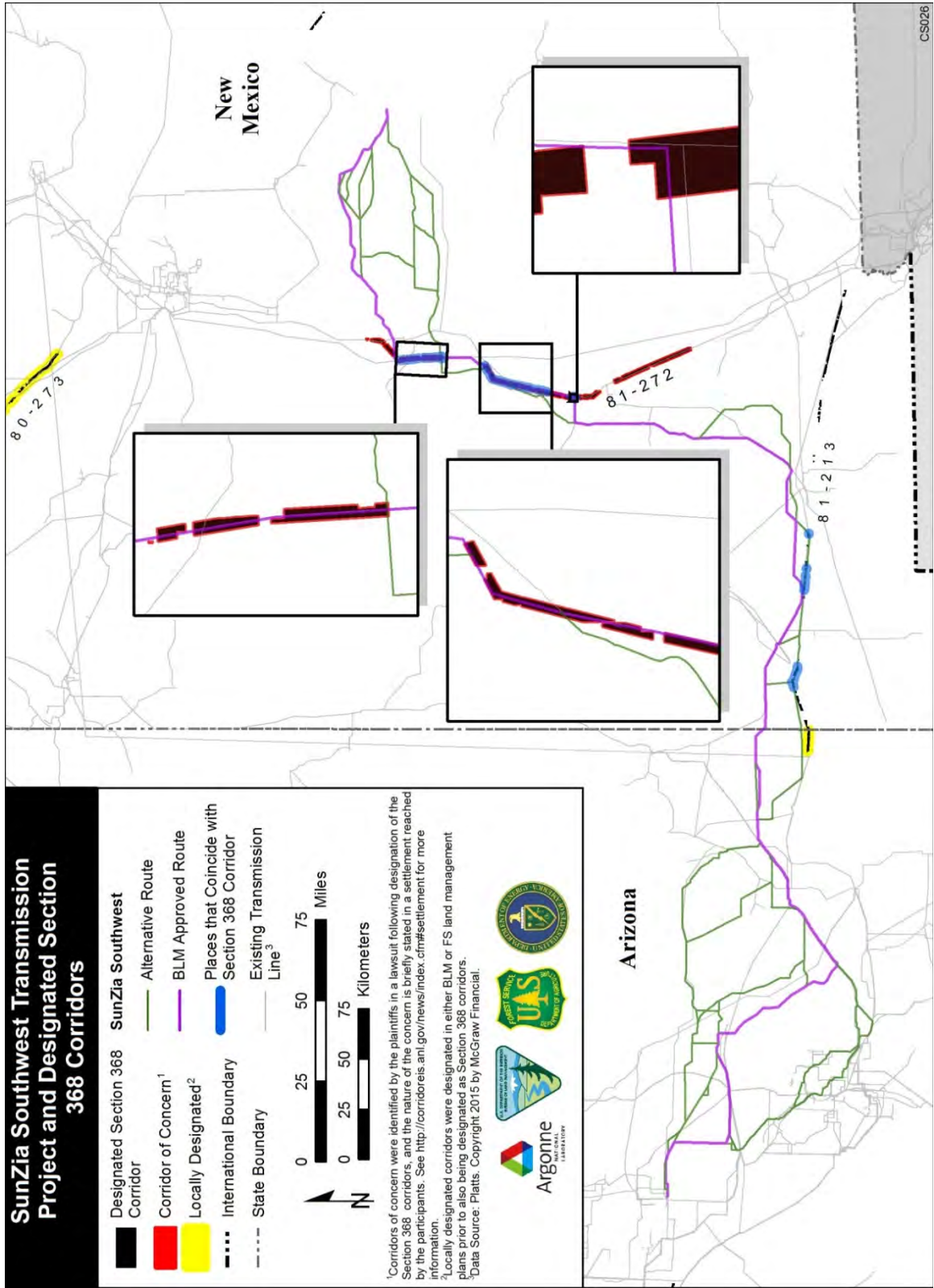


FIGURE 3-14 SunZia Southwest Transmission Project and Designated Section 368 Corridors

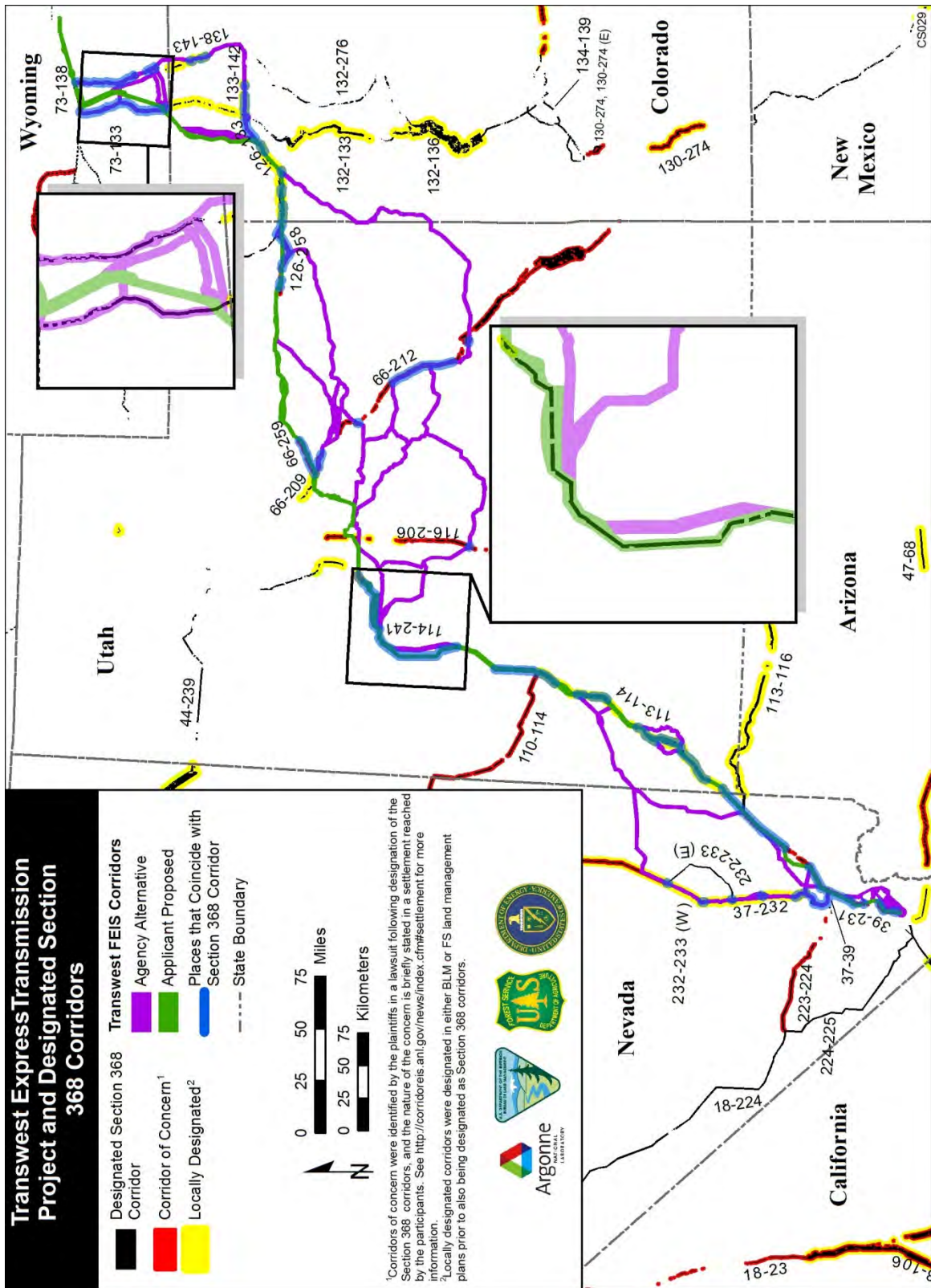


FIGURE 3-15 TransWest Express Transmission Project and Designated Section 368 Corridors

3.1.3 Corridors of Concern

Exhibit A of the Settlement identifies 36 of the 119 corridors designated on BLM-administrated lands with segments that the Plaintiffs identified as having a variety of environmental, cultural, and other concerns. The remaining 83 corridors had no identified conflicts for siting oil, gas, and hydrogen pipelines, and electricity transmission and distribution projects. According to BLM Instruction Memorandum No. 2014-080 and FS Interim Directive No. 2720-2014-2, for projects in the pre-application stage, the agency will notify project proponents about corridors of concern associated with their proposed project and will encourage alternative locations if a proposed project would be located within a corridor of concern (BLM 2014a; FS 2014). The BLM and the FS will notify the project proponent that siting within a corridor of concern may involve significant environmental impacts and the preparation of an EIS, require extensive mitigation, be challenged in court, and include an amendment to the applicable land use plan to modify or delete the corridor of concern and designate an alternative corridor (BLM 2014a; FS 2014).

Based on responses to the questionnaire regarding the use of Section 368 corridors, the approach to siting projects within corridors of concern varies among and within the agencies. Some BLM offices and National Forests view corridors of concern as off-limits for siting ROWs, rather than as subjecting those corridors to more rigorous review. Other BLM offices or National Forests reported that the corridor-of-concern designations, as well as the potential ramifications for locating in a corridor of concern, are explained to prospective applicants; and some BLM offices and National Forests direct applicants to include alternatives that do not cross corridors of concern.

SunZia and Gateway West both considered siting ROWs in corridors of concern. Corridor 81-272 was included in the route chosen for the SunZia project in the ROD. The concerns stated for Corridor 81-272 included Sevietta National Wildlife Refuge and National Conservation Areas, which are avoided in the SunZia route, illustrating that the issues cited in the Settlement do not always apply to the full extent of a particular corridor.

Gateway West approved the use of Corridor 78-255 in the Casper and Rawlins Field Offices, Wyoming. The concern stated in the Settlement Agreement for this corridor was "sage grouse core area and habitat," and this issue is discussed in Section 3.2.

The following corridors of concern have also been considered or proposed for use:

- 23-106 in the Ridgecrest Field Office, California;
- 110-114 and 110-233 in the Ely District Office, Nevada;
- 223-224, 39-231, and 39-113 in the Southern Nevada District Office, Nevada;
- 68-116 in Grand Staircase Escalante National Monument, Utah;
- 66-259 and 66-212 in the Salt Lake Field Office, Utah;

- 116-206 in the Richfield Field Office, Utah; and
- 126-258 in the Vernal Field Office, Utah.

3.2 LAND USE PLANNING DECISIONS AND CORRIDOR MODIFICATION

In accordance with the 2013 MOU (BLM, FS, and DOE 2013), recommendations for new Section 368 corridors or modifications to Section 368 corridors will be identified and considered during the normal course of land use plan revisions; during an amendment to a land use plan prompted by a project proposal that does not conform to a land use plan or when issues within a Section 368 corridor necessitate review of an alternative corridor; or during an amendment to a land use plan to address Section 368 corridor changes.

Sections 3.2.1 through 3.2.4 highlight some of the BLM offices that have made, or are in the process of making, changes to Section 368 corridors. No Section 368 corridors have been modified on National Forest System lands.

3.2.1 Modification of Corridor Width

3.2.1.1 Executive Order 2010-4, Greater Sage-Grouse Core Area Protection

The Governor of Wyoming has issued an Executive Order that allows the construction of new transmission lines within Greater Sage-Grouse Core Population Areas if they are constructed between July 1 and March 14 (or between July 1 and November 30 in winter concentration areas) and within a 0.5-mi-wide corridor on either side of an existing transmission line. Any new transmission lines outside this corridor within Core Population Areas should be authorized only when it can be demonstrated that they will not cause declines in greater sage-grouse population (State of Wyoming 2010).

3.2.1.2 Tri-County Resource Management Plan Amendment

The Tri-County Draft Resource Management Plan (RMP)/EIS for the BLM Las Cruces District Office was published in April 2013. A Notice of Intent to prepare a Supplement to address issues related to oil and gas development and lands with wilderness characteristics was published in the *Federal Register* on December 19, 2013, and the scoping period closed on May 15, 2014.

The Draft EIS analyzed varying corridor widths in the four action alternatives. The EIS noted that “utility corridor width drives the number of lines that may be granted. Co-location would ease construction, maintenance, and operation” (BLM 2013). Corridor widths under each alternative are presented below. Any changes to corridor widths will not be established until after the RODs are signed, pending publication of the Final EIS/Proposed RMP (BLM 2013).

- Alternative A – Corridors for major utilities would be ¼ mi wide. The East-West Vado corridor is ¼-mi wide.
- Alternative B – North-South Doña Ana County/Sierra County corridor would be ½ mi wide. A ½-mi wide East-West Corridor would be designated from Luna County to Texas.
- Alternative C (Preferred Alternative) – A North-South Doña Ana County/Sierra County corridor (Anthony Gap) would be 1-mi wide. An East-West Corridor of up to 2 mi wide would be designated from Luna County to Texas.
- A North-South Doña Ana County/Sierra County corridor (Anthony Gap) would be 2 mi in width. An East-West Corridor of up to 2 mi wide would be designated from Luna County to Texas.

3.2.1.3 Las Vegas and Pahrump Draft RMP and EIS

The Southern Nevada District Office published the Las Vegas and Pahrump Draft RMP and EIS in October 2014 (BLM 2014b). Because of increased demand for electricity in the region, the BLM anticipates that new transmission facilities and new utility corridors will be required to meet demand in Southern Nevada. The Southern Nevada District Office provides an excellent example of a BLM office that is using land use planning efforts to reflect updated information, anticipate future transmission needs and energy production, and modify Section 368 corridors that are not sited in ideal locations. For example, the updated Draft RMP/EIS considers non-linear ROWs, such as ROWs for solar energy facilities in designated solar energy zones, and more stringent habitat requirements. All of the action alternatives suggest realigning or removing corridors of concern and propose width modifications. Table 3-5 lists the changes proposed in the Draft RMP/EIS for Section 368 corridors under each action alternative within the Las Vegas and Pahrump Field Offices.

3.2.1.4 Jarbidge RMP (Idaho)

The Jarbidge Proposed RMP/Final EIS was published in May 2014. All of the action alternatives propose a 1-mi corridor width for all four Section 368 corridors within the planning area. Alternative 1 proposes an additional 1-mi-wide corridor, and Alternative 6 (proposed alternative) proposes an additional 1-mi-wide corridor, as well as a 1-mi-wide oil and gas pipeline corridor. None of the proposed new corridors would be designated as Section 368 corridors (BLM 2014c).

TABLE 3-5 Section 368 Corridors and Proposed Changes in the Las Vegas and Pahrump Draft RMP/EIS^a

Corridor	Width and Use ^b	Change from WVEC BLM ROD (BLM 2009)
<i>Alternative 2</i>		
37-39	3,500 ft; multi-modal	Reduce corridor width to 2,640 ft within the Coyote Springs ACEC. Corridor width will vary within the Apex disposal area due to non-BLM lands.
COC 223-224	Widths ranging from 2,050 to 3,500 ft (proximity to Red Rock Canyon NCA and military training requirements)	Realign corridor with the existing 1998 RMP designated corridors (US-95–Crater Flat and the US095–Crater Flat–Red Rock), retaining the corridor widths ranging from 2,050 to 3,500 ft. The segment of the corridor of concern that traversed the former Upper Las Vegas Wash is no longer under BLM jurisdiction. Congress transferred these lands to the NPS pursuant to Public Law 113-291 (December 2014), for management as the Fossil Beds National Monument.
COC 39-113	3,500 ft; multi-modal	This corridor of concern is deleted and realigned to the west with the 1998 RMP corridors (Mormon Mesa, Moapa Indian Reservation, and Black Mountain-Crystal). The corridor width ranges from 2,000 to 3,000 ft, provides the needed connectivity of energy transmission from the northeasterly to the southeasterly portion of the planning area, and avoids the Old Spanish Trail ACEC, Lower Mormon Mesa ACEC, Mesa Milkvetch ACEC, Muddy Mountains ACEC, and the California Wash ACEC.
COC 39-231	Corridor of concern ranges from 500 ft within the former Sunrise Mountain ISA, to 3,500 ft north and south of the former ISA	This corridor of concern is realigned with the 1998 RMP designated corridors (Black Mountain-Crystal and Rainbow Gardens-Eldorado). The corridor width is 2,000 ft and increases the 500-ft-wide corridor segment (within the former Sunrise ISA) to 2,000 ft.
COC 47-231	Corridor of concern is 2,000 ft; multi-modal to minimize potential impacts on the Piute-Eldorado ACEC	Retain 2,000-ft width consistent with the 1998 RMP corridor (Aztec) for compatible multi-modal uses.
<i>Alternative 3</i>		
224-225	3,500 ft; multi-modal	A segment is realigned at an elbow turn within T.20S., R.54E., and sec. 36, about 8 mi southeast of Pahrump, Nevada, where the corridor is re-routed north of Hwy 160.
37-232	2,640 ft; multi-modal	Increase corridor width to 3,500 ft wide for compatible multi-modal uses.
37-223(S)	2,400 ft; underground uses only	Increase corridor width to 3,500 ft for underground uses only.
37-39	3,500 ft; multi-modal	Corridor width will vary within the Apex disposal area due to non-BLM lands.

TABLE 3-5 (Cont.)

Corridor	Width and Use ^b	Change from WVEC BLM ROD (BLM 2009)
COC 223-224	Widths ranging from 2,050 to 3,500 ft (proximity to Red Rock Canyon NCA and military training requirements)	Realign corridor with the existing 1998 RMP designated corridors (Kyle Canyon-Pahrump), retaining the corridor widths ranging from 2,050 to 3,500 ft due to proximity to the Red Rock Canyon NCA and military training requirements. Realigning this corridor to the Kyle Canyon-Pahrump corridor west toward Corridor 224–225 causes a longer transmission connectivity with Corridor 224–225, which may be a costly impact on project proponents. The segment of the corridor of concern that traversed the former Upper Las Vegas Wash is no longer under BLM jurisdiction.
COC 39-113	3,500 ft; multi-modal	This corridor of concern is deleted and realigned to the west with the 1998 RMP corridors (Mormon Mesa, Moapa Indian Reservation, and Black Mountain-Crystal). A new corridor is added, labeled as the Moapa-Apex corridor that traverses outside of the Moapa River Indian Reservation. This corridor has varying widths, from 2,000 to 3,000 ft. The realignment avoids the Old Spanish Trail ACEC, Lower Mormon Mesa ACEC, Mesa Milkvetch ACEC, Muddy Mountains ACEC, and the California Wash ACEC.
COC 39-231	Corridor of concern ranges from 500 ft within the former ISA to 3,500 ft north and south of the former Sunrise Mountain ISA	This corridor of concern is realigned with the 1998 RMP designated corridors (Black Mountain-Crystal and Rainbow Gardens-Eldorado). This modification maintains the entire alignment at 3,500 ft to include increasing the 500-ft-wide corridor segment (within the former Sunrise ISA) to 3,500 ft wide.
COC 47-231	Corridor of concern is 2,000 ft; multi-modal uses to minimize potential impacts on the Piute-Eldorado ACEC	Increase corridor width to 3,500 ft for compatible multi-modal uses.
Alternative 4		
18-224	3,500 ft; multi-modal	Increase corridor width to 5,280 ft for compatible multi-modal uses. This corridor is re-routed west to connect with the newly proposed Amargosa-Roach corridor and to avoid a newly proposed disposal area.
224-225	3,500 ft; multi-modal	Increase this corridor to 5,280 ft wide for compatible multi-modal uses. However, realign this corridor at the north segment where it connects to the newly proposed Amargosa-Roach corridor and continues southeasterly where it connects to the re-routed alignment as proposed under Alternative 3.
37-232	2,640 ft, multi-modal	Increase corridor width to 5,280 ft wide for compatible multi-modal uses.
37-223(N)	3,500 ft; multi-modal	Increase corridor width to 5,280 ft wide for compatible multi-modal uses.
37-223(S)	2,400 ft, underground uses only	Increase corridor width to 5,280 ft for underground uses only.

TABLE 3-5 (Cont.)

Corridor	Width and Use ^b	Change from WVEC BLM ROD (BLM 2009)
37-39	3,500 ft; multi-modal	Increase corridor width to 5,280 ft for compatible multi-modal uses. Corridor width will vary within the Apex disposal area due to non-BLM lands.
225-231	3,500 ft; multi-modal	Increase corridor width to 5,280 ft wide for compatible multi-modal uses.
27-225	3,500 ft; multi-modal	Increase corridor width to 5,280 ft wide for compatible multi-modal uses.
COC 223-224	Widths ranging from 2,050 to 3,500 ft (proximity to Red Rock Canyon NCA and military training requirements)	Realign corridor with the existing 1998 RMP designated corridors (Kyle Canyon-Pahrump), retaining the corridor widths ranging from 2,050 to 5,280 ft due to proximity to the Red Rock Canyon NCA and military training requirements. Realigning this corridor to the Kyle Canyon-Pahrump corridor west toward Corridor 224–225 causes a longer transmission connectivity with Corridor 224–225. This increased connectivity path may be a costly impact on project proponents. The segment of the corridor of concern that traversed the former Upper Las Vegas Wash is no longer under BLM jurisdiction. Congress transferred these lands to the NPS pursuant to Public Law 113-291 (December 2014), for management as the Fossil Beds National Monument.
COC 39-113	3,500 ft; multi-modal	This corridor of concern is deleted and realigned to the west with the 1998 RMP corridors (Mormon Mesa, Moapa Indian Reservation, and Black Mountain-Crystal). The BLM also added a new corridor labeled as the Moapa-Apex corridor that traverses outside the easterly and southerly boundary of the Moapa River Indian Reservation. This corridor width ranges from 2,000 to 5,280 ft, provides the needed connectivity of energy transmission, and avoids the Old Spanish Trail ACEC, Lower Mormon Mesa ACEC, Mesa Milkvetch ACEC, Muddy Mountains ACEC, and the California Wash ACEC.
COC 39-231	Corridor of concern ranges from 500 ft within the former Sunrise Mountain ISA to 3,500 ft north and south of the former ISA	This corridor of concern is realigned with the 1998 RMP designated corridors (Black Mountain-Crystal and Rainbow Gardens-Eldorado). This modification increases the width to 5,280 ft wide to include the 500-ft-wide corridor segment (within the former Sunrise ISA).
COC 47-231	Corridor of concern is 2,000 ft; multi-modal uses to minimize potential impacts on the Piute-Eldorado ACEC	Increase corridor width to 5,280 ft for compatible multi-modal uses.

^a Abbreviations: ACEC = Area of Critical Environmental Concern; BLM = Bureau of Land Management; COC = Corridor of Concern; ISA = Instant Study Area; NCA = National Conservation Area; NPS = National Park Service; RMP = Resource Management Plan; ROD = Record of Decision; WVEC = West-Wide Energy Corridor.

^b Corridor widths and uses as designated in the 2009 West-Wide Energy Corridor ROD and in the No Action Alternative for the Las Vegas and Pahrump Draft RMP/EIS (BLM 2014b).

3.2.2 Deletion of Corridors

3.2.2.1 Cedar City RMP (Utah)

A new RMP is currently being developed for the Cedar City Field Office. Alternatives being considered include modifications to Section 368 corridors located in the planning area. Corridor 110-114 has been identified as a corridor of concern and is being considered for deletion in at least one alternative. The field office is also considering removing the southern end of Corridor 113-114 in at least one alternative to avoid greater sage-grouse habitat, and because congestion and resource issues in the adjacent Dixie National Forest have resulted in the forest not approving additional ROWs in the corridor. Figure 3-16 illustrates this location, including the extent of Dixie National Forest and Corridor 113-114 in that area, existing transmission lines, and routing alternatives for the TransWest Express and Energy Gateway South Transmission Line Projects. The Agency-preferred route alternative for this project is west of Dixie National Forest.

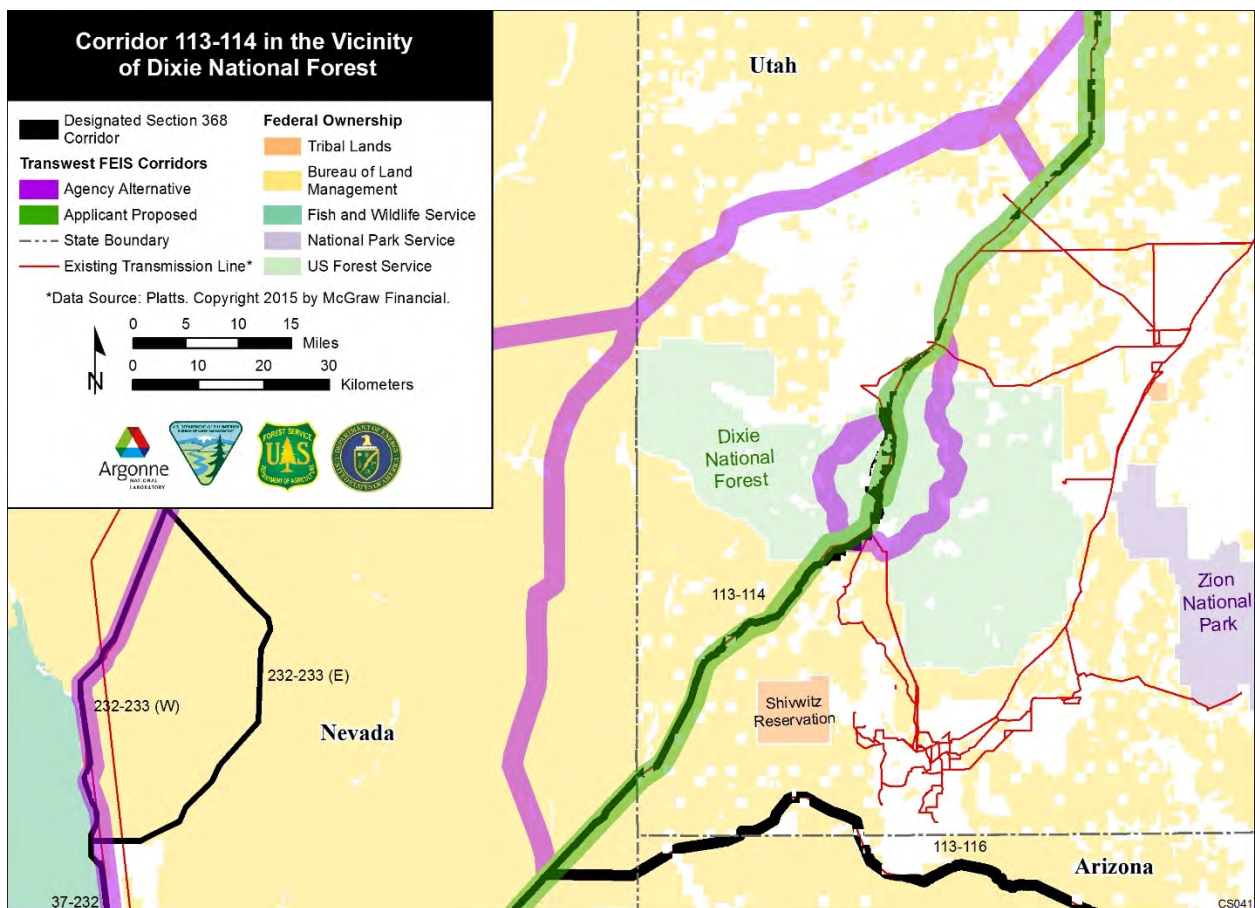


FIGURE 3-16 Corridor 113-114 in the Vicinity of Dixie National Forest

3.2.2.2 Greater Sage-Grouse Land Use Plans

The 2008 Final PEIS analyzed sage grouse and sage-grouse habitat. The subsequent 2009 agency RODs designated a number of corridors which pass through sage-grouse habitat. Due to the expansive nature of sage-grouse habitat the agencies found it infeasible to designate corridors which completely avoid sage-grouse habitat. The agencies attempted to avoid important habitat where possible and chose to site corridors in areas with existing linear infrastructure in an attempt to consolidate ROWs on the landscape. The agencies should carefully evaluate corridors in sage-grouse habitat during regional corridor reviews to develop recommendations for new, modified or deleted corridors.

In September 2015, the FWS issued a finding that the greater sage-grouse is not warranted for listing under the ESA. BLM continues to recognize the greater sage-grouse as a sensitive species under BLM Manual 6840. In 2015, the agencies published Final EISs by region, analyzing plan amendments or revisions to address management of greater sage-grouse in California, Colorado, Idaho, Montana, Nevada, North Dakota, Oregon, South Dakota, Utah, and Wyoming to incorporate conservation management measures on Federal lands that each agency manages (BLM and FS 2015a,b,c,d,e). The RODs were issued in September 2015, approving the land use plan amendments and revisions. The greater sage-grouse land use plans or revisions establish development restrictions within Priority Habitat Management Areas (PHMAs) and General Habitat Management Areas (GHMAs) for the greater sage-grouse. PHMAs are lands that would be managed to maintain and sustain greater sage-grouse populations in the planning area. General descriptions of some of the restrictions identified in the RODs and approved plan amendments and revisions and the potential impacts on corridor and ROW development are listed below (BLM and FS 2015a,b,c,d,e).

- Effects of infrastructure projects, including siting, will be minimized using the best available science, updated as monitoring information on current infrastructure projects becomes available.
- When authorizing third-party actions that result in habitat loss and degradation, require and ensure mitigation that provides a net conservation gain to the species.
- Apply buffers based on project type and location to address impacts on leks when authorizing actions in greater sage-grouse habitat.
- Apply required design features (RDFs) when authorizing actions in greater sage-grouse habitat.
- Designate PHMA (in all states) and GHMA (except in Utah and Wyoming) as an avoidance area for major ROWs.
- Implement a human disturbance cap of 3 percent within the biologically significant unit (BSU) and proposed project analysis areas in PHMAs.

- *For California, Nevada, Utah, Idaho, Oregon, Colorado, and South Dakota Only:* Within existing designated utility corridors, the 3 percent disturbance cap may be exceeded at the project scale if the site-specific NEPA analysis indicates that a net conservation gain to the species would be achieved. This exception is limited to projects that fulfill the use for which the corridors were designated (e.g., transmission lines and pipelines) and the designated width of a corridor would not be exceeded as a result of any project collocation.
- Some utility corridors designated through previous planning efforts would be deleted or reduced in width.

ROW avoidance designations could extend processing time for reissuance of ROW authorizations and could make siting of new linear or site-type ROWs more difficult.

3.2.3 Addition of Corridors

Some BLM offices have added corridors through their land use planning efforts. The following RMPs have proposed or have added new corridors, but none of the corridors have been designated as Section 368 corridors:

- Cedar City RMP, Utah;
- Lander RMP, Wyoming;
- Lower Sonoran RMP, Arizona;
- Ely RMP, Nevada;
- Winnemucca RMP, Nevada; and
- Bradshaw-Harquahala RMP, Arizona.

Corridors that are not designated as Section 368 corridors follow current agency-specific ROW authorizing and permitting processes and requirements regarding environmental review, construction, operation and decommissioning. Land use amendments to incorporate project-specific ROWs may be required.

3.2.4 Ongoing Land Use Plan and Forest Plan Revisions

The BLM and the FS revise their land use plans on a periodic basis. Within the FS, Land Management Plans (LMPs) have been revised for three National Forests with designated Section 368 corridors since the FS ROD was signed in January 2009. The revised plans include the Idaho Panhandle National Forest LMP in Region 1 with Corridors 229-254, 229-254N, and 229-254S; the San Juan National Forest LMP in Region 2 with Corridor 130-274; and Kaibab

National Forest LMP in Region 3 with Corridors 47-68 and 61-207. These National Forest plans were revised in fiscal years 2015, 2013, and 2014, respectively. None of these plan revisions modified any designated Section 368 corridors.

Within the BLM, an analysis was completed of BLM planning documents undergoing revision since signing of the BLM ROD in 2009. Table 3-6 lists all BLM RMP revisions occurring in offices with designated Section 368 corridors to indicate continued planning efforts with potential to modify Section 368 corridors.

3.3 OUTREACH

The level of outreach that is conducted with prospective ROW applicants varies between individual BLM offices and National Forests. Many BLM offices and National Forests inform applicants of the Section 368 corridors located within their field offices or forests during pre-application meetings and encourage applicants to use Section 368 corridors whenever possible. Specifically, BLM offices and National Forests explained their outreach to include any of the following actions:

- Applicants are made aware of the location of Section 368 corridors as well as the advantages to placing major transmission lines within an existing corridor.
- Some BLM offices recommend Section 368 corridors only if an applicant's proposed project is in the vicinity of an existing corridor.
- Some BLM offices and National Forests prefer that the applicants choose whether to use Section 368 corridors or not.
- Greater emphasis is placed on using Section 368 corridors if the proposed project is a high-voltage transmission line or high-volume petroleum pipeline, based on the assumption that major ROWs should be located within a Section 368 corridor unless it can be demonstrated that the applicant is unable to do so.
- BLM offices and National Forests recommend that applicants use Section 368 corridors whenever practical to avoid the proliferation of separate ROWs, to avoid greenfield development,¹² and to encourage co-location with existing facilities whenever possible.
- If no outreach has been conducted regarding the use of Section 368 corridors, it is sometimes based on the assumption that applicants are already familiar with the West-wide Energy Corridor PEIS and RODs.

¹² Greenfield development is surface-disturbing activity in an area not previously modified by construction.

TABLE 3-6 Status of Resource Management Plan Revisions for BLM Offices with Section 368 Corridors

State	Corridor	RMP Affiliation (2009)	Current RMP Affiliation (if different)	ROD Update Status – ROD Date	Corridor of Concern?
Arizona	113-116	Arizona Strip Field Office RMP		Completed – 1/29/2008	
Arizona	116-206	Arizona Strip Field Office RMP		Completed – 1/29/2008	Yes – part of corridor
Arizona	68-116	Arizona Strip Field Office RMP		Completed – 1/29/2008	Yes
Arizona	41-46	Kingman Resource Area RMP		Needed – 3/7/1995	Yes
Arizona	41-47	Kingman Resource Area RMP		Needed – 3/7/1995	Yes
Arizona	46-269	Kingman Resource Area RMP		Needed – 3/7/1995	Yes
Arizona	46-270	Kingman Resource Area RMP		Needed – 3/7/1995	Yes
Arizona	47-231	Kingman Resource Area RMP		Needed – 3/7/1995	Yes
Arizona	30-52	Lake Havasu Field Office RMP		Completed – 5/10/2007	Yes
Arizona	41-46	Lake Havasu Field Office RMP		Completed – 5/10/2007	Yes
Arizona	46-269	Lake Havasu Field Office RMP		Completed – 5/10/2007	Yes
Arizona	46-269	Lower Gila North MFP	Bradshaw-Harquahala Mtns. RMP	Completed – 4/22/2010	Yes
Arizona	115-238	Lower Gila South RMP; Northern & Eastern Colorado Amendment; Yuma RMP	Lower Sonoran RMP; Yuma Field Office RMP	Completed – 9/14/2012 and 1/29/2010	
Arizona	115-208	Lower Gila South RMP; Phoenix RMP	Lower Sonoran RMP; Sonoran Desert National Monument RMP	Completed – 9/14/2012	
Arizona	30-52	Lower Gila South RMP; Yuma RMP	Bradshaw-Harquahala Mtns. RMP; Lower Sonoran RMP; Yuma Field Office RMP	Completed – 4/22/2010, 9/14/2012, and 1/29/2010	
Arizona	234-235	Phoenix RMP	Tucson Field Office	Needed	
Arizona	61-207	Phoenix RMP	Bradshaw-Harquahala Mtns. RMP	Completed – 4/22/2010	
Arizona	81-213	Safford RMP	Safford/Gila Box	Needed	
Arizona	47-68		Bradshaw-Harquahala Mtns. RMP	Completed – 4/22/2010	
Arizona	62-211		Bradshaw-Harquahala Mtns. RMP	Completed – 4/22/2010	Yes
Arizona	62-211		Safford/Gila Box	Needed	

TABLE 3-6 (Cont.)

State	Corridor	RMP Affiliation (2009)	Current RMP Affiliation (if different)	ROD Update Status – ROD Date	Corridor of Concern?
California	15-104	Alturas RMP		Completed – 4/17/2008	
California	16-104	Alturas RMP		Completed – 4/17/2008	
California	3-8	Alturas RMP		Completed – 4/17/2008	
California	8-104	Alturas RMP		Completed – 4/17/2008	
California	101-263	Arcata RMP		Needed – 9/8/2005	Yes
California	18-23	Bishop RMP		Needed	Yes
California	15-104	Cal-Neva MFP; Honey Lake MFP; Willow Creek MFP	Eagle Lake	Completed – 4/17/2008	
California	30-52	Coachella Valley		Completed – 12/27/2002	
California	115-238	East San Diego MFP	Eastern San Diego County	Completed – Oct. 2008	
California	115-238	Imperial Sand Dunes RMP	Imperial Sand Dunes; Western Colorado	Completed – 3/24/2005 and 1/31/2003	
California	7-8	Mount Dome MFP	Alturas RMP	Completed – 4/17/2008	
California	115-238	Northern & Eastern Colorado Amendment		Completed – 3/24/2005	
California	27-41	Northern & Eastern Colorado Amendment		Completed – 12/19/2002	
California	30-52	Northern & Eastern Colorado Amendment		Completed – 12/19/2002	
California	27-225	Northern & Eastern Mojave Amendment		Completed – 12/20/2002	
California	27-41	Northern & Eastern Mojave Amendment		Completed – 12/20/2002	
California	101-263	Redding RMP		Needed – 6/1/1993	
California	261-262	Redding RMP		Needed – 6/1/1993	
California	3-8	Redding RMP		Needed – 6/1/1993	
California	6-15	Sierra MFP	Eagle Lake; Sierra	Completed – 4/17/2008 and Feb 2008	
California	107-268	South Coast RMP		In Progress	Yes
California	108-267	South Coast RMP		In Progress	

TABLE 3-6 (Cont.)

State	Corridor	RMP Affiliation (2009)	Current RMP Affiliation (if different)	ROD Update Status – ROD Date	Corridor of Concern?
California	115-238	South Coast RMP		In Progress	
California	236-237	South Coast RMP		In Progress	
California	264-265	South Coast RMP		In Progress	Yes
California	16-104	Tuleadad/Homecamp MFP	Surprise	Completed – 4/17/2008	
California	108-267	West Mojave RMP		Completed – 3/13/2006	
California	18-23	West Mojave RMP		Completed – 3/13/2006	Yes
California	23-106	West Mojave RMP		Completed – 3/13/2006	Yes
California	23-25	West Mojave RMP		Completed – 3/13/2006	Yes
California	27-225	West Mojave RMP		Completed – 3/13/2006	
California	27-266	West Mojave RMP		Completed – 3/13/2006	
California	27-41	West Mojave RMP		Completed – 3/13/2006	
Colorado	132-136	Glenwood Springs RMP (1984)	Colorado River Valley RMP	Completed – 6/12/2015	
Colorado	132-276	Glenwood Springs RMP (1984)	Colorado River Valley RMP; Roan Plateau RMP	Completed – 6/12/2015	
Colorado	132-133	Grand Junction RMP		Completed – 8/10/2015	
Colorado	132-136	Grand Junction RMP		Completed – 8/10/2015	
Colorado	132-276	Grand Junction RMP		Completed – 8/10/2015	
Colorado	87-277	Gunnison RMP		Needed – 2/5/1993	Yes
Colorado	144-275	Kremmling RMP		Completed – 7/8/2015	Yes
Colorado	126-133	Little Snake RMP		Completed – 4/26/1989	
Colorado	132-133	Little Snake RMP		Completed – 4/26/1989	
Colorado	132-276	Little Snake RMP		Completed – 4/26/1989	
Colorado	133-142	Little Snake RMP		Completed – 4/26/1989	
Colorado	138-143	Little Snake RMP		Completed – 4/26/1989	
Colorado	144-275	Little Snake RMP		Completed – 4/26/1989	Yes
Colorado	73-133	Little Snake RMP		Completed – 4/26/1989	
Colorado	144-275	Northeast RMP		In Progress	Yes

TABLE 3-6 (Cont.)

State	Corridor	RMP Affiliation (2009)	Current RMP Affiliation (if different)	ROD Update Status – ROD Date	Corridor of Concern?
Colorado	87-277	Royal Gorge RMP		In Progress	Yes
Colorado	130-131 (N)	San Juan/San Miguel RMP	San Juan RMP	Completed – 9/5/1985	
Colorado	130-131 (N)	San Juan/San Miguel RMP	Uncompahgre RMP	In Progress	
Colorado	130-131 (S)	San Juan/San Miguel RMP	Uncompahgre RMP	In Progress	
Colorado	130-274	San Juan/San Miguel RMP	San Juan RMP	Completed – 9/5/1985	Yes
Colorado	130-274	San Juan/San Miguel RMP	Uncompahgre RMP	In Progress	Yes
Colorado	130-274 (E)	San Juan/San Miguel RMP	Uncompahgre RMP	In Progress	
Colorado	66-212	San Juan/San Miguel RMP	San Juan RMP	Completed – 9/5/1985	Yes
Colorado	132-136	Uncompahgre RMP		In Progress	
Colorado	134-136	Uncompahgre RMP		In Progress	
Colorado	134-139	Uncompahgre RMP		In Progress	
Colorado	136-139	Uncompahgre RMP		In Progress	
Colorado	136-277	Uncompahgre RMP	Gunnison Gorge National Conservation Area RMP	Completed – 7/26/1989	
Colorado	136-277	Uncompahgre RMP		In Progress	
Colorado	139-277	Uncompahgre RMP		In Progress	
Colorado	87-277	Uncompahgre RMP		In Progress	Yes
Colorado	126-133	White River RMP		Needed – 7/1/1997	
Colorado	132-133	White River RMP		Needed – 7/1/1997	
Colorado	132-276	White River RMP		Needed – 7/1/1997	
Colorado	131-134		Uncompahgre RMP	In Progress	
Idaho	50-203	Big Desert MFP		In Progress	
Idaho	36-228	Bruneau MFP		Needed – 3/30/1983	
Idaho	112-226	Cassia RMP		Needed – 1/24/1985	
Idaho	49-202	Cassia RMP		Needed – 1/24/1985	
Idaho	229-254	Coeur d Alene RMP	Coeur d' Alene RMP	Completed – 6/29/2007	Yes
Idaho	229-254 (N)	Coeur d Alene RMP	Coeur d' Alene RMP	Completed – 6/29/2007	
Idaho	229-254 (S)	Coeur d Alene RMP	Coeur d' Alene RMP	Completed – 6/29/2007	

TABLE 3-6 (Cont.)

State	Corridor	RMP Affiliation (2009)	Current RMP Affiliation (if different)	ROD Update Status – ROD Date	Corridor of Concern?
Idaho	29-36	Jarbidge RMP		In Progress	
Idaho	36-112	Jarbidge RMP		In Progress	
Idaho	36-226	Jarbidge RMP		In Progress	
Idaho	36-228	Jarbidge RMP	Snake River Birds of Prey RMP	Completed – 9/30/2008	
Idaho	36-228	Jarbidge RMP		In Progress	
Idaho	29-36	Kuna MFP	Snake River Birds of Prey RMP	Completed – 9/30/2008	
Idaho	29-36	Kuna MFP		In Progress	
Idaho	49-202	Malad MFP	Pocatello RMP	Completed – 7/10/2012	
Idaho	50-203	Medicine Lodge RMP		In Progress	
Idaho	36-112	Monument RMP			
Idaho	49-112	Monument RMP			
Idaho	49-202	Monument RMP			
Idaho	112-226	Monument RMP; Twin Falls MFP			
Idaho	11-228	Owyhee RMP		Needed – 12/30/1999	
Idaho	24-228	Owyhee RMP		Needed – 12/30/1999	Yes
Idaho	36-228	Owyhee RMP		Needed – 12/30/1999	
Idaho	111-226	Twin Falls MFP			
Idaho	36-226	Twin Falls MFP			
Montana	79-216	Billings Field Office RMP		Completed – 9/15/2015	
Montana	50-203	Dillon RMP		Completed – 2/7/2006	
Montana	50-51	Dillon RMP	Dillon RMP; Butte RMP	Completed – 2/7/2006 and 5/22/2009	
Montana	229-254	Garnet RMP		Needed – 1/10/1986	Yes
Montana	229-254 (N)	Garnet RMP		Needed – 1/10/1986	
Montana	229-254 (S)	Garnet RMP		Needed – 1/10/1986	
Montana	229-254	Headwaters RMP	Butte RMP	Completed – 5/22/2009	Yes
Montana	51-204	Headwaters RMP	Butte RMP	Completed – 5/22/2009	

TABLE 3-6 (Cont.)

State	Corridor	RMP Affiliation (2009)	Current RMP Affiliation (if different)	ROD Update Status – ROD Date	Corridor of Concern?
Montana	51-205	Headwaters RMP	Butte RMP	Completed – 5/22/2009	
Nevada	113-114	Caliente MFP	Ely RMP	Completed – 8/20/2008	
Nevada	113-116	Caliente MFP	Ely RMP	Completed – 8/20/2008	
Nevada	232-233 (E)	Caliente MFP	Ely RMP	Completed – 8/20/2008	
Nevada	232-233 (W)	Caliente MFP	Ely RMP	Completed – 8/20/2008	
Nevada	37-232	Caliente MFP	Ely RMP	Completed – 8/20/2008	
Nevada	39-113	Caliente MFP	Ely RMP	Completed – 8/20/2008	Yes
Nevada	110-233	Caliente MFP; Egan RMP; Schell MFP	Ely RMP	Completed – 8/20/2008	Yes
Nevada	44-110	Egan RMP	Ely RMP	Completed – 8/20/2008	Yes
Nevada	110-114	Egan RMP; Schell MFP	Ely RMP	Completed – 8/20/2008	Yes
Nevada	17-35	Elko RMP; Wells RMP			Yes
Nevada	15-104	Lahonton RMP	Carson City Consolidated RMP	In Progress	
Nevada	15-17	Lahonton RMP	Carson City Consolidated RMP	In Progress	
Nevada	6-15	Lahonton RMP	Carson City Consolidated RMP	In Progress	
Nevada	17-18	Lahonton RMP; Walker RMP	Carson City Consolidated RMP	In Progress	
Nevada	18-224	Las Vegas RMP		In Progress	
Nevada	223-224	Las Vegas RMP		In Progress	Yes
Nevada	224-225	Las Vegas RMP		In Progress	
Nevada	225-231	Las Vegas RMP		In Progress	
Nevada	27-225	Las Vegas RMP		In Progress	
Nevada	37-223 (N)	Las Vegas RMP		In Progress	
Nevada	37-223 (S)	Las Vegas RMP		In Progress	
Nevada	37-232	Las Vegas RMP		In Progress	
Nevada	37-39	Las Vegas RMP		In Progress	
Nevada	39-113	Las Vegas RMP		In Progress	Yes
Nevada	39-231	Las Vegas RMP		In Progress	Yes

TABLE 3-6 (Cont.)

State	Corridor	RMP Affiliation (2009)	Current RMP Affiliation (if different)	ROD Update Status – ROD Date	Corridor of Concern?
Nevada	47-231	Las Vegas RMP		In Progress	
Nevada	16-24	Paradise-Denio MFP	Winnemucca District RMP	Completed – 5/22/2015	Yes
Nevada	17-35	Paradise-Denio MFP	Winnemucca District RMP	Completed – 5/22/2015	Yes
Nevada	15-17	Sonoma Gerlach MFP	Winnemucca District RMP	Completed – 5/22/2015	
Nevada	16-104	Sonoma Gerlach MFP	Winnemucca District RMP	Completed – 5/22/2015	Yes
Nevada	16-17	Sonoma Gerlach MFP	Winnemucca District RMP	Completed – 5/22/2015	
Nevada	16-24	Sonoma Gerlach MFP	Black Rock Desert-High Rock Canyon NCA RMP	Completed – 7/15/2004	Yes
Nevada	16-24	Sonoma Gerlach MFP	Winnemucca District RMP	Completed – 5/22/2015	Yes
Nevada	17-18	Sonoma Gerlach MFP	Winnemucca District RMP	Completed – 5/22/2015	
Nevada	17-35	Sonoma Gerlach MFP	Winnemucca District RMP	Completed – 5/22/2015	Yes
Nevada	18-224	Topopah RMP	Topopah RMP	In Progress	
Nevada	18-224	Walker RMP	Carson City Consolidated RMP	In Progress	
Nevada	18-23	Walker RMP	Carson City Consolidated RMP	In Progress	
Nevada	111-226	Wells RMP			
Nevada	35-111	Wells RMP			
Nevada	35-43	Wells RMP			
Nevada	43-111	Wells RMP			
Nevada	43-44	Wells RMP			
Nevada	44-110	Wells RMP			Yes
Nevada	44-239	Wells RMP			
New Mexico	89-271	Carlsbad RMP	Carlsbad Resource Management Plan; Special Status Species Resource Management Plan Amendment	In Progress	
New Mexico	80-273	Farmington RMP	Farmington Resource Management Plan with Record of Decision	Completed – 21/1/2003	
New Mexico	81-213	Mimbres RMP		In Progress	

TABLE 3-6 (Cont.)

State	Corridor	RMP Affiliation (2009)	Current RMP Affiliation (if different)	ROD Update Status – ROD Date	Corridor of Concern?
New Mexico	81-213	Mimbres RMP		Needed – 12/1/1993	
New Mexico	81-272	Mimbres RMP; White Sands RMP	White Sands Resource Area Resource Management Plan	In Progress	Yes
New Mexico	80-273	Rio Puerco RMP	Albuquerque Field Office Resource Management Plan	In Progress	
New Mexico	89-271	Roswell RMP		Needed – 10/10/1997	
New Mexico	81-272	Socorro RMP		Completed – 6/28/2010	Yes
Oregon	7-24	Andrews RMP			Yes
Oregon	250-251	Baker RMP (1989)		In Progress	
Oregon	11-228	Brothers-Lapine RMP; Upper Deschutes RMP			
Oregon	7-11	Brothers-Lapine RMP; Upper Deschutes RMP			
Oregon	4-247	Eugene District RMP (1995)		In Progress	Yes
Oregon	7-24	Klamath Falls Resource Area RMP (1995)		In Progress	Yes
Oregon	7-8	Klamath Falls Resource Area RMP (1995)		In Progress	
Oregon	7-11	Klamath Falls RMP; Upper Klamath Basin RMP		In Progress	
Oregon	7-11	Lakeview Resource Area RMP (2003)		In Progress	
Oregon	7-24	Lakeview Resource Area RMP (2003)		In Progress	Yes
Oregon	4-247	Medford District RMP (1995)		In Progress	Yes
Oregon	4-247	Roseburg District RMP (1995)		In Progress	Yes
Oregon	10-246	Salem District RMP (1995)		In Progress	
Oregon	230-248	Salem District RMP (1995)		In Progress	Yes
Oregon	4-247	Salem District RMP (1995)		In Progress	Yes

TABLE 3-6 (Cont.)

State	Corridor	RMP Affiliation (2009)	Current RMP Affiliation (if different)	ROD Update Status – ROD Date	Corridor of Concern?
Oregon	5-201	Salem District RMP (1995)		In Progress	
Oregon	11-228	Southeastern Oregon RMP (2002)		In Progress	
Oregon	16-24	Southeastern Oregon RMP (2002)		In Progress	
Oregon	24-228	Southeastern Oregon RMP (2002)		In Progress	Yes
Oregon	250-251	Southeastern Oregon RMP (2002)		In Progress	
Oregon	7-24	Southeastern Oregon RMP (2002)		In Progress	Yes
Oregon	11-228	Three Rivers Resource Area RMP (1992)		Needed – 1/1/1992	
Oregon	10-246	Two Rivers Resource Area RMP (1986)		Needed – 1/1/1986	
Oregon	230-248	Two Rivers Resource Area RMP (1986)		Needed – 1/1/1986	Yes
Oregon	11-103	Upper Deschutes RMP			
Utah	113-114	Beaver RMP – CBGA; Cedar RMP – CBGA	Cedar Beaver Garfield Antimony	In Progress	
Utah	116-206	Beaver RMP – CBGA; Garfield RMP – CBGA; Vermillion MFP; Zion MFP			Yes
Utah	126-133	Book Cliffs RMP	Vernal	Completed – 10/31/2008	
Utah	126-218	Book Cliffs RMP	Vernal	Completed – 10/31/2008	
Utah	126-258	Book Cliffs RMP; Diamond Mountain RMP	Vernal	Completed – 10/31/2008	Yes
Utah	126-218	Diamond Mountain RMP	Vernal	Completed – 10/31/2008	
Utah	66-212	Grand RMP	Moab	Completed – 10/31/2008	Yes
Utah	68-116	Grand Staircase-Escalante National Monument RMP		Completed – 11/15/1999	Yes
Utah	116-206	House Range RMP	Fillmore	Needed	Yes
Utah	114-241	House Range RMP; Warm Springs RMP	Fillmore	Needed	
Utah	66-212	Monticello RMP		Completed – 11/17/2008	Yes
Utah	116-206	Mountain Valley MFP	Richfield	Completed – 10/31/2008	Yes

TABLE 3-6 (Cont.)

State	Corridor	RMP Affiliation (2009)	Current RMP Affiliation (if different)	ROD Update Status – ROD Date	Corridor of Concern?
Utah	110-114	Pinyon MFP		In Progress	Yes
Utah	113-114	Pinyon MFP		In Progress	
Utah	114-241	Pinyon MFP		In Progress	
Utah	114-241	Pony Express RMP	Salt Lake	Needed	
Utah	116-206	Pony Express RMP	Salt Lake	Needed	Yes
Utah	44-239	Pony Express RMP	Salt Lake	Needed	
Utah	66-209	Pony Express RMP	Salt Lake	Needed	
Utah	66-212	Pony Express RMP	Salt Lake	Needed	Yes
Utah	66-259	Pony Express RMP	Salt Lake	Needed	Yes
Utah	66-212	Price River RMP		Completed – 10/31/2008	Yes
Utah	113-114	St. George (Dixie) RMP		Needed – 3/15/1999	
Utah	113-114	St. George (Dixie) RMP		In Progress	
Utah	113-116	St. George (Dixie) RMP		Needed – 3/15/1999	
Utah	110-114	Warm Springs RMP	Fillmore	Needed	Yes
Utah	256-257		Salt Lake	Needed	
Washington	102-105	Spokane District RMP Amendment (1992)		In Progress	Yes
Washington	244-245	Spokane District RMP Amendment (1992)		In Progress	Yes
Washington	102-105	Western Washington RMP			Yes
Washington	244-245	Western Washington RMP			Yes
Wyoming	79-216	Cody RMP; Grass Creek RMP; Washakie RMP			Yes
Wyoming	129-218	Great Divide RMP	Rawlins RMP	Completed – 12/24/2008	
Wyoming	129-221	Great Divide RMP	Rawlins RMP	Completed – 12/24/2008	
Wyoming	138-143	Great Divide RMP	Rawlins RMP	Completed – 12/24/2008	
Wyoming	73-129	Great Divide RMP	Rawlins RMP	Completed – 12/24/2008	

TABLE 3-6 (Cont.)

State	Corridor	RMP Affiliation (2009)	Current RMP Affiliation (if different)	ROD Update Status – ROD Date	Corridor of Concern?
Wyoming	73-133	Great Divide RMP	Rawlins RMP	Completed – 12/24/2008	
Wyoming	73-138	Great Divide RMP	Rawlins RMP	Completed – 12/24/2008	
Wyoming	78-138	Great Divide RMP	Rawlins RMP	Completed – 12/24/2008	
Wyoming	78-255	Great Divide RMP	Rawlins RMP	Completed – 12/24/2008	Yes
Wyoming	78-85	Great Divide RMP	Rawlins RMP	Completed – 12/24/2008	
Wyoming	121-220	Green River RMP		Last change – 2/18/2014	
Wyoming	121-240	Green River RMP		Last change – 2/18/2014	
Wyoming	126-218	Green River RMP		Last change – 2/18/2014	
Wyoming	129-218	Green River RMP		Last change – 2/18/2014	
Wyoming	129-221	Green River RMP		Last change – 2/18/2014	
Wyoming	218-240	Green River RMP		Last change – 2/18/2014	
Wyoming	219-220	Green River RMP		Last change – 2/18/2014	
Wyoming	220-221	Green River RMP		Last change – 2/18/2014	
Wyoming	121-221	Green River RMP, Jack Morrow Hills RMP		Completed – 7/19/2006	Yes
Wyoming	121-240	Kemmerer RMP		Completed – 5/13/2010	
Wyoming	218-240	Kemmerer RMP		Completed – 5/13/2010	
Wyoming	55-240	Kemmerer RMP		Completed – 5/13/2010	
Wyoming	79-216	Lander RMP		Completed – 6/26/2014	Yes
Wyoming	78-255	Platte River RMP	Casper RMP	Completed – 12/1/2007	Yes
Wyoming	79-216	Platte River RMP	Casper RMP	Completed – 12/1/2007	Yes

- Some BLM offices manage only smaller, local projects and rely on National Project Managers to promote Section 368 corridors for larger, interstate projects.
- At least one respondent requires all ROW applicants to include existing corridors and/or Section 368 corridors as the proposed action or as an alternative in their NEPA analysis.
- Outreach is limited in some cases to referring applicants to the West-wide Energy Corridor PEIS website hosted by Argonne National Laboratory (<http://corridoreis.anl.gov>).

3.4 INTERAGENCY OPERATING PROCEDURES

IOPs are mandatory planning and implementation procedures that apply to the development of ROW applications and improve the authorization and administration of ROWs in Section 368 corridors. They are described in detail at Section 2.4 of the West-wide Energy Corridor PEIS and in the RODs for the BLM and FS in the EIS Documents Section. The IOPs can be found at <http://www.blm.gov/wo/st/en/prog/energy/transmission.html> and <http://corridoreis.anl.gov>. IOPs are similar to agency best management practices (BMPs), but they are uniform for applications on projects administered by either or both agencies. They address the entire ROW negotiation process as well as project planning, design, construction, operation, and decommissioning.

Some respondents stated that all applicable IOPs have been incorporated into authorized ROW projects granted within Section 368 corridors. Larger projects assigned to BLM and FS National Project Managers routinely incorporate IOPs in NEPA analyses and grant stipulations. National Project Managers and districts/field offices/forests should coordinate closely to ensure consistency in the use of IOPs.

However, many respondents were unclear about IOPs; some BLM offices and National Forests were not familiar with the terminology of the West-wide Energy Corridor IOPs, but they acknowledged the use of BMPs. Some respondents requested that the BLM address IOPs outside of the PEIS, and one respondent suggested that a separate reference document be developed outside of the PEIS. Some BLM offices have incorporated IOPs into authorized ROW projects. At least one BLM office commented that the mitigation measures that have been used historically are very similar to the IOPs, while a National Forest mentioned the use of mitigation measures but did not reference IOPs.

3.5 RESPONSE TO REQUEST FOR INFORMATION

Responses to the RFI provided recommendations for how this Corridor Study and the Regional Periodic Review process can address environmental issues and other concerns regarding the development of Section 368 corridors in order to ensure responsible use.

Commenters recommended new and relevant information and GIS data on a variety of topics, additional stakeholders, IOPs, and suggested changes to Section 368 corridors.

Suggestions for new and relevant information were wide ranging, and the general topics are listed below. Specific data and reports provided by the response to the RFI will be considered by appropriate Priority Regions during the Regional Periodic Reviews.

Environmental issues:

- Concern for species habitat and suggestions that habitat data be included for the following species: Mojave and Sonoran desert tortoise, greater and Gunnison sage grouse, bighorn sheep, desert tortoise, pronghorn antelope, the mule deer in northern portions of Nevada, and any other Federally listed or State-listed species.
- Avoid siting transmission lines and pipelines in wilderness-quality lands or in Areas of Environmental Concern (ACECs) that were designated specifically for protection of special status species.
- Include data related to migratory bird flyways, habitat values for migratory birds and raptor nests.
- Conduct analysis of wildlife risk and impacts to inform infrastructure decision-making. Commenters suggested wildlife-specific data and new information that should be considered for analysis.
- Consider the new, relevant information related to special status species, habitat, wildlife connectivity, renewable energy development, regional assessments, and planning.

Laws and regulations:

- Identified laws, regulations, and new policy requirements for consideration.

Renewable energy:

- Encourage the BLM and FS to prioritize assessment of the Section 368 corridors in the Southwest where the BLM has identified solar energy zones through the BLM Solar Energy Program or in other areas with renewable energy resources.

Transmission lines and ROWs:

- Suggest including in the present process projects more than 1 MW in size, pre-packaging for land that needs to be completed in less than 6 months, lease terms of 20 years or longer, and regional environmental impact studies.

Public comments received in response to the RFI provided suggestions for IOPs.

- Monitor compliance to ensure appropriate use of applicable IOPs and design standards.
- Monitor effectiveness of compensatory mitigation activities to determine if they are achieving desired results.
- Monitor regional and local wildlife population, starting from a pre-construction baseline.
- Monitor habitat quality to test efficacy of IOPs and design standards.
- Subject findings to peer review and publish yearly reports that are publicly available.
- Recommend that the agencies review and revise all IOPs while considering mitigation obligations and policies, including compensatory mitigation for unavoidable impacts.
- Incorporate transmission planning principles that prioritize avoidance of new construction (i.e. non-wire alternatives to new corridor segments or requiring re-conductoring or other design features).
- Incorporate Solar Energy Program Design Features.
- Include a landscape-scale assessment of critical habitat impacts and require consultation with the USFWS wherever a Section 368 corridor is located near critical habitat.
- Grazing permits should not be compromised, and agencies should consult with grazing permit holders prior to approval of construction.
- Limit the number of acres of surface disturbance.
- Environmental guidelines during all phases of construction.
- IOPs should only be applied when needed.
- Suggested method for assessing IOPs, and addressed planning of IOPs, including, planning, and construction and operation.

Comments received in response to the RFI proposed that the agencies conduct outreach with other local, State, and regional groups during the periodic review process and when considering additions, deletions, or modifications to Section 368 corridors. Specifically, it was suggested that the agencies add the following groups as regional stakeholders.

State: New Mexico Department of Agriculture, Oregon Department of Fish and Wildlife (ODFW), Oregon Department of Energy (ODOE), Oregon Department of Forestry (ODF), Oregon Department of Agriculture (ODA), Oregon Division of State Lands (ODSL), Oregon Department of Environmental Quality (ODEQ), Wyoming Governor's Office, California Desert Renewable Energy Working Group, Arizona Solar Working Group (ASWG), Oregon Governor's SageCon Partnership, New Mexico Cattle Growers' Association, and New Mexico Cooperative Weed Management Areas.

Local: County and local governments in the State of Oregon, Inyo County California, and New Mexico Soil and Water Conservation Districts.

Environmental groups: The Nature Conservancy, Defenders of Wildlife, The National Wildlife Federation, The Theodore Roosevelt Conservation Partnership, and The Portland Audubon Society.

Industry and other: The Scenario Planning Steering Group, the Environmental Data Task Force, American Wind Energy Association (AWEA), American Wind Wildlife Institute (AWWI), Oregon Renewables Northwest, Western Utility Group, the Western Regional Partnership, the Transmission Expansion Planning Policy Committee, and the Technical Advisory Subcommittee.

Responses to the RFI included suggestions to modify Section 368 corridors.

Defenders of Wildlife conducted a GIS-based wildlife risk assessment that assigned a wildlife habitat value for each corridor, ranked corridors by risk, and provided detailed, corridor-specific recommendations. Defenders of Wildlife recommend that the agencies consider this analysis to avoid impacts by realigning or removing corridors with high risk potential. Other options to avoid risk to a resource include clarifying specific requirements for upgrades, co-location, or preventing multiple access roads. In addition, Defenders of Wildlife encouraged the agencies to further develop their own GIS data to inform future corridor siting. Data that was not available when the PEIS was published can be used to identify those Section 368 corridors where development may risk wildlife and would require further analysis. They encourage the agencies to work with the USFWS, U.S. Geological Survey (USGS), and other agencies to use best-available information related to wildlife connectivity across public lands at the landscape scale.

The Desert Conservation Program recommended a review and analysis of corridors to align within existing Las Vegas RMP utility corridors. The Wyoming Infrastructure Authority recommended that Federal, State, and local agencies work alongside other interested parties to designate a Section 368 corridor between the Jim Bridger Power Plant and Populus and Midpoint, Idaho.

Recommendations from the public regarding changes to specific Section 368 corridors are presented in Appendix F.

3.6 ANALYSIS OF CURRENT AND PLANNED TRANSMISSION INFRASTRUCTURE IN DESIGNATED SECTION 368 CORRIDORS

In this analysis, all designated Section 368 corridors were compared with transmission line data from Platts, including both existing and planned transmission lines. Transmission lines following or crossing the corridors were identified, and the corridor centerline length having existing or planned transmission lines was estimated. This screening-level analysis does not include other infrastructure types in the corridors, (i.e., roads, railroads, pipelines, or other structures) or the degree to which the corridors could accommodate additional projects within their width. There are also limitations to the positional accuracy of the data for existing, and particularly planned infrastructure. The routes of the planned transmission lines may not be finalized, or the projects may not be constructed.

Table 3-7 lists the designated Section 368 corridors by number, with their centerline lengths, and estimates of the distances and percentages of the centerline length where existing or planned transmission lines are present. Figure 3-17 shows existing and planned transmission lines with designated Section 368 corridors categorized by the percentage of the corridor where existing transmission lines are present.

3.7 GEOGRAPHIC INFORMATION SYSTEM DATA PROVIDED BY THE BLM

In response to the data call, the majority of BLM State and Field Offices provided GIS data depicting existing and planned projects within and near the corridor. Commercially available transmission line GIS data also can be used to complement Federal agency data. Appendix E provides an inventory of the data received from the agency data call. There is considerable variability in the available data and its adequacy for characterizing the type, level, and status of transmission activities involving the corridors. Examples of the most frequent data types include the following:

1. Lines depicting existing, planned, or potential projects within or near the corridors. These help characterize where corridors are being used, and to some degree indicate whether more projects can be accommodated within the corridor.
2. Lines or polygons depicting route alternatives considered at different stages of the planning process. These provide insight into how effective corridors, or portions of corridors, are for siting projects. Alternatives outside the corridors may address limitations of the designated corridors such as congestion, concerns identified in the Settlement, or other siting constraints.

3. Property records from LR2000 (the current land record system for documenting land use authorizations) depicting parcels with management designations. These indicate the presence, and to some degree the status, of ROWs in or near the corridors, but few details about the specific location of the ROW or the number and type of transmission lines present.
4. Property records from LR2000 in spreadsheet form, lacking spatial data. While these records provide a general idea of the existence of ROWs, and possibly a means of seeking additional information, they do not enable analysis of the extent of corridor use or whether there is sufficient capacity to accommodate additional ROWs.

Based upon BLM field offices responses to data requests, the BLM could benefit by establishing or expanding programmatic GIS guidance and related systems for lands and realty to provide a consistent and standard approach for documenting authorized land uses in GIS format as well as for efficient management of authorized uses (e.g., allocation of multiple ROWs within a single corridor). Traditionally and currently, land use authorizations are documented using aliquot part descriptions which were, and are, noted on Master Title Plats. Currently, land use authorizations are documented in a land record system known as LR2000. Parcel records in LR2000 can be converted into GIS data that can be used to display records spatially. More recent land use authorizations, including linear ROWs for transmission lines and pipelines, require submission of "as-built" GIS centerline data from the ROW recipient.

As analysis of the corridors continues for the priority areas, it will be necessary to fill data gaps in some areas if more data are available. In some cases, it can be difficult to obtain detailed locations of existing or planned transmission lines if they are deemed proprietary or sensitive by the data holders.

Figure 3-18 depicts GIS data received from the BLM Cedar City Field Office in southwest Utah. The inset maps show congested areas in Corridor 113-114. Figure 3-19 highlights a portion of that area where non-Federal land with agriculture using center-pivot irrigation, and other development, is northwest of the corridor. The southeast side of the corridor is less congested with projects but has more rugged terrain. Detailed locations of ROW centerlines, as depicted in these data, provide the most useful and specific information received from the data call, and considerable insight into usage of the corridors. Even so, the ROW widths are not depicted. In locations where there appears to be room in the corridor for additional ROWs, there may be other significant siting constraints not evident without detailed analysis.

Figure 3-20 shows data provided from the BLM Oregon/Washington State Office, which highlights an area in central Oregon within Corridor 11-228, parcels with authorized transmission line ROWs from the LR2000 system, and the location of an existing transmission line. The inset depicts towers in the existing ROW from aerial imagery, and that this 3,500 ft-wide corridor is otherwise largely unoccupied.

TABLE 3-7 Designated Section 368 Corridors with Centerline Length and Estimates of the Distances and Percentages with Existing or Planned Transmission Lines Present

Designated Section 368 Corridor			Existing Transmission Lines ^a		Planned Transmission Lines ^a	
Corridor Number	State	Centerline Length (mi)	Estimated Length within Corridor ^b (mi)	Percentage of Corridor Centerline Length ^b	Estimated Length within Corridor ^b (mi)	Percentage of Corridor Centerline Length ^b
3-8	California	34.86	31.5	90%	0	0%
4-247	Oregon	23.67	21.1	89%	0	0%
5-201	Oregon	5.58	5.4	97%	0	0%
6-15	California, Nevada	27.51	23.5	85%	0	0%
7-8	California, Oregon	2.71	2.1	78%	0	0%
7-11	Oregon	87.65	72.2	82%	13	15%
7-24	Oregon	138.09	27.4	20%	0	0%
8-104	California	69.7	58.8	84%	11.9	17%
10-246	Oregon	16.24	16.2	100%	0	0%
11-103	Oregon	17.46	17	97%	0	0%
11-228	Idaho, Oregon	149.16	133.7	90%	85.3	57%
15-17	Nevada	21.14	18.1	86%	5.8	28%
15-104	California, Nevada	51.29	46.3	90%	45.5	89%
16-17	Nevada	51.59	36.9	71%	0	0%
16-24	Nevada, Oregon	142.23	45.4	32%	0	0%
16-104	California, Nevada	66.3	29.5	45%	0	0%
17-18	Nevada	32.44	32.2	99%	7.9	24%
17-35	Nevada	139.73	96.6	69%	16.7	12%
18-23	California, Nevada	172.16	127.3	74%	20.2	12%
18-224	Nevada	244.18	96.3	39%	17.7	7%
23-25	California	42.33	42.2	100%	0	0%
23-106	California	37.29	36.6	98%	0	0%
24-228	Idaho, Oregon	56.3	14.4	26%	0	0%
27-41	California	117.58	40.4	34%	5.5	5%
27-225	California, Nevada	83.8	74.8	89%	12	14%

TABLE 3-7 (Cont.)

Designated Section 368 Corridor			Existing Transmission Lines ^a		Planned Transmission Lines ^a	
Corridor Number	State	Centerline Length (mi)	Estimated Length within Corridor ^b (mi)	Percentage of Corridor Centerline Length ^b	Estimated Length within Corridor ^b (mi)	Percentage of Corridor Centerline Length ^b
27-266	California	19.85	19.7	99%	18.4	93%
29-36	Idaho	33	8.6	26%	4.1	12%
30-52	Arizona, California	97.72	50.1	51%	27.2	28%
35-43	Nevada	8.43	3.3	40%	0.4	5%
35-111	Nevada	17.83	11.5	65%	4.9	27%
36-112	Idaho	15.36	9.4	61%	9.4	61%
36-226	Idaho	39.18	13.7	35%	5.4	14%
36-228	Idaho	73.56	6.3	9%	35.5	48%
37-39	Nevada	8.97	7	78%	4.2	47%
37-223 (N)	Nevada	0.59	0.6	100%	0	0%
37-223 (S)	Nevada	3.43	3.4	100%	0.2	7%
37-232	Nevada	49.7	48.9	98%	44.8	90%
39-113	Nevada	49.74	17.8	36%	42.2	85%
39-231	Nevada	23.19	23.2	100%	19.2	83%
41-46	Arizona	38.72	20.9	54%	7.1	18%
41-47	Arizona	13.7	13.7	100%	1.8	13%
43-44	Nevada	16.52	14.3	86%	8.9	54%
43-111	Nevada	19.86	4.9	25%	6.6	33%
44-110	Nevada	110.22	32.3	29%	11.5	10%
44-239	Nevada, Utah	64.58	24.5	38%	17.7	27%
46-269	Arizona	66.01	37	56%	0	0%
46-270	Arizona	36.74	9.9	27%	2.1	6%
47-68	Arizona	18.94	18.2	96%	18.9	100%
47-231	Arizona, Nevada	48.18	47.8	99%	48.2	100%
49-112	Idaho	43.88	39.9	91%	9	20%
49-202	Idaho	10.42	0	0%	0.9	9%
50-51	Montana	4.89	1.9	38%	1.3	27%
50-203	Idaho, Montana	40.78	22.6	55%	1.1	3%

TABLE 3-7 (Cont.)

Designated Section 368 Corridor			Existing Transmission Lines ^a		Planned Transmission Lines ^a	
Corridor Number	State	Centerline Length (mi)	Estimated Length within Corridor ^b (mi)	Percentage of Corridor Centerline Length ^b	Estimated Length within Corridor ^b (mi)	Percentage of Corridor Centerline Length ^b
51-204	Montana	13.45	8.8	65%	0	0%
51-205	Montana	9.01	9	100%	0	0%
55-240	Wyoming	24.72	2	8%	0	0%
61-207	Arizona	88.79	66.4	75%	9.1	10%
62-211	Arizona	85.71	43.9	51%	0	0%
66-209	Utah	5.95	5.4	91%	1	18%
66-212	Utah	109.06	100.5	92%	1	1%
66-259	Utah	17.99	9.4	52%	9.4	52%
68-116	Arizona, Utah	37.67	37.3	99%	0	0%
73-129	Wyoming	6.83	1.4	20%	1.4	20%
73-133	Colorado, Wyoming	49.78	0.2	0.40%	40.9	82%
73-138	Wyoming	6.66	6.7	100%	6.7	100%
78-85	Wyoming	10.03	10	100%	0.3	3%
78-138	Wyoming	24.53	23.2	95%	24.4	99%
78-255	Wyoming	28.41	26.6	94%	26.6	94%
79-216	Montana, Wyoming	106	50.5	48%	0	0%
80-273	New Mexico	78.84	24.7	31%	7.3	9%
81-213	Arizona, New Mexico	51.45	13.9	27%	13.6	27%
81-272	New Mexico	70.58	50.1	71%	9.8	14%
87-277	Colorado	76.61	74.1	97%	74.1	97%
89-271	New Mexico	69.05	8.5	12%	0	0%
101-263	California	25.93	22.3	86%	0	0%
102-105	Washington	48.86	46.7	96%	0	0%
107-268	California	17.3	17.2	99%	1.2	7%
108-267	California	11.29	11.3	100%	10.8	96%
110-114	Nevada, Utah	133.76	66.5	50%	4.5	3%
110-233	Nevada	159.01	155.1	98%	47.1	30%

TABLE 3-7 (Cont.)

Designated Section 368 Corridor			Existing Transmission Lines ^a		Planned Transmission Lines ^a	
Corridor Number	State	Centerline Length (mi)	Estimated Length within Corridor ^b (mi)	Percentage of Corridor Centerline Length ^b	Estimated Length within Corridor ^b (mi)	Percentage of Corridor Centerline Length ^b
111-226	Idaho, Nevada	31.26	31.3	100%	17.1	55%
112-226	Idaho	33.23	32.1	97%	19.1	58%
113-114	Nevada, Utah	87	86.8	100%	84.9	98%
113-116	Arizona, Nevada, Utah	89.48	85.1	95%	2.2	2%
114-241	Utah	134.38	62.9	47%	43.1	32%
115-208	Arizona	39.42	33.3	85%	23.4	59%
115-238	Arizona, California	146.57	132	90%	95.3	65%
116-206	Arizona, Utah	116.13	68.5	59%	44.2	38%
121-220	Wyoming	6.71	6.7	100%	6.7	99%
121-221	Wyoming	35.59	3.1	9%	1.8	5%
121-240	Wyoming	15.22	2.9	19%	1.2	8%
126-133	Colorado, Utah	38.22	37.6	98%	8.4	22%
126-218	Utah, Wyoming	79.77	14.5	18%	0	0%
126-258	Utah	24.32	11.5	47%	9.7	40%
129-218	Wyoming	21.51	2.1	10%	1.8	8%
129-221	Wyoming	8.39	0.8	9%	0	0%
130-131 (N)	Colorado	15.47	13.4	87%	0	0%
130-131 (S)	Colorado	4.01	1	26%	0	0%
130-274	Colorado	37.07	25.7	69%	0	0%
130-274 (E)	Colorado	4.41	0	0%	0	0%
131-134	Colorado	7.28	7.3	100%	0	0%
132-133	Colorado	51.6	14.6	28%	0	0%
132-136	Colorado	44	44	100%	9.2	21%
132-276	Colorado	33.67	18.5	55%	0	0%
133-142	Colorado	7.2	7.2	100%	0	0%
134-136	Colorado	12.58	2.3	18%	1.1	9%
134-139	Colorado	9.21	9.2	100%	0	0%
136-139	Colorado	5.01	4.9	98%	4.9	98%

TABLE 3-7 (Cont.)

Designated Section 368 Corridor			Existing Transmission Lines ^a		Planned Transmission Lines ^a	
Corridor Number	State	Centerline Length (mi)	Estimated Length within Corridor ^b (mi)	Percentage of Corridor Centerline Length ^b	Estimated Length within Corridor ^b (mi)	Percentage of Corridor Centerline Length ^b
136-277	Colorado	7.78	1.7	21%	1.2	15%
138-143	Colorado, Wyoming	31.18	0.5	2%	1	3%
139-277	Colorado	4.74	4.4	93%	3.5	73%
144-275	Colorado	45.23	26.9	59%	0	0%
218-240	Wyoming	14.69	0	0%	1.1	7%
219-220	Wyoming	2.99	3	100%	1.5	49%
220-221	Wyoming	14.72	14.4	98%	10.7	73%
223-224	Nevada	45.15	9.9	22%	17.4	39%
224-225	Nevada	85.89	18.9	22%	12	14%
225-231	Nevada	6.01	6	100%	6	100%
229-254	Idaho, Montana	109.81	107	97%	97.4	89%
229-254 (N)	Idaho, Montana	63.92	63.9	100%	63.7	100%
229-254 (S)	Idaho, Montana	26.52	12.2	46%	0.6	2%
230-248	Oregon	48.07	0	0%	0	0%
232-233 (E)	Nevada	45.29	5.4	12%	6.2	14%
232-233 (W)	Nevada	34.26	33.4	98%	32.1	94%
234-235	Arizona	14.83	0	0%	14.7	99%
236-237	California	6.77	6.4	95%	0.5	7%
244-245	Washington	2.4	2.4	98%	0	0%
250-251	Oregon	11.36	1.3	12%	4.4	39%
256-257	Utah	2.76	2.2	79%	2.2	79%
261-262	California	17.72	13.5	76%	0	0%
264-265	California	12.66	11.2	89%	0.1	1%
Totals		5,965.75	3,652.2	61%	1,532.1	26%

^a Data source: Platts. Copyright 2015 by McGraw Financial.

^b Results are approximate due to assumptions of GIS processing and limitations in positional accuracy.

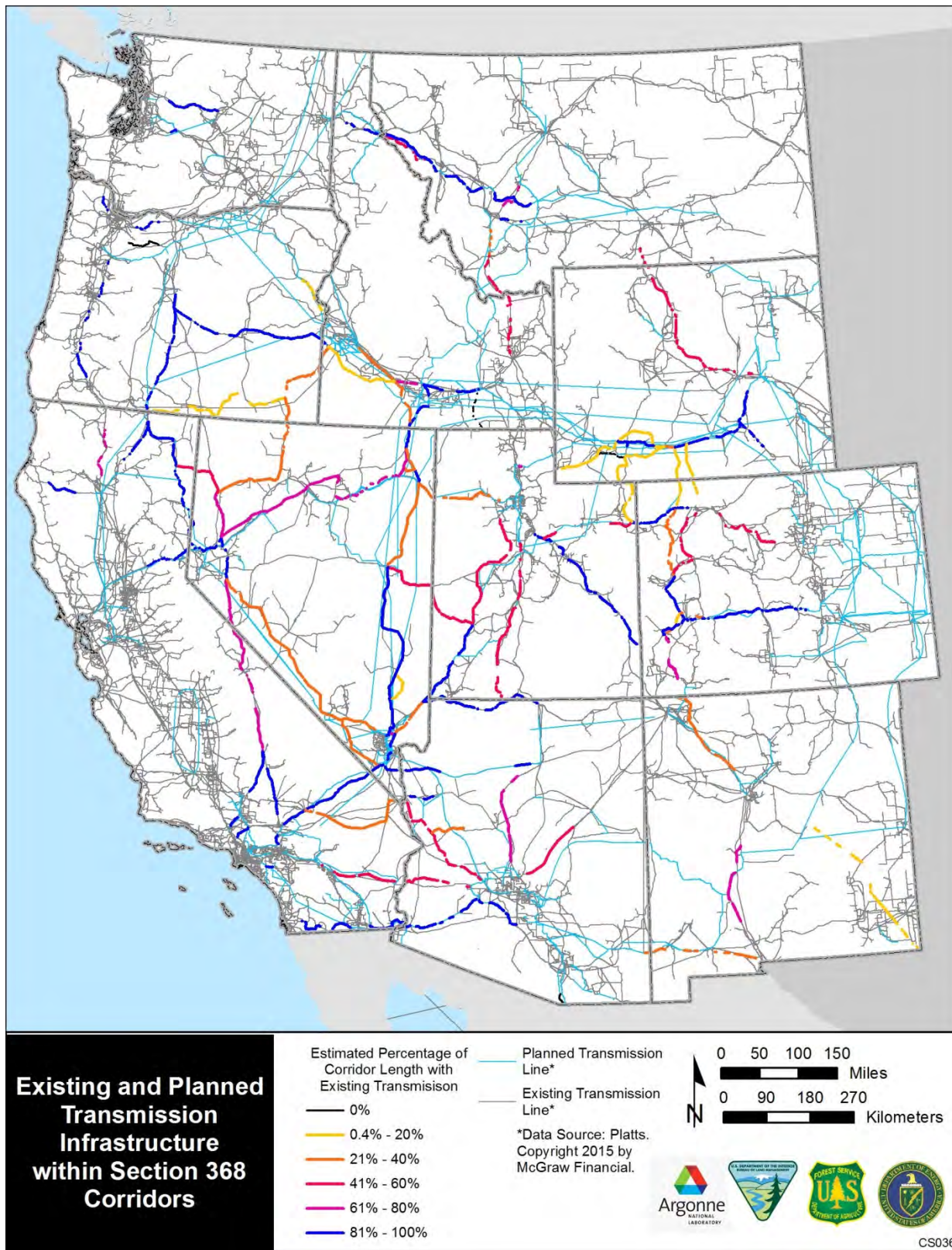


FIGURE 3-17 Existing and Planned Transmission Lines with Designated Section 368 Corridors Categorized by the Percentage of the Corridor Where Existing Transmission Lines Are Present

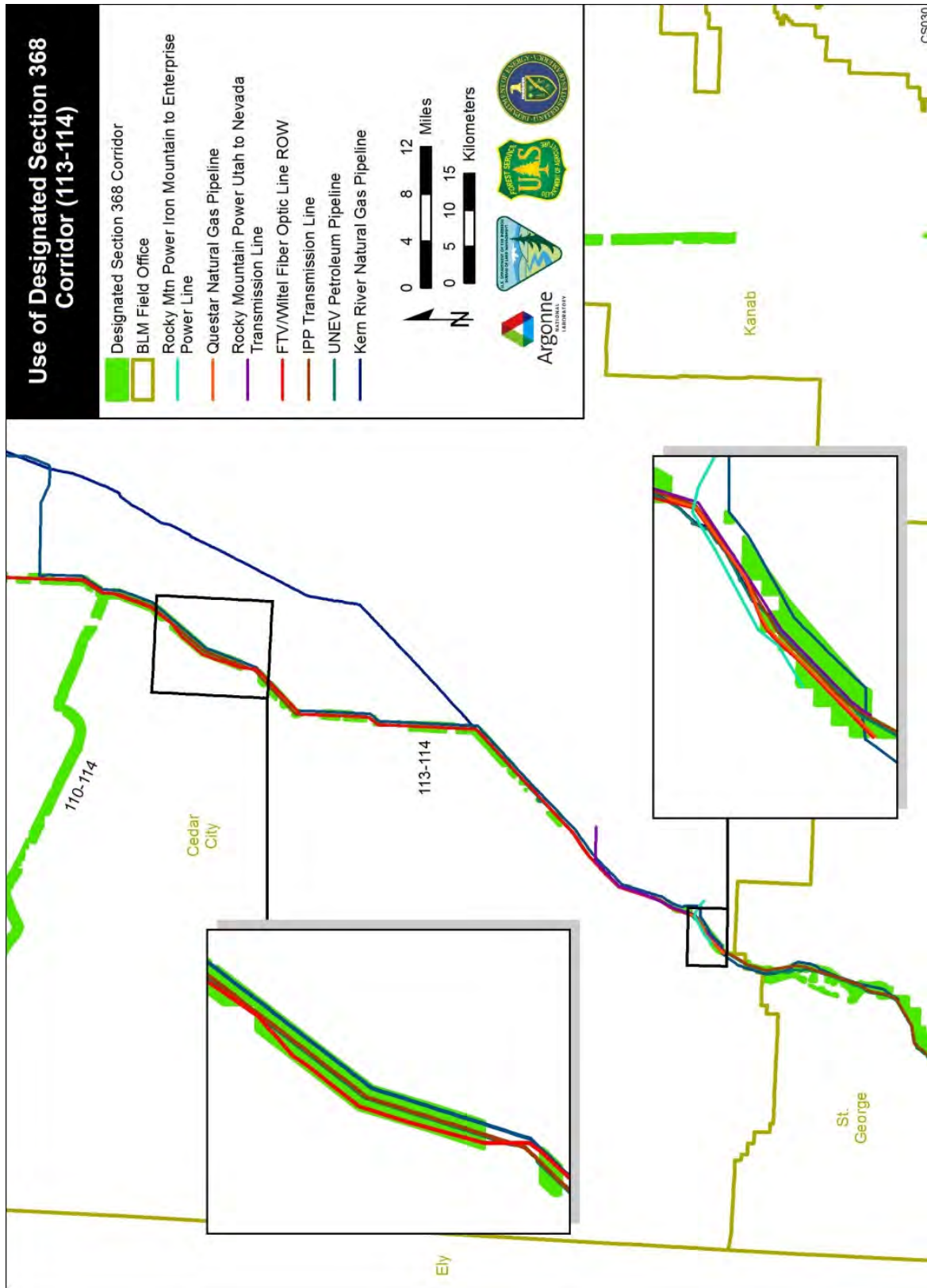


FIGURE 3-18 GIS Data Received from the BLM Cedar City Field Office in Southwest Utah

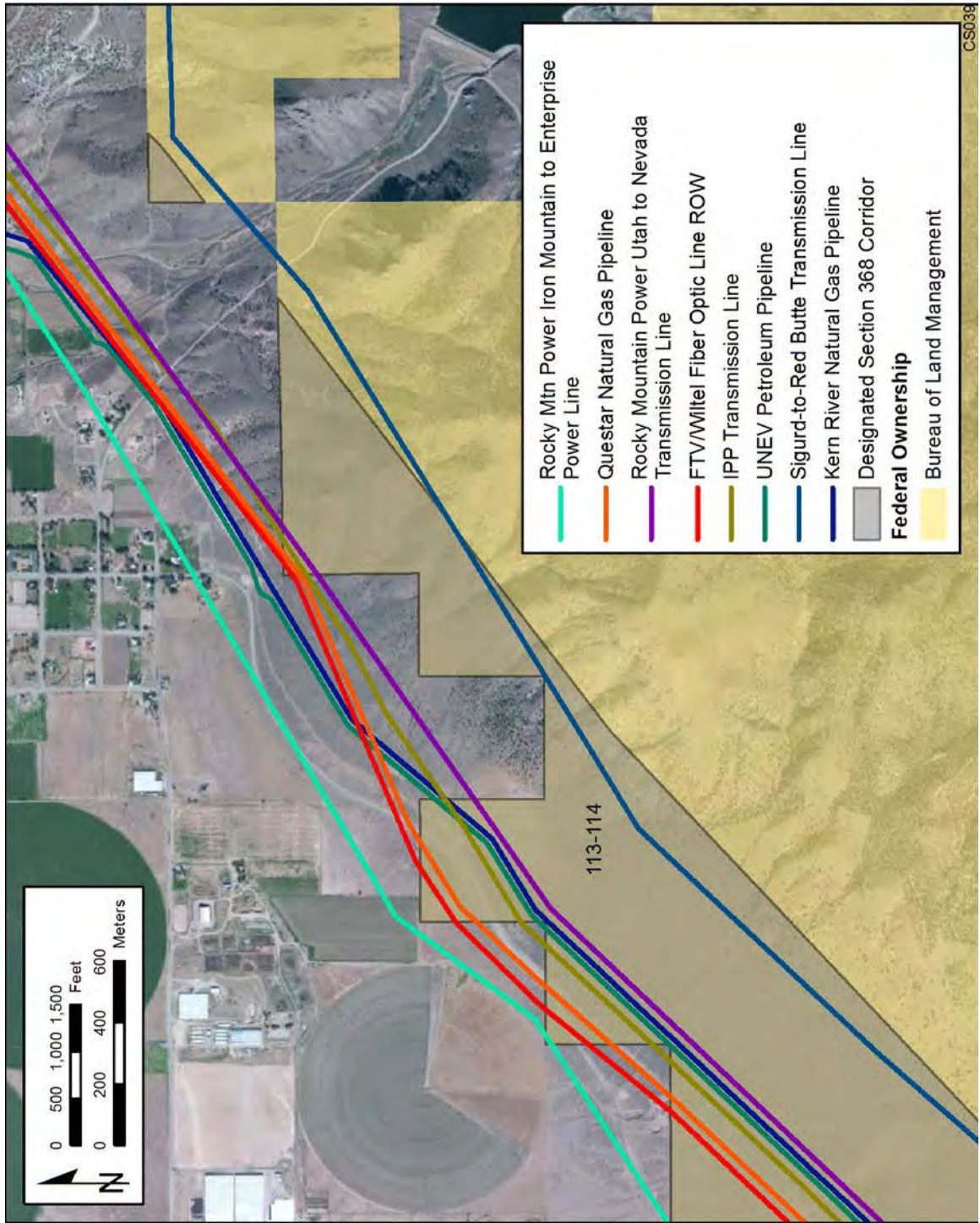


FIGURE 3-19 Detail of Congested Section of Corridor 113-114

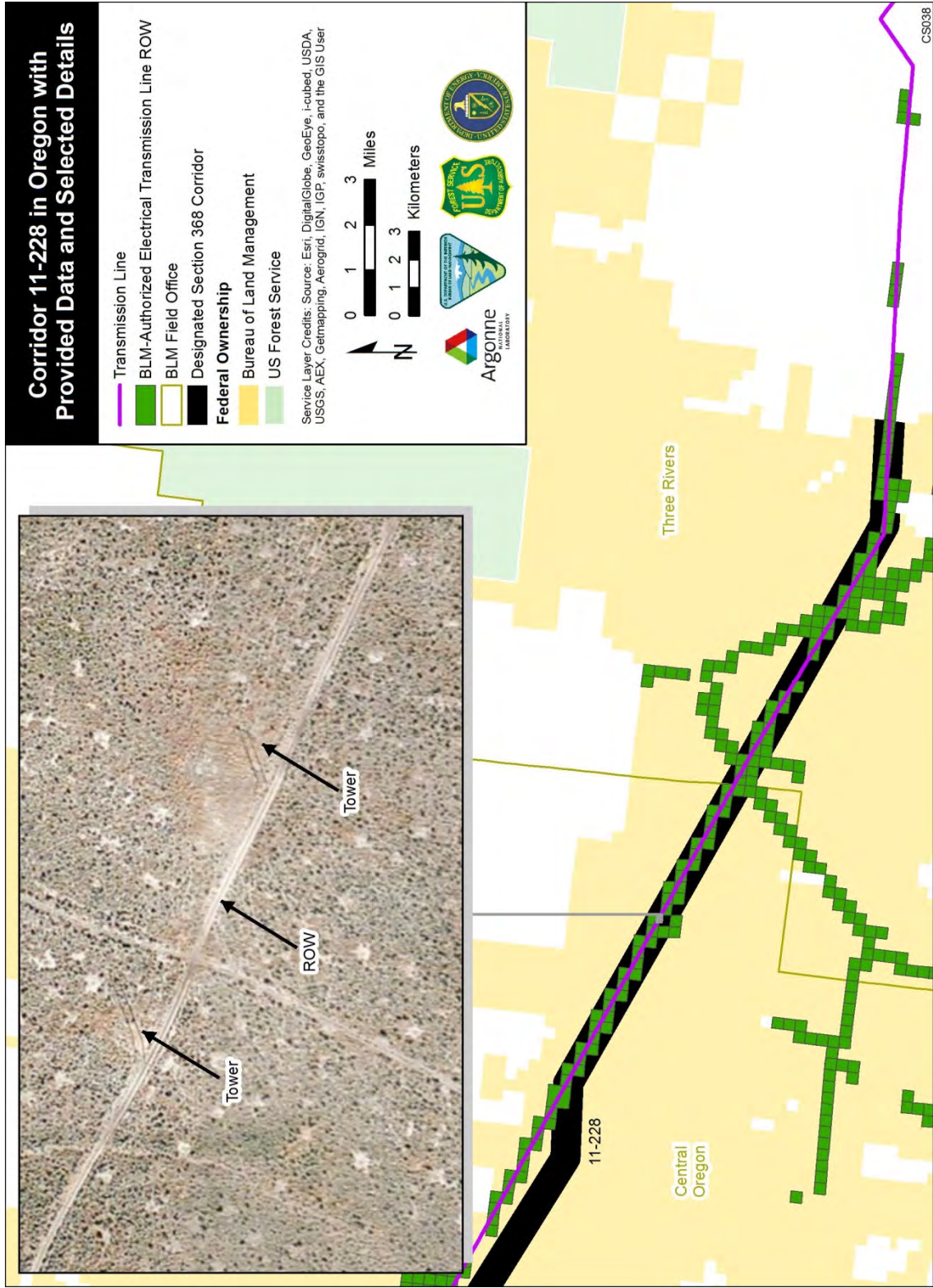


FIGURE 3-20 Sample of Data Provided from the BLM Oregon/Washington State Office along Corridor 11-228, and Aerial Imagery of the Transmission Line in the Corridor

Project-related maps in Figures 3-10 to 3-15 show many other examples of corridor usage as alternatives, including cases where alternate routes were studied and sometimes preferred over the designated Section 368 corridors.

Agency-provided data from this data call will continue to be useful as corridor studies within the priority areas are completed.

4 EVALUATION AND CONSIDERATIONS

According to the Settlement, the BLM and the FS agreed to study Section 368 corridors to assess their overall usefulness with regard to their effectiveness in reducing the proliferation of dispersed ROWs crossing the landscape of Federal lands, their efficient and effective use, the types and numbers of projects within the corridors, where Section 368 corridors are being over- or under-utilized; the use of the IOPs, and lessons learned; and to inform the Regional Periodic Review of Section 368 corridors.

Section 3 identified issues related to ROW siting within Section 368 corridors, Section 368 corridor modification, and varying degrees of knowledge regarding Section 368 corridors among BLM offices and National Forests as the primary drivers impeding the effectiveness and usefulness of Section 368 corridors. While some field managers and all BLM National Project Managers encourage proponents to consider Section 368 corridors and to include them among the alternatives analyzed for final route selection, very few projects utilize Section 368 corridors to the fullest extent possible. The reasons for not using Section 368 corridors more fully and consistently include geographic location, congestion, “pinch points,” “cherry picking” by previous ROW grant holders, gaps in corridor continuity, environmental issues, and — perhaps most significant — the need for modified requirements by the agencies to use the Section 368 corridors to the maximum extent possible coupled with improved incentives for industry to use the corridors. The observations were based on the responses to questionnaires and discussions with BLM offices and National Forests. In accordance with the objectives of the Corridor Study, Sections 4.1 through 4.4 evaluate the issues identified by the BLM offices and National Forests and Section 4.5 identifies considerations to address the study findings in Regional Periodic reviews and alleviate some of these concerns to encourage more efficient and effective use of Section 368 corridors.

4.1 CORRIDOR CONGESTION

Corridor congestion can be caused by many factors. Some examples include:

Cherry-picking, where one or more prior ROW grantees may have meandered throughout the corridor, utilizing the whole width and making it unusable for subsequent applicants;

Pinch points, where a corridor may be reduced in width because of proximity to a specially designated area (e.g., Area of Critical Environmental Concern), an insurmountable terrain feature, or some other obstruction (e.g., an electric utility substation);

Habitat concerns, where an entire corridor or portion of a corridor may be restricted or rendered unusable because it encroaches on critical habitat for a protected species (e.g., desert tortoise, greater sage-grouse);

Spacing, where previous requirements for allowable space between projects may have resulted in an entire corridor being fully utilized by only a few projects; and

Mode contention, where greater separation between pipelines and electric transmission lines may be required to prevent pipeline corrosion.

BLM offices and National Forests reported all the examples listed above as reasons why some Section 368 corridors have not been utilized to the greatest extent possible. Co-location, alternatives to improve corridor spacing, and improved GIS information could relieve some of these congestion issues, which would make it easier to site ROWs within Section 368 corridors.

4.1.1 Co-location

Co-location will be an important component for land management in areas containing greater sage-grouse populations. Eight of the eleven western states are evaluating the greater sage-grouse in state-by-state greater sage-grouse land use plan amendments or revisions, as analyzed in Draft EISs published in 2013, which propose mitigation, including exclusion zones for greater sage-grouse habitat. Land use plan amendments or revisions could restrict the amount of new development (including utility ROWs) in those states.

Some alternatives proposed in the EISs would allow new ROWs, only if they are located in an existing corridor and are subject to caps on the amount of new disturbance. For some Section 368 corridors, existing infrastructure has 1,500-ft spacing between projects and has therefore consumed much of the corridor width, leaving little room for new projects.

A co-location exercise was performed along the entire route for the TransWest Express and Energy Gateway South Transmission Line Projects to avoid “cherry-picking” and to ensure that both projects could be located in the same corridor, since they shared many locations along their routes. A co-location exercise with project proponents starting at the pre-application process and continuing after application filing, and during the NEPA review but prior to the authorization of new ROWs, could encourage co-location to the greatest extent possible. It could help alleviate siting concerns in greater sage-grouse areas or other areas containing sensitive habitats and in corridors containing geographical pinch points, and would help avoid one ROW meandering across the entire corridor width. Co-location can also be encouraged by siting projects so that ROWs keep parallel to the centerline and by avoiding siting non-linear infrastructure such as renewable energy projects or oil and gas well pads in Section 368 corridors, which may negatively impact the future use of the corridor.

4.1.2 Alternatives to Improve Project Spacing within Corridors

ROW widths for transmission lines depend on a variety of factors, including climate, voltage, terrain, and type of support tower and should be considered when assessing ROW applications in order to maximize the number of ROWs that can be located in each Section 368 corridor. A variety of BMPs and technical alternatives can be used to help manage multiple ROWs located in a single Section 368 corridor and to maximize the use of the corridors.

- Agencies could encourage minimum spacing between ROW projects, consistent with accepted industry standards (BLM 2009; FS 2009). For example, full and consistent consideration should be given to the 2012 WECC new Adjacent Transmission Circuits definition that reduced the separation distance between center lines from 1,500 to 250 ft. This revised standard is intended to encourage “building more transmission lines within a common right-of-way, potentially resulting in more lines along a transmission corridor” and is consistent with the intent of EPLA Section 368(a) and FLPMA Section 503 (WECC 2013).
- Use of direct current (DC) may be preferable to use of alternating current (AC) transmission (Williams 2003). DC can transmit over long distances with fewer losses than AC and requires a smaller ROW than AC. AC would be converted to DC for transmission and then converted back to AC for distribution to customers on the AC power grid through a convertor station at each end of the transmission line. One 500-kV DC line can transport approximately the same amount of power as a double-circuit 500-kV AC line, two single-circuit 500-kV AC lines, or four double-circuit 240-kV AC lines (Williams 2003). In addition, high-voltage DC transmission produces negligible magnetic fields and does not generate voltages in adjacent metallic conductors such as pipelines. Although ground currents can lead to corrosion, overhead DC transmission lines would typically use bipolar transmission, which does not produce ground currents during normal operation (DOE and DOI 2008).
- Use of AC and DC underground cables may be preferable in some circumstances to use of overhead lines (Williams 2003).
- Alternative transmission tower designs and materials can be used (Williams 2003). Major design considerations include the selection of guyed versus freestanding towers, tower material type (wood versus steel or weathered steel), monopole versus lattice structure, and the arrangement of conductors on towers (single-circuit versus double-circuit or use of bundled conductors) (Molburg et al. 2007). As the voltage of transmission lines increases, the height of transmission towers, the distance between conductors on the towers, and the width of the ROW also increase. The type of support tower for transmission lines can also affect the width of the ROW. For example, a lattice-type tower where the conductors are supported in a horizontal configuration requires broad towers to achieve proper line separation, which in turn requires a wider ROW than a vertical configuration. A vertical configuration results in higher, narrower towers, and therefore a narrower ROW (Molburg et al. 2007; see photos available online at www.corridoreis.anl.gov).
- Agencies could consider siting ROWs parallel to the corridor centerline (i.e., to avoid cherry picking).

4.1.3 Spatial Data

Responses from BLM offices and National Forests indicate that there needs to be a better understanding of Section 368 corridor locations and the types of projects (linear versus non-linear facilities) that can be located within the corridors. GIS files were requested from BLM offices and National Forests that have received applications or that have granted ROWs in Section 368 corridors and have available GIS data. Data layers have been updated based on this information; however, not all BLM offices and National Forests submitted GIS data for post-ROD projects located within Section 368 corridors. Therefore, the current GIS data represents a sample of projects within Section 368 corridors, not an exhaustive list.

In addition, members of the public, State and local government agencies, and various environmental and industry groups provided updated spatial data for analysis of the Section 368 corridors. Defenders of Wildlife provided extensive GIS analysis which will be available for use in updating the Section 368 corridors GIS database. This information will be useful in future reviews of corridors in the previously identified six western regions.

The GIS spatial data are currently being used to identify overlaps between Section 368 corridors and planned transmission lines and will be compared with information received from the agencies.

As new sensitive lands (e.g., ACECs) are identified through land use planning efforts, GIS layers have been, and will continue to be updated to identify new overlaps between sensitive lands and Section 368 corridors. Currently available data showed that many new ACECs were designated since the corridors were designated in 2009 and partially overlap the corridors. However, so far no other categories of land protections intersecting the corridors were observed. Figures 4-1 through 4-7 illustrate the new ACECs that have been identified since designation of the Section 368 corridors. Figure 4-7 highlights Southern California, where several of these new areas have been identified and intersect with Section 368 corridors. These overlays demonstrate how spatial data analysis can be used to provide additional information for potential corridor modifications.

A web-based mapping tool focused on Section 368 corridors would be especially helpful for providing convenient access to all stakeholders of relevant and current data. The site could also include tools for suggesting and commenting on alternative routes, or automatically generating route alternatives that best satisfy a set of user-defined criteria, similar to the approach used by WECC for its proposed corridors, and for the Eastern Interconnection in the Eastern Interconnection States' Planning Council (EISPC) Energy Zones Mapping Tool.

4.1.4 Corridor Jurisdiction

Although Section 368(a) of EPA Act-prescribed designation of west-wide energy corridors across all Federal lands, and corridors on many Federal jurisdictions were studied in the West-wide Energy Corridors PEIS, only corridors on lands administered by the BLM and the FS were designated. This approach resulted in some gaps in corridors across Federal lands not

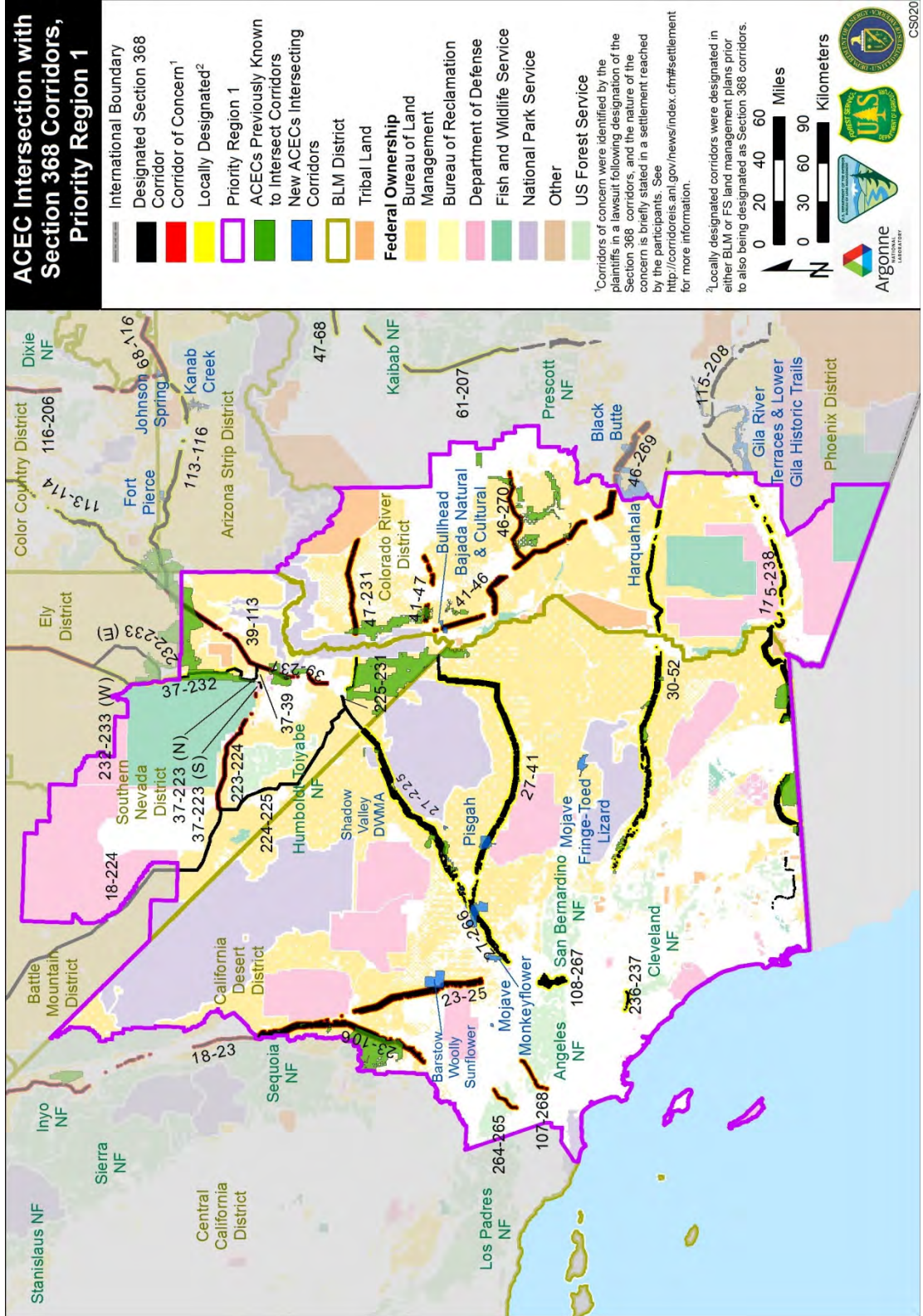


FIGURE 4-1 ACEC Intersection with Section 368 Corridors, Priority Region 1

ACEC Intersection with Section 368 Corridors, Priority Region 3

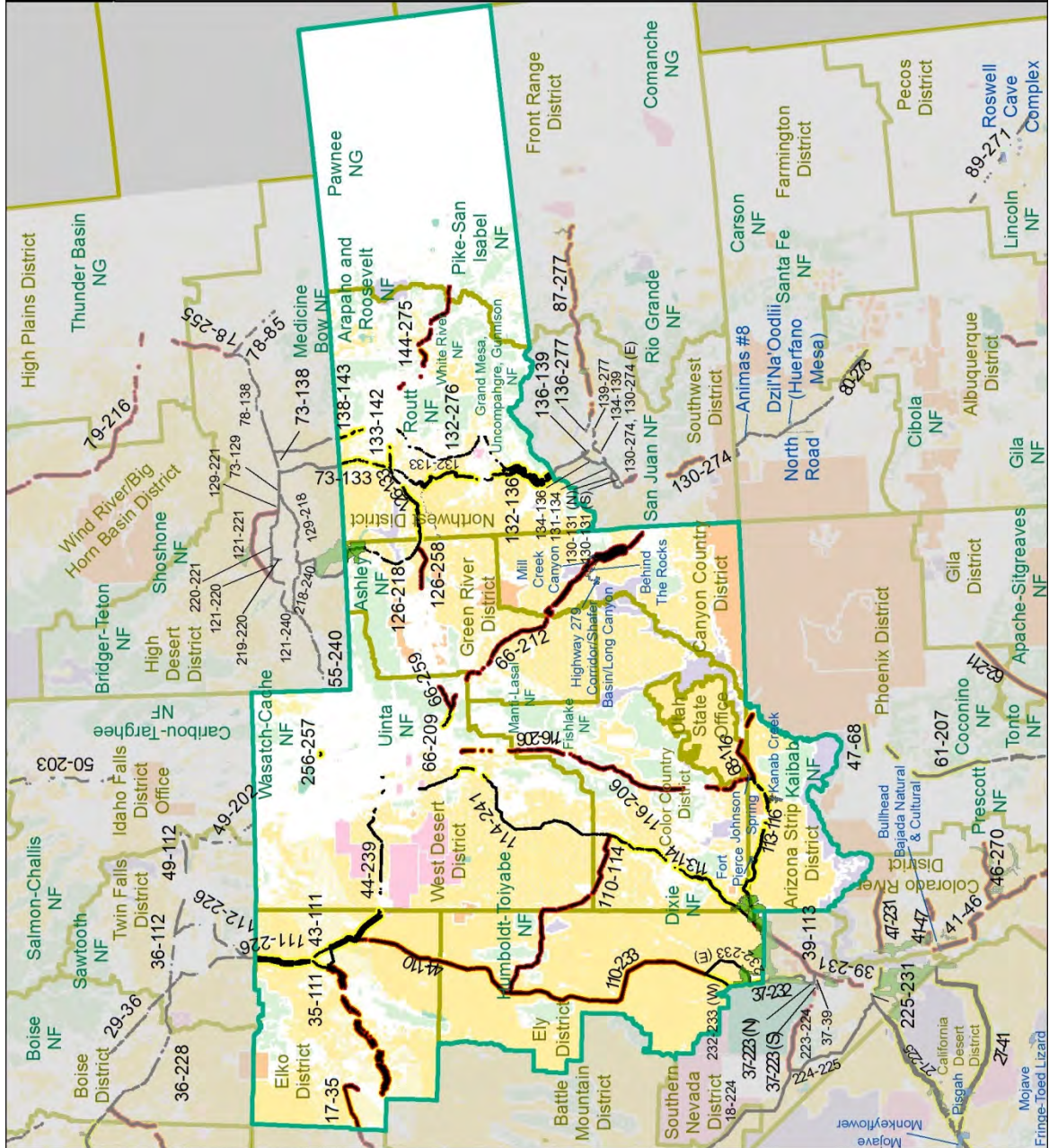


FIGURE 4-3 ACEC Intersection with Section 368 Corridors, Priority Region 3

ACEC Intersection with Section 368 Corridors, Priority Region 4

International Boundary
 Designated Section 368 Corridor
 Corridor of Concern¹
 Locally Designated²
 Priority Region 4
 ACECs Previously Known to Intersect Corridors
 New ACECs Intersecting Corridors (None in Current Extent)
 BLM District
 Tribal Land

Federal Ownership
 Bureau of Land Management
 Bureau of Reclamation
 Department of Defense
 Fish and Wildlife Service
 National Park Service
 Other
 US Forest Service

¹Corridors of concern were identified by the plaintiffs in a lawsuit following designation of the Section 368 corridors, and the nature of the concern is briefly stated in a settlement reached by the participants. See <http://corridors.eis.anl.gov/news/index.cfm#settlement> for more information.
²Locally designated corridors were designated in either BLM or FS land management plans prior to also being designated as Section 368 corridors.

0 25 50 75 Miles
 0 40 80 120 Kilometers

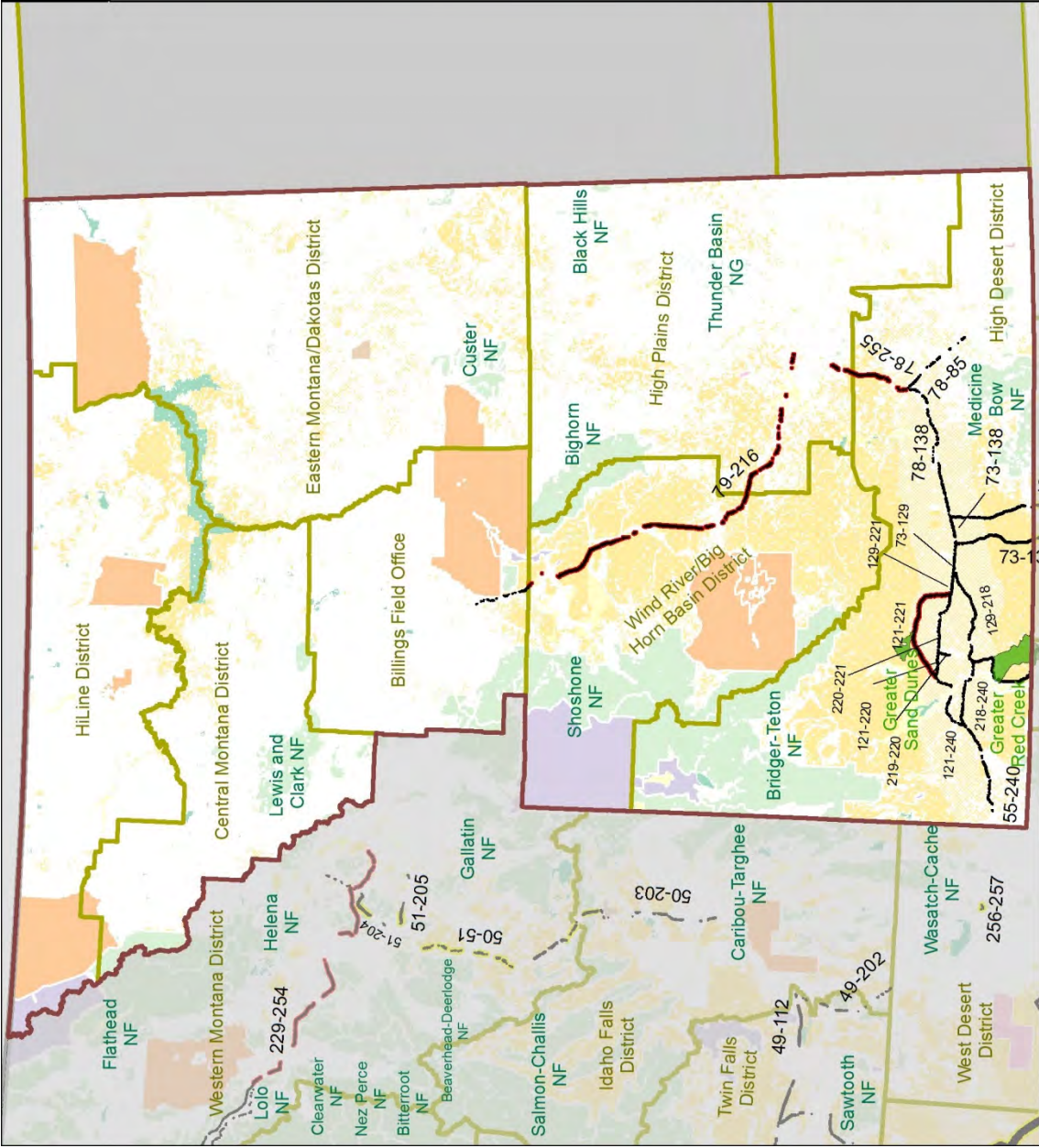


FIGURE 4-4 ACEC Intersection with Section 368 Corridors, Priority Region 4

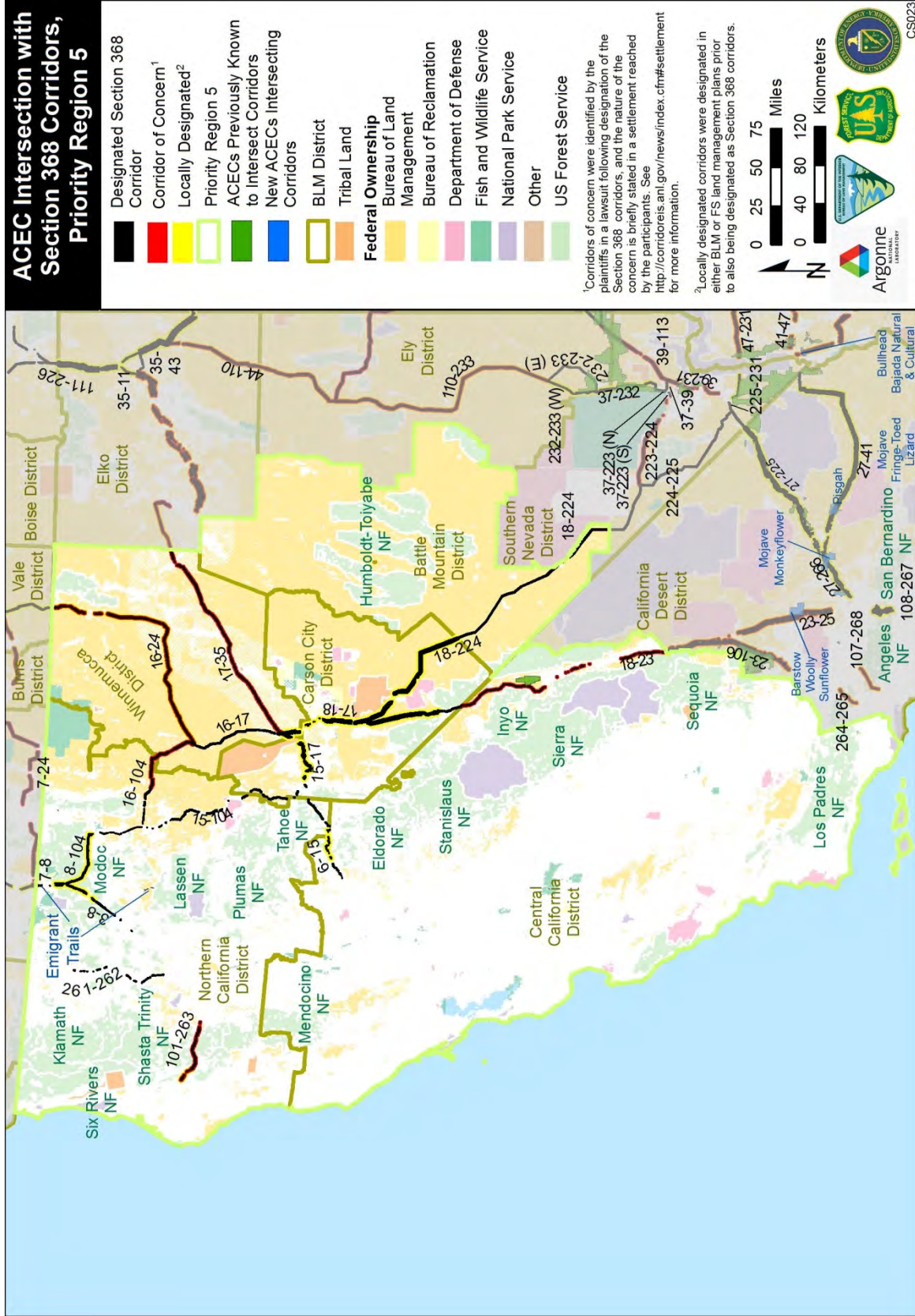
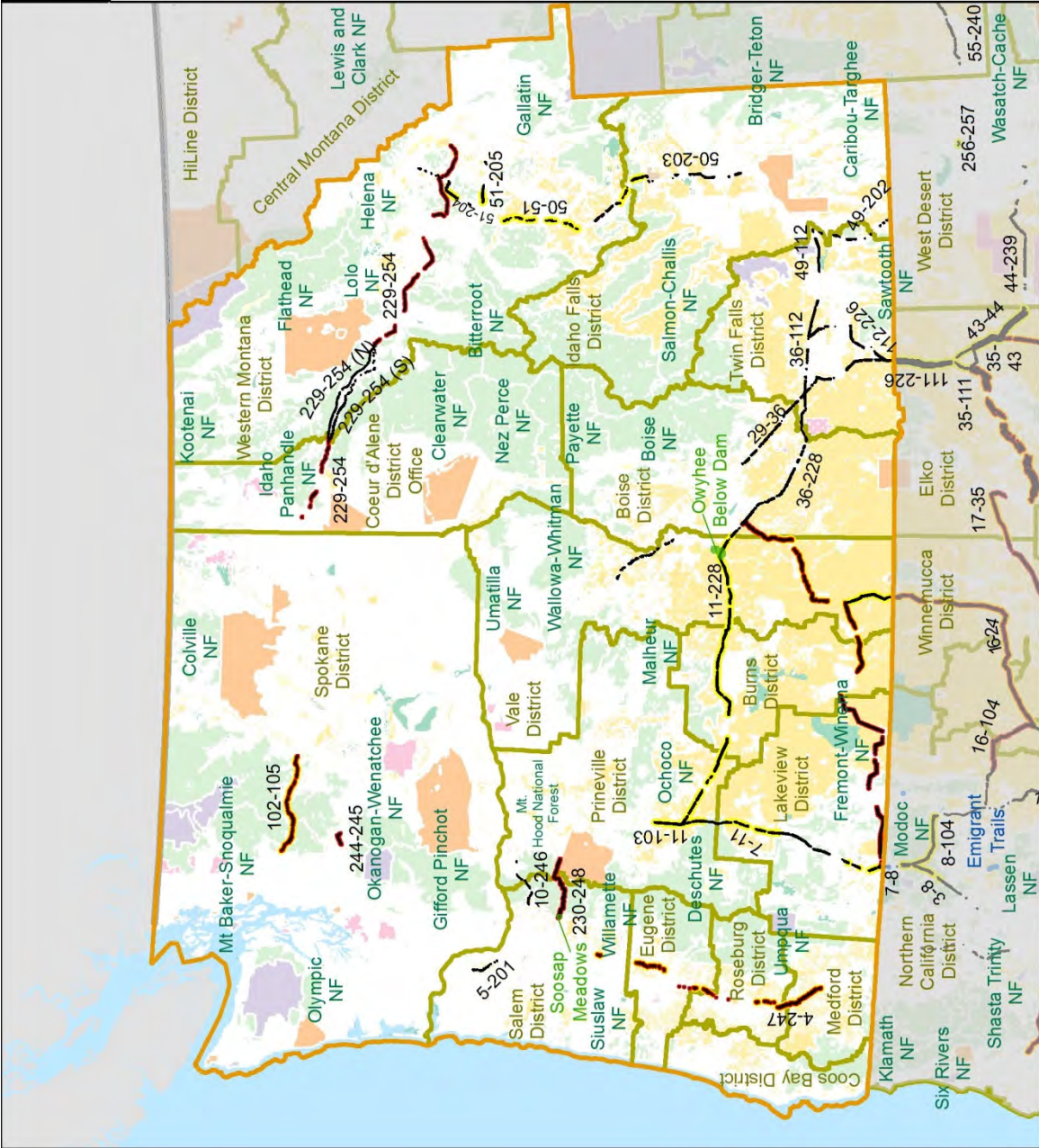


FIGURE 4-5 ACEC Intersection with Section 368 Corridors, Priority Region 5

ACEC Intersection with Section 368 Corridors, Priority Region 6



Legend:

- International Boundary
- Designated Section 368 Corridor
- Corridor of Concern¹
- Locally Designated²
- Priority Region 6
- ACECs Previously Known to Intersect Corridors
- New ACECs Intersecting Corridors
- BLM District
- Tribal Land

Federal Ownership

- Bureau of Land Management
- Bureau of Reclamation
- Department of Defense
- Fish and Wildlife Service
- National Park Service
- Other
- US Forest Service

¹Corridors of concern were identified by the plaintiffs in a lawsuit following designation of the Section 368 corridors, and the nature of the concern is briefly stated in a settlement reached by the participants. See <http://corridors.blm.gov/news/index.cfm#settlement> for more information.

²Locally designated corridors were designated in either BLM or FS land management plans prior to also being designated as Section 368 corridors.

Scale: 0 30 60 90 Miles / 0 50 100 150 Kilometers

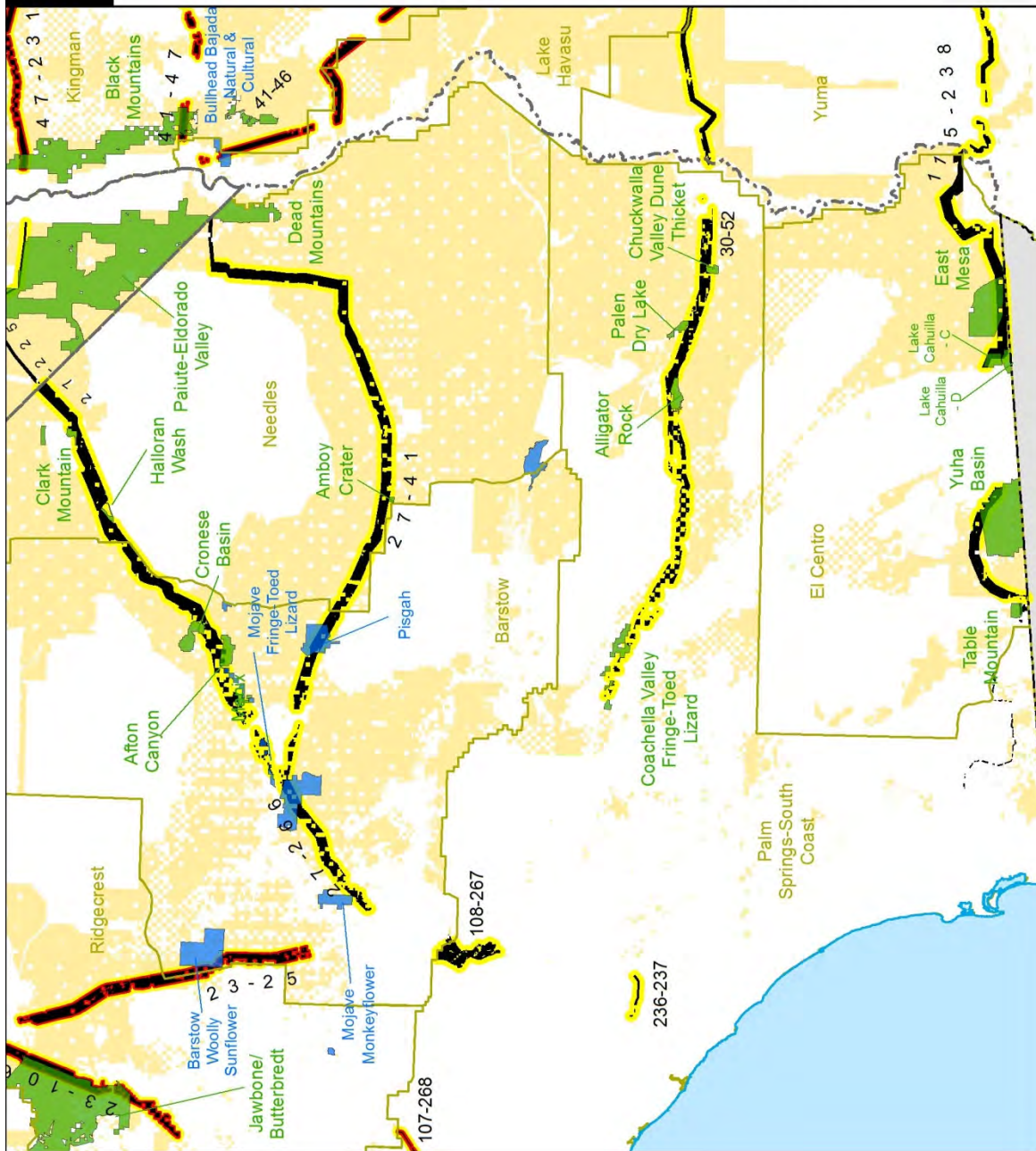
Logos: Argonne Laboratory, U.S. Forest Service, U.S. Department of the Interior, Bureau of Land Management

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FIGURE 4-6 ACEC Intersection with Section 368 Corridors, Priority Region 6

ACEC Intersections with Section 368 Corridors, Southern California

- State Boundary
- █ Designated Section 368 Corridor
- █ Corridor of Concern¹
- █ Locally Designated²
- █ ACECs Previously Known to Intersect Corridors
- █ New ACECs Intersecting Corridors
- █ BLM Field Office
- █ Bureau of Reclamation



¹Corridors of concern were identified by the plaintiffs in a lawsuit following designation of the Section 368 corridors, and the nature of the concern is briefly stated in a settlement reached by the participants. See <http://corridors.arl.gov/news/index.cfm#settlement> for more information.

²Locally designated corridors were designated in either BLM or FS land management plans prior to also being designated as Section 368 corridors.

0 10 20 30 Miles
0 10 20 30 Kilometers

Argonne LABORATORY

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CS007

FIGURE 4-7 ACEC Intersection with Section 368 Corridors, Southern California

administered by the BLM or the FS. For example, there are locations between designated Section 368 corridor segments that are interrupted by land administered by other agencies and could require a LMP amendment or revision to authorize a ROW. Figure 4-8 shows an example where a Bureau of Reclamation-managed extent resides in a gap of Corridor 39-231. Private development in the Las Vegas area constrains the east of the Reclamation area, and the Lake Mead National Recreation Area constrains the west. A possible solution in this case might be an MOU with Reclamation to authorize extending the corridor across Reclamation-administered land to connect with the designated segments on each side. In any event, gaps in corridors created by non-designated Federal land, State land, tribal land, and private land frustrate proponents and limit corridor effectiveness.

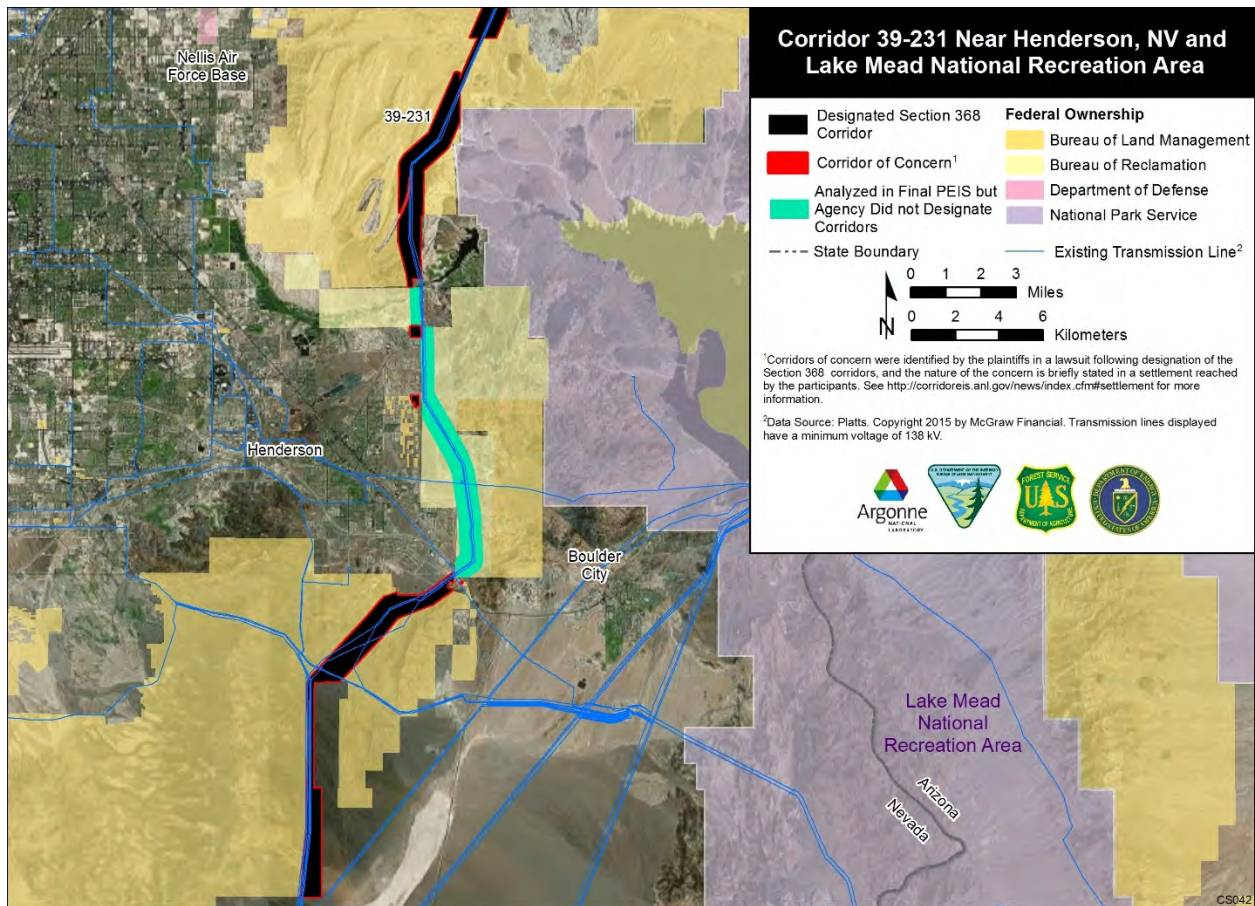


FIGURE 4-8 Example of Corridor Gaps Related to Portions of Corridors Studied in the PEIS Not Being Designated by Agencies other than the BLM and FS

4.2 CORRIDOR MODIFICATIONS

The 2013 MOU states that Section 368 corridor revisions, deletions, and additions will be considered for implementation through BLM and FS land use planning and environmental review processes. Final decisions on corridor modifications will occur at the regional or local level in accordance with applicable laws, regulations, and agency policies and guidance, including the requirements specified in Section 368 of the EPAct (BLM, FS, and DOE 2013).

As summarized in Section 3.2, most BLM offices and National Forests are aware that modifications can be made to Section 368 corridors through the land use planning process. To date, the only changes to Section 368 corridors have been modifications in corridor width. At least one BLM field office has included the removal of a corridor of concern as an alternative in its land use plan. None of the BLM offices or National Forests has designated additional Section 368 corridors, even though corridors have been added to BLM land use plans.

In its Draft RMP/EIS, the BLM Southern Nevada District Office has proposed modifying Section 368 corridors to avoid resource conflicts and to locate corridors where they are more likely to be developed by project proponents. Land use planning revisions underway in the Southern Nevada District Office provide an excellent example of how corridor modifications may be considered at a more refined level of planning and environmental analysis than was possible when the Section 368 corridors were first designated. The approach taken by the Southern Nevada District Office may serve as a broader model for both the BLM and the FS. A challenge worthy of further consideration concerns the pinching effect of reducing the width of designated corridors in order to navigate around specially designated areas. In some cases, this pinching effect can make a corridor less efficient or unusable, even for a single ROW.

Multiple large, long-distance interstate transmission line projects have been proposed throughout the 11 western states. These projects propose to co-locate adjacent to existing ROWs and use Section 368 corridors when feasible, private land, and BLM land not previously designated as corridors. None of these projects have been predominantly designated as new Section 368 corridors. In the future, long-distance corridors intended to carry interstate power should be considered for designation as additional Section 368 corridors using the process described in the Approved Work Plan (Appendix A of the 2013 MOU), as well as interagency and intergovernmental coordination to identify where the potential corridors cross multiple jurisdictions.

Most efforts to consider better corridor locations are the result of applicant preference, rather than BLM or FS preference for Section 368 corridors. There should be clear incentives for BLM offices and National Forests to designate new Section 368 corridors, as well as better incentives for industry to use the corridors. In addition, BLM offices and National Forests should be better educated about siting principles. As of March 2015, only one BLM District Office and no FS offices are considering relocating corridors in a land use plan revision in order to make them more compliant with siting principles. The need for corridor modifications should be addressed during regional corridor reviews. According to BLM Instruction Memorandum No. 2014-080 and FS Interim Directive No. 2720-2014, when undertaking land use plan revisions or amendments which consider revisions, deletions, and/or additions to EPAct Section 368(a)

corridors, the planning process, at a minimum, must meet the requirements specified in EPO Act Section 368(a) and must consider the corridor siting principles (BLM 2014a; FS 2014).

4.2.1 Corridors of Concern

Corridors of concern are described in Section 3.1. BLM offices and National Forests differ in their understanding about corridors of concern and how they respond to potential project proponents whose preferred route is in a corridor of concern. While it may require more rigorous analysis to use a corridor of concern, in some instances corridors of concern can be altered or modified to better fit the needs of an applicant. If a portion of the corridor can be modified to mitigate or avoid the concern, the corridor could still be a viable route for an applicant.

4.3 INTERAGENCY OPERATING PROCEDURES

IOPs are well understood by BLM National Project Managers and by many BLM offices. However, in some BLM offices and in most National Forests, the concept seems unclear. The West-wide Energy Corridor PEIS and subsequent guidance issued by both agencies describe IOPs and their use. There is a need for the BLM and FS to more clearly direct implementation of the guidance.

4.4 AGENCY GUIDANCE

BLM Instruction Memorandum No. 2014-080 and FS Interim Directive No. 2720-2014-2 provide guidance to field organizations regarding management of Section 368 corridors (BLM 2014a; FS 2014). Responses to questionnaires and follow-up interviews indicated a mixed understanding of the guidance at the field level in both agencies. While most BLM offices and some National Forests know what Section 368 corridors are, many are unclear about the finer points regarding the corridors, including their location, outreach to proponents, IOPs, corridors of concern, and planning implications. There may be a need for better direction and training to reach the field level.

There is a need to determine if and how FS field personnel can become more attuned to the Section 368 West-wide energy corridors on lands they administer and to engage them in more effective management of the corridors. In particular, there appears to be a need for a better understanding and application of FS guidance related to Section 368 corridors, as well as clarification and training of FS managers and staff regarding modification of Section 368 corridors to improve their utility and purpose. Consideration should be given to expanding the approach used in Region 4 to assign FS liaison officers to major interagency projects which often collaborate with the BLM National Project Managers. The study also found that industry has not pursued siting projects in Section 368 corridors within National Forest System lands as often as on BLM lands.

4.5 SUMMARY OF FINDINGS AND RELATED CONSIDERATIONS FOR REGIONAL PERIODIC REVIEWS

The BLM and the FS prepared this Corridor Study to assess the overall usefulness and effectiveness of Section 368 corridors and to inform the Regional Periodic Reviews. EAct, the Settlement, Executive Order 13604, and the 2013 Presidential Memorandum require that the BLM and FS periodically review the Section 368 corridors to assess the need for corridor revisions, deletions, or additions and will review IOPs. Regional Periodic Reviews should emphasize efforts by BLM and FS line managers to utilize designated corridors, including Section 368 corridors, more effectively and to modify Section 368 corridors where appropriate through land use planning amendments and revisions. Modification can include relocation, adjustments in width or allowable use, agreements with other jurisdictions to promote continuity, and removal. The regional reviews should also focus on identifying over-utilized corridors.

Based on the results in Section 3 and the evaluation in Sections 4.1 through 4.4, the following findings and considerations address challenges and opportunities to encourage more efficient and effective use of Section 368 corridors and should be considered during regional periodic reviews, in addition to the requirements in the EAct and the Settlement:

- Corridor congestion is caused by cherry-picking physical pinch points, resource concerns, and corridor spacing issues (including incompatibility between pipelines and transmission lines) and can prevent the development of multiple projects within a single corridor (Sections 3.1, 4.1.1, and 4.1.2). Each region could explore opportunities to:
 - Conduct co-location exercises (initiated at the pre-application process) to reduce bottlenecks and better ensure that multiple projects could be located in the same corridor.
 - Site ROW projects parallel to the centerline where feasible. Targeted on-the-ground inspections could be conducted during regional reviews to identify siting inefficiencies and siting opportunities.
 - Identify existing or anticipated siting conflicts related to adjacent uses which may not be compatible with siting major linear infrastructure (e.g., oil and gas well pads, meteorological towers, substations, compressor stations, etc.) through land use plan reviews and/or targeted on-the-ground inspections. In addition, agencies regional offices could identify appropriate siting distances between linear infrastructure as well as buffer distances from non-linear structures and the corridors.
 - Consider the effect that minimum spacing (consistent with accepted industry standards) would have on corridors between ROW projects. For example, the 2012 WECC new Adjacent Transmission Circuits definition that reduced the separation distance between centerlines

from 1,500 to 250 ft. Regional agencies offices could explore opportunities to adopt spacing standards and/or seek to incentive more efficient use of the corridors.

- Modify Section 368 corridors to allow for more uniform width to avoid ‘pinch points.’
 - Engage with industry and other technical experts to explore challenges and opportunities related to implementing project design alternatives such as the expanded use of DC current where feasible, undergrounding portions of high-voltage cables where feasible, and use of tower types with reduced footprints and/or visually less intrusive as well as modified or emerging materials.
- Responses from BLM offices and National Forests indicate that there needs to be a better understanding of Section 368 corridor locations and the types of projects (linear versus non-linear facilities) that can be located within the corridors. There is also considerable variability in the available GIS data and its adequacy for characterizing the type, level, and status of transmission activities involving the corridors (Sections 3.1, 3.7, and 4.1.3). The BLM and FS could:
 - Consider mapping Section 368 corridors and authorized rights-of-way within the corridors through established standards for GIS data, data collection, analysis, and retention/tracking, coupled with a web-based mapping tool, to display corridor locations, ROW authorizations, and environmental data for the 11 western states.
 - A web-based mapping tool focused on Section 368 corridors could be developed for a variety of protected areas and can be combined with other spatial information to provide convenient access to all stakeholders of relevant and current data.
 - During regional reviews, the agencies could focus on identifying over-utilized corridors. On-the-ground field inspections and review of official government land records could also be conducted as part of future regional reviews.
 - Only corridors on lands administered by the BLM and the FS were designated which resulted in some gaps in corridors across non-designated Federal land, State land, tribal land, and private land. Authorizing a ROW could require a LMP amendment/revision or easement, limiting corridor effectiveness (Sections 3.1 and 4.1.4). The BLM and FS could explore opportunities to:

- Improve corridor connectivity across administrative jurisdictions. For instance, the BLM and FS could collaborate with Reclamation to identify and designate corridors across Reclamation-administered land to connect with existing designated segments. This can also be applicable to other Federal and State agencies where gaps in corridors prevent corridor use.
- Address inconsistencies in siting and evaluation of proposed energy transport projects crossing Federal lands since the IOPs are not currently required for siting projects in non-Section 368 corridors.
- Responses to questionnaires and follow-up interviews indicated a mixed understanding of guidance regarding management of Section 368 corridors (BLM Instruction Memorandum No. 2014-080 and FS Interim Directive No. 2720-2014-2) at the field level in both agencies. (Section 4.4). Agencies could:
 - Update and expand education, training, and guidance, either on an intra-agency basis or inter-agency basis to help bridge the information gap and inform the agencies about Section 368 corridors and each agency's policies. This can include national webinars and additional training at the BLM National Training Center, which is used by both the BLM and FS.
 - In order to use the Section 368 corridors more fully and consistently, there is a need for expanded guidance and training by the agencies to use the Section 368 corridors to the maximum extent possible coupled with improved incentives for industry to use the corridors.
- The study found that industry has generally not pursued siting projects within corridors that cross National Forest System lands (Section 4.4).
 - This could be explored further during regional corridor reviews to better determine the challenges and opportunities to expand and improve siting projects on National Forests.
- The study found that there is a need for better understanding and application of FS guidance related to Section 368 corridors, including modification of Section 368 corridors (Section 4.4). In order to improve the corridors' utility and purpose, the FS could consider:
 - Expanding the approach used in Region 4 to assign FS liaison officers to major interagency projects which often collaborate with the BLM National Project Managers.

- The timeframe considered for this study was 2009 to 2014. Energy development and associated infrastructure are dynamic environments. Agency actions and public opinions regarding land uses and siting opportunities and constraints on federal lands constantly evolve and as stated in the Settlement, the Agencies will consider new information in their Regional Periodic Reviews (Section 1.4). Agency regional reviews could:
 - Include new and relevant information from 2015 and beyond to continue to seek further improvement of the corridors, to protect public lands and better serve the nation's energy needs.

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APPENDIX A:
CORRIDOR STUDY INITIAL QUESTIONNAIRE

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APPENDIX A:
CORRIDOR STUDY INITIAL QUESTIONNAIRE

Name of Respondent:

Agency:

State/Office (Region/Forest):

1. What outreach is conducted with prospective ROW applicants about the use of designated Section 368 corridors? Explain.

2. Which, if any, designated Section 368 corridor(s) have been considered for use by right-of-way applicants? List.

3. To what extent are designated Section 368 corridors being incorporated into ROW applications and grants? For example, completely, partially, not at all.

4. What, if any, post-ROD (for the West-wide Corridors PEIS) land use planning decisions affect the Section 368 Corridors? For example, have any corridors been added, deleted, had their routes changed, had their widths modified, or had their compatible uses changed?

5. How have Interagency Operating Procedures (IOPs) been used in the authorization and administration of any ROWs in Section 368 corridors?¹³

6. What rationale have applicants provided for using/not using designated Section 368 corridors?

¹³ See <http://corridoreis.anl.gov>, Final, Volume I, Section 2.4, about IOPs.

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APPENDIX B:
CORRIDOR STUDY FOLLOW-UP QUESTIONNAIRE

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APPENDIX B:

CORRIDOR STUDY FOLLOW-UP QUESTIONNAIRE

Name of Respondent:

Agency:

State/Office:

1. If a Section 368 corridor was an alternative in a proposed ROW application or the applicable NEPA analysis, but was not selected, what was the reason?

2. To what extent have proposed or granted ROWs limited subsequent use of Section 368 corridors by consuming the entire corridor width in a nonlinear fashion, i.e. 'cherry-picking'?¹⁴

3. What communication has been received from prospective utilities or ROW applicants about the existence and use of Section 368 corridors?

4. What communication that discourages use of Section 368 corridors has been received from government or non-government sources?

5. What are the obstacles to using Section 368 corridors for transmission line and pipeline construction?

¹⁴ See <http://corridoreis.anl.gov>, Final, Volume I, Section 2.4.1, Project Design, 1, about effective corridor use.

6. What are the benefits of using Section 368 corridors for transmission line and pipeline construction?
7. Provide recommendations for how to encourage the use of designated Section 368 corridors for transmission line and pipeline planning.
8. Which, if any, corridors are approaching capacity?
9. Which, if any, facilities within existing corridors have excess capacity resulting from declining coal-fired generation or for other reasons?
10. To what extent were 368 corridors included in amended RMPs since the West-wide Corridor ROD was signed?
11. Provide recommendations for modifying or deleting any existing designated Section 368 corridors.
12. Provide recommendations for identifying and designating any new Section 368 corridors.

APPENDIX C:
RESULTS FROM CORRIDOR ANALYSIS:
SECTION 368 CORRIDORS ON BLM LAND

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APPENDIX C:

**RESULTS FROM CORRIDOR ANALYSIS:
SECTION 368 CORRIDORS ON BLM LAND**

Table C-1 summarizes information received in writing from most Bureau of Land Management State Offices, District Offices, and Field Offices in response to a data call early in this Corridor Study process. Additional information was provided during follow-up telephone interviews with representatives from selected offices either with corridor activity or when clarification of written responses was needed. The table also contains notation regarding specific comments about individual Section 368 corridors.

TABLE C-1 Results from Corridor Analysis: Section 368 Corridors on BLM Land^{a,b}

State and FO	Corridors	Activity	Outreach	Utilization	Planning Implications	IOPs	Use/Non-Use Rationale	Comments
<i>Arizona</i>								
AZ Strip DO	113-116 & 68-116	Lake Powell water pipeline ROW application.	ROW applicants are encouraged to use designated corridors. If ROW alignment has not been determined, use ROW application.	All three ROWs are partially located in corridors. None are completely located within a corridor.	None	Included in NEPA analysis and grant stipulations.	Applicants have used the corridors and common access routes generally to avoid potential resource issues.	Obtain shape files where possible. Note: The February 2014 Summary of Pending BLM Projects lists a 230-kV transmission line for Corridor 68-116 and two 500-kV transmission line renewals for Corridors 113-116 and 68-116.
	113-116	Seegmiller Mountain 12.4-kV transmission line ROW application.	has not been determined, use of existing corridors is recommended.					
	113-116	Sun River to Beaver Dam 138/69-kV ROW grant.						
	116-206	None						
Kingman FO	41-46 41-47 46-269 46-270 47-231	None						Note: The February 2014 Summary of Pending BLM Projects lists a 600-kV transmission line for Corridors 41-47 and 47-231.
Lake Havasu FO	41-46 41-47 30-52 46-269	None						
Phoenix DO, Hassayampa FO	30-52 46-269 46-270 61-207	None	None	NA	Section 368 corridors were identified in plan amendments.	Not used.	NA	Note: The February 2014 Summary of Pending BLM Projects lists two 500-kV transmission line renewals for Corridor 61-207.

TABLE C-1 (Cont.)

State and FO	Corridors	Activity	Outreach	Utilization	Planning Implications	IOPs	Use/Non-Use Rationale	Comments
Phoenix DO, Lower Sonoran FO	115-208 115-238	None	None	NA	Section 368 corridors were identified in plan amendments.	Not used.	NA	Note: The February 2014 Summary of Pending BLM Projects lists a 500-kV transmission line for Corridor 115-238.
	81-213	SunZia Transmission Project application. Southline Transmission Project application.	Consulted with Project applicants.	SunZia would be outside corridor. Southline would be partially inside corridor in one alternative.	None	Not used, yet.	Applicants have selected routes outside the corridor because of resource issues.	Obtain shape files where possible.
Gila DO, Safford FO								
Yuma FO	115-238	Considered for North Gila to Imperial Valley No. 2 (NGIV2) transmission line project, but rejected by the applicant.	Not conducted.	None	None	Included in discussions with proponents, tribes, and agencies.	Corridor 115-238/115-208 has gaps on Federal land where proposed ROWs need to cross the Colorado River. Gaps in the designated Section 368 corridors would require a proposed project to be located outside a designated corridor, prompting the need for an RMP amendment.	
	30-52	None						
California								
Alturas FO	15-104	None	Some. Related to possible RMP amendment for greater sage-grouse issues.	None	Potential for modification related to greater sage-grouse issues.	No experience.	None	Note: The February 2014 Summary of Pending BLM Projects lists two transmission lines and one pipeline for Corridor 15-104.
	16-104 & 8-104	Some interest.						
	7-8	None						

TABLE C-1 (Cont.)

State and FO	Corridors	Activity	Outreach	Utilization	Planning Implications	IOPs	Use/Non-Use Rationale	Comments
Bishop FO	18-23	Existing transmission lines south of Bishop (800-kV DC and 230-kV AC for 19 mi); and 2-3 lines north of Bishop (800-kV DC and 115-kV AC for 40 mi).	Would explain Section 368 corridor as potential route to prospective applicants.	None	None	Would utilize if processing an application.	Depending on where proposed lines enter CA, Bishop FO would consider lines along the eastern Tri-Valley and Owens Valley area to reduce visual loading along the existing corridor. This would require a plan amendment.	
Barstow FO	23-25 27-225 27-266 27-41	Three projects potentially interested in one or more corridors.	None yet, will undertake in the future.	None yet.	None	Not yet, will use in future.	None	Determine which corridors are being considered.
El Centro FO	115-238	Being considered for use by Southwest Transmission Partners, LLC.	Encourage applicants to use Section 368 corridors during pre-application meetings, as well as co-locating with existing utilities when possible.	None yet.	None	Not yet, will use in future.	Applicants want to use the corridors for ease of planning, reducing costs, and most direct route.	Obtain shape file for application if possible.
Ridgecrest FO	23-106 18-23 23-25	Two pending applications. None	Applicants are directed to conduct activities within the Section 368 corridors.	Applications will be reviewed for use of the Section 368 corridor.	None, but unclear why the Section 368 corridor is inconsistent with same corridor in CA Desert Plan.	Use of IOPs is up to the CDD.	Applicants want to use alternative routes to avoid environmentally sensitive areas or to avoid land use management issues.	Obtain shape files for applications, if available.

TABLE C-1 (Cont.)

State and FO	Corridors	Activity	Outreach	Utilization	Planning Implications	IOPs	Use/Non-Use Rationale	Comments
Needles FO	27-225 27-41	Ten existing ROWs within one or both corridors. No applications pending.	None. During pre-application meetings BLM encourages applicants to use the corridors, as well as co-locating with existing utilities when possible.	Corridors are considered during the pre-application meetings, the application, and the NEPA process.	None	Not used so far.	None	Determine which Section 368 corridors have prior ROWs. Obtain shape files where appropriate.
Palm Springs-South Coast FO	30-52	Twenty-four ROW applications received for use of Corridor 30-52.	Use pre-application meetings to encourage use of Section 368 corridors.	Two applications completely within the corridor. Others only partially within the corridor.	None	Not used so far; will in future.	The 30-52 corridor follows existing corridors from the California Desert Plan, so using the Section 368 corridors helps simplify the NEPA process.	Obtain shape files where appropriate.
Eagle Lake FO	115-238 15-104	One proposed project. No application.	During pre-application, applicants are advised about the Section 368 corridors.	Where feasible – completely analyzed.	None	Not used so far.	Utility and cost.	
Redding FO	101-263 261-262	None	None	None	None	NA	NA	
<i>Colorado</i>								
Colorado River Valley FO	113-276	A 235-kV ROW was granted in this corridor.	Identify potential use of the Section 368 corridor to applicants.	ROW is only partially within the corridor.	None	Not used because only BLM involved.	Easements are required across private segments of Section 368 corridors.	Obtain shape file for 235-kV project.

TABLE C-1 (Cont.)

State and FO	Corridors	Activity	Outreach	Utilization	Planning Implications	IOPs	Use/Non-Use Rationale	Comments
Grand Jct. FO	132-136	Some interest for small, local projects. No pending projects.	Potential use of Section 368 corridors discussed with applicants.	Partially, but no explanation.	None	Have been used for ROWs in Section 368 corridors.	Non-use rationale includes terrain issues, location of existing facilities, and natural and cultural resource issues.	
	132-133							
	132-276							
Gunnison FO	87-277	None	None	None	None	NA	NA	
Kremmling FO	144-275	None	None	None	None	NA	NA	
	73-133	These corridors considered for use by several ROW applicants.	Potential use of Section 368 corridors discussed with proposed applicants.	Considered for partial use in two pending TransWest Express and Gateway South projects. No transmission line projects.	Corridors have been added for TransWest Express and Gateway South projects. No Section 368 corridors have been affected.	Not used because no ROWs granted in Section 368 corridors.	Using Section 368 corridors involves crossing too much private land.	Corridors 73-133, 138-143, and 126-133 are being considered for the Zephyr Transmission Line Project.
Little Snake FO	138-143							
	133-142							
Royal Gorge FO	126-133							
	132-133							
Royal Gorge FO	132-276	None						
	144-275							
Tres Rios FO	87-277	May be considered.	A plan will be developed if an application is received in a Section 368 corridor.	Section 368 corridors will be incorporated in ROW grants where feasible.	None	None	NA	
	130-131N	None	None	None	None	NA	NA	
	130-274							

TABLE C-1 (Cont.)

State and FO	Corridors	Activity	Outreach	Utilization	Planning Implications	IOPs	Use/Non-Use Rationale	Comments
Uncompahgre FO	130-131N 134-139	Proposed upgrade of existing facilities. Also involves Corridor 131-134 on NFS land.	Potential use of Section 368 corridors discussed with proposed applicants.	Proposed work is completely within the Section 368 corridors.	None	Will be used on the proposed project.	NA	
	130-131S	None						
	130-274							
	130-274E							
	132-136							
	134-136							
	136-139							
	139-277							
	136-277							
	White River FO	126-133 132-276	Considered for use by TransWest and Gateway South transmission projects.	None	Partially included in Gateway South and TransWest projects.	Recent plan amendments include the Section 368 corridors.	Not used.	None
132-133		Considered for use by TransWest transmission project.						

TABLE C-1 (Cont.)

State and FO	Corridors	Activity	Outreach	Utilization	Planning Implications	IOPs	Use/Non-Use Rationale	Comments
<i>Idaho</i>								
Boise DO, Bruneau FO, and Owyhee FO	36-228 29-36	Some interest, but none used.	Encourage prospective applicants to use Section 368 corridors.	None	None	NA	NA	The BLM National Project Manager for the western section of Gateway West said that the project considers Corridors 49-112 and 36-112 in the Burley, Shoshone, and Jarbidge FOs and Corridor 36-228 in the Owyhee and Bruneau FOs. The BLM National Project Manager for Boardman to Hemmingway said that the project considers Corridor 11-228 in the Owyhee FO.
	11-228 24-228	None						

TABLE C-1 (Cont.)

State and FO	Corridors	Activity	Outreach	Utilization	Planning Implications	IOPs	Use/Non-Use Rationale	Comments
Burley FO	112-226	Interest for SW Intertie Project.	Section 368 Corridors within the Burley FO have been	None	None	NA	Varies by project.	
	111-226		through internal and external scoping and continue to have public outreach. Prospective applicants are encouraged to consider using the corridors.					
	49-202	Interest for Gateway West Project.						
	36-226	None						
Cotton-wood FO	None	None	None	None	None	NA	NA	
Coeur d'Alene FO	229-254	None	Applicants are encouraged to use existing ROW corridors for placement of new authorizations when appropriate.	None	None	NA	NA	
Jarbidge FO	36-112	Considered by Gateway West Project.	BLM website and discussions with prospective applicants.	Some Section 368 corridors have existing ROWs, but no new ROWs granted.	Widths of Section 368 corridors were increased to 1 mi.	NA	NA	
	36-228							
	29-36							
	36-226	Considered for Southwest Intertie Project.						

TABLE C-1 (Cont.)

State and FO	Corridors	Activity	Outreach	Utilization	Planning Implications	IOPs	Use/Non-Use Rationale	Comments
Pocatello FO	49-202	Considered by Gateway West Project.	None	None	None	NA	NA	
Shoshone DO	36-112 49-112 112-226	Considered for use by Gateway West.	None by FO, but probably by the National Project Manager.	Portions of some corridors may be used by Gateway West. Some have existing ROWs.	None	NA	NA	
Upper Snake FO	50-203	Some interest for MSTI.	None	None	None	NA	NA	
<i>Montana</i>								
Billings FO	79-216	Only if a proposed project was nearby.	None	None	None	NA	NA	
Butte FO	51-204	Considered for MSTI project.	None, but public outcry doomed the MSTI project	None	None	NA	NA	
	51-205 229-254	None	use of the corridor because of too much private land.					
Dillon FO	50-203 50-51	Some interest for MSTI.	None	None	None	NA	NA	
Missoula FO	229-254	None	None	None	None	NA	NA	

TABLE C-1 (Cont.)

State and FO	Corridors	Activity	Outreach	Utilization	Planning Implications	IOPs	Use/Non-Use Rationale	Comments
<i>Nevada</i>								
Winnemucca DO	16-24	None	Encourage applicants to think about using identified corridors for co-location of projects.	None	None	Not used so far.	Applications for 120-kV and smaller transmission lines have not considered the Section 368 corridors.	
	17-35							
	15-17							
	16-104							
	16-17							
17-18								
Carson City DO	15-17	None	None	None	None	NA	NA	
	15-104							
	17-18							
	18-224							
	18-23							
Elko DO	17-35	None	Requested Ruby Pipeline to use Corridor 17-35 along I-80, but they went farther north.	None	None	NA	Over 50% of the Ruby pipeline followed corridors identified in the Elko and Wells Resource Management Plans instead.	Note: The February 2014 Summary of Pending BLM Projects lists three natural gas pipelines for Corridor 17-35.

TABLE C-1 (Cont.)

State and FO	Corridors	Activity	Outreach	Utilization	Planning Implications	IOPs	Use/Non-Use Rationale	Comments
Ely DO	110-233 37-232	Online project 500-kV line was completed in 2014. Approved ROW for 230-kV line and water pipeline in lower sections as part of the Southern Nevada Water Authority Groundwater Development Project.	Outreach is completed during pre-application meetings and continues through development of the project. Scoping and public meetings.	Proponents recommended to use Section 368 corridors, but the district also has several congressional designated corridors.	Corridors were incorporated in 2008 Ely RMP. Several other corridors were added, but none as Section 368 corridors. Corridor 232-233W has been modified by the Ely RMP. Only the southern portion remained, the upper loop was removed.	Modified by NEPA and incorporated as best management practices.	Distance and cost are major considerations for using or not using a corridor.	Note: The February 2014 Summary of Pending BLM Projects lists two 138-kV transmission lines and a 24-36 in. pipeline for Corridor 110-233, and a 500-kV transmission line for Corridors 110-233 and 113-114.
	110-114	New substation developed to wind energy project in Spring Valley.						Corridors 113-114 and 39-113 are being considered for the Zephyr Transmission Line Project.
	39-113 44-110 113-114 113-116	None						
	232-233E	Approved ROW for Kane Springs water project.						
	232-233W	Approved ROW for USAF 69-kV line.						

TABLE C-1 (Cont.)

State and FO	Corridors	Activity	Outreach	Utilization	Planning Implications	IOPs	Use/Non-Use Rationale	Comments
Southern Nevada DO	18-224	Six pending ROWs.	Refer applicants to WWEC PEIS.	Three ROW grants encumber Corridor 27-225 with nonlinear features related to renewable energy development	Ongoing land use plan revisions will address compatible uses of Section 368 corridors as well as modifications, additions, and deletions of Section 368 corridors.	Beginning to incorporate in revised land use plans and project-level analyses.	Applicants are proposing at least one alternative for use of Section 368 corridors where available.	Obtain shape files where possible.
	224-225	Eight pending ROWs.	Scoping and public meetings.					Corridors 39-113 and 39-231 are being considered for the Zephyr Transmission Line Project.
	37-232	Two pending ROWs.						
	37-232N	One pending ROW.						
	37-223S	Three pending ROWs.		Ongoing studies will review the effects of this type of ROW on Section 368 corridors.				
	37-39	One pending ROW.						
	225-231	One pending ROW.						
	27-225	Three pending ROWs.						
	223-224	Four pending ROWs.						
	39-113	Five pending ROWs.						
39-231	Six pending ROWs.							
47-231	Two pending ROWs.							
<i>New Mexico</i>								NM SO response indicated no Section 368 corridors in NM have been considered, Las Cruces DO is exception.

TABLE C-1 (Cont.)

State and FO	Corridors	Activity	Outreach	Utilization	Planning Implications	IOPs	Use/Non-Use Rationale	Comments
Las Cruces DO	81-213	Southline ROW application.	Recommended use of these Section 368 corridors during pre-application meetings.	Alternatives within both corridors are being considered for these projects.	None	Not used.	None identified.	
	81-272	SunZia ROW application.						
Albuquerque DO	80-273	None	Prospective applicants informed about Section 368 corridors.	None	None	Not used.	Cost and utility do not meet prospective applicants' needs.	
	81-272							
Farmington DO	80-273	None	Prospective applicants informed about Section 368 corridors.	None	None	Not used.	Cost and utility do not meet prospective applicants' needs.	
Pecos DO	89-271	An application was submitted for a 30-in. CO ₂ pipeline using Corridor 89-271 was proposed but withdrawn.	Prospective applicants informed about Section 368 corridors.	There are existing pipelines in Corridor 89-271, and new ROWs could be mitigated to avoid impacts on the Roswell Cave Complex ACEC.	None	Not used.	Cost and utility do not meet prospective applicants' needs.	Note: The February 2014 Summary of Pending BLM Projects lists a 30-in. pipeline for Corridor 89-271.
Oregon-Washington								
Burns DO	7-24	None	None	None	None	NA	Poor location of Corridor 7-24 discourages interest.	
	11-228						Preference expressed for a N-S corridor into NV.	
Coos Bay DO	None	None	None	None	None	NA	NA	

TABLE C-1 (Cont.)

State and FO	Corridors	Activity	Outreach	Utilization	Planning Implications	IOPs	Use/Non-Use Rationale	Comments
Eugene DO	4-247	None	None	None	None	NA	NA	
Lakeview DO	7-11 7-24	None	None	None	None	NA	NA	
Medford DO	4-247	None	None	None	None	NA	Corridor location does not work for the only interested applicant.	
Prineville DO	11-103 11-228 7-11	Some interest.	Pre-application meetings with prospective applicants to encourage use of existing corridors, including Section 368 corridors.	None	None	NA	NA	Note: The February 2014 Summary of Pending BLM Projects lists a transmission line upgrade for Corridor 11-103.
Roseburg DO	4-247	None	None	None	None	NA	NA	
Salem DO	5-201 10-246 230-248	None	None	None	None	NA	NA	
Vale DO	11-228 250-251	Considered for B2H.	None	Considered for B2H.	None	Incorporated into the B2H analysis process.	There have been no other proposals to use Section 368 corridors in Vale.	
	24-228	None						
	7-24							
	16-24							

TABLE C-1 (Cont.)

State and FO	Corridors	Activity	Outreach	Utilization	Planning Implications	IOPs	Use/Non-Use Rationale	Comments
Utah								
Cedar City FO	113-114 114-241	Existing 500-kV transmission line. Full or partial use for Sigurd to Red Butte 345-kV transmission line, the UNEV petroleum pipeline, and other smaller ROW projects. Also being considered for TransWest Express 600-kV transmission line and Zephyr 500-kV transmission line.	Pre-application meetings with prospective ROW applicants to promote use of Section 368 corridors and to inform about corridors of concern.	Large-scale linear ROW projects use Section 368 corridors and smaller projects try to use them as well.	None yet, but may modify Corridor 113-114 because of natural resource issues. In the new Cedar City RMP, at least one alternative is being considered to remove or undesignate Corridor 110-114.	All applicable IOPs have been incorporated into authorized ROW projects located within Section 368 corridors since the ROD was signed.	Rationale for using Section 368 corridors includes expedited permitting, favorable topography, and co-location of infrastructure. Rationale for not using includes need for more separation, less congestion, and to meet specific project needs.	Need to get GIS data for how projects are located partially or fully within the corridors.
	110-114	None						

TABLE C-1 (Cont.)

State and FO	Corridors	Activity	Outreach	Utilization	Planning Implications	IOPs	Use/Non-Use Rationale	Comments
Grand Staircase-Escalante National Monument	68-116	Several ROW grants issued for smaller projects that partially use the corridor. An application received for a large buried water pipeline and supporting infrastructure, including transmission lines. Another application proposed to upgrade facilities on an existing transmission line within the corridor.	Applicants are encouraged to use the Section 368 corridor whenever possible during pre-application meetings.	Uses the Section 368 corridor, which was previously designated by Public Law prior to Section 368 designation.	None, but recent NLCS manual instructions address ROW use in National Monuments.	Used when applicable.	None	

TABLE C-1 (Cont.)

State and FO	Corridors	Activity	Outreach	Utilization	Planning Implications	IOPs	Use/Non-Use Rationale	Comments
Fillmore FO	114-241	Considered for - UNEV Pipeline Project, PacifiCorp Mona to Oquirrh Transmission Project, Magnum Gas Storage Project, TransWest Express, Zephyr Transmission Line Project.	Prospective applicants are informed about the Section 368 corridors and encouraged to use them. Project proponents are informed if their proposal includes a corridor or concern.	None	The House Range, Warm Springs, and Pony Express RMPs were not amended by the PEIS; therefore the corridors are not officially designated within the Fillmore FO.	NA	The FO encourages all project applicants to consider Section 368 corridors as alternatives; thus far, all applicants have been willing to do this.	
	116-206	Considered for PacifiCorp Mona to Oquirrh Transmission Project but was eliminated from detailed analysis in the EIS.					There have been concerns from DOD about Corridor 114-241 regarding impacts on military readiness.	
	110-114	None						

TABLE C-1 (Cont.)

State and FO	Corridors	Activity	Outreach	Utilization	Planning Implications	IOPs	Use/Non-Use Rationale	Comments
Salt Lake FO	114-241	UNEV Pipeline and Rocky Mountain Power Mona to Oquirrh transmission line are partially within the corridor.	Applicants are informed about the Section 368 corridors and encouraged to use them wherever possible.	Use of the Section 368 corridors has been accomplished with coordination with other agencies, applicants, National Project Managers, and the Fillmore FO.	Despite mandated planning restrictions, the Salt Lake FO has modified plans to designate additional corridors that extend the utility of the Section 368 corridors.	Not clear. (May not have understood the question.)	Rationale for non-use includes location, expense, incompatibility of pipelines and transmission lines, and inadequate separation for transmission lines.	Need to get GIS data for how projects are located partially or fully within the corridors. Note coordination with Fillmore FO on ROW projects within Corridor 114-241, while Fillmore does not acknowledge any activity.
	66-209 66-212 66-259	TransWest Express, Gateway South, and Zephyr transmission projects are proposed for these corridors						
	116-206 44-239	None						
Price FO	66-212	None	None	None	None	NA	NA	
Richfield FO	116-206	Full or partial use for the Sigurd to Red Butte 345-kV transmission line. Considered for at least partial use for the Gateway South and Zephyr transmission line projects.	Discussions during pre-application and subsequent meetings, including information about 116-206 as a corridor of concern.	For larger-scale linear ROWs, Section 368 corridors are being used at least partially for every project. For smaller-scale ROW projects, the corridors are used wherever possible.	None.	All applicable IOPs have been incorporated into authorized ROW projects located within Section 368 corridors since the ROD was signed.	Use: includes expedited permitting, favorable topography, and co-location of infrastructure. Non-use: includes the need for added separation, does not meet project needs, and to avoid congestion.	Need to get GIS data for how projects are located partially or fully within the corridor.

TABLE C-1 (Cont.)

State and FO	Corridors	Activity	Outreach	Utilization	Planning Implications	IOPs	Use/Non-Use Rationale	Comments
Kanab FO	116-206	None	Discussions with prospective applicants.	A small portion of Corridor 116-206 was used for an amended water pipeline ROW.	None	NA, but are consistent with best management practices used regularly.	NA	
Moab FO	66-212	An application was received for a gas pipeline (6-8 in.) ROW from Gray Canyon Energy. The FO encouraged using the corridor, but it was not considered by the applicant.	None	This corridor pre-dates Section 368 designation and has multiple infrastructure elements in place.	None	NA	Gray Canyon Energy used access as a reason for not using the Section 368 corridors. Its proposal follows a county road.	
Monticello FO	66-212	None	None	None	None	NA	NA	
St. George FO	113-114	Several ROWs that pre-existed Section 368 designation. The UNEV pipeline ROW was recently granted. The corridor is being considered for the 600-kV TransWest Express and Zephyr transmission lines.	Pre-application and follow-up meetings are held with ROW applicants, and emphasis is placed on use of Section 368 corridors for large transmission and pipeline projects.	For larger-scale linear ROWs, Section 368 corridors are being used at least partially for every project. For smaller-scale ROW projects, the corridors are used wherever possible.	None	Not familiar with the term.	A "bottleneck" in Corridor 113-114 on the Dixie NF precludes further use of the corridor within the St. George FO.	Need to get GIS data for how projects are located partially or fully within the corridor.
	113-116	None						

TABLE C-1 (Cont.)

State and FO	Corridors	Activity	Outreach	Utilization	Planning Implications	IOPs	Use/Non-Use Rationale	Comments
Vernal FO	126-258	Corridor being considered for TransWest Express 600-kV, Gateway South 500-kV, and Zephyr 500-kV transmission lines.	Pre-application and follow-up meetings are held with ROW applicants, and emphasis is placed on use of Section 368 corridors for large trans-mission and pipeline projects.	Vernal FO seeks to place major ROW project proposals within established corridors, including Section 368 corridors.	Have to designate additional corridors because of incompatibility of pipeline and transmission lines in same corridor.	All applicable IOPs have been incorporated into authorized ROW projects located within Section 368 corridors since the ROD was signed.	Rationale for using includes expedited permitting, favorable topography, and co-location of infrastructure. Rationale for not using includes the need for added separation, does not meet project needs, and to avoid congestion.	Corridor 126-217 is listed in Appendix A of the WWEC PEIS, but does not appear in the PEIS atlas and may no longer be a valid corridor. It is an extension of Corridor 126-133 coming from Colorado according to BLM UT SO rep.
	126-217 126-218	None						
Wyoming	Listed by DO and FO below.	The TransWest transmission project is analyzing Section 368 corridors in south-central Wyoming.	Applicants have been provided a letter identifying alternatives that cross Section 368 corridors, and explaining corridors of concern may be controversial; analysis will include alternatives that do not cross corridors of concern.	They are identified in pre-application meetings, scoping and the development of the application. They are analyzed in the NEPA process. The public provides comments during the scoping process and during the public comment periods for the EIS.	Some Section 368 corridors have been modified during plan amendments.	IOPs are incorporated during all project phases.	Co-location allows for construction of fewer new facilities and generally has less impact on all resources.	Clarify how plans modify Section 368 corridors.
Buffalo FO	None	None	None	None	None	NA	NA	NA

TABLE C-1 (Cont.)

State and FO	Corridors	Activity	Outreach	Utilization	Planning Implications	IOPs	Use/Non-Use Rationale	Comments
Casper FO	78-255	Will be used by Gateway West Transmission line.	Most outreach occurs at the point a project is being considered, usually at the pre-application stage.	Gateway West is completely within 78-255. WAPA's substation is completely within 79-216. High Plains Power lines are partially within 79-216.	None	IOPs were followed in the EIS analysis for Gateway West project. IOPs were not needed for the smaller WAPA and High Plains projects.	NA	
	79-216	Considered for Gateway West. Used for new WAPA sub-station. Used by High Plains Power for connected distribution lines.						
Cody FO	79-216	None	Applicants advised to use designated corridors.	None	None	NA	NA	
Worland FO	79-216	None	Applicants advised to use designated corridors.	None	None	NA	NA	

TABLE C-1 (Cont.)

State and FO	Corridors	Activity	Outreach	Utilization	Planning Implications	IOPs	Use/Non-Use Rationale	Comments
Rawlins FO	78-255	Portions used for Gateway South and Gateway West.						No response from questionnaire because one or more Section 368 corridors included in a National Project and they have no information.
	78-138							
	73-138							
	129-218	None						Note: The February 2014 Summary of Pending BLM Projects lists a 500-kV transmission line for Corridors 78-138 and 73-133.
	129-221							
	138-143							
	73-129							
	73-133							
	78-85							
							The BLM National Project Managers for Gateway South and the western portion of Gateway West indicated Gateway South and the eastern section of Gateway West use portions of Corridors 78-255, 78-138, and 73-138 in the Rawlins FO.	
							Corridors 73-133, 73-138, 8-138, 138-143, and 78-255 are being considered for the Zephyr Transmission Line Project.	

TABLE C-1 (Cont.)

State and FO	Corridors	Activity	Outreach	Utilization	Planning Implications	IOPs	Use/Non-Use Rationale	Comments
Rock Springs FO	121-221	Pending 16- and 24-in. pipeline project.	Discussed with proponents if a Section 368 corridor.	Not at all.	Re-evaluation of the corridors will be completed in the ongoing RMP revision, with the potential of deleting one of the designated routes.	Many of the IOPs are standard procedures for processing any ROW in the Rock Springs FO.	Since the designation of the Section 368 corridors, there has been limited demand for the corridors. Further, the applications for linear facilities have not traveled the same routes as the Section 368 corridors; therefore they have not been used.	The BLM National Project Managers for Gateway South and the western portion of Gateway West indicated the eastern section of Gateway West does not use any Section 368 corridors in the Rock Springs FO.
	121-220							
	121-240	None						
	126-218							
	129-221							
	218-240							
Kemmerer FO	219-220							
	220-221							
	121-240 218-240 55-240	None						No response because one or more Section 368 corridors included in a National Project and they have no information. The BLM National Project Managers for Gateway South and the western portion of Gateway West indicated the eastern section of Gateway West does not use any Section 368 corridors in the Kemmerer FO.

^a Yellow highlight indicates that the corridor has existing infrastructure that pre-dates Section 368 designation. These corridors were identified using the Section 368 Corridors GIS database.

^b Abbreviations: AC = alternating current; B2H = Boardman to Hemingway; BLM = Bureau of Land Management; CDD = California Desert District; DC = direct current; DO = District Office; DOD = U.S. Department of Defense; EIS = environmental impact statement; FO = Field Office; IOP = interagency operating procedure; MSTI = Mountain States Transmission Intertie project; NA = not applicable; NEPA = National Environmental Policy Act; NFS = National Forest System; NLCS = National Landscape Conservation System; PEIS = programmatic environmental impact statement; ROD = Record of Decision; ROW = right-of-way; SO = State Office; SW = southwest; USAF = U.S. Air Force; WAPA = Western Area Power Administration; WWEC = West-wide Energy Corridor.

APPENDIX D:
RESULTS FROM CORRIDOR ANALYSIS: SECTION 368 CORRIDORS
ON NATIONAL FOREST SYSTEM LAND

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APPENDIX D:

**RESULTS FROM CORRIDOR ANALYSIS: SECTION 368 CORRIDORS
ON NATIONAL FOREST SYSTEM LAND**

Table D-1 summarizes information received in writing from some U.S. Forest Service Regional Offices and National Forest Offices in response to a data call early in this Corridor Study process. A follow-up telephone interview with a representative from one of those offices provided additional information. The table also contains notation regarding specific comments about individual Section 368 corridors.

TABLE D-1 Results from Corridor Analysis: Section 368 Corridors on National Forest System Land^{a,b}

Region and Forest	Corridors	Activity	Outreach	Utilization	Planning Implications	IOPs	Use/Non-Use Rationale	Comments
R-1	51-205 (Beaverhead-Deerlodge NF)	Interest for use expressed by MSTI. No other Section 368 corridors in R-1 have any activity.	Discussed with proponent.	None, because MSTI project withdrawn.	None	NA	For: compliance with Federal land management policy. Against: response to issues raised by proposal.	Response effectively covers the NFs with corridors in the region.
Idaho Panhandle NF	229-254 229-254N 229-254S							No response.
Beaverhead-Deerlodge NF	51-204 51-205 229-254							No response.
Lolo NF	229-254 229-254N 229-254S							No response.
R-2								Responses transmit questionnaires from all but one NF in R-2.
Arapaho-Roosevelt NF	144-275	This forest has had no requests for transmission projects that have involved the use of Section 368 corridors.						

TABLE D-1 (Cont.)

Region and Forest	Corridors	Activity	Outreach	Utilization	Planning Implications	IOPs	Use/Non-Use Rationale	Comments
GMUG NF	130-131N 131-134	Tri-State Electric has proposed an upgrade to its existing transmission line partially within these two Section 368 corridors.	Tri-State was informed that its proposed upgrade from 115 kV to 230 kV would be subject to the Section 368 corridor designation procedures.	These two corridors have an existing ROW with a proposal to upgrade the line.	None	IOPs required by the 368 procedures will be applied to the upgrade.	Tri-State will continue to occupy the two segments of the Section 368 corridors with the line upgrade.	
	87-277							
	130-131S 130-274							
	130-274E							
	134-136 134-139							
	87-277							No response.
Pike-San Isabel NF								
	Medicine Bow-Routt NF	This forest has had no requests for transmission projects that have involved the use of Section 368 corridors.						
San Juan NF	130-274	Some interest by trans-continental pipeline company in 2011, but no follow-up.	Informed proponent about Section 368 corridors and suggested consideration.	None	None	NA	Mountainous terrain cited as reason for not using Corridor 130-274.	
	R-3							No response.
Apache-Sitgreaves NF	62-211							No response.
	Coronado NF 234-235							No response.
Kaibab NF	47-68 61-207							No response.
	Prescott NF 61-207							No response.
Tonto NF	62-211							No response.

TABLE D-1 (Cont.)

Region and Forest	Corridors	Activity	Outreach	Utilization	Planning Implications	IOPs	Use/Non-Use Rationale	Comments
R-4	See NF listings	Describes ongoing activity generally and by NF, but not by Section 368 corridor.	None, the region relies upon the PEIS process to make those contacts.	Some Section 368 corridors may have been used.	Probably none.	Unknown	Siting and viability of construction.	Response is too general for corridor-specific purposes but has some useful observations.
Ashley NF	218-240	None	None	Corridor has an existing underground pipeline ROW that pre-dates Section 368 corridor designation.	None	None	NA	
Caribou-Targhee NF	50-203							No response, but noted in R-4 response.
Dixie NF	113-114	TransWest Express electric transmission line application.	None	Several existing ROW's in the corridor.	None	Unknown	FS prefers TransWest locate outside the corridor. Applicant prefers to use the corridor.	Also noted in R-4 response.
Fishlake NF	116-206							No response.
Humboldt-Toiyabe NF	15-104 6-15 17-35 18-23 110-114	Alturas 120-kV transmission line.	None	Portion of corridor used as an alternative in DEIS.	None	Not used.	NA	
Uinta-Wasatch-Cache NF	66-209 66-212 66-259 256-257							No response, but noted in R-4 response.

TABLE D-1 (Cont.)

Region and Forest	Corridors	Activity	Outreach	Utilization	Planning Implications	IOPs	Use/Non-Use Rationale	Comments
Boise NF	None	None	None	None	None	NA	NA	
Payette NF	None	None	None	None	None	NA	NA	
Salmon-Challis NF	None	None	None	None	None	NA	NA	
Sawtooth NF	None	None	None	None	None	NA	NA	
R-5								Response transmits R-5 questionnaires.
Angeles NF	107-268 264-265							No response.
Cleveland NF	115-238 236-237							No response.
Inyo NF	18-23	None	Do not know.	None	None	NA	Not addressed.	
Klamath NF	261-262							No response.
Lassen NF	3-8	No knowledge.	No knowledge.	No knowledge.	No knowledge.	No knowledge.	No knowledge.	
Modoc NF	3-8 8-104							No response.
San Bernardino NF	108-267	Considered by some applicants.	Use of corridor considered during application process.	Corridor contains several ROWs.	None	Use many mitigation measures but did not mention IOPs.	Most proponents focus on fulfilling the objectives of the project vs. aligning themselves within a specific corridor.	
Shasta-Trinity NF	261-262 3-8 101-263	None	None	None	NA	NA	NA.	
Six Rivers NF	101-263							No response.
Tahoe NF	6-15							No response.

TABLE D-1 (Cont.)

Region and Forest	Corridors	Activity	Outreach	Utilization	Planning Implications	IOPs	Use/Non-Use Rationale	Comments
El Dorado NF	None	None	None	None	None	NA	NA	
Los Padres NF	None	None	None	None	None	NA	NA	
Mendocino NF	None	None	None	None	None	NA	NA	
Plumas NF	None	None	None	None	None	NA	NA	
Sequoia NF	None	None	None	None	None	NA	NA	
Sierra NF	None	None	None	None	None	NA	NA	
Stamislaus	None	None	None	None	None	NA	NA	
Lake Tahoe Basin Mgmt. Unit	None	None	None	None	None	NA	NA	
R-6								
Deschutes NF	7-11							No response.
Fremont-Winema NF	7-11 7-24							No response.
Mt. Hood NF	10-246 230-248							No response.
Mount Baker-Snoqualmie NF	102-105 244-245							No response.
Okanogan-Wenatchee NF	102-105 244-245							No response.

^a Yellow highlight indicates that the corridor has existing infrastructure that pre-dates Section 368 designation. These corridors were identified using the Section 368 Corridors GIS database.

^b Abbreviations: DEIS = draft environmental impact statement; GMUG = Grand Mesa Uncompahgre and Gunnison; IOP = Interagency Operating Procedure; MSTI = Mountain States Transmission Intertie project; NA = not applicable; NF = National Forest; ROW = right-of-way.

APPENDIX E:
**INVENTORY OF GEOGRAPHIC INFORMATION DATA RECEIVED IN
RESPONSE TO REQUEST FOR INFORMATION**

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APPENDIX E:

INVENTORY OF GEOGRAPHIC INFORMATION DATA RECEIVED IN RESPONSE TO REQUEST FOR INFORMATION

Table E-1 provides details about geographic information system data received from the Bureau of Land Management (BLM) in connection with the questionnaires on corridor usage. There was considerable variation in the type of information available and provided. The category columns provide broad groupings of the received data. Collectively, the files provide many useful insights into the BLM and U.S. Forest Service data call on corridor usage described in Section 2.2 of this Corridor Study. However, more information is needed to fill in gaps, both geographically and in the utility of the data, before drawing any conclusions about existing corridor usage and the potential for additional projects to be sited.

TABLE E-1 Inventory of Geographic Information Data Received in Response to Request for Information^a

Provider	Date Provided	Extent	Corridor(s) in Extent	Category				Notes	
				Existing Infrastructure Centerline/ROW	Proposed Infrastructure Centerline/ROW	Locally Designated Corridors	LR2000- Based Parcels or Lines		LR2000- Based Spreadsheet
BLM Cedar City FO	1/20/2015	Utah	44-239, 114-241, 113-114, 110-114, 116-206, 39-113, 55-240, 37-232, 37-39	X					Multiple centerline layers representing ROW centerlines/infrastructure.
BLM Arizona Renewable Energy Coordination Office	12/19/2014	Arizona	113-116, 68-116, 47-231, 41-47, 41-46, 46-270, 46-269, 30-52, 115-238, 115-208, 47-68, 61-207, 62-211, 234-235, 81-213	X		X			Designated utility corridors, corridors identified in Yuma RMP, ROWs.
BLM Uncompahgre FO	4/7/2015	SW Colorado	132-136, 87-277, 136-139, 134-136, 134-139, 131-134, 130-131 (S), 130-274, 87-277, 136-277, 139-277	X	X				Line layers: "WAPA" and "TransColorado."
BLM New Mexico SO	4/6/2015	Central New Mexico	81-272	X	X				Data clipped to a small extent around SunZia route alternatives, but outside the 368 corridor.
BLM White River FO	4/8/2015		126-133, 132-133, 132-276	X	X				Line features are clipped to Section 368 corridors. Represent existing and proposed energy projects, including gathering pipelines.
BLM Prineville DO	4/10/2015	Oregon, Washington	4-247, 5-201, 7-11, 7-24, 7-8, 10-246, 11-103, 11-228, 16-24, 24-228, 102-105, 230-248, 244-245, 250-251	X					Point and line structures for whole region. Polygons of areas designated for different levels of land use.
BLM Oregon and Washington SO	4/10/2015	Oregon, Washington	4-247, 5-201, 7-11, 7-24, 7-8, 10-246, 11-103, 11-228, 16-24, 24-228, 102-105, 230-248, 244-245, 250-251				X		Eight layers with subsets of LR2000 parcel data. Includes transmission and pipeline ROWs.

TABLE E-1 (Cont.)

Provider	Date Provided	Extent	Corridor(s) in Extent	Category					Notes	
				Existing Infrastructure Centerline/ ROW	Proposed Infrastructure Centerline/ ROW	Locally Designated Corridors	LR2000- Based Parcels or Lines	LR2000- Based Spreadsheet		Other
BLM Oregon and Washington SO	4/22/2015	Oregon	4-247, 5-201, 7-11, 7-24, 7-8, 10-246, 11-103, 11-228, 16-24, 24-228, 230-248, 250-251	X			X		X	Two layers (line and polygon) of LR2000 transmission-line-related records. Details about accessing Internet-based map services depicting existing transmission lines and pipelines.
BLM Oregon and Washington SO	5/6/2015	Oregon, Washington	4-247, 5-201, 7-11, 7-24, 7-8, 10-246, 11-103, 11-228, 16-24, 24-228, 102-105, 230-248, 244-245, 250-251	X	X				X	Fourteen layers with protected land categories and sensitive resources that intersect the corridors. Five layers related to the Boardman to Hemingway proposed project. Two layers for proposed East Bombing Range project (not near corridors). Bonneville Power Administration transmission lines (OR and WA).
BLM Oregon and Washington SO	5/8/2015	Oregon, Washington	4-247, 5-201, 7-11, 7-24, 7-8, 10-246, 11-103, 11-228, 16-24, 24-228, 102-105, 230-248, 244-245, 250-251					X		Four layers (line and polygon) of LR2000 transmission-line related records.
BLM Oregon and Washington SO	5/15/2015	SW Oregon	4-247		X					Proposed Pacific Connector Pipeline ROW.
BLM Southern Nevada DO/ Las Vegas FO	12/15/2014	Southern Nevada	18-224, 27-225, 37-39, 37-223 (N & S), 37-232, 39-113, 39-231, 47-231, 223-224, 224-225					X		Large number of layers from EIS analysis. Includes four utility corridor alternative polygon layers.
BLM Southern Nevada DO/ Las Vegas FO	4/13/2015	Southern Nevada	18-224, 27-225, 37-39, 37-223 (N & S), 37-232, 39-113, 39-231, 47-231, 223-224, 224-225						X	LR2000 parcels of many types.
BLM Ely DO	4/9/2015	Eastern Nevada	37-232, 39-113, 44-110, 110-114, 110-233, 113-114, 113-116, 232-233 (E), 232-233 (W)						X	PDF of hardcopy map depicting proposed utility corridors in Ely FO. Made from GIS data but difficult to use as provided.

TABLE E-1 (Cont.)

Provider	Date Provided	Extent	Corridor(s) in Extent	Category					Notes	
				Existing Infrastructure Centerline/ROW	Proposed Infrastructure Centerline/ROW	Locally Designated Corridors	LR2000-Based Parcels or Lines	LR2000-Based Spreadsheet		Other
BLM Idaho SO	4/14/2015	S Idaho and S Wyoming	11-228, 24-228, 29-36, 36-112, 36-226, 36-228, 49-112, 49-202, 73-129, 73-133, 73-138, 78-138, 78-255, 78-85, 79-216, 112-226, 121-220, 121-221, 121-240, 129-218, 129-221, 138-143, 218-240, 219-220, 220-221	X	X			X	X	Twenty-eight layers, mostly clipped and unclipped line layers of proposed and existing transmission line projects in S Idaho and S Wyoming. PDF map of Idaho with ROW's and Gateway West intersections with corridors, spreadsheet summarizing corridor intersections with LR2000 information.
BLM New Mexico SO	4/15/2015	SW New Mexico	81-213, 81-272				X			LR2000 lines intersected with corridors and attributed with LR2000 record identifier. Also, road ROW's and point features intersected with corridors D.
BLM New Mexico SO	5/22/2015	New Mexico	80-273, 81-213, 81-272, 89-271				X			LR2000 polygons and lines intersected with corridors and attributed with LR2000 record details.
BLM Wyoming SO	4/22/2015	S Idaho and S Wyoming	11-228, 24-228, 29-36, 36-112, 36-226, 36-228, 49-112, 49-202, 73-129, 73-133, 73-138, 78-138, 78-255, 78-85, 79-216, 112-226, 121-220, 121-221, 121-240, 129-218, 129-221, 138-143, 218-240, 219-220, 220-221		X					Five layers related to the proposed Energy Gateway West Transmission Line project, including route alternatives, study extent in Wyoming, substations, and nodes.
BLM California SO	4/27/2015	California	3-8, 6-15, 7-8, 8-104, 15-104, 16-104, 18-23, 23-106, 23-25, 27-225, 27-266, 27-41, 30-52, 101-263, 107-268, 108-267, 115-238, 236-237, 261-262, 264-265				X	X		LR2000 parcels with preliminary or verified energy ROW, including solar and wind farms. Sixteen spreadsheets for California Field Offices listing ROW's of many types that intersect the corridors.

^a Abbreviations: BLM = Bureau of Land Management; DO = District Office; E = east; EIS = environmental impact statement; FO = Field Office; GIS = geographic information system; RMP = Resource Management Plan; ROW = right-of-way; N = north; S = south; SO = State Office; SW = southwest; W = west; WAPA = Western Area Power Association.

APPENDIX F:
**RECOMMENDED CHANGES TO SECTION 368 CORRIDORS
IN RESPONSE TO REQUEST FOR INFORMATION**

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APPENDIX F:

RECOMMENDED CHANGES TO SECTION 368 CORRIDORS IN RESPONSE TO REQUEST FOR INFORMATION

Table F-1 lists recommendations for specific changes to Section 368 Corridors from responses to a Request for Information (RFI) published by the Bureau of Land Management, U.S. Forest Service, and U.S. Department of Energy for the West-Wide Energy Corridor Review in the *Federal Register* on March 28, 2014 (79 FR 17567). The purpose of the RFI was to solicit information to assist the Agencies in the development of this Corridor Study and to provide the foundation for the Regional Periodic Reviews. Specifically, the RFI asked the public to consider the questions identified in Section 2.1 of this Corridor Study.

TABLE F-1 Recommended Changes to Section 368 Corridors in Response to Request for Information^a

Section 368 Corridor	BLM Office/ National Forest	State	Recommendation	Commenter
229-254 (S)	Idaho Panhandle NF Lolo NF	ID MT	Reroute to avoid resources “of concern.” Consult closely with State fish and game agencies and WGA to implement the full mitigation hierarchy of avoidance, minimization, and compensation for CHAT resources at “Very High” risk.	Defenders of Wildlife
229-254 (N)	Idaho Panhandle NF Lolo NF	ID MT	Reroute to avoid resources “of concern.” Consult closely with State fish and game agencies and WGA to implement the full mitigation hierarchy of avoidance, minimization, and compensation for CHAT resources at “Very High” risk.	Defenders of Wildlife
62-211	Apache-Sitgreaves NF Tonto NF	AZ	Reroute to avoid resources “of concern” and ensure connection to renewable energy development. Consult closely with State fish and game agencies and WGA to implement the full mitigation hierarchy of avoidance, minimization, and compensation for CHAT resources at “Very High” risk. Consult with USFWS to avoid adverse modification to Mexican spotted owl and Southwestern willow flycatcher (within 2 km) designated critical habitat.	Defenders of Wildlife
73-133	Little Snake FO Rawlins FO	CO WY	Delete/replace this segment. This segment scores “Very High” risk for both flowlines and permeability.	Defenders of Wildlife
126-218	Vernal FO Rock Springs FO	UT WY	Consult with USFWS to avoid adverse modification to Colorado pikeminnow designated critical habitat. Substantially reroute this segment and follow overall recommendations for the following West-wide risk scores: “High” risk to flowlines, “High” risk to permeability, “Very High” risk to CHAT, and “High” risk to imperiled species. Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (62% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas. Identify and, where present, avoid impacts on geographic areas for recovery units for threatened and endangered species. Consult with USFWS to avoid adverse modification of designated Colorado pikeminnow and razorback sucker critical habitat.	Defenders of Wildlife
66-212	Moab FO Salt Lake FO Price FO Monticello FO Unita-Wasatch-Cache NF	UT	Reroute to avoid resources “of concern” and ensure connection to renewable energy development. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas. Reroute to avoid “Very High” risk to the number and magnitude of flowline crossings by WWEC segments. Where flowlines must unavoidably be crossed, minimize impacts on connectivity. Consult with USFWS to avoid adverse modification to Mexican spotted owl (within 2 km), razorback sucker, and Colorado pikeminnow designated critical habitat.	Defenders of Wildlife
132-136	Grand Junction FO Uncompahgre FO	CO	Reroute to avoid “Very High” risk to the number and magnitude of flowline crossings by WWEC segments. Where flowlines must unavoidably be crossed, minimize impacts on connectivity. Consult with USFWS to avoid adverse modification to razorback sucker and Colorado pikeminnow designated critical habitat.	Defenders of Wildlife

TABLE F-1 (Cont.)

Section 368 Corridor	BLM Office/ National Forest	State	Recommendation	Commenter
236-237	Cleveland NF	CA	Delete/replace this segment. This segment scores “Very High” risk for both CHAT and imperiled species. Consult with USFWS to avoid adverse modification to Arroyo southwestern toad and coastal California gnatcatcher designated critical habitat.	Defenders of Wildlife
234-235	Coronado NF	AZ	Delete/replace this segment. This segment scores “Very High” risk for both CHAT and imperiled species. Consult with USFWS to avoid adverse modification to Mexican spotted owl and Southwestern willow flycatcher designated critical habitat.	Defenders of Wildlife
108-267	San Bernardino NF	CA	While this segment scores “Very High” risk for both CHAT and imperiled species, it is also in a major interstate highway corridor (I-15) and has existing transmission. Expansion of transmission facilities in this segment should be done in consultation with USFWS to avoid adverse modification to San Bernardino’s Merriam’s kangaroo rat and Arroyo southwestern toad designated critical habitat.	Defenders of Wildlife
4-247	Upper Willamette FO Ashland FO Butte Falls FO Glendale FO Swiftwater FO Cascades FO	OR	Reroute to avoid resources “of concern” and ensure connection to renewable energy development. Consult closely with State fish and game agencies and WGA to implement the full mitigation hierarchy of avoidance, minimization, and compensation for CHAT resources at “Very High” risk. Consult with USFWS to avoid adverse modification to northern spotted owl designated critical habitat.	Defenders of Wildlife
7-24	Andrews FO Fremont-Winema NF Klamath Falls FO Lakeview FO Jordan FO	OR	Reroute to avoid resources “of concern.” Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (32% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas. Reroute to avoid “Very High” risk to the number and magnitude of flowline crossings by WWEC segments. Where flowlines must unavoidably be crossed, minimize impacts on connectivity. Consult with USFWS to avoid adverse modification to Borax lake chub designated critical habitat.	Defenders of Wildlife
116-206	Arizona Strip DO Fishlake NF Fillmore FO Kanab FO Salt Lake FO Richfield FO	AZ UT	Reroute to avoid resources “of concern.” Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (34% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas. Reroute to avoid “Very High” risk to the number and magnitude of flowline crossings by WWEC segments. Where flowlines must unavoidably be crossed, minimize impacts on connectivity.	Defenders of Wildlife

TABLE F-1 (Cont.)

Section 368 Corridor	BLM Office/ National Forest	State	Recommendation	Commenter
46-270	Kingman FO Hassayampa FO	AZ	Reroute to avoid resources identified as “of concern.” Reroute to avoid siting new facilities in Sonoran desert tortoise Category I and II management habitat. Minimize impacts from new energy infrastructure development to the maximum extent practicable, and where impacts are unavoidable, utilize compensatory mitigation pursuant to BLM policy. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of Category I and II habitat. Reroute to avoid “Very High” risk to the number and magnitude of flowline crossings by WVEC segments. Where flowlines must unavoidably be crossed, minimize impacts on connectivity.	Defenders of Wildlife
232-233 (E)	Ely DO	NV	Delete/replace this segment. This segment scores “Very High” risk for both flowlines and permeability. Consult with USFWS to avoid adverse modification to desert tortoise designated critical habitat.	Defenders of Wildlife
23-106	Ridgecrest FO	CA	Reroute to avoid resources identified as “of concern.” Reroute to avoid siting new facilities in Priority 1 and 2 connectivity habitat without existing transmission, and minimize additional transmission siting in these areas. If additional transmission is permitted, site as close together as possible and with as little ground disturbance and vegetation clearing as possible. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of Priority 1 and 2 habitat. Follow locally specific connectivity recommendations, such as those for the Southern California Wildlands Linkages and Arizona Missing Linkages, to avoid connectivity impacts on desert bighorn sheep in the Mojave Desert. Limit expansion of transmission and limit additional road construction that would lead to OHV route proliferation in MGS modeled habitat. Consult the Desert Manager’s Group regarding parcels that are priority habitat for MGS due to their designation as “core” or “linkage” areas, and reroute to avoid impacts on these parcels. Within MGS habitat, minimize the area of disturbance and avoid clearing of vegetation and grading where possible. This corridor segment intersects a Southern California Wildlands Linkage. Please see general recommendations for maintaining connectivity in this region.	Defenders of Wildlife
261-262	Klamath NF Redding FO Shasta-Trinity NF	CA	Consult closely with State fish and game agencies and WGA to implement the full mitigation hierarchy of avoidance, minimization, and compensation for CHAT resources at “Very High” risk. Consult with USFWS to avoid adverse modification to Northern spotted owl designated critical habitat within 2 km.	Defenders of Wildlife
10-246	Mt. Hood NF Cascades FO	OR	Consult closely with State fish and game agencies and WGA to implement the full mitigation hierarchy of avoidance, minimization, and compensation for CHAT resources at “Very High” risk. Consult with USFWS to avoid adverse modification to designated northern spotted owl critical habitat.	Defenders of Wildlife
107-268	Angeles NF	CA	Reroute to avoid resources “of concern.” Consult closely with State fish and game agencies and WGA to implement the full mitigation hierarchy of avoidance, minimization, and compensation for CHAT resources at “Very High” risk. Consult with USFWS to avoid adverse modification to designated Southwestern willow flycatcher and Santa Ana sucker critical habitat within 2 km of segment.	Defenders of Wildlife

TABLE F-1 (Cont.)

Section 368 Corridor	BLM Office/ National Forest	State	Recommendation	Commenter
18-23	Bishop FO Ridgecrest FO Inyo NF Carson City DO Humboldt-Toiyabe NF	CA NV	<p>Reroute to avoid resources identified as “of concern.” Reroute to avoid siting new facilities in Priority 1 and 2 Connectivity Habitat without existing transmission, and minimize additional transmission siting in these areas. If additional transmission is permitted, site as close together as possible and with as little ground disturbance and vegetation clearing as possible. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of Priority 1 and 2 habitat.</p> <p>Follow locally specific connectivity recommendations, such as those for the Southern California Wildlands Linkages and Arizona Missing Linkages, to avoid connectivity impacts on desert bighorn sheep in the Mojave Desert. This corridor segment intersects a Southern California Wildlands Linkage. Please see general recommendations for maintaining connectivity in this region.</p> <p>Limit expansion of transmission and limit additional road construction that would lead to OHV route proliferation in MGS modeled habitat. Consult the Desert Manager’s Group regarding parcels that are priority habitat for MGS due to their designation as “core” or “linkage” areas, and reroute to avoid impacts on these parcels. Within MGS habitat, minimize the area of disturbance and avoid clearing of vegetation and grading where possible.</p> <p>Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (14% overlap), and within all breeding areas of the bi-state distinct population segment. It is essential that agencies use the full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of all bi-state sage-grouse breeding areas.</p> <p>Consult with USFWS to avoid adverse modification to greater sage-grouse (bi-state distinct population segment) and Sierra Nevada bighorn sheep designated critical habitat.</p>	Defenders of Wildlife
132-133	Grand Junction FO Little Snake FO White River FO	CO	<p>Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (23% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas. Reroute to avoid “Very High” risk to permeability, and work closely with State and Federal wildlife and science agencies to ensure that connectivity is maintained. Consult with USFWS to avoid adverse modification to Colorado pikeminnow designated critical habitat.</p>	Defenders of Wildlife
79-216	Billings FO Casper FO Cody FO Worland FO Lander FO	MT WY	<p>Reroute to avoid resources “of concern.” Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (22% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas. Reroute to avoid “Very High” risk to the number and magnitude of flowline crossings by WWEC segments. Where flowlines must unavoidably be crossed, minimize impacts on connectivity.</p>	Defenders of Wildlife

TABLE F-1 (Cont.)

Section 368 Corridor	BLM Office/ National Forest	State	Recommendation	Commenter
68-116	Arizona Strip FO Glen Canyon NRA Grand Staircase- Escalante NM	AZ UT	Reroute to avoid resources “of concern” and ensure connection to renewable energy development. Reroute to avoid “Very High” risk to the number and magnitude of flowline crossings by WWEC segments. Where flowlines must unavoidably be crossed, minimize impacts on connectivity.	Defenders of Wildlife
50-203	Upper Snake FO Dillon FO	ID MT	Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (56% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas. Reroute to avoid “Very High” risk to the number and magnitude of flowline crossings by WWEC segments. Where flowlines must unavoidably be crossed, minimize impacts on connectivity.	Defenders of Wildlife
27-41	Barstow FO Needles FO	CA	Reroute to avoid siting new facilities in TCAs without existing transmission, and minimize additional transmission siting in TCAs. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of TCAs and Priority 1 and 2 habitat. Consult with USFWS to avoid adverse modification to desert tortoise designated critical habitat. Specifically, this corridor runs through the Piute Valley within the Piute-Fenner critical habitat unit, an area that is known for high desert tortoise density and high-quality habitat. Avoid the Piute Valley by revising the corridor so that it is aligned with I-40 and does not run north and then east through critical habitat.	Defenders of Wildlife
			This corridor parallels Route 66 and is inconsistent with the BLM’s Route 66 Management Plan. Reroute so that corridor is aligned with I-40 and the California BLM’s designated utility corridors per the CDCA plan.	
			This corridor segment intersects a Southern California Wildlands Linkage. Please see general recommendations for maintaining connectivity in this region. Reroute to avoid “Very High” risk to permeability, and work closely with State and Federal wildlife and science agencies to ensure that connectivity is maintained.	
66-259	Unita-Wasatch-Cache NF	UT	Reroute to avoid resources “of concern” and ensure connection to renewable energy development. Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (53% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas. Consult closely with State fish and game agencies and WGA to implement the full mitigation hierarchy of avoidance, minimization, and compensation for CHAT resources at “Very High” risk.	Defenders of Wildlife

TABLE F-1 (Cont.)

Section 368 Corridor	BLM Office/ National Forest	State	Recommendation	Commenter
27-225	Barstow FO Needles FO Southern Nevada DO	CA NV	This corridor intersects TCAs, including desert tortoise critical habitat and Priority 1 and 2 habitat. If additional transmission is permitted, site as close together as possible and with as little ground disturbance and vegetation clearing as possible. Consult with USFWS to avoid adverse modification to desert tortoise designated critical habitat. This corridor segment intersects a wildlife linkage for the California desert. Please see general recommendations for maintaining connectivity included in this report. In addition, this corridor could increase transmission capacity for utility-scale renewable energy projects that are poorly sited within high-quality habitat for desert tortoise and undermine the overall landscape intactness of the northern and eastern Mojave Desert.	Defenders of Wildlife
126-258	Vernal FO	UT	Reroute to ensure connection to renewable energy resources.	Defenders of Wildlife
35-43	Elko DO	NV	Delete/replace: 100% overlap with greater sage-grouse PACs.	Defenders of Wildlife
138-143	Little Snake FO Rawlins FO	CO WY	Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (31% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas. Consult closely with State fish and game agencies and WGA to implement the full mitigation hierarchy of avoidance, minimization, and compensation for CHAT resources at "Very High" risk.	Defenders of Wildlife
121-221	Rock Springs FO	WY	Delete/replace this segment "of concern": 79% overlap with greater sage-grouse PACs.	Defenders of Wildlife
230-248	Mt. Hood NF Cascades FO	OR	Reroute to avoid resources "of concern." Consult with USFWS to avoid adverse modification to northern spotted owl designated critical habitat.	Defenders of Wildlife
11-228	Owyhee FO Central Oregon FO Deschutes FO Malheur FO Three Rivers FO	ID OR	Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (30% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas. Reroute to avoid "Very High" risk to the number and magnitude of flowline crossings by WWEC segments. Where flowlines must unavoidably be crossed, minimize impacts on connectivity.	Defenders of Wildlife
264-265	Angeles NF	CA	Delete/replace this segment "of concern." This segment scores "Very High" risk for both CHAT and imperiled species. Consult with USFWS to avoid adverse modification to California red-legged frog designated critical habitat within 2 km.	Defenders of Wildlife

TABLE F-1 (Cont.)

Section 368 Corridor	BLM Office/ National Forest	State	Recommendation	Commenter
224-225	Southern Nevada DO	NV	Reroute to avoid siting new facilities in TCAs without existing transmission, and minimize additional transmission siting in TCAs. If additional transmission is permitted, site as close together as possible and with as little ground disturbance and vegetation clearing as possible. Reroute to avoid siting new facilities in Priority 1 and 2 connectivity habitat without existing transmission, and minimize additional transmission siting in these areas. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of TCAs and Priority 1 and 2 habitat. Reroute to avoid "Very High" risk to permeability, and work closely with State and Federal wildlife and science agencies to ensure that connectivity is maintained.	Defenders of Wildlife
23-25	Barstow FO Ridgecrest FO	CA	Reroute to avoid resources identified as "of concern." Reroute to avoid siting new facilities in TCAs without existing transmission, and minimize additional transmission siting in TCAs. If additional transmission is permitted, site as close together as possible and with as little ground disturbance and vegetation clearing as possible. Reroute to avoid siting new facilities in Priority 1 and 2 connectivity habitat without existing transmission, and minimize additional transmission siting in these areas. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of TCAs and Priority 1 and 2 habitat.	Defenders of Wildlife
6-15	Folsom FO Tahoe NF Humboldt-Toiyabe NF	CA CA/ NV	Follow locally specific connectivity recommendations, such as those for the Southern California Wildlands Linkages and Arizona Missing Linkages, to avoid connectivity impacts on desert bighorn sheep in the Mojave Desert. Limit expansion of transmission and limit additional road construction that would lead to OHV route proliferation in MGS modeled habitat. Consult the Desert Manager's Group regarding parcels that are priority habitat for MGS due to their designation as "core" or "linkage" areas, and reroute to avoid impacts on these parcels. Within MGS habitat, minimize the area of disturbance and avoid clearing of vegetation and grading where possible. This corridor segment intersects a Southern California Wildlands Linkage. Please see general recommendations for maintaining connectivity in this region. Consult with USFWS to avoid adverse modification to desert tortoise designated critical habitat.	Defenders of Wildlife
24-228	Owyhee FO Jordan FO Malheur FO	ID OR	Consult with USFWS to avoid adverse modification to Webber Ivesia designated critical habitat within 2 km. Reroute to avoid resources "of concern." Reroute or exclude new infrastructure ROW's and avoid all new energy infrastructure development within greater sage-grouse PACs (58% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas. Reroute to avoid "Very High" risk to the number and magnitude of flowline crossings by WWEC segments. Where flowlines must unavoidably be crossed, minimize impacts on connectivity.	Defenders of Wildlife

TABLE F-1 (Cont.)

Section 368 Corridor	BLM Office/ National Forest	State	Recommendation	Commenter
61-207	Kaibab NF Hassayampa FO Prescott NF	AZ	Reroute to avoid siting new facilities in Sonoran desert tortoise Category I and II management habitat. Minimize impacts from new energy infrastructure development to the maximum extent practicable, and where impacts are unavoidable, utilize compensatory mitigation pursuant to BLM policy. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of Category I and II habitat.	Defenders of Wildlife
5-201	Tillamook FO	OR	Consult closely with State fish and game agencies and WGA to implement the full mitigation hierarchy of avoidance, minimization, and compensation for CHAT resources at “Very High” risk.	Defenders of Wildlife
101-263	Redding FO Shasta-Trinity NF Six Rivers NF	CA	Reroute to avoid resources “of concern.” Consult with USFWS to avoid adverse modification to designated northern spotted owl critical habitat.	Defenders of Wildlife
15-104	Alturas FO Eagle Lake FO Carson City DO Humboldt-Toiyabe NF	CA NV	Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (52% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas. Consult with USFWS to avoid adverse modification to Webber Ivesia designated critical habitat.	Defenders of Wildlife
46-269	Kingman FO Lake Havasu FO Hassayampa FO	AZ	Reroute to avoid resources identified as “of concern.” Reroute to avoid siting new facilities in Sonoran desert tortoise Category I and II management habitat. Minimize impacts from new energy infrastructure development to the maximum extent practicable, and where impacts are unavoidable, utilize compensatory mitigation pursuant to BLM policy. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of Category I and II habitat. Reroute to avoid “Very High” risk to the number and magnitude of flowline crossings by WVEC segments. Where flowlines must unavoidably be crossed, minimize impacts on connectivity.	Defenders of Wildlife
136-277	Uncompahgre FO	CO	Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within Gunnison sage-grouse production areas. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas.	Defenders of Wildlife
47-231	Kingman FO Lake Mead NRA Southern Nevada DO	AZ NV	Reroute to avoid resources identified as “of concern.” Reroute to avoid siting new facilities in TCAs without existing transmission, and minimize additional transmission siting in TCAs. If additional transmission is permitted, site as close together as possible and with as little ground disturbance and vegetation clearing as possible. Reroute to avoid siting new facilities in Priority 1 and 2 connectivity habitat without existing transmission, and minimize additional transmission siting in these areas. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of TCAs and Priority 1 and 2 habitat. Consult with USFWS to avoid adverse modification to razorback sucker, desert tortoise, and bonytail chub designated critical habitat.	Defenders of Wildlife

TABLE F-1 (Cont.)

Section 368 Corridor	BLM Office/ National Forest	State	Recommendation	Commenter
111-226	Burley FO Elko DO	ID NV	Delete/replace: 100% overlap with greater sage-grouse PACs.	Defenders of Wildlife
41-46	Kingman FO Lake Havasu FO	AZ	Reroute to avoid resources identified as “of concern.” Reroute to avoid siting new facilities in Sonoran desert tortoise Category I and II management habitat. Minimize impacts from new energy infrastructure development to the maximum extent practicable, and where impacts are unavoidable, utilize compensatory mitigation pursuant to BLM policy. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of Category I and II habitat.	Defenders of Wildlife
43-44	Elko DO	NV	Delete/replace: 84% overlap with greater sage-grouse PACs.	Defenders of Wildlife
73-129	Rawlins FO	WY	Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas.	Defenders of Wildlife
121-220	Rock Springs FO	WY	Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (43% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas.	Defenders of Wildlife
130-274	Grand Mesa, Uncompahgre and Gunnison NF San Juan NF Dolores FO Uncompahgre FO	CO	Reroute to avoid resources “of concern.” Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within Gunnison sage-grouse production areas. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas.	Defenders of Wildlife
55-240	Kemmerer FO	WY	Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas.	Defenders of Wildlife
126-133	Little Snake FO White River FO	CO	Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (33% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas. Consult closely with State fish and game agencies and WGA to implement the full mitigation hierarchy of avoidance, minimization, and compensation for CHAT resources at “Very High” risk.	Defenders of Wildlife
49-202	Burley FO Pocatello FO	ID	Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (23% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas.	Defenders of Wildlife

TABLE F-1 (Cont.)

Section 368 Corridor	BLM Office/ National Forest	State	Recommendation	Commenter
144-275	Arapaho-Roosevelt NF and Pawnee National Grassland Kremmling FO Little Snake FO Medicine Bow-Routt NF, Thunder Basin National Grassland	CO	Reroute to avoid resources “of concern” and ensure connection to renewable energy development. Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (21% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas. Reroute to avoid “Very High” risk to the number and magnitude of flowline crossings by WWEC segments. Where flowlines must unavoidably be crossed, minimize impacts on connectivity.	Defenders of Wildlife
16-24	Winnemucca DO Jordan FO	NV OR	Reroute to avoid resources “of concern.” Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (12% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas. Reroute to avoid “Very High” risk to the number and magnitude of flowline crossings by WWEC segments. Where flowlines must unavoidably be crossed, minimize impacts on connectivity.	Defenders of Wildlife
78-138	Rawlins FO	WY	Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (46% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas.	Defenders of Wildlife
102-105	Mount Baker-Snoqualmie NF Wenatchee FO Okanogan-Wenatchee NF	WA	Reroute to avoid resources “of concern.” Consult closely with State fish and game agencies and WGA to implement the full mitigation hierarchy of avoidance, minimization, and compensation for CHAT resources at “Very High” risk. Consult with USFWS to avoid adverse modification to designated northern spotted owl and marbled murrelet critical habitat. No imperiled species score was available for this segment, but the presence of extensive critical habitat suggests a need to identify, and, where present, avoid impacts on geographic areas for recovery units for threatened and endangered species.	Defenders of Wildlife
110-114	Ely DO Humboldt-Toiyabe NF Cedar City FO Fillmore FO	NV UT	Reroute to avoid resources “of concern.” Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (4% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas.	Defenders of Wildlife
110-233	Ely DO	NV	Reroute to avoid resources “of concern.” Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (14% overlap). Reroute to avoid “Very High” risk to permeability, and work closely with State and Federal wildlife and science agencies to ensure that connectivity is maintained.	Defenders of Wildlife

TABLE F-1 (Cont.)

Section 368 Corridor	BLM Office/ National Forest	State	Recommendation	Commenter
112-226	Burley FO Shoshone FO	ID	Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (53% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas.	Defenders of Wildlife
113-114	Ely DO Cedar City FO Dixie NF Cedar City FO St. George FO	NV UT	Reroute to avoid siting new facilities in Sonoran desert tortoise Category I and II management habitat. Minimize impacts from new energy infrastructure development to the maximum extent practicable, and where impacts are unavoidable, utilize compensatory mitigation pursuant to BLM policy. Reroute to avoid siting new facilities in TCAs without existing transmission, and minimize additional transmission siting in TCAs. If additional transmission is permitted, site as close together as possible and with as little ground disturbance and vegetation clearing as possible. Reroute to avoid siting new facilities in Priority 1 and 2 connectivity habitat without existing transmission, and minimize additional transmission siting in these areas. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of TCAs, Sonoran desert tortoise Category I and II habitat, and Mojave desert tortoise Priority 1 and 2 habitat. Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (6% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas. Consult with USFWS to avoid adverse modification to desert tortoise designated critical habitat.	Defenders of Wildlife
113-116	Arizona Strip DO Ely FO St. George FO	AZ NV UT	Reroute to avoid siting new facilities in Sonoran desert tortoise Category I and II management habitat. Minimize impacts from new energy infrastructure development to the maximum extent practicable, and where impacts are unavoidable, utilize compensatory mitigation pursuant to BLM policy. Reroute to avoid siting new facilities in TCAs without existing transmission, and minimize additional transmission siting in TCAs. If additional transmission is permitted, site as close together as possible and with as little ground disturbance and vegetation clearing as possible. Reroute to avoid siting new facilities in Priority 1 and 2 connectivity habitat without existing transmission, and minimize additional transmission siting in these areas. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of TCAs, Sonoran desert tortoise Category I and II habitat, and Mojave desert tortoise Priority 1 and 2 habitat. Consult with USFWS to avoid adverse modification to desert tortoise, Southwestern willow flycatcher, Virgin River chub, woundfin, and Holmgren milk-vetch (within 2 km) designated critical habitat.	Defenders of Wildlife
114-241	Fillmore FO Cedar City FO Salt Lake FO	UT	Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (16% overlap).	Defenders of Wildlife
115-208	Lower Sonoran FO	AZ	Reroute to avoid siting new facilities in Sonoran desert tortoise Category I and II management habitat. Minimize impacts from new energy infrastructure development to the maximum extent practicable, and where impacts are unavoidable, utilize compensatory mitigation pursuant to BLM policy. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of Category I and II habitat.	Defenders of Wildlife

TABLE F-1 (Cont.)

Section 368 Corridor	BLM Office/ National Forest	State	Recommendation	Commenter
115-238	Lower Sonoran FO Yuma FO El Centro FO Cleveland NF Palm Springs-South Coast FO	AZ CA	Reroute to avoid siting new facilities in Sonoran desert tortoise Category I and II management habitat. Minimize impacts from new energy infrastructure development to the maximum extent practicable, and where impacts are unavoidable, utilize compensatory mitigation pursuant to BLM policy. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of Category I and II habitat. Follow locally specific connectivity recommendations, such as those for the Southern California Wildlands Linkages and Arizona Missing Linkages, to avoid connectivity impacts on desert bighorn sheep in the Mojave Desert. This corridor segment intersects a Southern California Wildlands Linkage. Please see general recommendations for maintaining connectivity in this region.	Defenders of Wildlife
121-240	Rock Springs FO Kemmerer FO	WY	Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (45% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas. Consult closely with State fish and game agencies and WGA to implement the full mitigation hierarchy of avoidance, minimization, and compensation for CHAT resources at "Very High" risk.	Defenders of Wildlife
129-218	Rawlins FO	WY	Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas.	Defenders of Wildlife
129-221	Rawlins FO Rock Springs FO	WY	Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas.	Defenders of Wildlife
130-274 (E)	Grand Mesa, Uncompahgre and Gunnison NF Uncompahgre FO	CO	Reroute to avoid resources "of concern." Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within Gunnison sage-grouse production areas. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas. Reroute to avoid "Very High" risk to permeability, and work closely with State and Federal wildlife and science agencies to ensure that connectivity is maintained.	Defenders of Wildlife
132-276	Glenwood Springs FO Grand Junction FO Little Snake FO White River FO	CO	Consult with USFWS to avoid adverse modification to razorback sucker and Colorado pikeminnow designated critical habitat.	Defenders of Wildlife
133-142	Little Snake FO	CO	Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (47% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas. Consult closely with State fish and game agencies and WGA to implement the full mitigation hierarchy of avoidance, minimization, and compensation for CHAT resources at "Very High" risk. Consult with USFWS to avoid adverse modification to Colorado pikeminnow designated critical habitat.	Defenders of Wildlife

TABLE F-1 (Cont.)

Section 368 Corridor	BLM Office/ National Forest	State	Recommendation	Commenter
139-277	Uncompahgre FO	CO	Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within Gunnison sage-grouse production areas. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas. Consult closely with State fish and game agencies and WGA to implement the full mitigation hierarchy of avoidance, minimization, and compensation for CHAT resources at "Very High" risk.	Defenders of Wildlife
16-104	Alturas FO Surprise FO Winnemucca DO Surprise FO	CA NV	Reroute to avoid resources "of concern." Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (73% overlap).	Defenders of Wildlife
17-35	Elko DO Humboldt-Toiyabe NF Winnemucca DO Elko DO	NV	Reroute to avoid resources "of concern" and ensure connection to renewable energy development. Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (14% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas.	Defenders of Wildlife
18-224	Carson City DO Southern Nevada DO Humboldt-Toiyabe NF	NV	Reroute to avoid siting new facilities in Priority 1 and 2 connectivity habitat without existing transmission, and minimize additional transmission siting in these areas. If additional transmission is permitted, site as close together as possible and with as little ground disturbance and vegetation clearing as possible. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of Priority 1 and 2 habitat. Reroute to avoid "Very High" risk to permeability, and work closely with State and Federal wildlife and science agencies to ensure that connectivity is maintained.	Defenders of Wildlife
218-240	Ashley NF Rock Springs FO Kemmerer FO	WY	Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (7% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas.	Defenders of Wildlife
219-220	Rock Springs FO	WY	Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas.	Defenders of Wildlife
220-221	Rock Springs FO	WY	Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas.	Defenders of Wildlife

TABLE F-1 (Cont.)

Section 368 Corridor	BLM Office/ National Forest	State	Recommendation	Commenter
223-224	Southern Nevada DO	NV	Reroute to avoid resources identified as “of concern.” Reroute to avoid siting new facilities in TCAs without existing transmission, and minimize additional transmission siting in TCAs. If additional transmission is permitted, site as close together as possible and with as little ground disturbance and vegetation clearing as possible. Reroute to avoid siting new facilities in Priority 1 and 2 connectivity habitat without existing transmission, and minimize additional transmission siting in these areas. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of TCAs and Priority 1 and 2 habitat. Consult closely with State fish and game agencies and USFWS to ensure that valuable wildlife resources are protected from the “Very High” risk to imperiled species posed by this segment. Identify and, where present, avoid impacts on geographic areas for recovery units for threatened and endangered species.	Defenders of Wildlife
225-231	Southern Nevada DO	NV	Reroute to avoid siting new facilities in TCAs without existing transmission, and minimize additional transmission siting in TCAs. If additional transmission is permitted, site as close together as possible and with as little ground disturbance and vegetation clearing as possible. Reroute to avoid siting new facilities in Priority 1 and 2 connectivity habitat without existing transmission, and minimize additional transmission siting in these areas. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of TCAs and Priority 1 and 2 habitat. Consult with USFWS to avoid adverse modification to desert tortoise designated critical habitat.	Defenders of Wildlife
229-254	Coeur d’Alene FO Idaho Panhandle NF Beaverhead- Deerlodge NF Missoula FO Butte FO Lolo NF	ID MT	Reroute to avoid resources “of concern.” Consult with USFWS to avoid adverse modification to bull trout designated critical habitat.	Defenders of Wildlife
232-233 (W)	Ely DO	NV	Reroute to avoid siting new facilities in TCAs without existing transmission, and minimize additional transmission siting in TCAs. If additional transmission is permitted, site as close together as possible and with as little ground disturbance and vegetation clearing as possible. Reroute to avoid siting new facilities in Priority 1 and 2 connectivity habitat without existing transmission, and minimize additional transmission siting in these areas. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of TCAs and Priority 1 and 2 habitat. Reroute to avoid “Very High” risk to the number and magnitude of flowline crossings by WWEC segments. Where flowlines must unavoidably be crossed, minimize impacts to connectivity. Consult with USFWS to avoid adverse modification to desert tortoise designated critical habitat.	Defenders of Wildlife

TABLE F-1 (Cont.)

Section 368 Corridor	BLM Office/ National Forest	State	Recommendation	Commenter
244-245	Mount Baker-Snoqualmie NF Okanogan-Wenatchee NF	WA	Reroute to avoid resources “of concern.” Consult closely with State fish and game agencies and WGA to implement the full mitigation hierarchy of avoidance, minimization, and compensation for CHAT resources at “Very High” risk. Consult with USFWS to avoid adverse modification to northern spotted owl designated critical habitat.	Defenders of Wildlife
250-251	Baker FO Malheur FO	OR	Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (14% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas. Consult closely with State fish and game agencies and WGA to implement the full mitigation hierarchy of avoidance, minimization, and compensation for CHAT resources at “Very High” risk.	Defenders of Wildlife
256-257	Unita-Wasatch-Cache NF	UT	Consult closely with State fish and game agencies and WGA to implement the full mitigation hierarchy of avoidance, minimization, and compensation for CHAT resources at “Very High” risk.	Defenders of Wildlife
27-266	Barstow FO	CA	Although this segment intersects a TCA, it is aligned with a major interstate highway corridor and existing transmission facilities. If additional transmission is permitted, site as close together as possible and with as little ground disturbance and vegetation clearing as possible. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of TCAs and Priority 1 and 2 habitat. Limit expansion of transmission and limit additional road construction that would lead to OHV route proliferation in MGS modeled habitat. Consult the Desert Manager’s Group regarding parcels that are priority habitat for MGS due to their designation as “core” or “linkage” areas, and reroute to avoid impacts on these parcels. Within MGS habitat, minimize the area of disturbance and avoid clearing of vegetation and grading where possible. This corridor segment intersects a Southern California Wildlands Linkage. Please see general recommendations for maintaining connectivity in this region.	Defenders of Wildlife
29-36	Four Rivers FO Jarvis FO	ID	None Consult with USFWS to avoid adverse modification to desert tortoise and Southwestern willow flycatcher (within 2 km) designated critical habitat.	Defenders of Wildlife

TABLE F-1 (Cont.)

Section 368 Corridor	BLM Office/ National Forest	State	Recommendation	Commenter
30-52	Lake Havasu FO Hassayampa FO Yuma FO Palm Springs-South Coast FO	AZ CA	<p>This corridor already has a large amount of existing transmission infrastructure. There is a bottleneck around the San Geronio Pass where it has been challenging in the past to site additional transmission. This corridor should be developed only if a technological solution is found to placing additional transmission infrastructure through the San Geronio Pass. Routing transmission anywhere else in the area would significantly impact the existing natural and biological resources. This segment intersects Sonoran desert tortoise Category I and II management habitat and Mojave TCAs. Minimize impacts from new energy infrastructure development to the maximum extent practicable, and where impacts are unavoidable, utilize compensatory mitigation pursuant to BLM policy.</p> <p>Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of Sonoran desert tortoise Category I and II habitat, TCAs, and Mojave desert tortoise Priority 1 and 2 habitat. Follow locally specific connectivity recommendations, such as those for the Southern California Wildlands Linkages and Arizona Missing Linkages, to avoid connectivity impacts on desert bighorn sheep in the Mojave Desert. This corridor segment intersects a Southern California Wildlands Linkage. Please see general recommendations for maintaining connectivity in this region. Consult with USFWS to avoid adverse modification to Coachella Valley milk-vetch, Coachella Valley fringe-toed lizard, razorback sucker, and desert tortoise designated critical habitat.</p>	Defenders of Wildlife
35-111	Elko DO	NV	Delete/replace: 100% overlap with greater sage-grouse PACs.	Defenders of Wildlife
36-226	Jarbidge FO Burley FO	ID	Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (12% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas.	Defenders of Wildlife
36-228	Bruneau FO Four Rivers FO Jarbidge FO Owyhee FO	ID	Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas.	Defenders of Wildlife

TABLE F-1 (Cont.)

Section 368 Corridor	BLM Office/ National Forest	State	Recommendation	Commenter
37-223(N)	Southern Nevada DO	NV	Reroute to avoid siting new facilities in TCAs without existing transmission, and minimize additional transmission siting in TCAs. If additional transmission is permitted, site as close together as possible and with as little ground disturbance and vegetation clearing as possible. Reroute to avoid siting new facilities in Priority 1 and 2 connectivity habitat without existing transmission, and minimize additional transmission siting in these areas. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of TCAs and Priority 1 and 2 habitat. Reroute to avoid "Very High" risk to permeability, and work closely with State and Federal wildlife and science agencies to ensure that connectivity is maintained.	Defenders of Wildlife
37-223 (S)	Southern Nevada DO	NV	Consult with USFWS to avoid adverse modification to desert tortoise designated critical habitat. Reroute to avoid siting new facilities in TCAs without existing transmission, and minimize additional transmission siting in TCAs. If additional transmission is permitted, site as close together as possible and with as little ground disturbance and vegetation clearing as possible. Reroute to avoid siting new facilities in Priority 1 and 2 connectivity habitat without existing transmission, and minimize additional transmission siting in these areas. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of TCAs and Priority 1 and 2 habitat. Consult with USFWS to avoid adverse modification to desert tortoise designated critical habitat.	Defenders of Wildlife
37-232	Ely FO Southern Nevada DO	NV	Reroute to avoid siting new facilities in TCAs without existing transmission, and minimize additional transmission siting in TCAs. If additional transmission is permitted, site as close together as possible and with as little ground disturbance and vegetation clearing as possible. Reroute to avoid siting new facilities in Priority 1 and 2 connectivity habitat without existing transmission, and minimize additional transmission siting in these areas. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of TCAs and Priority 1 and 2 habitat. Consult with USFWS to avoid adverse modification to desert tortoise designated critical habitat.	Defenders of Wildlife
37-39	Southern Nevada DO	NV	Reroute to avoid siting new facilities in TCAs without existing transmission, and minimize additional transmission siting in TCAs. If additional transmission is permitted, site as close together as possible and with as little ground disturbance and vegetation clearing as possible. Reroute to avoid siting new facilities in Priority 1 and 2 connectivity habitat without existing transmission, and minimize additional transmission siting in these areas. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of TCAs and Priority 1 and 2 habitat. Consult with USFWS to avoid adverse modification to desert tortoise designated critical habitat.	Defenders of Wildlife
3-8	Lassen NF Modoc NF Shasta-Trinity NF	CA	Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (9% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas.	Defenders of Wildlife

TABLE F-1 (Cont.)

Section 368 Corridor	BLM Office/ National Forest	State	Recommendation	Commenter
39-113	Ely FO Southern Nevada DO	NV	Reroute to avoid resources identified as “of concern.” Reroute to avoid siting new facilities in TCAs without existing transmission, and minimize additional transmission siting in TCAs. If additional transmission is permitted, site as close together as possible and with as little ground disturbance and vegetation clearing as possible. Reroute to avoid siting new facilities in Priority 1 and 2 connectivity habitat without existing transmission, and minimize additional transmission siting in these areas. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of TCAs and Priority 1 and 2 habitat.	Defenders of Wildlife
39-231	Southern Nevada DO	NV	Consult with USFWS to avoid adverse modification to desert tortoise designated critical habitat. Reroute to avoid resources identified as “of concern.” Reroute to avoid siting new facilities in TCAs without existing transmission, and minimize additional transmission siting in TCAs. If additional transmission is permitted, site as close together as possible and with as little ground disturbance and vegetation clearing as possible. Reroute to avoid siting new facilities in Priority 1 and 2 connectivity habitat without existing transmission, and minimize additional transmission siting in these areas. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of TCAs and Priority 1 and 2 habitat.	Defenders of Wildlife
41-47	Kingman FO Lake Havasu FO	AZ	Reroute to avoid resources identified as “of concern.” Reroute to avoid siting new facilities in Sonoran desert tortoise Category I and II management habitat. Minimize impacts from new energy infrastructure development to the maximum extent practicable, and where impacts are unavoidable, utilize compensatory mitigation pursuant to BLM policy. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of Category I and II habitat.	Defenders of Wildlife
43-111	Elko DO	NV	Delete/replace: 100% overlap with greater sage-grouse PACs, scores “Very High” for both permeability and CHAT risk scores.	Defenders of Wildlife
44-110	Ely DO Elko DO	NV	Reroute to avoid resources “of concern.” Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (53% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas.	Defenders of Wildlife
50-51	Dillon FO	MT	Delete/replace this segment. This segment scores “Very High” risk for both CHAT and imperiled species.	Defenders of Wildlife
66-209	Salt Lake FO Unita-Wasatch-Cache NF	UT	Consult closely with State fish and game agencies and WGA to implement the full mitigation hierarchy of avoidance, minimization, and compensation for CHAT resources at “Very High” risk.	Defenders of Wildlife

TABLE F-1 (Cont.)

Section 368 Corridor	BLM Office/ National Forest	State	Recommendation	Commenter
73-138	Rawlins FO	WY	Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (14% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas.	Defenders of Wildlife
78-255	Casper FO Rawlins FO Medicine Bow-Routt NF National Grassland NF	WY	Reroute to avoid resources “of concern.” Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within greater sage-grouse PACs (41% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas.	Defenders of Wildlife
78-85	Rawlins FO	WY	Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas.	Defenders of Wildlife
81-272	Las Cruces DO Socorro FO Las Cruces DO	NM	Reroute to avoid resources “of concern.” Reroute to avoid “Very High” risk to the number and magnitude of flowline crossings by WVEC segments. Where flowlines must unavoidably be crossed, minimize impacts on connectivity. Consult with USFWS to avoid adverse modification to Southwestern willow flycatcher and Rio Grande silvery minnow designated critical habitat within 2 km.	Defenders of Wildlife
87-277	Curecanti NCA Grand Mesa, Uncompahgre and Gunnison NF Gunnison FO San Isabel NF Royal Gorge FO	CO	Reroute to avoid resources “of concern” and ensure connection to renewable energy development. Reroute or exclude new infrastructure ROWs and avoid all new energy infrastructure development within Gunnison sage-grouse production areas. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of important sage-grouse breeding areas.	Defenders of Wildlife
66-212	Moab FO Salt Lake FO Price FO Monticello FO Uinta-Wasatch-Cache NF	UT	Remove the corridor that runs adjacent to Arches National Park.	Multiple commenters

TABLE F-1 (Cont.)

Section 368 Corridor	BLM Office/ National Forest	State	Recommendation	Commenter
18-23	Bishop FO Ridgecrest FO Inyo NF Carson City DO Humboldt-Toiyabe NF	CA NV	Expressed the wildlife habitat concerns and scenic terrain concerns; suggested alternative in south western Nevada.	Mono County, CA
229-254	Coeur d' Alene FO Idaho Panhandle NF Beaverhead- Deerlodge NF Missoula FO Butte FO Lolo NF	ID MT	Suggests expanding corridor to 3,500 ft.	Montana Department of Environmental Quality
39-113	Ely FO Southern Nevada DO	NV	Recommends removal of corridors within the Valley of Fire State Park and proposed areas of environmental concern defined in the Las Vegas RMP.	Desert Conservation Program Las Vegas, NV
220-221	Rock Springs FO	WY	Recommends removal of corridor from the Jim Bridger Power Plant to the west that follows Interstate 80.	Wyoming Infrastructure Authority
78-138	Rawlins FO	WY	Revision of the corridor in the BLM's Rawlins Field Office that crosses through the town of Fort Steele, Wyoming, following the final route selected for the Gateway West transmission line.	Wyoming Infrastructure Authority

^a Abbreviations: BLM = Bureau of Land Management; CDCA = California Desert Conservation Area; CHAT = Critical Habitat Assessment Tool; DO = District Office; FO = Field Office; MGS = Mohave ground squirrel; OHV = off-highway vehicle; PAC = Priority Area of Conservation; RMP = Resource Management Plan; ROW = right-of-way; TCA = Tortoise Conservation Area; USFWS = U.S. Fish and Wildlife Service; WGA = Western Governors Association; WWEC = West-wide Energy Corridor.

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