

Corridor 7-24

Southwest Oregon Connector Corridor

Corridor Purpose and Rationale

The corridor provides an east-west pathway for energy transport across southern Oregon. The corridor connects multiple Section 368 energy corridors, creating a corridor network into California on the western end and Nevada on the eastern end. Input regarding alignment from Bonneville Power Administration, PacifiCorp, and the Western Utility Group during the WWEC PEIS suggested following this route. The corridor is currently mostly undisturbed and unoccupied. No applications have been submitted for future use of the corridor. Ruby Pipeline is south of the corridor. The terrain is steep and at high elevations and the corridor could present development constraints.

Corridor location:

Oregon (Harney, Klamath, Lake, and Malheur Co.)
 BLM: Andrews, Vale Jordan, Klamath Falls, and Lakeview Field Offices
 USFS: Fremont-Winema NF
 Regional Review Region: Region 6

Corridor width, length:

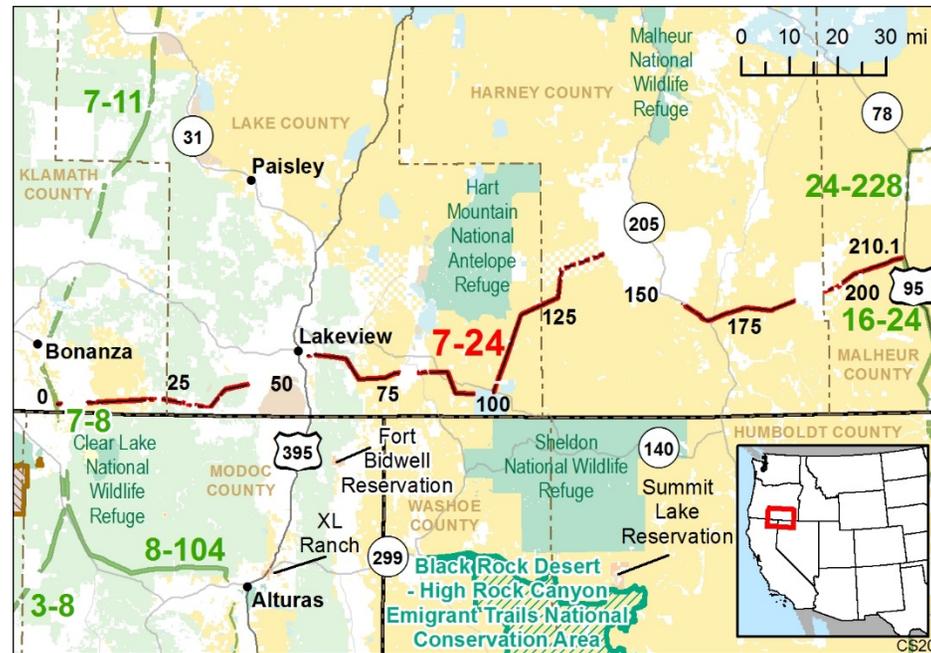
Width 3,500 ft
 138 miles of designated corridor
 210 miles of posted route, including gaps

Designated Use:

- corridor is multi-modal

Corridor of concern (Y)

Citizen-proposed wilderness, sage-grouse habitat, pygmy rabbit habitat, Steens



Mountain Cooperative Management Area, and proposed Sheldon Mountain NWR.

Corridor history:

- Locally designated prior to 2009 (N)
- Existing infrastructure (Y)
 - Corridor is mostly unoccupied but a 115-kV transmission line follows a portion of the corridor.
 - Catlow Valley Rd is within and adjacent to the corridor from MP 161 to MP 168.
- Energy potential near the corridor (Y)
 - 4 solar power plants are within 5 mi.
 - 9 substations are within 5 mi of the corridor.
- Corridor changes since 2009 (N)

Figure 1. Corridor 7-24

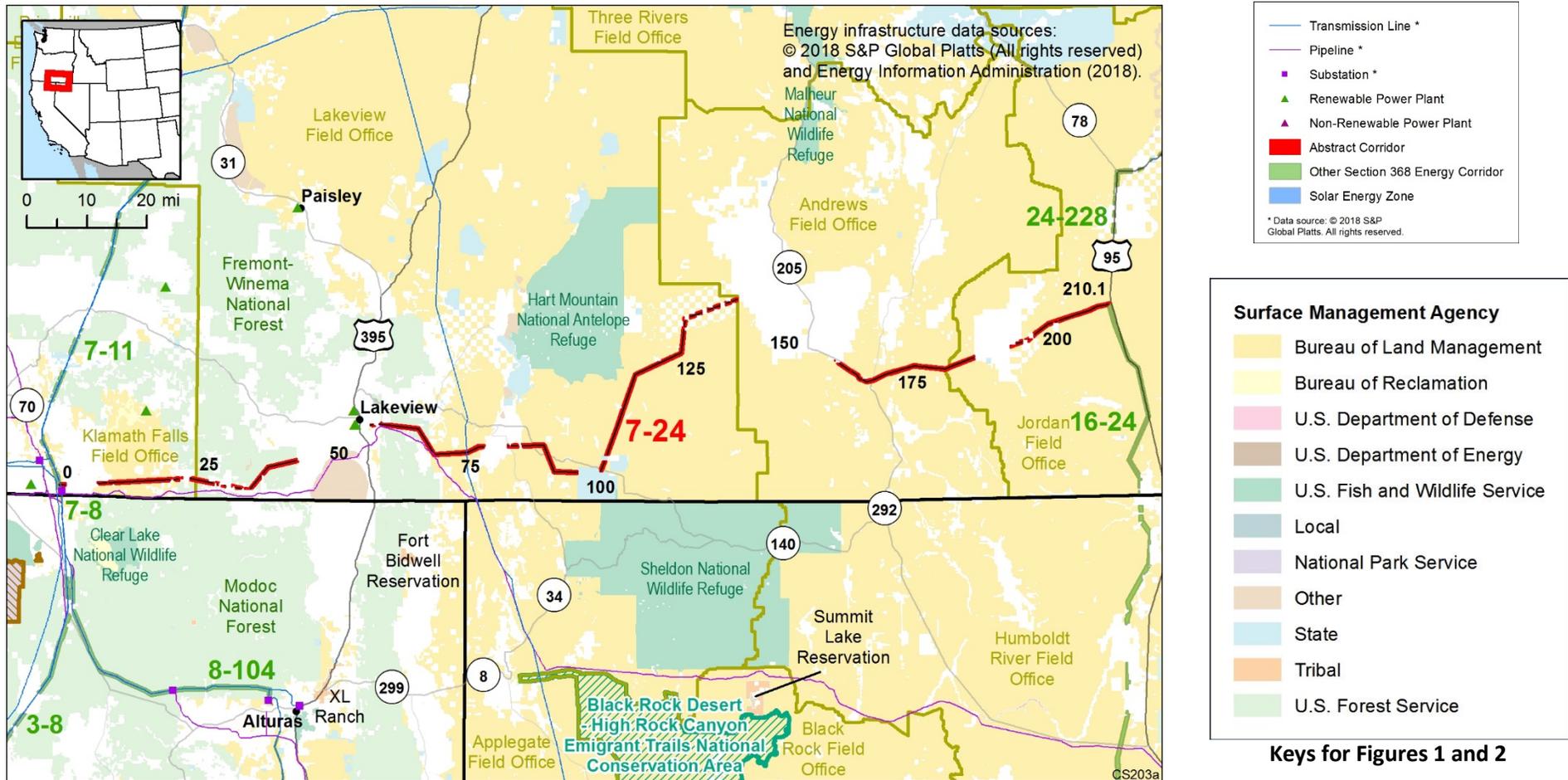


Figure 2. Corridor 7-24 and nearby electric transmission lines and pipelines

Conflict Map Analysis

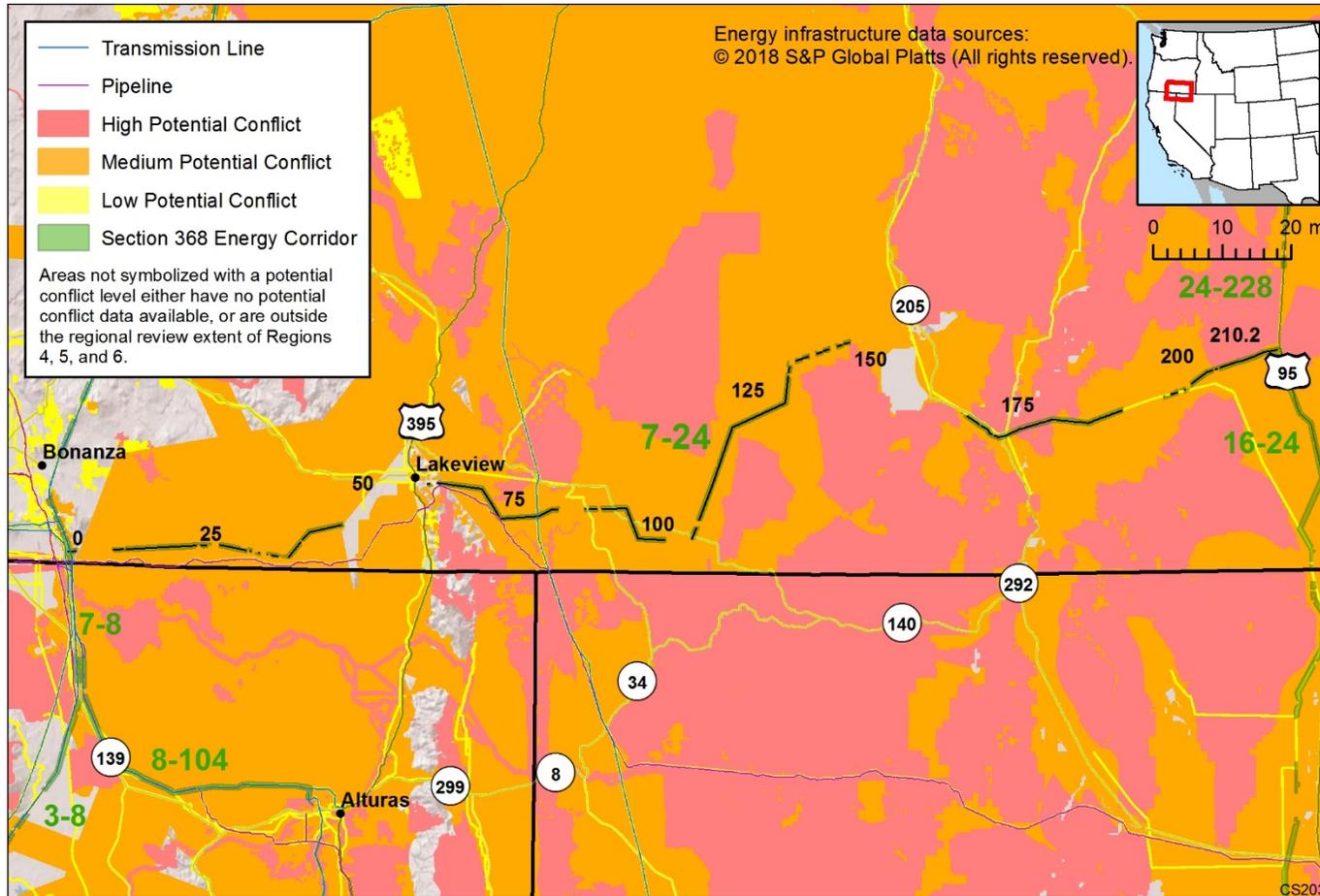


Figure 3. Map of Conflict Areas in Vicinity of Corridor 7-24

Figure 3 reflects a comprehensive resource conflict assessment developed to enable the Agencies and stakeholders to visualize a corridor’s proximity to environmentally sensitive areas and to evaluate options for routes with lower potential conflict. The potential conflict assessment (low, medium, high) shown in the figure is based on [criteria](#) found on the WVEC Information Center at www.corridoreis.anl.gov. To meet the intent of the Energy Policy Act and the Settlement Agreement siting principles, corridors may be located in areas where there is potentially high resource conflict; however, where feasible, opportunity for corridor revisions should be identified in areas with potentially lower conflict.

Visit the 368 Mapper for a full view of the potential conflict map (<https://bogi.evs.anl.gov/section368/portal/>)

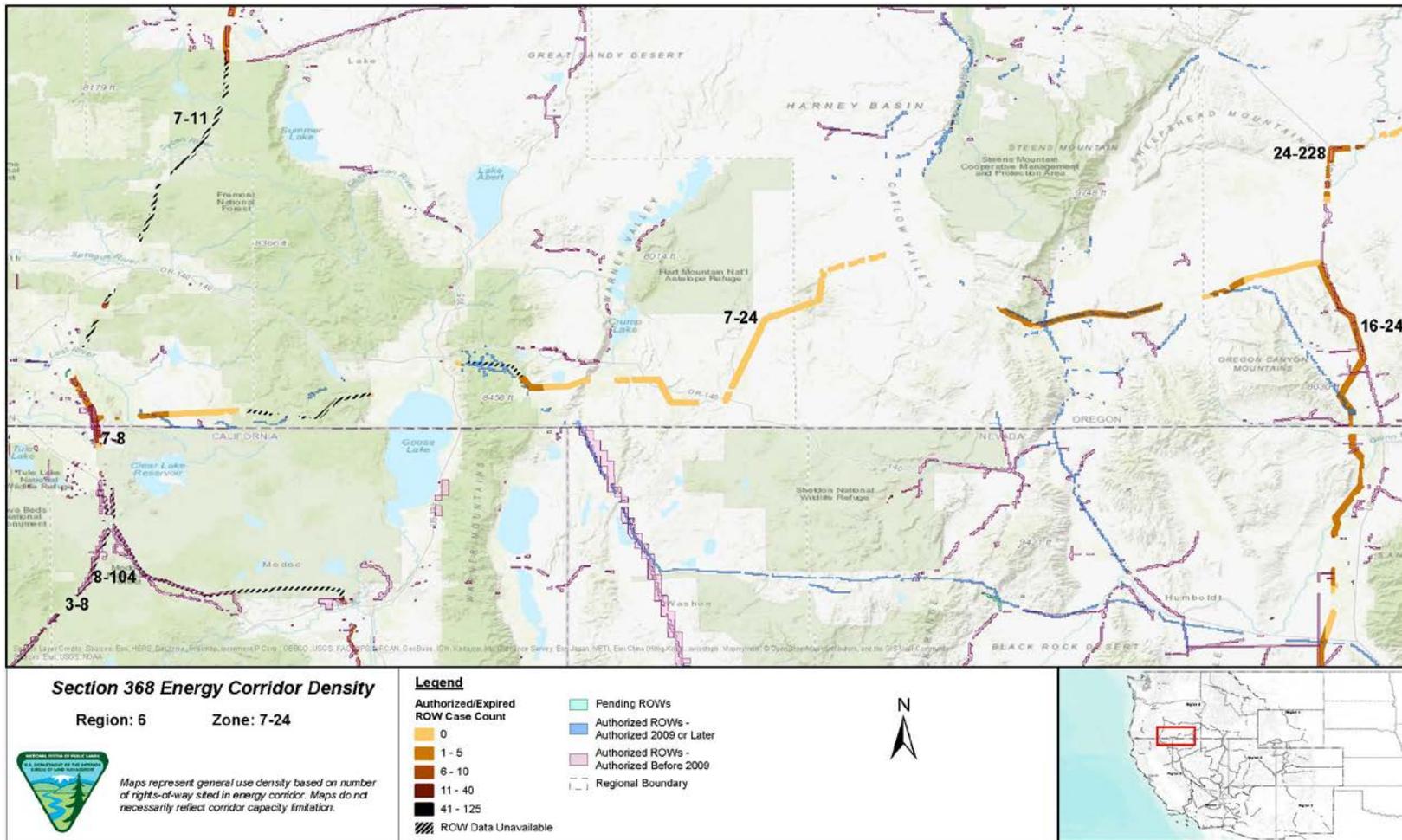


Figure 4. Corridor 7-24, Corridor Density Map

Figure 4 shows the density of energy use to assist in evaluating corridor utility. ROWs granted prior to the corridor designation (2009) are shown in pink; ROWs granted after corridor designation are shown in blue; and pending ROWs under current review for approval are shown in turquoise. Note the ROW density shown for the corridor is only a snapshot that does not fully illustrate remaining corridor capacity. Not all ROWs have GIS data at the time this abstract was developed. BLM and USFS are currently improving their ROW GIS databases and anticipate more complete data in the near future.

Corridor Review Table

Designated energy corridors are areas of land prioritized for energy transmission infrastructure and are intended to be predominantly managed for multiple energy transmission infrastructure lines. Other compatible uses are allowable as specified or practicable. Resource management goals and objectives should be compatible with the desired future conditions (i.e., responsible linear infrastructure development of the corridor with minimal impacts) of the energy transmission corridor. Land management objectives that do not align with desired future conditions should be avoided. The table below identifies serious concerns or issues and presents potential resolution options to better meet corridor siting principles.

The preliminary information below is provided to facilitate further discussion and input prior to developing potential revisions, deletions, or additions.

CORRIDOR 7-24 REVIEW			
POTENTIAL COMPATIBILITY ISSUES or CONCERNS TO EXAMINE	MILEPOST (MP)¹	STAKEHOLDER INPUT and OTHER RELEVANT INFORMATION	POTENTIAL RESOLUTIONS BASED ON SITING PRINCIPLE ANALYSIS ²
<i>BLM Jurisdiction: Lakeview Klamath Falls Field Office</i>			
<i>Agency Land Use Plan: Southwestern Oregon ROD/RMP (2016)</i>			
No issues related to resource intersections with the corridor in the Lakeview Klamath Falls Field Office have been identified.			
<i>USFS Jurisdiction: Winema National Forest</i>			
<i>Agency Land Use Plan: Winema NF LMP (1990); Amendments from 1992 to 2011</i>			
No issues related to resource intersections with the corridor in the Winema NF have been identified.			
<i>BLM Jurisdiction: Lakeview Field Office</i>			
<i>Agency Land Use Plan: Lakeview RMP (2003)</i>			
Lands with undetermined status for wilderness characteristics intersect and are adjacent to the corridor.	MP 66 to MP 77, MP 81 to MP 96, MP 100 to MP 117, and MP 128 to MP 130	BLM Manual Section 6320 (Considering lands with wilderness characteristics in the BLM Land Use Planning Process), 3/15, 2012, provides policy and guidance for considering lands with wilderness characteristics in land use planning under FLPMA. MP 116 to MP 141 is determined to have wilderness characteristics. Comment on abstract: Collins Rim - Deep Creek lands with wilderness characteristics overlaps 2,680 acres	In general, the corridor cannot be shifted to avoid the potential lands with wilderness characteristics because those lands are located along both sides of the corridor or include all federal lands in close proximity to the corridor. The corridor width could be reduced at MP 177 to MP 186 to avoid lands with wilderness characteristics, while the corridor could be shifted slightly to the south at MP 195 to MP 200 to avoid lands with wilderness characteristics. The BLM retains broad discretion regarding the multiple use management of lands possessing wilderness characteristics without Wilderness or WSA designations.

CORRIDOR 7-24 REVIEW

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		from MP 67 to MP 73; South Warner Rim lands with wilderness characteristics overlaps 1,307 acres from MP 75 to MP 77; Greaser Ridge lands with wilderness characteristics overlaps 1152 acres from MP 87 to MP 89; Coleman Rim lands with wilderness characteristics overlaps 1,157 acres from MP 90 to MP 92; Little Juniper Mountain lands with wilderness characteristics overlaps 444 acres at MP 101; Shirk Rim lands with wilderness characteristics overlaps 311 acres at MP 104; Lone Grave Butte lands with wilderness characteristics overlaps 1,001 acres from MP 117 to MP 119; Mahogany Mountain lands with wilderness characteristics overlaps 947 acres from MP 119 to MP 124; Buckaroo Pass lands with wilderness characteristics overlaps 739 acres from MP 120 to MP 121; Wilson Spring lands with wilderness characteristics overlaps 1,999 acres from MP 123 to MP 128; Red Mountain lands with wilderness characteristics overlaps 26 acres at MP 185; Blue Mountain lands with wilderness characteristics overlaps 1105 and 1,436 acres from MP 201 to MP 206.	Agencies could consider a new IOP to assist with avoiding and/or minimizing impacts to developing energy infrastructure on lands with wilderness characteristics.
BLM Jurisdiction: Burns District Office Agency Land Use Plan: Andrews Management Unit RMP (2005)			
VRM Class II area and the corridor intersect – The corridor is located within a utility corridor identified	MP 169 to MP 175 and MP 178	This section of the corridor does include an existing transmission line.	Areas with the VRM Class II designation may not be compatible with future overhead transmission line

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in the RMP. The RMP instructs to manage public land actions and activities consistent with VRM class objectives. The objective of VRM Class II designation is to retain the existing character of the landscape.		Portions of the both the northern and southern corridor boundaries overlap with the VRM Class II areas on either side of the corridor.	development. In order to best meet the siting principles, the Agencies could consider changing in the VRM class or narrowing the corridor to eliminate the VRM intersection.
VRM Class I area is adjacent to the corridor – The VRM Class I area is the Alvord Desert WSA. The RMP does not prescribe ROW avoidance or exclusions for areas adjacent to VRM Class I areas.	MP 200 to MP 209	Comment on abstract: delete the corridor.	Because the corridor is not located in the VRM Class I area development and management inside of the corridor would not be affected. However, the Agencies could consider shifting the corridor to the south at this location to further minimize potential impacts on the VRM Class I area, and partially collocate with an existing transmission line.
Alvord Desert WSA and the corridor are adjacent – The RMP does not prescribe ROW avoidance or exclusions for areas adjacent to WSAs.	MP 200 to MP 209	Under the Wilderness Act (1964), a WSA must be managed as Wilderness pending final determination by Congress. It is highly unlikely that utility ROWs could be approved in WAs or WSAs. Comment on abstract: delete the corridor.	Because the corridor is not located in the WSA development and management inside of the corridor would not be affected. However, the Agencies could consider shifting the corridor to the south at this location and partially collocate with an existing transmission line.
BLM Jurisdiction: Vale Jordan Field Office Agency Land Use Plan: Southeastern Oregon RMP (2002)			
Other than the GRSR GHMA intersections discussed below, no issues related to resource intersections with the corridor in the Vale Jordan Field Office have been identified.			
BLM Jurisdiction: Lakeview Field Office, Burns District Office, Vale Jordan Field Office Agency Land Use Plan: Oregon GRSR ROD and ARMPA – March 2019			
GRSR GHMA (ROW avoidance area) and the corridor intersect — The 2019 ARMPA did not make changes to GHMA in Oregon; designated utility corridors in GHMA may be available for utility ROWs with special stipulations.	MP 56 to MP 57, MP 67 to MP 71, MP 77 to MP 83, MP 85 to MP 88, MP 139 to MP 140, MP 165 to MP 195, and MP 198 to MP 210	RFI comment: due to the significant amounts of priority and general sage-grouse habitat along the corridor, this corridor should be eliminated. Re-route or exclude new infrastructure ROWs and avoid all new energy infrastructure development within GRSR PACs (32% overlap). Use full	ROW avoidance areas may not be compatible with the corridor’s purpose as a preferred location for infrastructure, and GHMA areas may not be compatible with future development in an area without existing infrastructure. However, the GHMA encompasses a broad area around the corridor which cannot be avoided.

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		<p>mitigation hierarchy to avoid, minimize, and compensate for impacts within four miles of important sage-grouse breeding areas.</p> <p>Comment on abstract: due to the significant acreage of GHMA along the corridor, the Agencies should delete this corridor.</p>	<p>Between MP 56 and MP 69, re-routing this corridor along the Ruby Pipeline or other designated Section 368 energy corridors could provide a viable link between development of energy supply and areas of high demand, disturb fewer acres of GHMA resources, and would also designate a path to avoid PHMA areas.</p>
<p>GRSG PHMA (ROW avoidance area) and the corridor intersect — The 2019 ARMPA did not make changes to PHMA in Oregon; designated utility corridors in PHMA may be available for utility ROWs with special stipulations.</p>	<p>MP 70 to MP 77, MP 87 to MP 139, MP 160 to MP 165, and MP 194 to MP 199</p>	<p>RFI comment: due to the significant amounts of priority and general sage-grouse habitat along the corridor, this corridor should be eliminated. Re-route or exclude new infrastructure ROWs and avoid all new energy infrastructure development within GRSG PACs (32% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within four miles of important sage-grouse breeding areas.</p> <p>Comment on abstract: due to the significant acreage of PHMA along the corridor, the Agencies should delete this corridor.</p>	<p>ROW avoidance areas may not be compatible with the corridor’s purpose as a preferred location for infrastructure, and PHMAs areas may not be compatible with future development in an area without existing infrastructure. The PHMA area between MP 70 and MP 77 could be avoided by routing the corridor further south, but this alternative route would intersect with GHMA (see above). Other areas of PHMA intersection cannot be avoided because the PHMA encompasses a broad area around both sides of the corridor.</p> <p>Re-routing this corridor along the Ruby Pipeline or other designated Section 368 energy corridors could provide a viable link between development of energy supply and areas of high demand and disturb fewer acres and resources.</p>
<p>USFS Jurisdiction: Fremont National Forest Agency Land Use Plan: Fremont NF LMP (1989)</p>			
<p>GRSG GHMA and the corridor intersect – The LMP does not prescribe restrictions for GHMAs within designated energy corridors. No changes to the LMP were included in 2015 GRSG amendments to USFS LMPs. The October 2018 USFS Draft EIS addressing planning issues for GRSG did not include Oregon</p>	<p>MP 57 and MP 61 to MP 66</p>	<p>Comment on abstract: may trigger ODFW and/or DLCD rules regarding direct and indirect impacts. Recommend potential relocation of the corridor near PHMAs to avoid direct and indirect impacts.</p>	<p>There are no management prescriptions preventing future development within the corridor; however, GHMAs may not be compatible with future development in an area without existing infrastructure.</p>

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NFs, so no changes to GRSG management prescriptions in the Fremont NF are anticipated in the forthcoming ROD.			In this area of intersection, re-routing this corridor along the Ruby Pipeline would likely disturb fewer acres and GHMA resources, and would also designate a path to avoid PHMA areas.

¹ Mileposts are rounded to the nearest mile.

² Siting Principles include: *Corridors are thoughtfully sited to provide maximum utility and minimum impact on the environment; Corridors promote efficient use of landscape for necessary development; Appropriate and acceptable uses are defined for specific corridors; and Corridors provide connectivity to renewable energy generation to the maximum extent possible, while also considering other generation, in order to balance the renewable sources and to ensure the safety and reliability of electricity transmission.* Projects proposed in the corridor would be reviewed during their ROW application review process and would adhere to Federal laws, regulations, and policy.

Additional Compatibility Concerns

The issues and concerns listed below are not explicitly addressed through agency land use plans or are too general in nature to be addressed without further clarification. Although difficult to quantify, the concerns listed have potential to affect future use and/or development within this designated corridor. The Agencies provided a preliminary general analysis. The information below is provided to facilitate further discussion during stakeholder review.

Jurisdictional Concerns:

- Re-route to avoid proposed Sheldon Mountain NWR (RFI comment).

Analysis: The corridor does not cross the Sheldon Mountain NWR and development and management inside of the corridor would not be affected.

Topography concerns:

- The terrain is steep and rocky with stony-rocky and droughty soils. Elevations can span 4,000 to 6,000 feet and above. Field site visits have not been done, largely because no applications have been filed.

Analysis: The corridor would present small to severe development constraints due to terrain. The Agencies could consider re-routing the corridor along the Ruby Pipeline route to avoid terrain issues as well as Greater Sage-grouse habitat. Alternately, the Agencies could consider designating the corridor as underground-only; the existing corridor is likely wide enough to accommodate another natural gas line, but would need expansion for a transmission line.

Specially designated areas:

- Re-route to avoid Steens Mountain CMPA.
- High Desert Discovery Scenic Byway intersects and runs adjacent to corridor from MP 162 to MP 168 and the East Steens Tour Route Oregon State Scenic Byway and the corridor intersect at MP 168.
- Portions of the corridor lie within an Oregon PAC (Warners and Beatty) and near several WSAs.

Analysis: The corridor is flanked in places to the north by the Steens Mountain CMPA but does not intersect the CMPA or the WSAs. The Oregon Department of Transportation administers the State Scenic Byways, and future development in the corridor would require coordination with this agency.

Lands with wilderness characteristics:

- Due to possible impacts on the Steens Mountain CMPA and other wilderness quality lands, this corridor should be eliminated (RFI comment).
- Citizens' Wilderness Proposal: Alvord Lake, Babes Canyon, Black Point, Coleman Rim, Hart Mountain S, Hart Mountain SE, Sheldon -- includes Nevada proposal, Spaulding WSA addition 2, and Tule Springs (RFI comment).
- Re-route to avoid citizen-proposed wilderness areas (RFI comment).
- Due to the possible impacts to the Steens Mountain CMPA values and other wilderness quality lands, the Agencies should delete this corridor (comment on abstract).

Analysis: The BLM's current inventory findings will be used in land use planning analyses related to the revision, deletion, or addition to the energy corridors. At such time that citizen's inventory information is formally submitted, the BLM will compare its official Agency inventory information with the submitted materials, determine if the conclusion reached in previous BLM inventories remains valid, and update findings regarding the lands ability to qualify as wilderness in character. Agencies could consider an IOP to provide guidance on the review process for applications within corridors with incomplete inventories. The potential IOP would assist with avoiding, minimizing, and/or mitigating impacts to lands with wilderness characteristics. Re-routing this corridor along the Ruby Pipeline or other designated Section 368 energy corridors could provide a viable link between development of energy supply and areas of high demand and would avoid some overlap with lands with wilderness characteristics.

Ecology:

- Scored Very High risk to connectivity flowlines across the landscape in analysis by Defenders of Wildlife (RFI comment). It goes between the Sheldon Hart Mountain Antelope Refuge and the Sheldon National Wildlife Refuge, thereby affecting wildlife migration (comment on abstract).
- Re-route 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 (RFI comment).
- Consult with USFWS to avoid adverse modification to Borax lake chub designated critical habitat (RFI comment).
- Re-route to avoid pygmy rabbit habitat (RFI comment).
- Delete corridor as it impacts GRSG habitat (including a 32% overlap with PACs), pygmy rabbit habitat, the Steens Mountain Cooperative Management and Protection Area, the Steens Mountain geothermal withdrawal area and 3 citizen-proposed wilderness areas (RFI comment).

Analysis: Existing IOPs and BMPs would be required. The Agencies could consider an IOP for habitat connectivity so that transmission projects within Section 368 energy corridors are sited and designed in a manner that minimizes impacts on habitat connectivity. The corridor does not intersect critical habitat; Section 7 consultation with USFWS would be commensurate with agency determination of potential affect to threatened or endangered species.

Military and Civilian Aviation:

- MTR – Slow-speed Route and the corridor intersect from MP 23 to MP 42 and MP 100 to MP 114.
- MTR – VR and the corridor intersect from MP 30 to MP 35, MP 101 to MP 113 and MP 201 to MP 210.
- MTR – IR and the corridor intersect from MP 58 to MP 75 and MP 195 to MP 210.
- SUA and the corridor intersect from MP 6 to MP 41 and MP 66 to MP 134.

Analysis: Adherence to existing IOP regarding coordination with DoD would be required. Agencies could consider a revision to the existing IOP to include height restrictions for corridors in the vicinity of DoD training routes.

Abstract Acronyms and Abbreviations

ARMPA = Approved Resource Management Plan Amendment; BLM = Bureau of Land Management; BMP = best management practices; CMPA = Cooperative Management and Protection Area; DoD = Department of Defense; EIS = environmental impact statement; FLPMA = Federal Land Policy and Management Act; GIS = geographic information system; GHMA = general habitat management area; GRSG = Greater Sage-grouse; IOP = interagency operating procedure; IR = instrument route; LMP = land management plan; MP = milepost; MTR = Military Training Route; NF = National Forest; NWR = National Wildlife Refuge; PAC = Priority Areas for Conservation; 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; SUA = surface use airspace; USFS = U.S. Forest Service; USFWS = U.S. Fish and Wildlife Service; VR = visual route; VRM = visual resource management; WA = Wilderness Area; WSA = wilderness study area; WWEC = West-wide Energy Corridor.