Corridor 78-255

Shirley Basin Corridor

Corridor Purpose and Rationale

The corridor provides a north-south pathway for energy transport in southeastern Wyoming. The corridor connects to Corridors 78-138 and 78-85 to the south, creating a continuous corridor network across BLM- and USFS-administered lands. Input regarding alignment from multiple organizations[1] during the WWEC PEIS suggested following this route. The recently authorized 500 kV Gateway West transmission line is within the corridor for its entire length. The corridor is being considered for the Zephyr Transmission Line Project. Four planned transmission lines ranging from 230 to 500 kV follow the entire length of the corridor (including Gateway West and Dave Johnston to Shirley Basin 230-kV Transmission Line).

Corridor location:
Wyoming (Carbon and Natrona Co.)
BLM: Casper and Rawlins Field Offices
USFS: Medicine Bow-Routt NF
Regional Review Region: Region 4

Corridor width, length:
Width 3,500 ft
28 miles of designated corridor
44 miles of posted route, including gaps

Designated Use:
- corridor is multi-modal

Corridor of concern (Y)
GRSG core area and habitat.

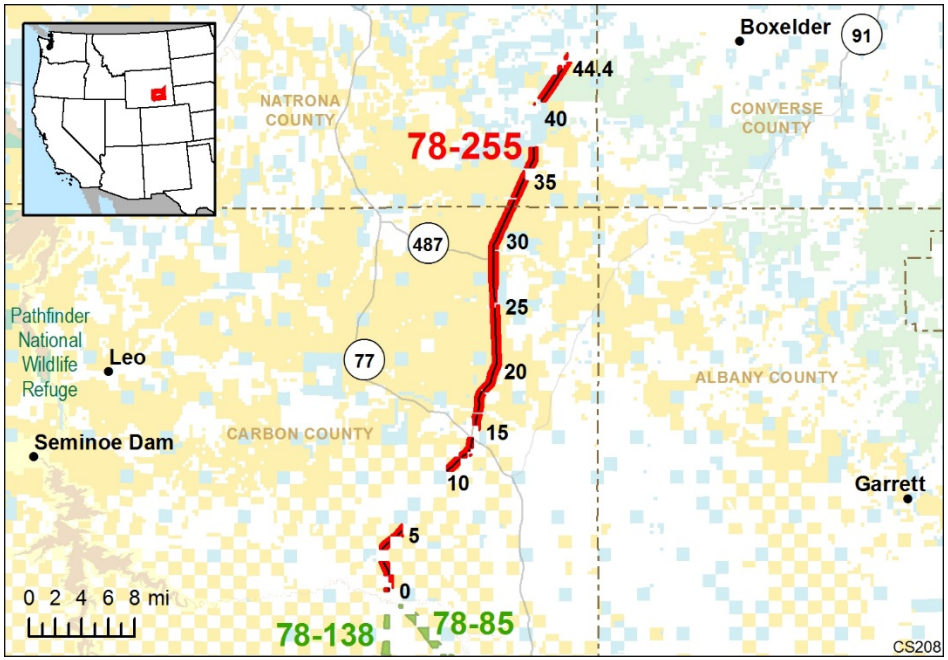
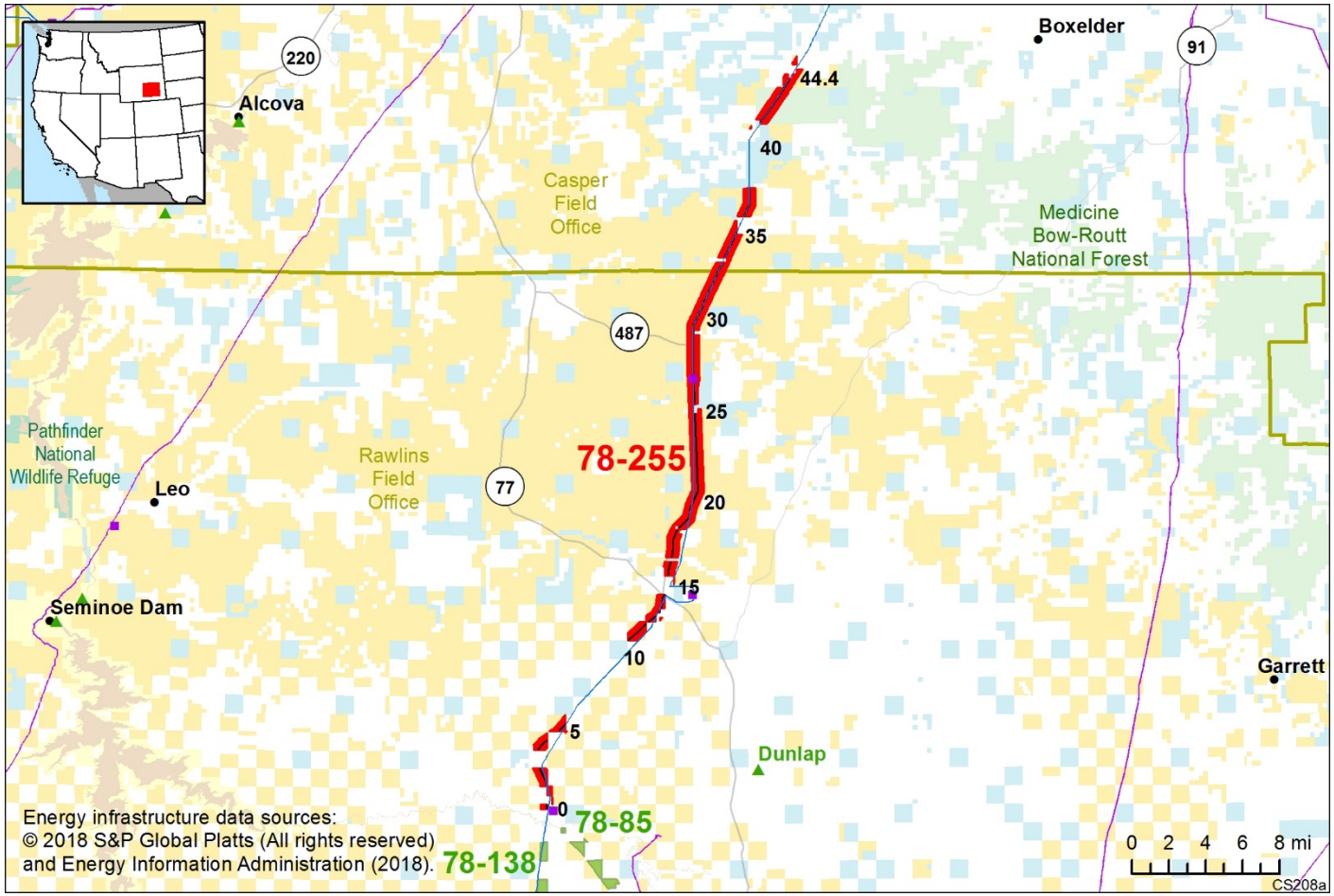
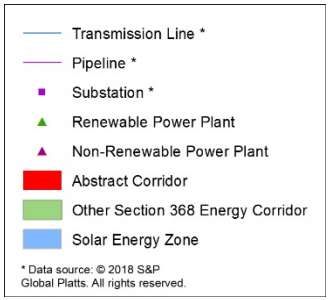


Figure 1. Corridor 78-255

Corridor history:
- Locally designated prior to 2009 (N)
- Existing infrastructure (Y)
  - A 230-kV transmission line is within the entire length of the corridor.
  - Highway 487 follows the corridor from MP 14 to MP 29.
- Energy potential near the corridor (Y)
  - 1 substation is within the corridor and 8 more substations are within 5 mi of the corridor.
- Corridor changes since 2009 (N)

[1] National Grid, PacifiCorp, Rocky Mountain Area Transmission Study, and the Western Transmission Protocol





Keys for Figures 1 and 2

Figure 2. Corridor 78-255 and nearby electric transmission lines and pipelines

Conflict Map Analysis

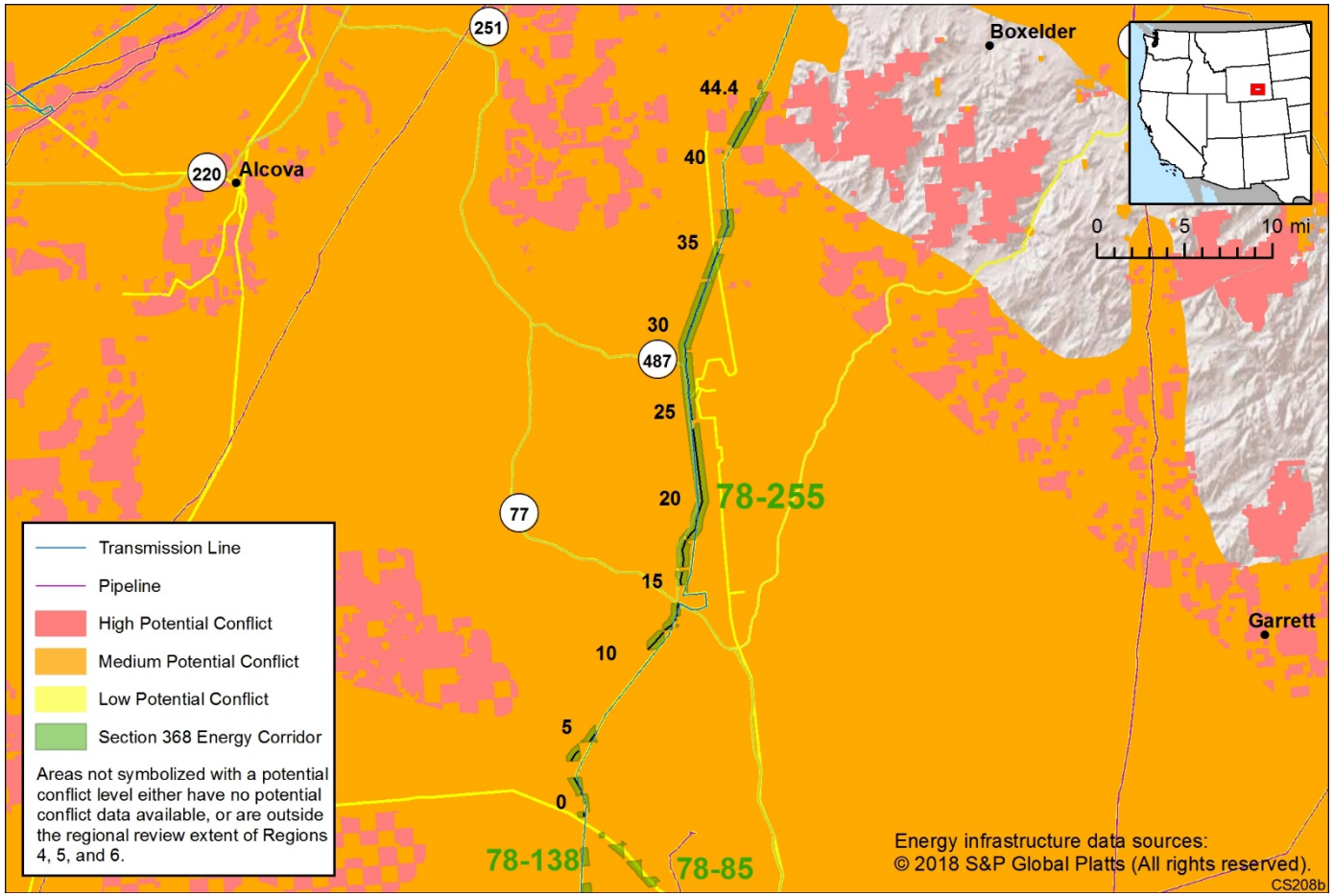


Figure 3. Map of Conflict Areas in Vicinity of Corridor 78-255

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 WWEC 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/)

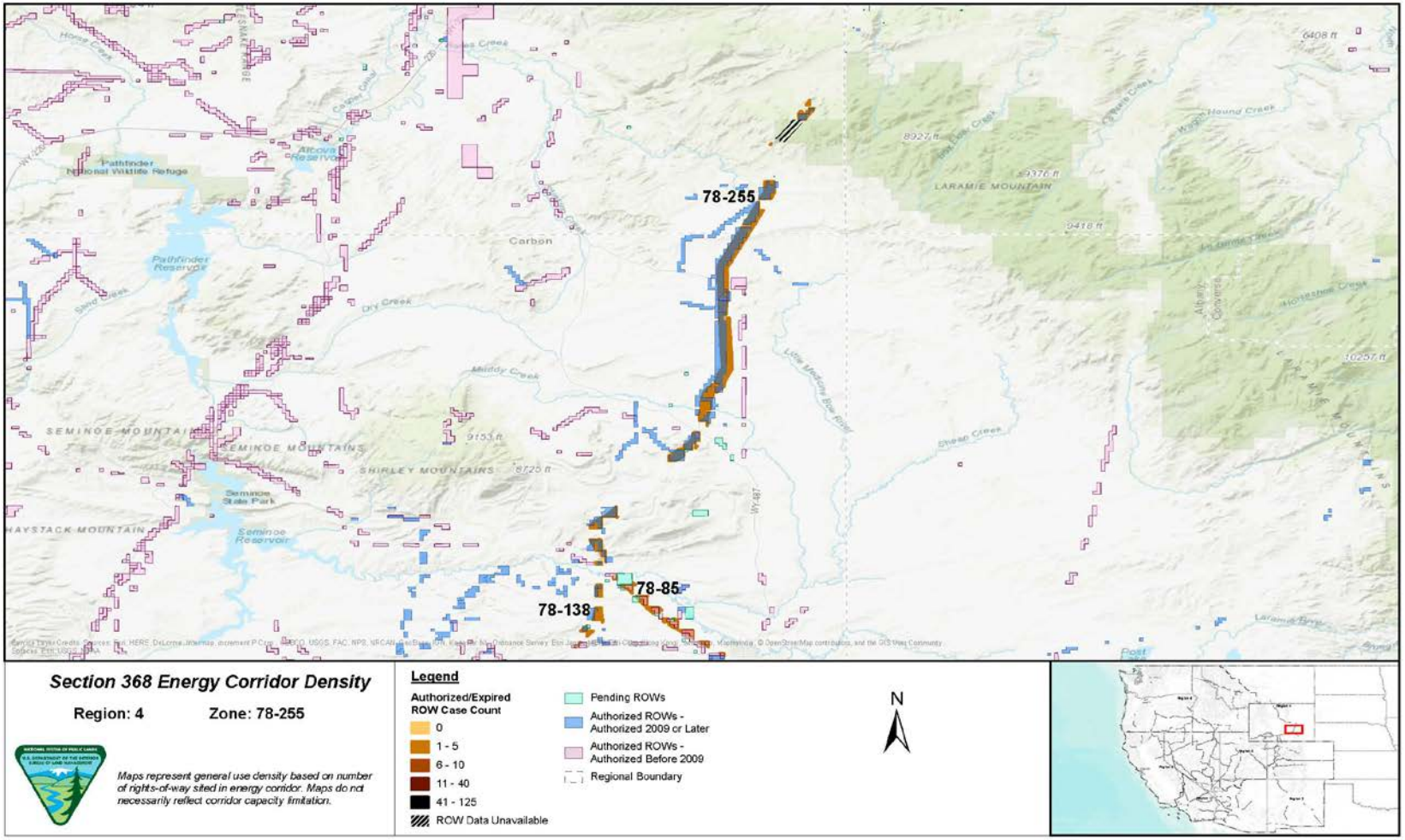


Figure 4. Corridor 78-255, Corridor Density Map

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 78-255 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]**
BLM Jurisdiction: *Rawlins Field Office* ***Agency Land Use Plan:*** *Rawlins RMP (2008)*			
Other than the GRSG GHMA intersections discussed below, no issues related to resource intersections with the corridor in the Rawlins Field Office have been identified.			
BLM Jurisdiction: *Casper Field Office* ***Agency Land Use Plan:*** *Casper RMP (2007)*			
No issues related to resource intersections with the corridor in the Casper FO have been identified.			
USFS Jurisdiction *Medicine Bow National Forest* ***Agency Land Use Plan:*** *Medicine Bow NF LMP (2003)*			
Other than the GRSG GHMA intersections discussed below, no issues related to resource intersections with the corridor in the Medicine Bow NF have been identified.			
USFS Jurisdiction*: Medicine Bow National Forest* ***Agency Land Use Plan:*** *Forest Service GRSG ROD for Northwest Colorado and Wyoming and LMPAs for the Routt NF, Thunder Basin NG, Bridger-Teton NF, and Medicine Bow NF (Sept 2015)*			
GRSG GHMA and the corridor intersect – The 2015 ROD/LMPA indicated that collocating new infrastructure within existing ROWs and maintaining and upgrading ROWs is preferred over the creation of new ROWs or the construction of new facilities in all management areas. Existing designated corridors, including Section 368 energy corridors,	MP 42 to MP 44		The location appears to best meet the siting principles because collocation is preferred and the corridor is collocated with an existing transmission line. The GHMA encompasses a broad area both west and east of the corridor which cannot be avoided. Section 368 energy corridors are priority areas open to ROWs to maximize energy transmission while minimizing impacts on other

CORRIDOR 78-255 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]**
will remain open in all habitat management areas. An October 2018 USFS Draft EIS addressing planning issues for GRSG included Wyoming NFs, so changes to GRSG management prescriptions in the Medicine Bow NF may be associated with the forthcoming ROD.			resources.
BLM Jurisdiction: *Rawlins Field Office and Casper Field Office* ***Agency Land Use Plan:*** *Wyoming GRSG ROD and ARMPA – March 2019*			
GRSG GHMA and the corridor intersect - The 2019 ROD/ARMPA indicates that collocating new infrastructure within existing ROWs and maintaining and upgrading ROWs is preferred over the creation of new ROWs or the construction of new facilities in all management areas. Existing designated corridors, including Section 368 energy corridors, will remain open in all habitat management areas.	MP 0 to MP 29 and MP 44	RFI comment: re-route to avoid resources "of concern." Re-route or exclude new infrastructure ROWs and avoid all new energy infrastructure development within GRSG PACs (41% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within four miles of important GRSG breeding areas. Comment on abstract: delete this corridor given the physical challenges and resource conflicts associated with the corridor.	The location appears to best meet the siting principles because colocation is preferred and the corridor is collocated with an existing transmission line. The GHMA encompasses a broad area both west and east of the corridor which cannot be avoided.
GRSG PHMA (ROW avoidance area) and the corridor intersect – The 2019 ROD/ARMPA indicates that collocating new infrastructure within existing ROWs and maintaining and upgrading ROWs is preferred over the creation of new ROWs or the construction of new facilities in all management areas. Existing designated corridors, including Section 368 energy corridors, will remain open in all habitat management areas.	MP 29 to MP 38	RFI comment: re-route to avoid resources "of concern." Re-route or exclude new infrastructure ROWs and avoid all new energy infrastructure development within GRSG PACs (41% overlap). Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within four miles of important GRSG breeding areas.	ROW avoidance areas are not compatible with the corridor's purpose as a preferred location for infrastructure. However, the corridor is collocated with an existing transmission line. The PHMA encompasses a broad area both west and east of the corridor which cannot be avoided.

[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.

Topography and Terrain:

- There is some steep and rough terrain within the corridor.
- Delete this corridor given the physical challenges and resource conflicts associated with the corridor (comment on abstract).

Analysis: Topography may complicate siting future projects within the corridor. The Agencies could consider potential adjustments to the corridor to avoid terrain concerns.

Lands with wilderness characteristics concerns:

- BLM-identified Potential lands with wilderness characteristics in the Rawlins Field Office: Moss Agate, North of Uranium Miners, RFO-H, RFO-J, Sand Creek, Shirley Basin East, Thornton (RFI comment).
- BLM-inventoried lands with wilderness characteristics: RFO-H (RFI comment).
- WY-030-25N79W10a-2012 lands with wilderness characteristics overlaps 429 acres (MP 13 to MP 14) (comment on abstract).

Analysis: 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 on lands with wilderness characteristics. Between MP 13 and MP 14, the corridor appears to best meet the siting principles because it is collocated with an existing transmission line. Agencies could consider a new IOP to assist with avoiding and/or minimizing impacts to developing energy infrastructure on lands with wilderness characteristics.

Ecology:

- Considerable river recreation, hunting and fishing activities, streams and rivers that are important for coldwater fisheries, and Wyoming Game and Fish Department special management areas for both aquatic and terrestrial habitat conditions. In addition to a review of big game corridors and wildlife habitat displacement issues, soil landscape ecology should be a consideration due to the high level of erosion, sedimentation issues, and sparse vegetation in many areas along this route (comment on abstract).

Analysis: Existing IOPs and BMPs would be required, including those related to ecological resources. In general, the corridor follows existing infrastructure. 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.

Abstract Acronyms and Abbreviations

ARMPA = Approved Resource Management Plan Amendment; BLM = Bureau of Land Management; BMP = best management practice; FO = field office; GHMA = general habitat management area; GIS = geographic information system; GRSG = Greater Sage-grouse; IOP = interagency operating procedure; LMPA = Land Management Plan Amendment; MP = milepost; NF = National Forest; PAC = priority area of 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; USFS = U.S. Forest Service; WWEC = West-wide Energy Corridor.