Corridor 80-273

Rio Puerco & Farmington Corridor

Corridor Rationale

Input regarding alignment from the American Wind Energy Association and the Western Utility Group during the WWEC PEIS suggested following this route. In 2013, a major pipeline was authorized in the corridor from MP 66 to MP 102. Currently, there are no other pending or recently authorized ROWs in the corridor. There is one recently authorized major transmission line and three major pipelines that intersect the corridor. The San Juan Generating Station shut down two units of the plant in 2017. The remaining two units may close in 2022 effectively retiring the plant and Four Corners Power may close 3 of the 5 units of the plant. To offset the loss of power from the San Juan Generating Station, there is potential for the Public Service Company of New Mexico to build a natural gas peaking station in San Juan County to generate 177 megawatts during high-demand periods, and a 40 MW solar generation station. The Farmington Field Office is currently working on a RMP Amendment that may identify more local corridors, as well as avoidance and exclusion zones. These actions would not significantly affect the usefulness of the corridor.

Corridor location:
New Mexico (McKinley, San Juan, and Sandoval Co.)
BLM: Farmington and Rio Puerco Field Offices
Regional Review Region(s): Region 2

Corridor width, length:
Width 3,500 ft
78.8 miles of designated corridor
132.6 mile-posted route, including gaps

Sec 368 energy corridor restrictions: (N)
- corridor is multi-modal

Corridor of concern (N)

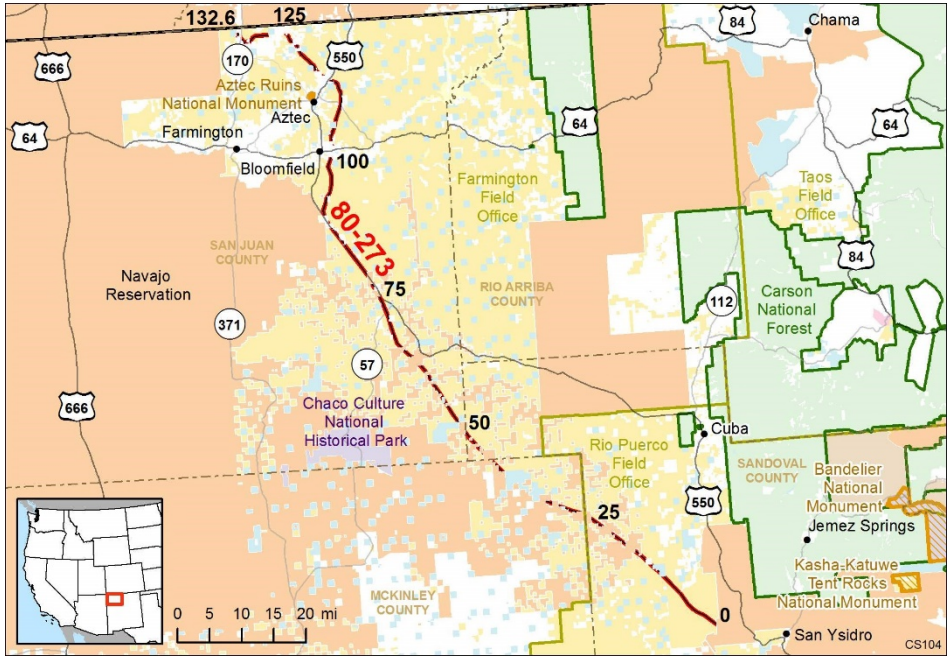
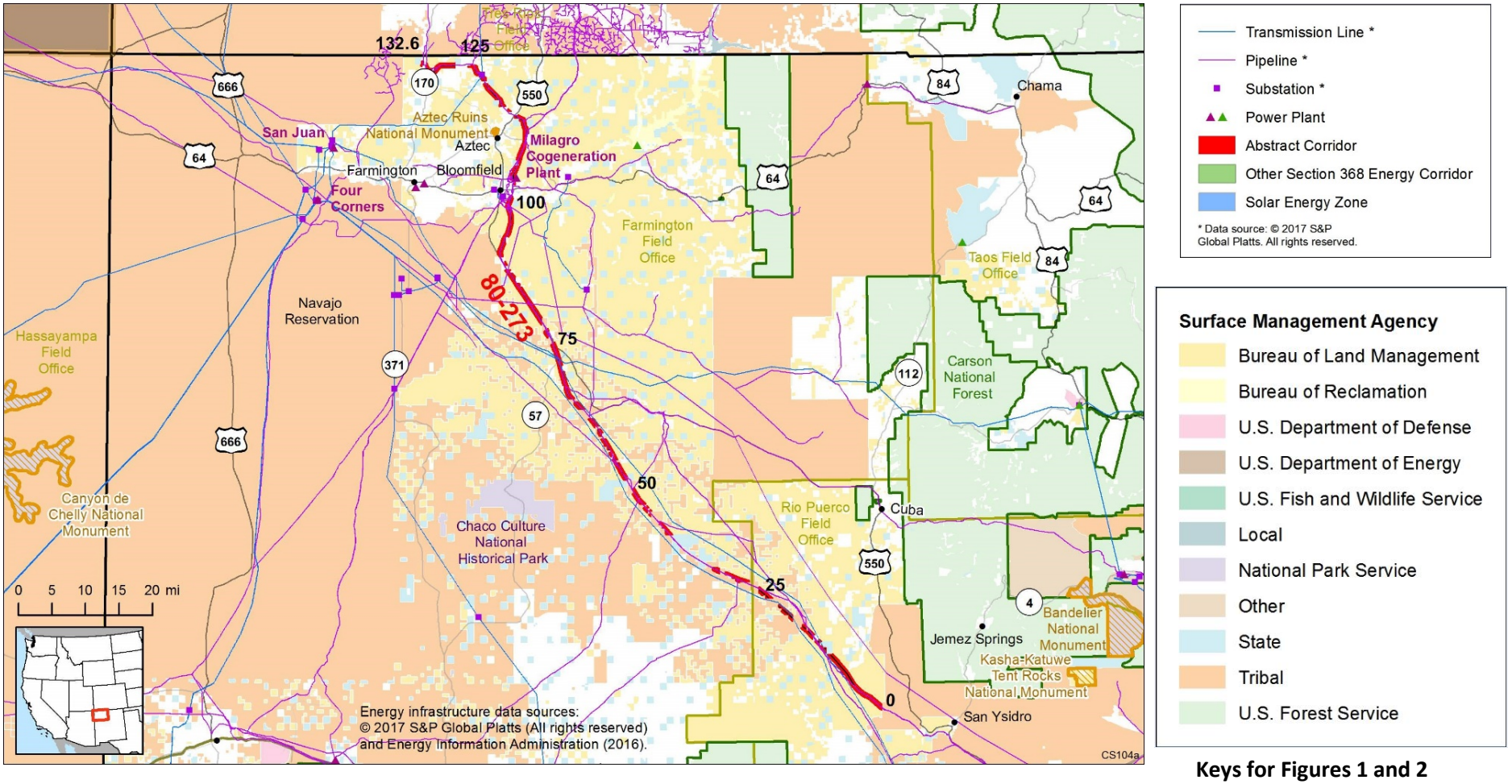


Figure 1. Corridor 80-273

Corridor history:
- Locally designated corridor prior to 2009 (N)
- Existing infrastructure (Y)
  - Electric transmission:
    - 115-kV (MP 103 to MP 113)
  - Highways:
    - U.S. 550 (MP 75 to MP 91)
  - Pipelines:
    - refined product pipelines (almost entire length of corridor)
    - multiple natural gas pipelines (almost entire length of corridor)
  - At least 7 linear ROWs 2,640 ft west on MP 6 to MP 13.Power plant near MP 103
- Energy potential near the corridor (Y)
  - Power plant within 0.3 mi (MP 102.9)
- Corridor changes since 2009 (N)



Keys for Figures 1 and 2

Figure 2. Corridor 80-273 and nearby electric transmission lines and pipelines

Conflict Map Analysis

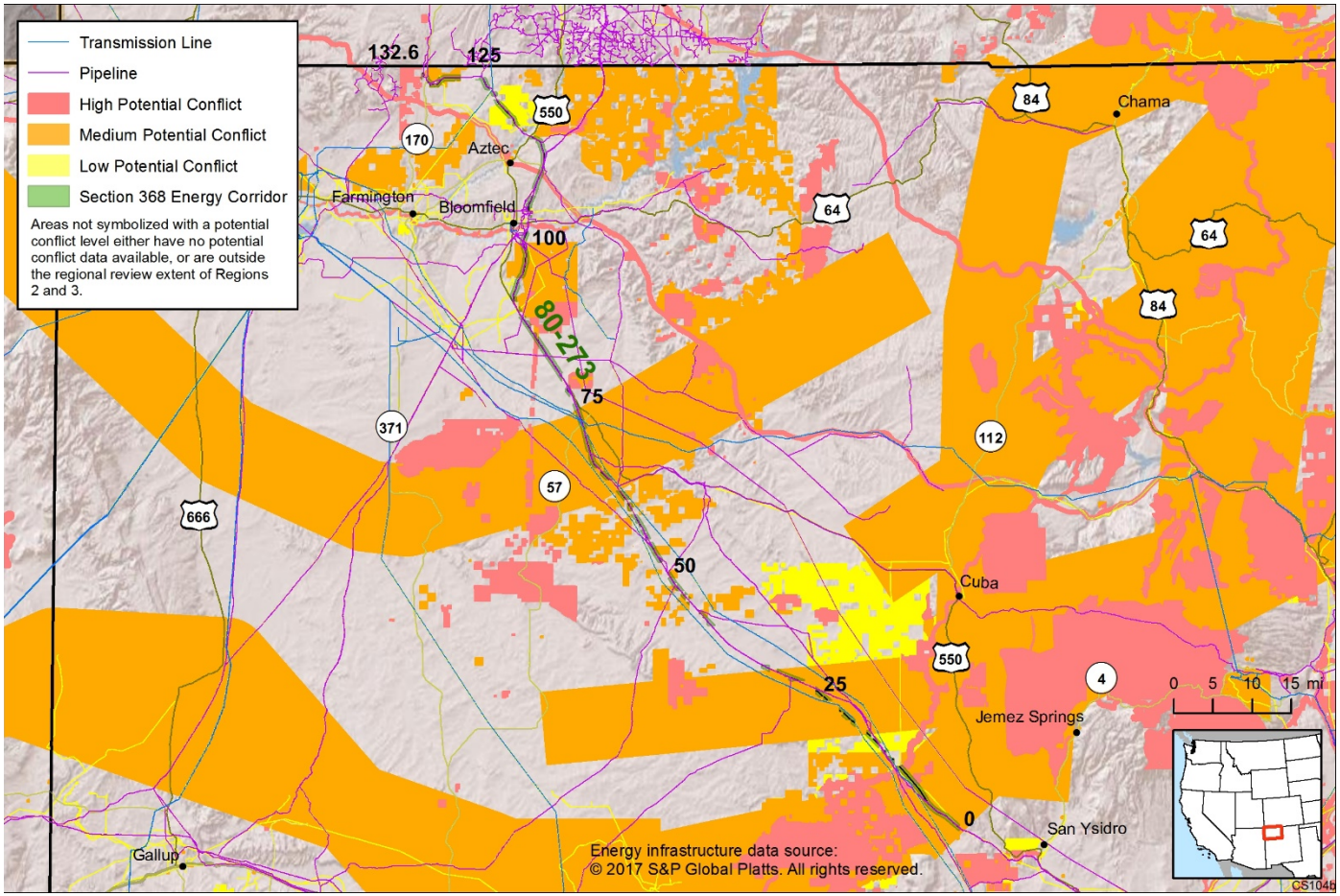


Figure 3. Map of Conflict Areas in Vicinity of Corridor 80-273

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/)

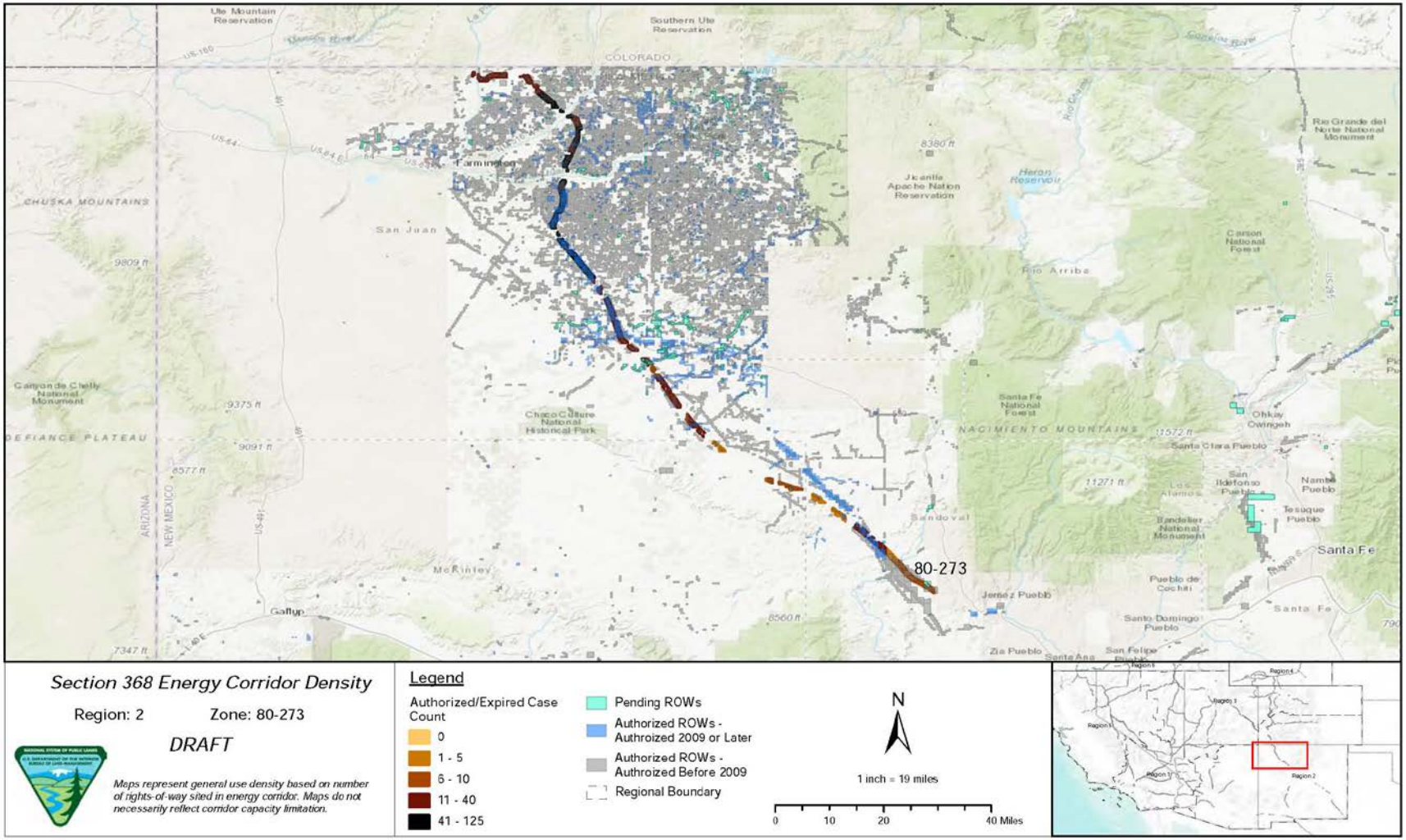


Figure 4. Corridor 80-273, Corridor Density Map

Figure 4 shows the density of energy use to assist in evaluating corridor utility. Rights-of-way (ROWs) granted prior to the corridor designation (2009) are shown in grey; 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 ROW's 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.

General Stakeholder Feedback on Corridor Utility

Stakeholders did not provide specific input on corridor utility.

Corridor Review Table

The table below captures details of the Agencies' review of the energy corridor. Consideration of the general corridor siting principles of the 2012 Settlement Agreement framed each corridor review, to identify potential improvements to maximize corridor utility and minimize impacts on the environment. Initial Agency analysis is provided to facilitate further discussion during stakeholder workshops.

CORRIDOR 80-273 REVIEW TABLE							
ID	**Agency**	**Agency Jurisdiction**	**County**	**Primary Issue**	**Corridor Location (by Milepost [MP])**	**Source**	**Agency Review and Analysis[1, 2]**
ENVIRONMENTAL RESOURCE ISSUES							
Specially Designated Areas							
80-273 .001	BLM	Rio Puerco FO	Sandoval, NM	CDNST	MP 11	GIS Analysis: CDNST and corridor intersect. Agency Input: the corridor intersects with the CDNST at a location where the surrounding area is a VRM Class IV. Near the intersection of the corridor and the CDNST, the CDNST runs parallel to Piedre Lumbre Road, and intersects with both SR 197 and San Luis Pipeline Road.	There is an opportunity for the Agencies to consider adding an IOP for NSTs and NHTs as well as adding an IOP related to Visual Resources to ensure appropriate consideration occurs with proposed development within the energy corridor. (2)
80-273 .002	BLM	Farmington FO	San Juan, NM	Trail of the Ancients New Mexico Scenic Byway	MP 58 and MP 75 to MP 91	GIS Analysis: Trail of the Ancients New Mexico Scenic Byway intersects the corridor at MP 58 and is within the corridor between MP 75 and MP 91.	The Trail of the Ancients National Scenic Byway is administered by NMDOT, and future development in the corridor would require coordination with this Agency. A management plan for the byway has not been completed. (3)
80-273 .003	BLM	Farmington FO	San Juan, NM	OSNHT	MP 108	GIS Analysis: OSNHT and corridor intersect.	There is an opportunity for the Agencies to consider adding an IOP for NSTs and NHTs as well as adding an IOP related to Visual Resources to ensure appropriate consideration occurs with

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ID	**Agency**	**Agency Jurisdiction**	**County**	**Primary Issue**	**Corridor Location (by Milepost [MP])**	**Source**	**Agency Review and Analysis[1, 2]**
							proposed development within the energy corridor. (2)
80-273 .004	BLM	Rio Puerco FO, Farmington FO	Sandoval and San Juan, NM	San Luis Mesa ACEC, Dzil'na'oodlii (Huerfano Mesa ACEC), North Road ACEC, and Animas #8, Morris 41 ACEC,	MP 8 to MP 9 (intersect), MP 77 to MP 78 (intersect), MP 84 to MP 86 (intersect), MP 114 to MP 115 (intersect)	GIS Analysis: Morris 41 ACEC, Animas #8, North Road, Dzil'Na'Oodlii (Huerfano Mesa), and San Luis Mesa intersect a small portion of the corridor.	There may be some conflicts with existing Farmington or Rio Puerco RMPs. For example, for the Dzil'Na'Oodlii and North Road ACECs, new ROWs must be placed in existing ROW disturbance within the ACEC. There are 14 ROWs that cross or lie within the corridor where it crosses the ACEC. Conflicts between the corridor designation and the RMP management prescriptions for the ACECs must be resolved. There is an opportunity to revise the corridor or revise the ACEC boundaries or management prescriptions. For example, the corridor could be shifted at MP 132 to follow the existing pipeline north to avoid the Morris 41 ACEC. (2)
80-273 .005	BLM	Rio Puerco FO	Sandoval, NM	San Luis Raptor Special Management Area	MP 8 to MP 9	Agency Input: corridor intersects the San Luis Raptor SMA.	SMAs are important resources that are considered carefully during corridor planning. There is existing infrastructure outside the corridor that may allow for corridor revision. (2)
Ecology							
80-273 .006	BLM	Farmington FO Rio Puerco FO	San Juan and Sandoval, NM	Brack's Cactus (BLM sensitive species), Clover's Cactus, Aztec Gilia, and San Juan Milkvetch Gypsum Townsend's Aster, Parish's Alkali Grass, Tufted Sand Verbena, and Paperspine Fishhook Cactus	MP 52 to MP 80, MP 88 to MP 99, MP 103 to MP 113, MP 115 to MP 120	Agency Input: Brack's Cactus may be present in the corridor. Agency Input: multiple sensitive plant species may be present in the corridor in the Rio Puerco FO.	These plant species' habitats are an important consideration; however, a comprehensive impact analysis of uncertain development scenarios to these species, *(i.e. protection of potential, prime and occupied habitat; avoidance of the plant/habitat, and; relocation of the cactus)* is not tractable at corridor-level planning. Surveys with a 100-meter buffer will need to be completed prior to development to ensure no

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ID	**Agency**	**Agency Jurisdiction**	**County**	**Primary Issue**	**Corridor Location (by Milepost [MP])**	**Source**	**Agency Review and Analysis[1, 2]**
							indirect/direct impacts and plan for avoidance. (3)
80-273 .007				Mexican Spotted Owl, Wright's Marsh Thistle	Not specified.	Comment on abstract: impacts on Mexican Spotted Owls and on the Wright's Marsh Thistle should be analyzed on a finer scale in New Mexico.	This corridor does not appear to intersect with Mexican Spotted Owl or Wright's Marsh Thistle critical habitat. Further analysis to determine the presence of all species occurring within the area will be considered outside of corridor-level planning. (3)
80-273 .008	BLM	Rio Puerco FO, Farmington FO	McKinley, San Juan, and Sandoval, NM	Wildlife habitat	MP 25 to MP 133	Comment on abstract: north of MP 83, almost the entire corridor runs through crucial habitat areas, identified on the mapping tool as either a level 2 or 1 (from 1-6, with 1 being the most crucial). Potential impacts to the Mule Deer population within this region. Any project within this corridor above the MP 25 will have to undergo extensive review in order to mitigate environmental impacts to sensitive species. Consider undesignating this corridor or encourage the revision of this corridor from MP 75 to MP 133 to effectively mitigate impacts to wildlife in crucial habitat zones and to better avoid conflicts with Native communities within the checkerboard region of the corridor.	There does not appear to be a viable option for rerouting this corridor between MP 75 and MP 133. Wildlife habitat is an important consideration but further analysis is not a consideration for corridor-level planning. (3) The Agencies are exploring an opportunity for adding an IOP related to wildlife migration corridors and habitat to ensure appropriate consideration occurs with proposed development within the energy corridor. (2)
80-273 .009	BLM	Rio Puerco FO	Sandoval	Raptor nests, wildlife waters and enclosures	Not disclosed.	Agency Input: five historic documented raptor nests located within the current corridor. Five wildlife waters and enclosures within corridor.	Raptor nests and wildlife waters and enclosures are protected and could occur throughout the corridor regardless of location. Therefore, this is not a consideration for corridor-level

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ID	**Agency**	**Agency Jurisdiction**	**County**	**Primary Issue**	**Corridor Location (by Milepost [MP])**	**Source**	**Agency Review and Analysis[1, 2]**
					MP 27 to MP 30	Comment on abstract: Little Blue Mesa is an historic Golden Eagle nesting site with several alternate nests. Construction timing should be restricted outside the breeding season (February 1 - September 1) or if the nest sites are confirmed inactive by a qualified biologist.	planning and would need to be addressed during the ROW application process. (3)
Paleontological Resources							
80-273 .010	BLM	Rio Puerco FO, Farmington FO	Sandoval, McKinley, and San Juan, NM	Paleontological resources	MP 25, MP 28 to MP 29, MP 31 to MP 33, MP 42 to MP 50, and MP 52 to MP 133	Agency Input: Potential exists for significant paleontological resources in the corridor. GIS Analysis: PFYC Class 5 areas intersect corridor	The identified potential of paleontological resources is a concern for the Agencies, which cannot be resolved during corridor-level planning. Assessments will occur as part of the ROW application process. (3)
Visual Resources							
80-273 .011	BLM	Farmington FO	San Juan, NM	VRM Class I	MP 132 to MP 133 MP 91 to MP 92	GIS Analysis: VRM Class I areas area adjacent to corridor. Agency Input: corridor adjacent to VRM Class I, Morris ACEC, on east side. GIS Analysis: VRM Class I areas are over 1 mi east of corridor.	The corridor does not cross VRM Class I areas. (1)
80-273 .012	BLM	Rio Puerco FO, Farmington FO	Sandoval and San Juan, NM	VRM Class II	MP 8 to MP 9, MP 77 to MP 78, MP 84 to MP 86, MP 87, and MP 132 to MP 133 MP 8 to MP 9	GIS Analysis: VRM Class II areas and corridor intersect. Agency Input: corridor passes through VRM Class II area of San Luis Mesa ACEC and San Luis Raptor SMA, which are corners of two VRM Class II polygons within the corridor creating a pinch point.	Future development within the corridor could be limited as VRM Class II areas allow for low level of change to the characteristic landscape. Management activities may be seen, but should not attract the attention of the casual observer. This is an opportunity to review corridor placement to avoid conflict with VRM Class II areas. (2)

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ID	**Agency**	**Agency Jurisdiction**	**County**	**Primary Issue**	**Corridor Location (by Milepost [MP])**	**Source**	**Agency Review and Analysis[1, 2]**
					MP 77 to MP 78 MP 85 to MP 86, MP 87	Agency Input: a small portion of the corridor passes through VRM Class II area of Dzil'na'oodlii (Huerfano Mesa) ACEC. Agency Input: corridor is in VRM Class II area of North Road ACEC and lies over US Highway 550.	
80-273 .013	BLM	Rio Puerco FO, Farmington FO	McKinley, Sandoval, and San Juan, NM	VRM Class III	MP 0 to MP 9, MP 43 to MP 63, MP 88 to MP 99, MP 113 to MP 114, and MP 126 to MP 132 MP 114.5	GIS Analysis: VRM Class III areas and corridor intersect. Agency Input: small area of VRM Class III (Animas #8 ACEC)	VRM Class III allows for moderate change to the characteristic landscape, although minimizing visual contrast remains a requirement. Management activities may attract the attention of the casual observer, but shall not dominate the view. (1)
80-273 .014	BLM	Rio Puerco FO, Farmington FO	McKinley, Sandoval, and San Juan, NM	VRM Class IV	MP 8 to MP 15, MP 27 to MP 43, MP 47 to MP 59, MP 64 to 94, and MP 99 to MP 131	GIS Analysis: VRM Class IV areas and corridor intersect.	The existing corridor location best meets the siting principles. (1)
Cultural Resources							
80-273 .015	NA	Private land	San Juan, NM	Florence and John R. Pond House	MP 133 (near)	GIS Analysis: National Register property located on private land as close as 2,600 ft northeast of the end of the corridor near MP 133.	Not a consideration for corridor-level planning. Section 106 process would be followed during the ROW application review process to identify any possible impact of development. Impacts on the Pond House from development would primarily be visual-related issues. (3)
Tribal Concerns							
80-273 .016	BIA	Tribal lands	Sandoval, McKinley, and San Juan, NM	Tribal lands	MP 15 to MP 94	GIS Analysis: Tribal lands within corridor gaps.	BLM can only authorize projects on BLM-administered lands. Development in corridor gaps would require coordination outside of the Agencies. Existing IOPs specific to cultural resources and tribal consultation would be followed in connection with

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ID	**Agency**	**Agency Jurisdiction**	**County**	**Primary Issue**	**Corridor Location (by Milepost [MP])**	**Source**	**Agency Review and Analysis[1, 2]**
							any proposed energy project in the corridor. Existing IOPs require tribal engagement early in the planning process. (3)
80-273 .017	BLM	Rio Puerco FO	Sandoval, NM	Zia Pueblo	MP 0	GIS Analysis: corridor begins adjacent to Zia Pueblo.	The Agencies would consult with the Zia Pueblo as required, for any proposed project in the corridor. (3)
80-273 .018	BLM	Farmington FO	San Juan, NM	Southern Ute Reservation	MP 133	GIS Analysis: corridor ends 1 mi south of the Southern Ute Reservation.	The Agencies would consult with the Southern Ute Indian tribe as required, for any proposed project in the corridor. (3)
80-273 .019	BIA	Navajo Nation and state lands	Sandoval, McKinley, and San Juan, NM	Tribal trust lands and Navajo Nation Allotted Lands	MP 15 to MP 93., with State Lands MP 35 to MP 41	GIS Analysis: Tribal lands are in corridor gap. Comment on abstract: Navajo and Pueblo communities have expressed their concerns about the heavy presence of extractive energy industry and resulting infrastructure in their communities. The Piñon Pipeline along with the ongoing Farmington RMP amendment process, brought to light the communities' concerns for potential pipeline leaks, the protection of cultural resources, and the impact of industry traffic and noise on their quality of life.	Development within tribal trust lands and allotted lands would require proponent negotiations with the Navajo Nation Tribal Trust and Navajo Nation Allotted lands and the BIA. Proponents would have to work with the tribe for a tribal resolution consenting to the grant of ROWs (by BIA). BIA cannot grant ROWs without tribal consent. . Existing IOPs require tribal engagement early in the planning process. (3)
Land Use Concerns							
Military and Civilian Aviation							
80-273 .020	BLM	Rio Puerco FO, Farmington FO	McKinley and Sandoval, NM	MTR – VR	MP 17 to MP 32	GIS Analysis: VR and corridor intersect.	The concern related to MTRs is noted and the adherence to existing IOP regarding coordination with DoD would be required to ensure this potential

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80-273 .021	BLM	Rio Puerco FO	Sandoval, NM	MTR – Slow-speed Route	MP 0 to MP 11	GIS Analysis: slow-speed route and corridor intersect.	conflict is considered at the appropriate time. In addition, there is an opportunity to consider a revision to the existing IOP to include height restrictions for corridors in the vicinity of DoD training routes. (2)
80-273 .022	BLM	Farmington FO	San Juan, NM	MTR – IR	MP 63 to MP 75 MP 0 to MP 11 MP 16.6 to MP 32.2 MP 62.5 to MP 74.5	GIS Analysis: IR and corridor intersect. Comment on abstract: military training routes (IR-109). Potential for an obstruction in airspace used for military operation. Please limit construction to 100' AGL and 5 NM away from routes center lines.	
Other noted land use concerns							
80-273 .023	NA	State and private lands	Sandoval, McKinley, and San Juan, NM	State and private lands intersect corridor gaps	MP 13 to MP 94, MP 100 to MP 133	GIS Analysis: State and private lands in corridor gaps. Comment on abstract: corridor runs through an area with numerous management conflicts. One of the most substantial conflicts is the checkerboard nature of the corridor, with BLM land neighboring state trust and BIA land.	BLM can only authorize projects on BLM-administered lands. Development in corridor gaps would require coordination outside of the Agencies. (3)
80-273 .024			Sandoval, NM	Corridor siting in Sandoval County	Not specified.	Comment on abstract: concerns with potential impacts of a Section 368 Corridor located in eastern Sandoval County with respect to economic impacts, infrastructure impacts, impacts to ecological values, water quality, tribal cultural values and sacred ceremonial sites, wildlife habitat, and human health and safety.	There is no corridor within eastern Sandoval County. There are four Section 368 energy corridors in New Mexico and Corridor 80-273 is the only corridor in Sandoval County. The corridor begins approximately 37 miles northwest of Placitas at the western edge of the Zia Pueblo Reservation and continues northwest for 27 miles within western Sandoval County before continuing into McKinley County. (1)

[1] Projects proposed in the corridor would be reviewed during their ROW application review process and would adhere to Federal laws, regulations, and policy.

[2] (1) = confirm existing corridor best meets siting principles; (2) = identify opportunities to improve corridor placement or IOPs; (3) = acknowledge concern not easily resolved or avoided by corridor-level planning.

Abstract Acronyms and Abbreviations

ACEC = Area of Critical Environmental Concern; BIA = Bureau of Indian Affairs; BLM = Bureau of Land Management; CDNST = Continental Divide National Scenic Trail; DoD = Department of Defense; FO = Field Office; GIS = geographic information system; IOP = interagency operating procedure; IR = Instrument Route; MP = milepost; MTR = Military Training Route; NA = not applicable; NHT = National Historic Trail; NST = National Scenic Trail; OSNHT = Old Spanish National Historic Trail; PEIS = Programmatic Environmental Impact Statement; PFYC = Potential Fossil Yield Classification; RMP = Resource Management Plan; ROW = right-of-way; SMA = special management area; USFS = U.S. Forest Service; VR = Visual Route; VRM = Visual Resource Management; WWEC = West-wide Energy Corridor.