

# Corridor 234-235

## Nogales Corridor

### Corridor Rationale

This energy corridor provides connectivity on National Forest System lands with Mexico. Input regarding alignment from Tucson Electric Power and the Western Utility Group during the WWEC PEIS suggested this route. A planned 345-kV electric transmission line project follows the entire length of the corridor. There are no other planned major ROWs within the corridor at this time.

#### Corridor location:

Arizona (Santa Cruz Co.)  
USFS: Coronado National Forest  
Regional Review Region(s): Region 2

#### Corridor width, length:

Width 3,500 ft  
14.8 miles of designated corridor  
15.3 mile-posted route, including gaps

#### Sec 368 energy corridor restrictions: (N)

- corridor is multi-modal

#### Corridor of concern (N)



#### Corridor history:

- Locally designated corridor prior to 2009 (N)
- Existing infrastructure (Y)
  - Pipelines:
    - natural gas (MP 0 to MP 15)
- Energy potential near the corridor (Y)
  - Solar and natural gas power plants within 3 miles of the corridor near MP 1 and MP 15
- Corridor changes since 2009 (N)

Figure 1. Corridor 234-235

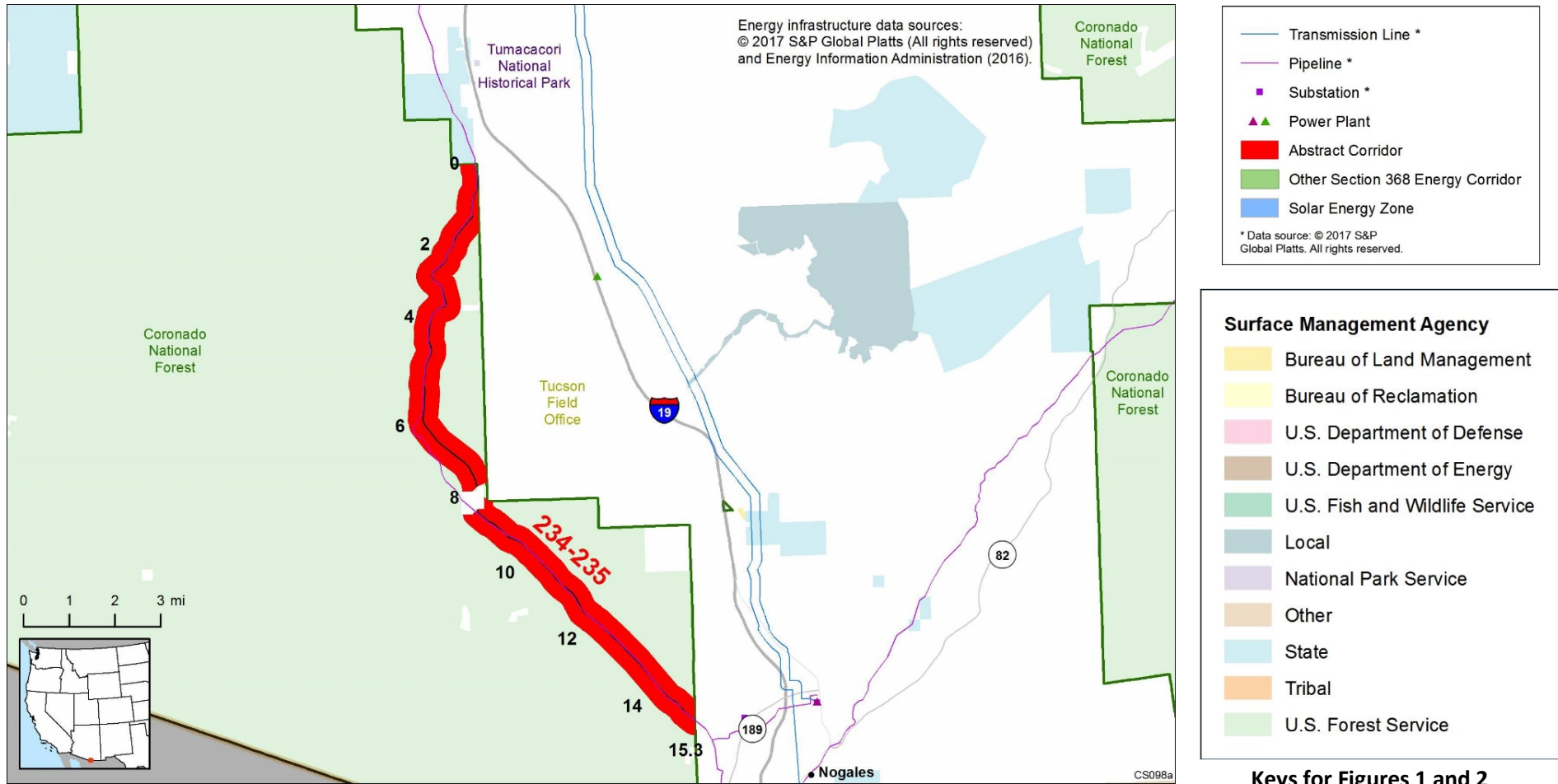
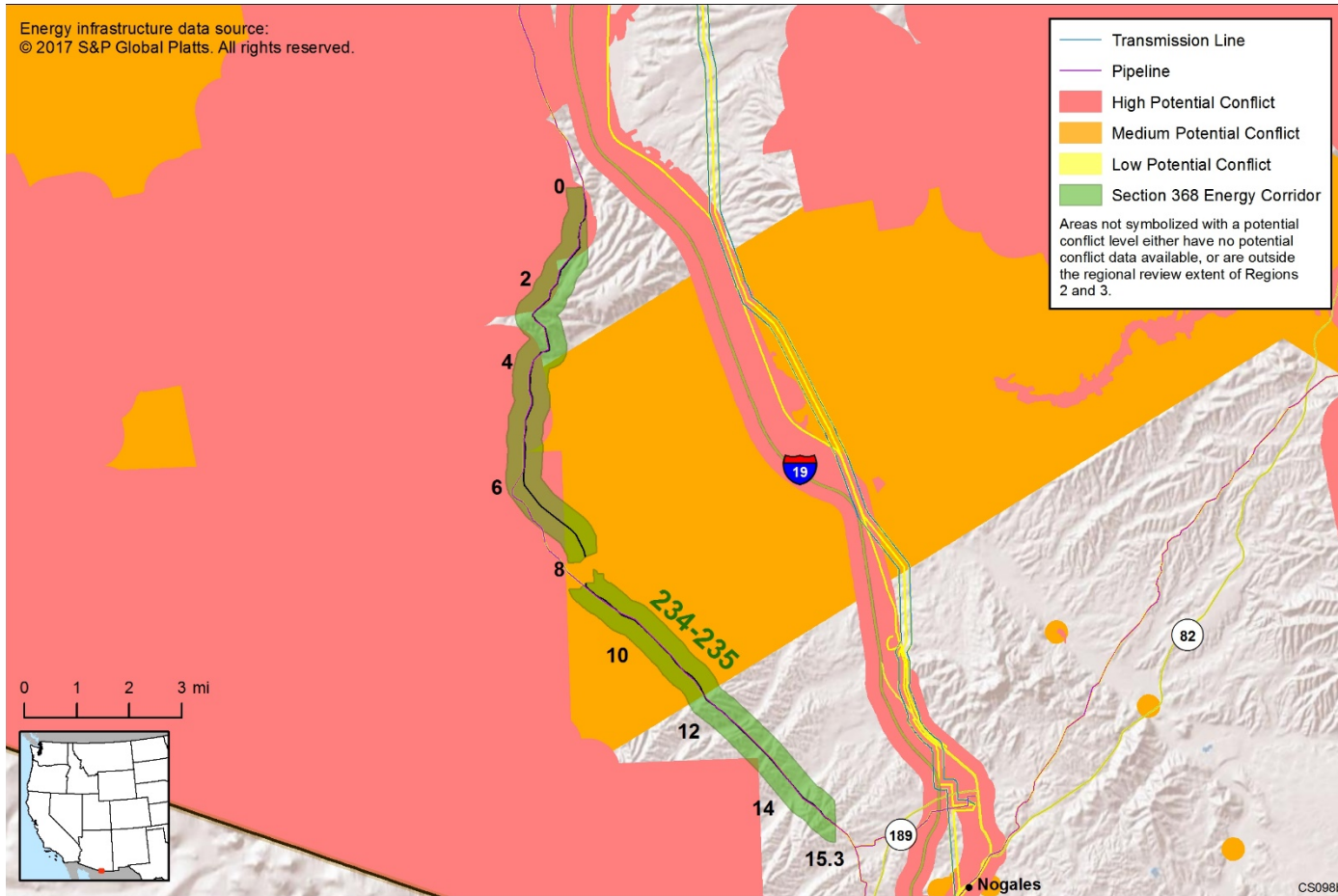


Figure 2. Corridor 234-235 and nearby electric transmission lines and pipelines

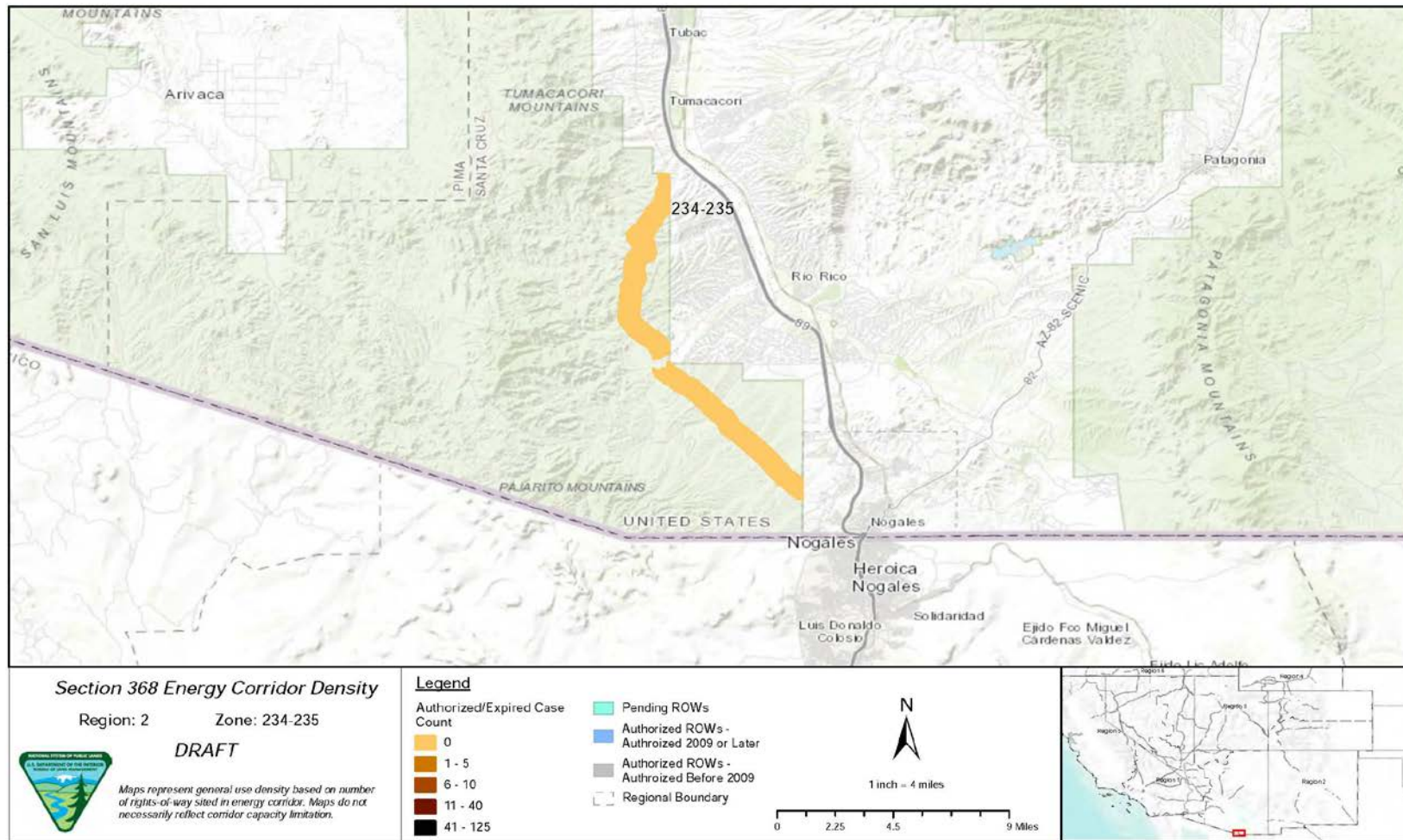
## Conflict Map Analysis



**Figure 3. Map of Conflict Areas in Vicinity of Corridor 234-235**

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](http://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  
[\(https://bogi.evs.anl.gov/section368/portal/\)](https://bogi.evs.anl.gov/section368/portal/)



**Figure 4. Corridor 234-235, 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 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 ROWs have GIS data at the time this abstract was developed. BLM and USFS agencies 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 234-235 REVIEW TABLE							
ID	Agency	Agency Jurisdiction	County	Primary Issue	Corridor Location (by Milepost [MP])	Source	Agency Review and Analysis <sup>1, 2</sup>
<b>ENVIRONMENTAL RESOURCE ISSUES</b>							
<i>Specialty Designated Areas</i>							
234-235 .001	USFS	Coronado National Forest	Santa Cruz, AZ	Tumacacori IRA	MP 7 to MP 8 (adjacent)	GIS Analysis: IRA is adjacent to corridor.	The IRA is adjacent to the corridor and development and management inside of the corridor would not be affected. Because the IRA is adjacent to the corridor, the opportunity to expand or shift the corridor may be more limited. However, there appears to be opportunity to shift the corridor if needed. (1)
234-235 .002	USFS	Coronado National Forest	Santa Cruz, AZ	Juan Bautista de Anza NHT - Historic Trail, Juan Bautista de Anza NHT - Driving Route	MP 0 and MP 15 (near)	GIS Analysis: trail less than 1 mi to the northern and southern ends of corridor.	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)
<i>Ecology</i>							
234-235 .003	USFS	Coronado National Forest	Santa Cruz, AZ	Jaguar critical habitat (ESA-listed: endangered)	MP 0 to MP 6	GIS Analysis: critical habitat and corridor intersect.	The Coronado National Forest Plan states that measures will be prescribed to prevent the destruction or adverse modification of critical habitat for Federally listed species. There is a potential to move the corridor to the east to avoid a portion of the critical habitat, but the corridor already has a pipeline and a proposed transmission

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							line. Adding infrastructure to the east of the corridor rather than collocating could create additional impacts on the jaguar and its habitat. Further analysis to determine the presence of the species and its habitat within the area will be considered outside of corridor-level planning. (3)
234-235 .004	USFS	Coronado National Forest	Santa Cruz, AZ	Mexican Spotted Owl critical habitat (ESA-listed: threatened)	MP 6 to MP 8 and MP 13 to MP 14	RFI: 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 critical habitat.  GIS Analysis: critical habitat and corridor intersect.	The Coronado National Forest Plan states that measures will be prescribed to prevent the destruction or adverse modification of critical habitat for Federally listed species. There is a potential to move the corridor to the east to avoid a portion of the critical habitat, but the corridor already has a pipeline and a proposed transmission line. Adding infrastructure to the east of the corridor rather than collocating could create additional impacts on the Mexican Spotted Owl and its habitat. However, locating future infrastructure to the eastern portion of the corridor would avoid the critical habitat at MP 13 to MP 14. Further analysis to determine the presence of the species and its habitat within the area will be considered outside of corridor-level planning. (3)
234-235 .005	USFS	Coronado National Forest	Santa Cruz, AZ	Southwestern Willow Flycatcher critical habitat (ESA-listed: endangered)	MP 0 to MP 1	RFI: delete/replace this segment. This segment scores "Very High" risk for both CHAT and Imperiled Species. Consult with USFWS to avoid adverse modification to Southwestern Willow Flycatcher critical habitat.	The Coronado National Forest Plan states that measures will be prescribed to prevent the destruction or adverse modification of critical habitat for Federally listed species. The corridor does not intersect Southwestern Willow Flycatcher critical habitat. The corridor cannot be readily moved to the west without infringing further into Jaguar critical habitat. The location of

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						GIS Analysis: critical habitat less than 1 mi east of corridor.	the corridor between MP 0 and MP 1 best meets siting principles. (1)
234-235 .006	USFS	Coronado National Forest	Santa Cruz, AZ	Western Yellow-billed Cuckoo proposed critical habitat (ESA-listed: threatened)	MP 0 to MP 1	GIS Analysis: proposed critical habitat less than 1 mi east of corridor.	The Coronado National Forest Plan states that measures will be prescribed to prevent the destruction or adverse modification of critical habitat for Federally listed species. The corridor does not go through Western Yellow-billed Cuckoo proposed critical habitat or Chiricahua Leopard Frog critical habitat. However, the corridor goes through known occupied areas in Pesquiera and Bellatosa Canyons, and if surveys were done for the entire corridor, more detections would be likely. Therefore, ESA concerns could be an issue for future corridor development. Further analysis to determine the presence of these two species and their habitats will be considered outside of corridor-level planning. (3)
234-235 .007	USFS	Coronado National Forest	Santa Cruz, AZ	Chiricahua Leopard Frog critical habitat (ESA-listed: threatened)	MP 9 to MP 10	GIS Analysis: critical habitat nearly 2 mi west of corridor.	
234-235 .008				Critical and proposed critical habitat	Not specified.	Comment on abstract: delete/replace this segment. Drop this corridor or reroute to avoid critical habitat. 12 miles of corridor intersects intermittently with critical or proposed critical habitat for Jaguar, Mexican Spotted Owl, Southwestern Willow Flycatcher, Western Yellow-billed Cuckoo, and Chiricahua Leopard Frog.	See the responses above related to critical and proposed critical habitats for the species mentioned.
234-235 .009				Special Status Species	Not specified.	Comment on abstract: additional species not identified in the corridor abstract may be present: Lesser Long-nosed Bat, Ocelot, Sonoran Pronghorn,	This corridor location within the current range where these species may occur is not easily resolved or avoided by corridor-level planning because alternate routes would still require

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						<p>Northern Mexican Gartersnake, Gila Topminnow, and Pima Pineapple Cactus.</p> <p>Conduct further analysis to determine the presence of abovementioned species.</p>	<p>siting through the current range of these species. Further analysis to determine the presence of all species occurring within the area will be considered outside of corridor-level planning. (3)</p>
234-235 .010	USFS	Coronado National Forest	Santa Cruz, AZ	Arizona missing linkages: Santa Rita-Tumacacori Linkage Design	MP 0 to MP 1 and MP 14 to MP 15	<p>GIS Analysis: the linkage design and corridor intersect.</p> <p>Comment on abstract: corridor intersects the Santa Rita-Tumacacori Wildlife Linkage at both the north and south limits of the corridor. Recommend rerouting the portion that runs through the Coronado National Forest. Although there is current infrastructure (an existing pipeline constructed many years ago), the potential maximum buildout would be a catastrophic disruption to wildlife movement through the area. Accommodation of wildlife movement corridors would be a critical component of the designation of the corridor if it were to remain in its current location through the Coronado National Forest.</p>	<p>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)</p>
<b>Lands with Wilderness Characteristics</b>							
234-235 .011	USFS	Coronado National Forest	Santa Cruz, AZ	Citizens' proposed wilderness	<p>Not specified.</p> <p>MP 0 to MP 11</p>	<p>RFI: Citizens' proposed wilderness: Tumacacori</p> <p>Comment on abstract: corridor intersects with wilderness-quality lands. 1,488 acres</p>	<p>The USFS's current inventory findings will be used in land use planning analyses related to the revision, deletion, or addition to the energy corridors. Consideration of citizens' wilderness proposals is beyond the Agencies scope and authority. As such,</p>



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						overlap (Tumacacori-citizens' wilderness proposal).  Exclude energy corridors from all wilderness-quality lands.	the corridor's current location best meets the siting principles. (1)  At such time that citizens' inventory information is formally submitted, the USFS will compare its official Agency inventory information with the submitted materials, determine if the conclusion reached in previous USFS inventories remains valid, and update findings regarding the lands ability to qualify as wilderness in character.
<b>Cultural Resources</b>							
234-235 .012	USFS	Coronado National Forest	Santa Cruz, AZ	Archaeological and Historical Sites	MP 0 to 15	Agency Input: cultural resources located in corridor. The corridor crosses at least two known cultural resource sites; less than 20% of the corridor has been surveyed for cultural resources.	The potential for cultural resources is a concern for the Agencies that cannot be resolved during corridor-level planning. Surveys will occur as part of the ROW application process. Existing IOPs specific to cultural resources and tribal consultation would be followed in connection with any proposed energy project in the corridor. (3)
<b>Land Use Concerns</b>							
<b>Military and Civilian Aviation</b>							
234-235 .013	USFS	Coronado National Forest	Santa Cruz, AZ	MTR – VR	MP 4 to 12	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 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)

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

<sup>2</sup> (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

BLM = Bureau of Land Management; CHAT = Crucial Habitat Assessment Tool; DoD = Department of Defense; ESA = Endangered Species Act; GIS = geographic information system; IOP = interagency operating procedure; IRA = Inventoried Roadless Area; MP = milepost; MTR = Military Training Route; NHPA = National Historic Preservation Act; NHT = National Historic Trail; PEIS = Programmatic Environmental Impact Statement; RFI = Request for information; ROW = right-of-way; USFS = U.S. Forest Service; USFWS = U.S. Fish and Wildlife Service; VR = Visual Route; WWEC = West-wide Energy Corridor.