

# Corridor 115-208

## Palo Verde-Tucson Corridor

### Corridor Rationale

The corridor was designated to navigate around Sonoran Desert National Monument and to provide a route from the Palo Verde Generating Station to Tucson, Arizona. During scoping for the WVEC PEIS, routes generally following this corridor were suggested by the Arizona Public Service Electric Company, Tucson Electric Power, and the Western Utility Group. There are two planned 500-kV and one planned 230-kV electric transmission lines mostly within the corridor from MP 0 to MP 46. The corridor is also being considered as an alternative for a new Federal highway (I-11). Currently, there are no pending or recently authorized ROWs within the corridor. An authorized transmission line intersects the corridor.

#### Corridor location:

Arizona (Maricopa and Pinal Co.)  
BLM: Lower Sonoran Field Office  
Regional Review Region(s): Region 2

#### Corridor width, length:

Width 5,280 ft  
39.4 miles of designated corridor  
65.5 mile-posted route, including gaps

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

- corridor is multi-modal

#### Corridor of concern (N)

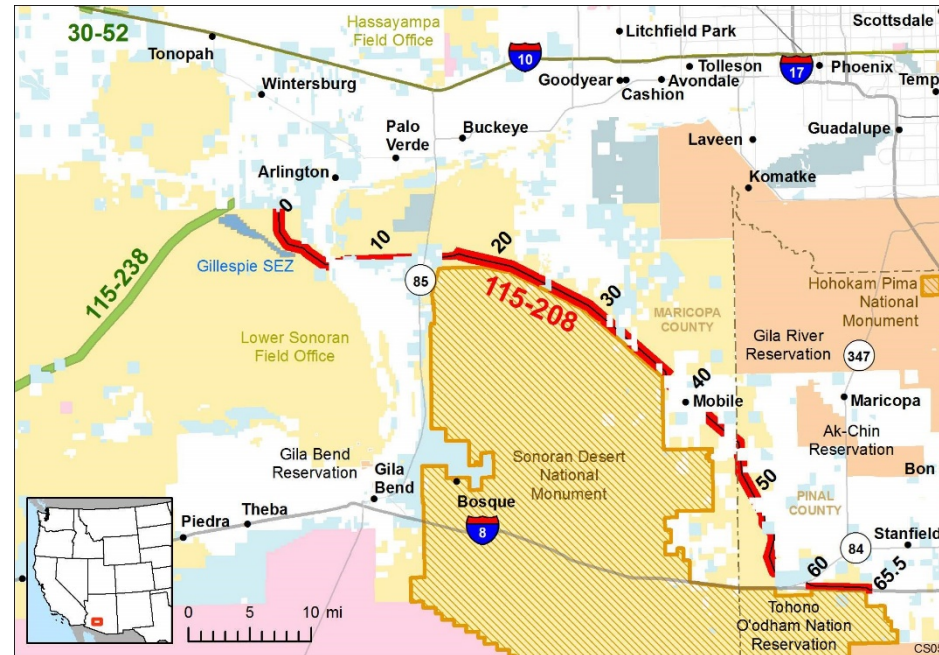


Figure 1. Corridor 115-208

#### Corridor history:

- Locally designated corridor prior to 2009 (Y)
- Existing infrastructure (Y)
  - Electric transmission:
    - 3 500-kV lines (MP 0 to MP 17)
    - 2 500-kV lines (MP 17 to MP 40)
    - 500-kV line (MP 40 to MP 46)
    - 345-kV line (MP 0 to MP 46)
    - 2 345-kV lines (MP 46 to MP 61)
  - Pipelines:
    - 3 natural gas (MP 0 to MP 12 and MP 26 to MP 46)
    - 2 natural gas (MP 12 to MP 26)
  - Interstate 8 (MP 60 to MP 66)
- Energy potential near the corridor (Y)
  - Gillespie SEZ adjacent to corridor (MP 0 to MP 4)
  - REDA adjacent to the corridor (MP 0 to MP 4, MP 17 to MP 39)
  - 5 power plants (3 natural gas and 2 solar) within 4.5 mi of north end of corridor (MP 0)
- Corridor changes since 2009 (N)



Figure 2. Corridor 115-208 and nearby electric transmission lines and pipelines

## Conflict Map Analysis

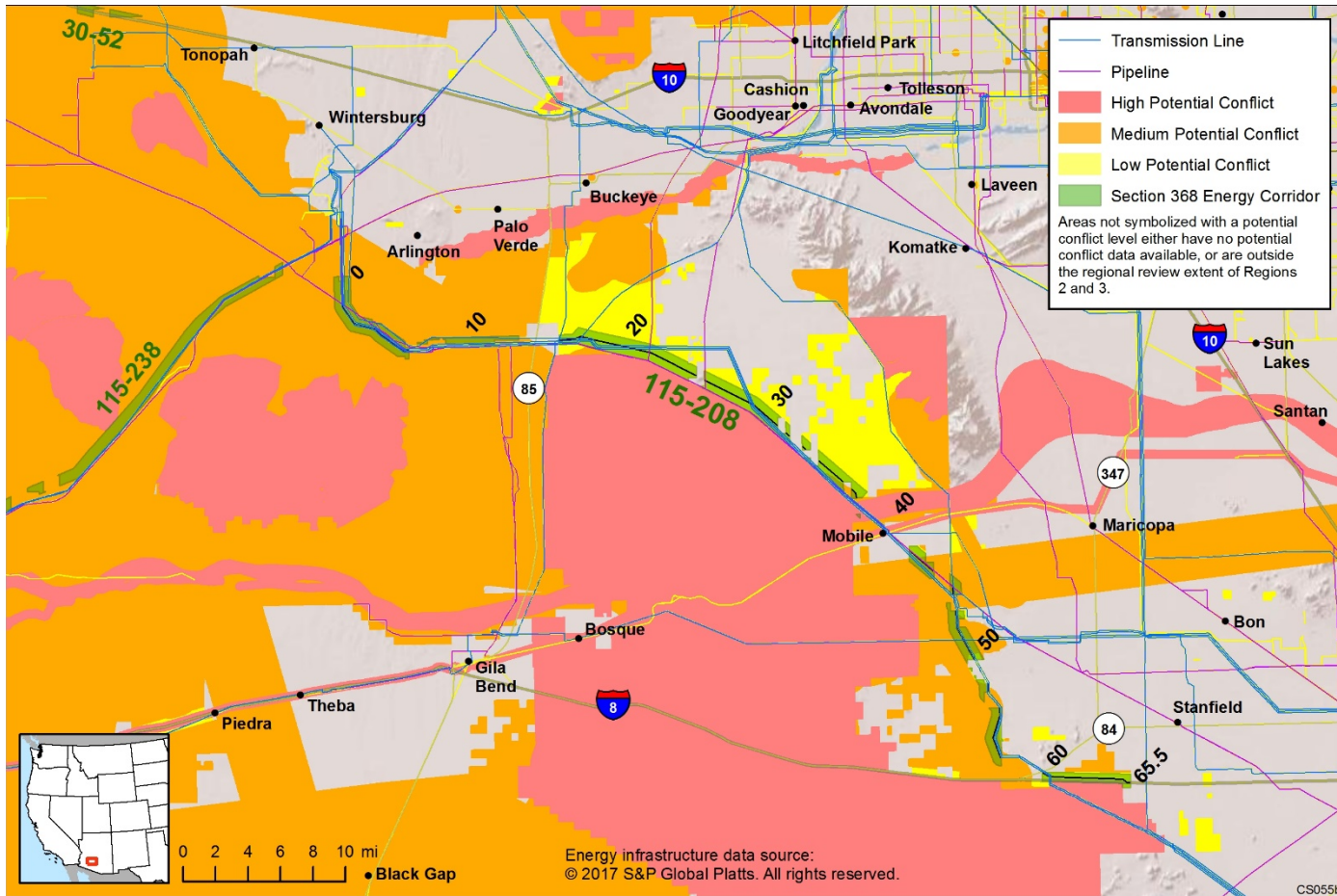
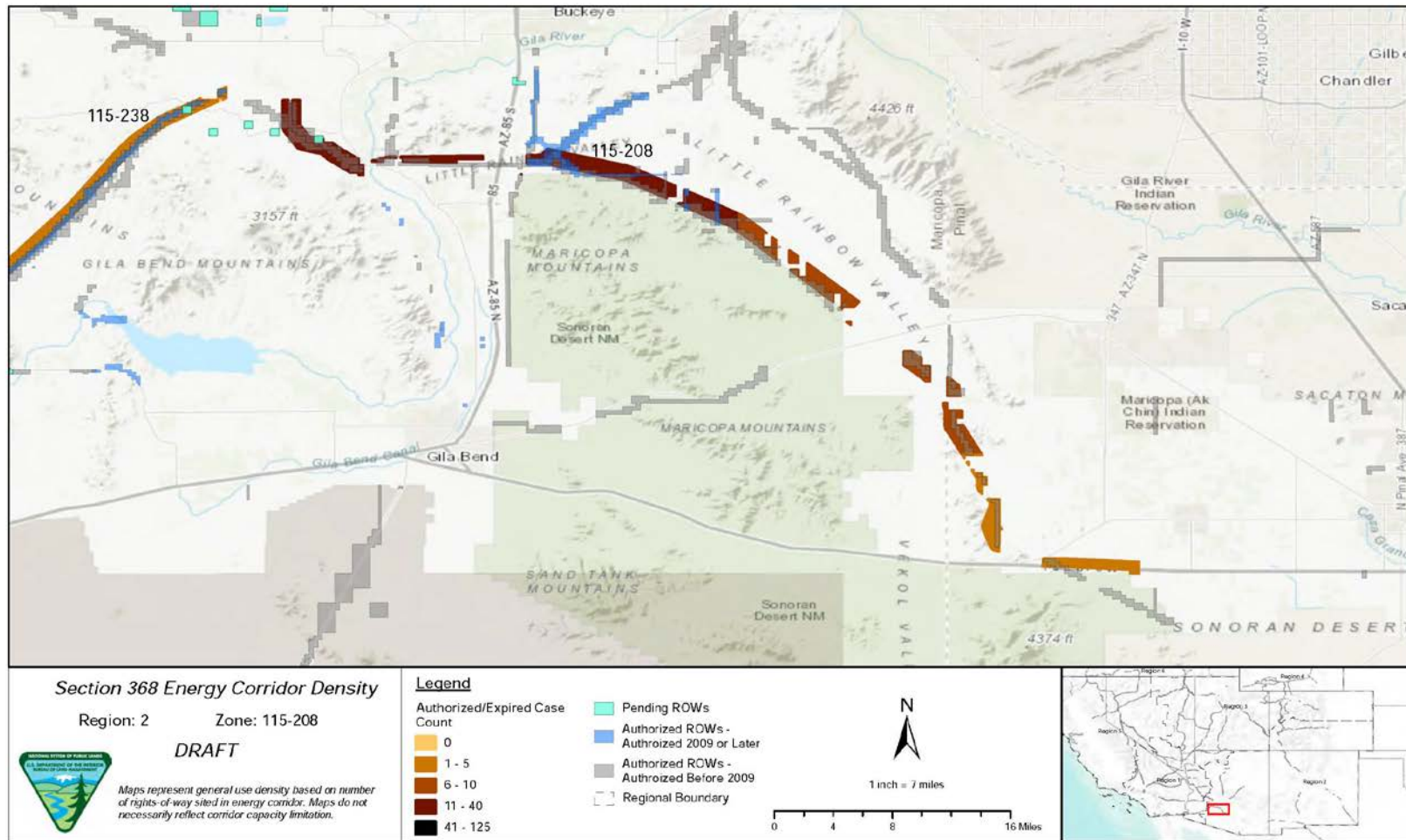


Figure 3. Map of Conflict Areas in Vicinity of Corridor 115-208

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 115-208, 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 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 115-208 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>Specially Designated Areas</i>							
115-208 .001	NA	Private land	Maricopa, AZ	Juan Bautista de Anza NHT - Historic Trail, Juan Bautista de Anza NHT - Recreation Trail, Juan Bautista de Anza NHT - Driving Route	MP 38 to MP 40	GIS Analysis: NHT intersects gap in corridor on private land.	<p>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)</p> <p>The Lower Sonoran RMP lists the Juan Bautista de Anza NHT as an exclusion area for new major linear land use authorizations. However, utility development could continue on a case-by-case basis in existing utility multiuse corridors if impacts are determined to have a negligible to minor effect on resources. (3)</p>
115-208 .002	NA	Private land	Maricopa, AZ	Butterfield Study Route	MP 39	GIS Analysis: Butterfield Study Route intersects gap in 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)
115-208 .003	BLM	Lower Sonoran FO	Maricopa and Pinal, AZ	Sonoran Desert National Monument	MP 16 to MP 38; MP 60 to MP 66	GIS Analysis: National Monument adjacent to corridor.	The corridor is not in the National Monument and appears to be located

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							where it best meets the siting principles. (1)
115-208 .004	BLM	Lower Sonoran FO	Maricopa and Pinal, AZ	Woolsey Peak Wilderness, North Maricopa Mountains Wilderness, and Table Top Wilderness	MP 6 to MP 7 (near), MP 1 to MP 30 (near), and MP 60 to MP 65 (near)	GIS Analysis: Woolsey Peak Wilderness as close as 2 mi to corridor, North Maricopa Mountains Wilderness as close as 1,600 ft to corridor, and Table Top Wilderness less than 1 mi to corridor.	Wilderness is an important resource that is considered carefully during corridor planning. The corridor's current location does not intersect Wilderness and best meets the siting principles. (1)
115-208 .005	BLM	Lower Sonoran FO	Maricopa, AZ	Gila River Terraces and Lower Gila Historic Trails ACEC	MP 4 to MP 8 ; MP 38 to MP 39	GIS Analysis: ACEC and corridor intersect.	Where the corridor crosses the ACEC, the ACEC is an avoidance area. The Lower Sonoran RMP states that utilities will be required to be installed underground within the existing multiuse utility corridors to retain the viewshed. This issue needs to be resolved through a plan amendment. (3)
115-208 .006	BLM	Lower Sonoran FO	Maricopa, AZ	Proposed Gila East NCA	Not specified.	RFI: Proposed NCA: Gila East NCA	The proposed NCA has not been designated and is therefore not a consideration at the time of this review. (1)
115-208 .007	BLM	Lower Sonoran FO	Maricopa, AZ	Buckeye Hills East SRMA	MP 16 to MP 22	GIS Analysis: SRMA is within 2,600 ft of corridor.	The corridor's current location does not intersect the SRMA and best meets the siting principles. (1)
<b>Ecology</b>							
115-208 .008	BLM	Lower Sonoran FO	Maricopa, AZ	Sonoran Desert Tortoise habitat (BLM sensitive species, not listed under ESA)	MP 8 to MP 10, MP 18 to MP 19, MP 25 to MP 38, MP 47 to MP 51, and MP 52 to MP 60	RFI: re-route 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	The Lower Sonoran RMP states that Category I and II Sonoran Desert Tortoise habitats are avoidance areas for major linear land use authorizations. Future ROWs in the corridor would be mitigated in accordance with the Desert Tortoise Range-wide Plan and other applicable policy guidance, including CEQ mitigation hierarchy of avoid, minimize, mitigate. The preferred methodology to mitigate undue degradation of resources is to collocate future energy infrastructure across

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					MP 7 to MP 10, MP 17 to MP 39, MP 47 to MP 60	<p>impacts within 4 mi of Category I and II habitat.</p> <p>GIS Analysis: habitat and the corridor are adjacent to each other and also intersect.</p> <p>Comment on abstract: impacts to sensitive Sonoran Desert Tortoise habitat has the potential to adversely impact use of MCAGCC Twentynine Palms and Barry M. Goldwater Range for ground-to-ground, air-to-ground, and maneuver training, as well as use of transit routes near, around, or between DoD ranges.</p> <p>Comment on abstract: re-route to avoid siting new facilities in Sonoran Desert Tortoise Category I and II management habitat.</p>	<p>public land with existing infrastructure to the extent feasible. The corridor does contain existing infrastructure. (3)</p> <p>This corridor location within the current range where this species may occur is not easily resolved or avoided by corridor-level planning because alternate routes would still require 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> <p>There is an opportunity to consider the addition of an Agency Coordination IOP with DoD to mitigate potential impacts pre-emptively by coordinating at early stages of energy infrastructure proposals to avoid adverse impacts to training activities. (2)</p>
115-208.009				Special Status Species	Not specified.	<p>Comment on abstract: additional species not identified in the corridor abstract may be present: Lesser Long-nosed Bat, Sonoran Pronghorn, California Least Tern, Southwestern Willow Flycatcher, Western Yellow-billed Cuckoo, Yuma Clapper Rail, Northern Mexican Gartersnake, and Desert Pupfish.</p> <p>Conduct further analysis to determine the presence of abovementioned species.</p>	<p>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 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>

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115-208 .010	BLM	Lower Sonoran FO	Maricopa, AZ	Yuma Clapper Rail and Southwestern Willow Flycatcher	MP 7	Comment on abstract: the crossing with the Gila River there is evidence from the Arizona Heritage Data Management System that this area is habitat for the Yuma Clapper Rail and Southwestern Willow Flycatcher. There are also numerous observations in eBird's database ( <a href="http://www.ebird.org">www.ebird.org</a> ) of Western Yellow-billed Cuckoo at the Gillespie Dam.	This corridor location within the current range where the Yuma Clapper Rail and Southwestern Willow Flycatcher may occur is not easily resolved or avoided by corridor-level planning because alternate routes would still require siting through the current range of Yuma Clapper Rail and Southwestern Willow Flycatcher. (3)
115-208 .011	BLM	Lower Sonoran FO	Maricopa, AZ	Habitat connectivity	MP 16 to MP 60	Comment on abstract: current placement of corridor would further fragment habitat connectivity between the Buckeye Hills and Gila Bend/Eagle Tails/Saddle Mountain Wilderness complex; between Estrella Mountains and Sonoran Desert NM (Rainbow Valley); and between Buckeye Hills and Sonoran Desert NM. Recommend rerouting the corridor along I-8 and State Route 85.	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)  Interstate 8 cannot accommodate additional development.
<b>Visual Resources</b>							
115-208 .012	BLM	Lower Sonoran FO	Maricopa and Pinal, AZ	VRM Class I	MP 5 to MP 7, MP 20 to MP 30, and MP 60 to MP 64	GIS Analysis: VRM Class I areas are as close as 1,600 ft south of corridor.	There are no VRM Class I areas in the corridor. (1)
115-208 .013	BLM	Lower Sonoran FO	Maricopa and Pinal, AZ	VRM Class II	MP 31 to MP 32	GIS Analysis: VRM Class II areas are adjacent to corridor.	There are no VRM Class II areas in the corridor. (1)
115-208 .014	BLM	Lower Sonoran FO	Maricopa and Pinal, AZ	VRM Class III	MP 2 to MP 66  MP 7 to MP 8	GIS Analysis: VRM Class III areas and the corridor intersect.  Agency Input: small portion of corridor within VRM Class III	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



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					MP 16 to MP 38, MP 60 to MP 66  MP 38 to MP 39	intersects Gila River Terraces ACEC.  Agency Input: corridor adjacent to Sonoran Desert NM.  Agency Input: small portion of corridor within VRM Class III intersects with Juan Batista de Anza NHT, Butterfield Study Route, and Gila River Terraces and Lower Gila Historic Trails ACEC.	the casual observer, but shall not dominate the view. (1)
<b>Cultural Resources</b>							
115-208 .015	BLM	Lower Sonoran FO	Maricopa, AZ	Gillespie Dam Highway Bridge	MP 7 (near)	GIS Analysis: National Register Property as close as 1,100 ft from corridor gap.	The bridge is located in a corridor gap is therefore not a consideration for corridor-level planning. There is an existing 500-kV transmission line as well as a railroad just south of the bridge. The bridge is unlikely to be problematic or restrictive on future development in the corridor. Section 106 process would be followed to identify any possible impact of development during the ROW application process. (3)
<b>Land Use Concerns</b>							
<b>Military and Civilian Aviation</b>							
115-208 .016	BLM	Lower Sonoran FO	Maricopa, AZ	Civilian Aviation - Gila Compressor Station Airport	MP 4	GIS Analysis: airport is located in a corridor gap.	Consistent with BLM ROW regulations, notification to adjacent ROW holders would be provided. Impacts on aviation would be considered in project permitting. (3)
115-208 .017	BLM	Lower Sonoran FO	Maricopa, AZ	MTR – VR	MP 0 to MP 16 and MP 43 to MP 47  MP 43 to MP 47	GIS Analysis: VR and corridor intersect.  Comment on abstract: MTR VR-267, Floor of 300-ft AGL.	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

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							the existing IOP to include height restrictions for corridors in the vicinity of DoD training routes. (2)  DoD requests the height of any proposed transmission structures not exceed height of any existing infrastructure in the ROW. Taller structure will require further analysis for operational impact.
<b>Public Access and Recreation</b>							
115-208.018	BLM	Lower Sonoran FO	Maricopa, AZ	Recreational value	MP 17 to MP 64	Comment on abstract: the corridor goes across BLM lands east of I-85 and north of Sonoran Desert NM that have high recreational value (OHV, trail riding, hiking).	Corridor does not intersect SRMA or other land use plan designation. Existing infrastructure within the corridor, including access roads, could provide additional access to recreation. (1)
<b>Other noted land use concerns</b>							
115-208.019	BLM	Lower Sonoran FO	Maricopa, AZ	I-11 (potential)	Not specified.	Agency Input: the corridor is being considered as an alternative for a new Federal highway (I-11).	A ROW for the proposed Federal highway has not been authorized and is therefore not a consideration at the time of this review. (1)

<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

ACEC = Area of Critical Environmental Concern; AGL = above ground level; BLM = Bureau of Land Management; DoD = Department of Defense; ESA = Endangered Species Act; FO = Field Office; GIS = geographic information system; IOP = interagency operating procedure; MCAGCC = Marine Corps Air Ground Combat Center; MP = milepost; MTR = Military Training Route; NA = not applicable; NCA = National Conservation Area; NHT = National Historic Trail; NPS = National Park Service; NST = National Scenic Trail; OHV = Off Highway Vehicle; PEIS = Programmatic Environmental Impact Statement; REDA = Renewable Energy Development Area; RFI = request for information; RMP = Resource Management Plan; ROW = Right-of-way; SEZ = solar energy zone; SRMA = Special Recreation Management Area; USFS = U.S. Forest Service; VR = Visual Route; VRM = Visual Resource Management; WWEC = West-wide Energy Corridor.