

Corridor 61-207

Page-Phoenix Corridor

Corridor Rationale

This energy corridor is sited to avoid the Agua Fria National Monument. Input regarding alignment from the Arizona Public Service Electric Company, National Grid, Trans West, and Tucson Electric Power during the WVEC PEIS were suggested following this route. The Platts data indicate a planned 230-kV electric transmission line project that overlaps a portion of the corridor. The Corridor Study identified two planned 500-kV transmission line renewals. Currently, there are no pending or recently authorized ROWs for transmission line or pipeline projects within the corridor.

Corridor location:

Arizona (Coconino, Maricopa, and Yavapai Co.)

BLM: Hassayampa Field Office

USFS: Kaibab and Prescott National Forests
Regional Review Region(s): Region 2

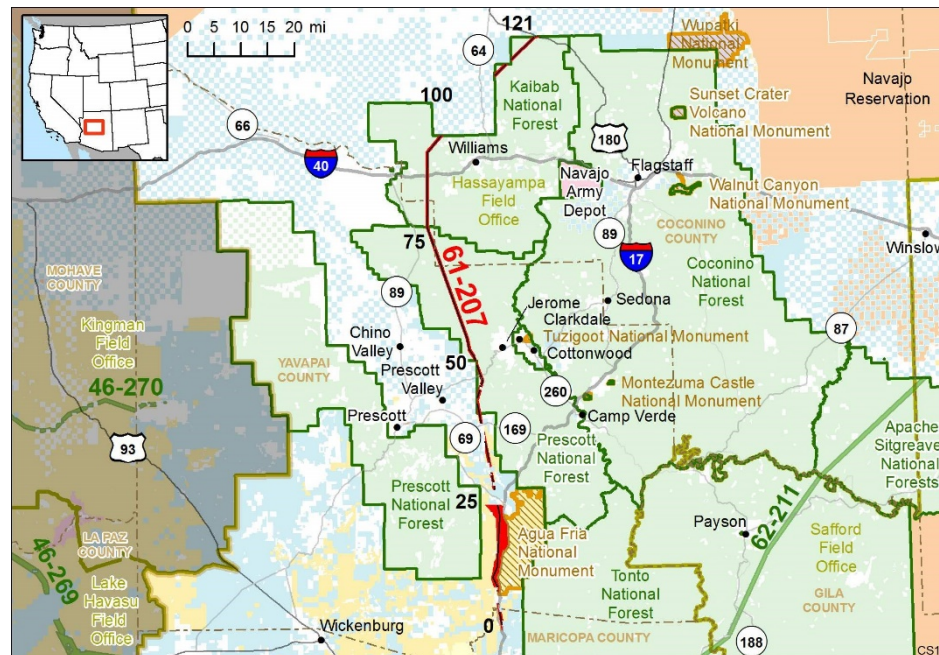
Corridor width, length:

Width variable from 2,900 – 16,300 ft
88.8 miles of designated corridor
121 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 prior to 2009 (Y)
 - Electric transmission:
 - two 500-kV lines (MP 42 to MP 121)
 - 230-kV lines (MP 0 to MP 7 and MP 18 to MP 23)
 - Pipelines:
 - two natural gas pipelines weave in and out of corridor (MP 0 to MP 23)
 - Highways
 - I-17 (MP 0 to MP 23)
- Energy development near the corridor (Y)
 - 1 substation in corridor
 - REDA within 5 mi (MP 4 and MP 22)
 - wind farm within 5 mi (MP 102)
- Corridor changes since 2009 (N)

Figure 1. Corridor 61-207

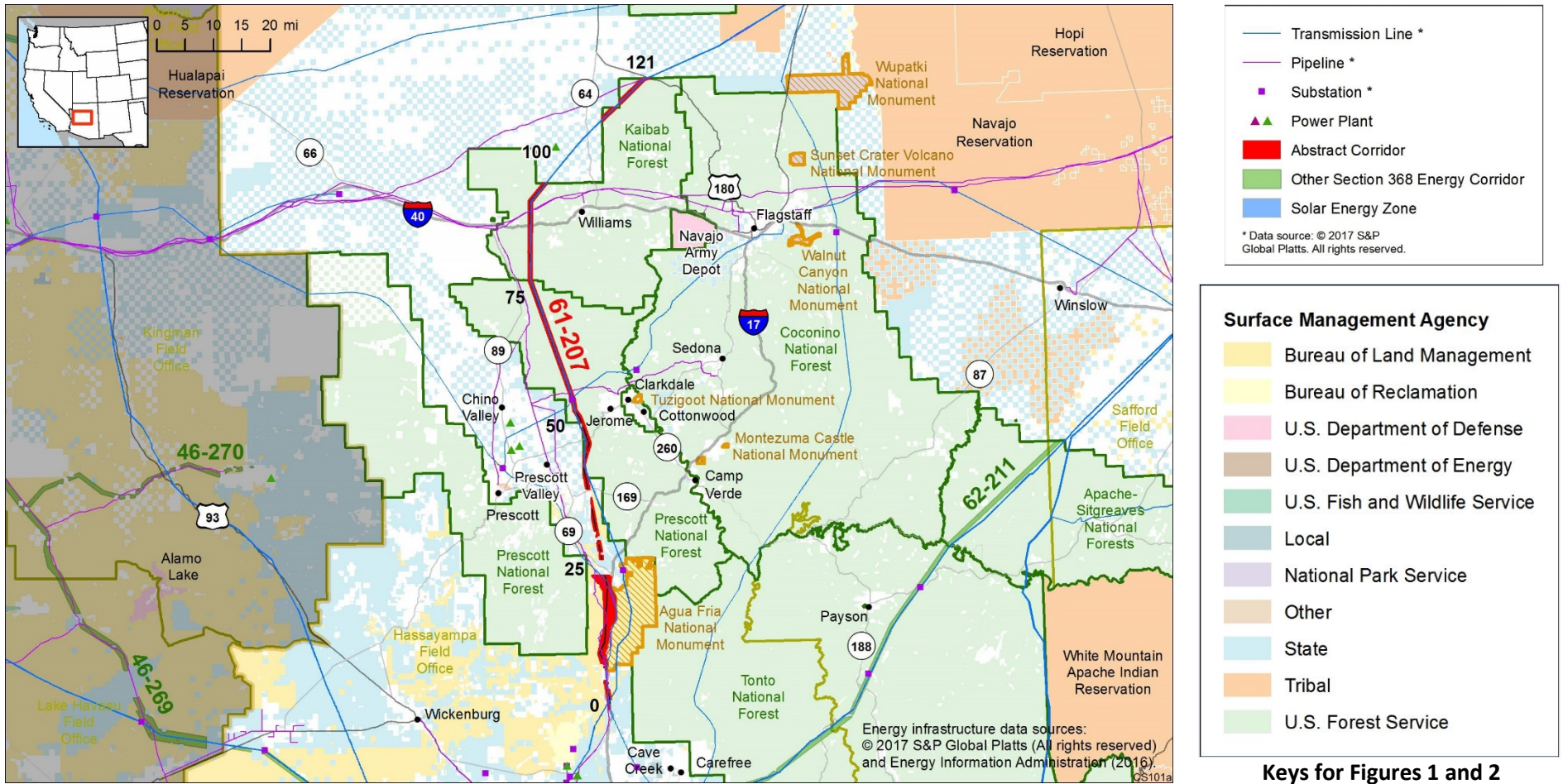


Figure 2. Corridor 61-207 and nearby electric transmission lines and pipelines

Conflict Map Analysis

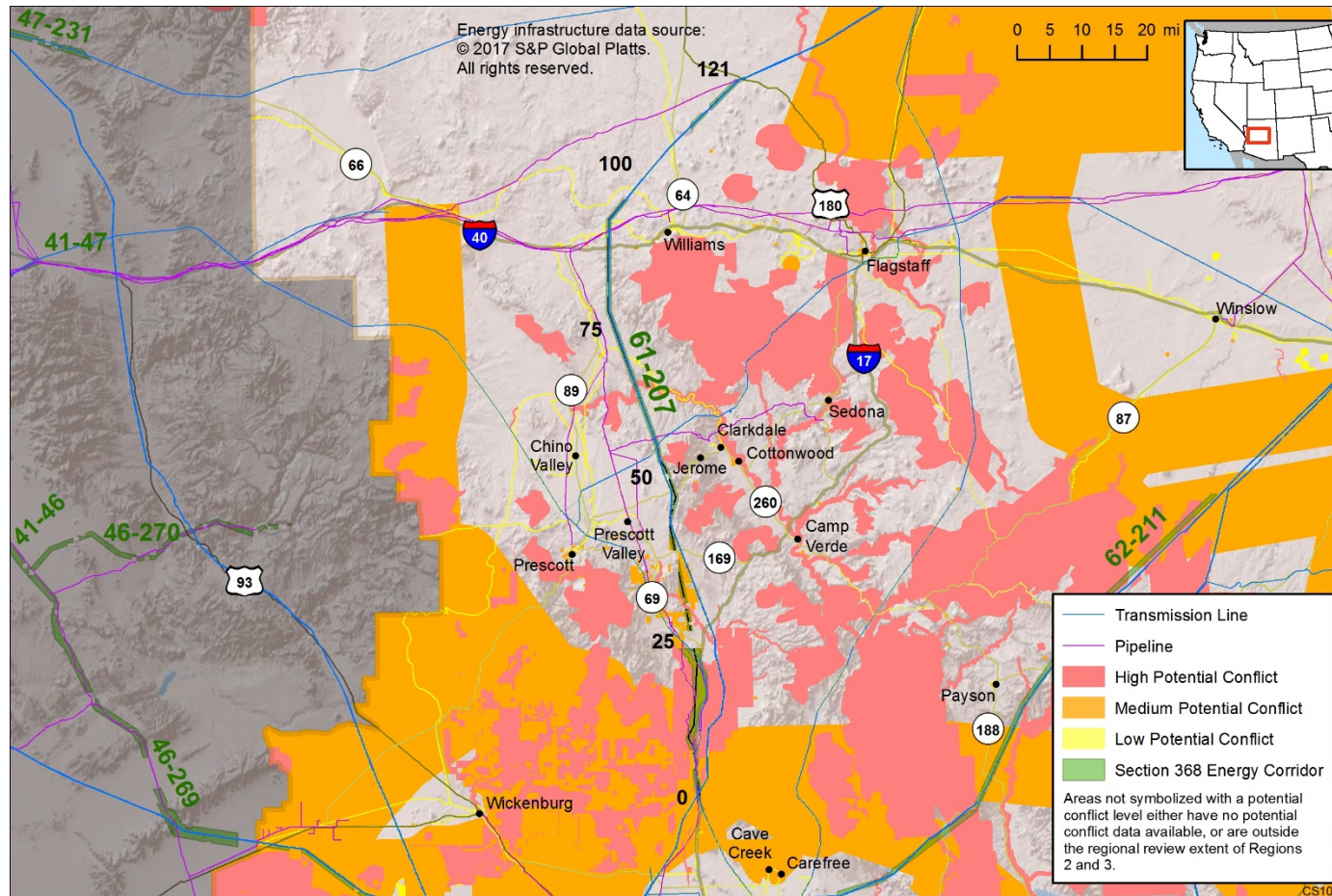


Figure 3 reflects a comprehensive resource conflict assessment developed to enable the Agencies and stakeholders to visualize a corridor's proximity to environmentally sensitive areas and to evaluate options for routes with lower potential conflict. The potential conflict assessment (low, medium, high) 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 3. Map of Conflict Areas in Vicinity of Corridor 61-207

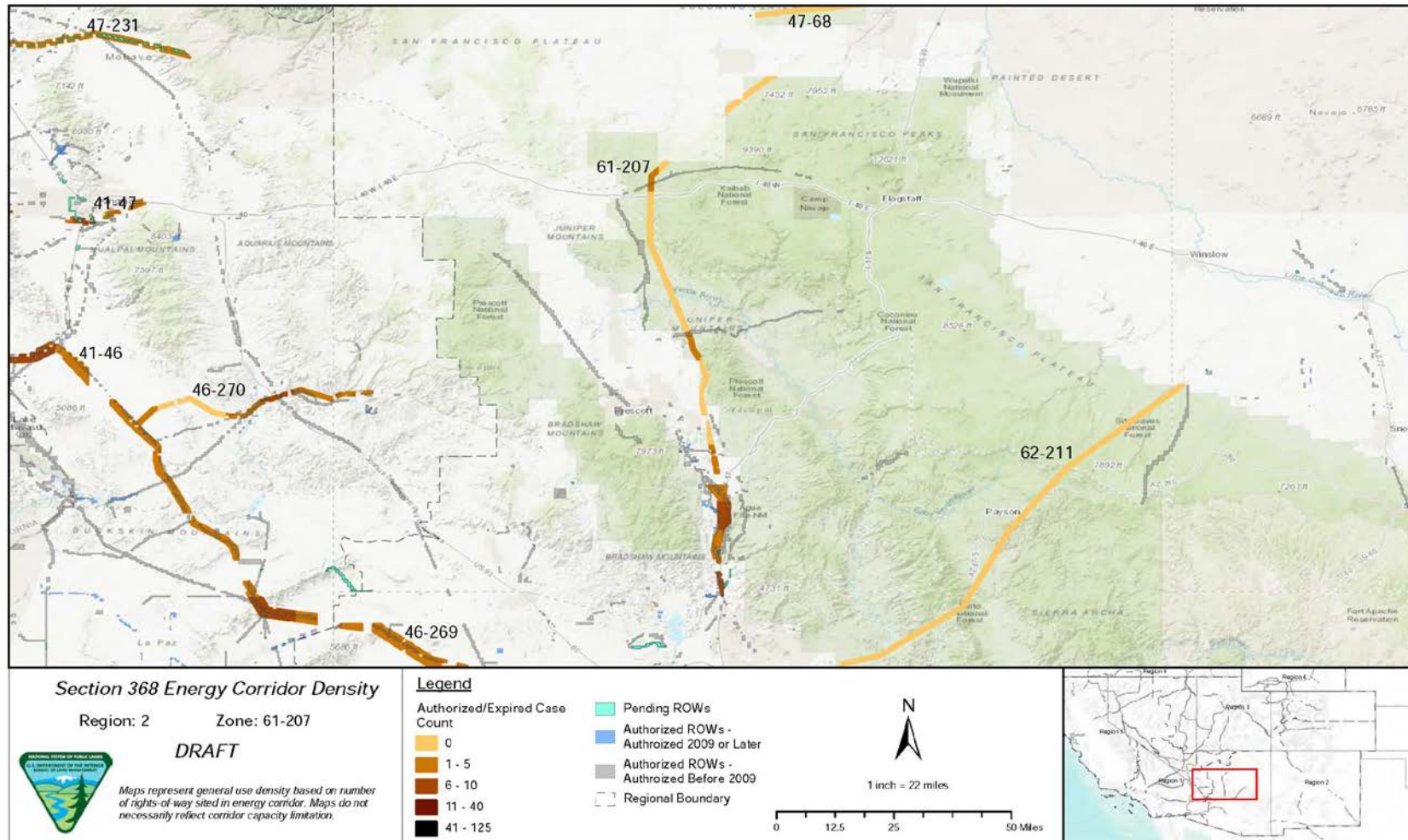


Figure 4. Corridor 61-207, Corridor Density Map

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 61-207 REVIEW TABLE							
ID	Agency	Agency Jurisdiction	County	Primary Issue	Corridor Location (by Milepost [MP])	Source	Agency Review and Analysis ^{1,2}
ENVIRONMENTAL RESOURCE ISSUES							
<i>Specially Designated Areas</i>							
61-207 .001	BLM	Hassayampa FO, Prescott National Forest	Yavapai, AZ	Agua Fria National Monument	MP 9 to MP 23	GIS Analysis: National Monument adjacent to corridor.	The corridor does not cross the National Monument. The local Black Canyon utility corridor that partially intersected the western edge of the National Monument was narrowed in the Agua Fria RMP to follow the eastern boundary of the BLM-authorized ROW for I-17. The Agua Fria RMP states "continue to maintain utility and transportation connectivity along the important north-south utility and transportation corridor along Interstate 17 between Phoenix and northern Arizona." (1)
61-207 .002	USFS	Prescott National Forest	Yavapai, AZ	Woodchute Wilderness	MP 51 to MP 55 (near)	GIS Analysis: Wilderness area as close as 1,100 ft from corridor.	Wilderness areas are an important resource that are considered carefully during corridor planning. The corridor's current location does not intersect the wilderness area and best meets the siting principles. (1)
61-207 .003	BLM	Hassayampa FO	Maricopa and Yavapai, AZ	Black Canyon and Upper Agua Fria River Basin SRMAs	MP 0 to MP 4, MP 6 to MP 23, MP 26 to MP 29, MP 30 to MP 37, MP 38 to MP 41	GIS Analysis: SRMAs intersect corridor.	The Bradshaw-Harquahala ROD/ARMP does not have exclusion or avoidance prescriptions for utility corridors that intersect SRMAs. (1)

CORRIDOR 61-207 REVIEW TABLE

ID	Agency	Agency Jurisdiction	County	Primary Issue	Corridor Location (by Milepost [MP])	Source	Agency Review and Analysis ^{1,2}
61-207 .004	USFS	Prescott National Forest	Yavapai, AZ	Upper Verde River	MP 65	Agency Input: river segment suitable for Wild and Scenic River status. GIS Analysis: corridor intersects Upper Verde River	There is an opportunity to consider moving the corridor further to the east to reduce impact on the river somewhat. Energy infrastructure already crosses the Upper Verde River. New infrastructure and vegetation clearing could lead to additional impacts on the scenic integrity of the river. (2)
Ecology.							
61-207 .005	BLM and USFS	Hassayampa FO and Prescott National Forest	Yavapai, AZ	Western Yellow-billed Cuckoo proposed critical habitat (ESA-listed: threatened)	MP 29 to MP 31, MP 65	GIS Analysis: proposed critical habitat and the corridor intersect.	A biological assessment would be required for a proposed major utility on Federal lands. The Bradshaw-Harquahala RMP and the Prescott National Forest LRMP have no ROW exclusion or avoidance prescriptions for Western Yellow-billed Cuckoo proposed critical habitat. (3)
61-207 .006	BLM and USFS	Hassayampa FO and Prescott National Forest	Yavapai, AZ	Northern Mexican Gartersnake proposed critical habitat (ESA-listed: threatened)	MP 29 to MP 31, MP 65	GIS Analysis: proposed critical habitat and the corridor intersect.	A biological assessment would be required for a proposed major utility on Federal lands. The Bradshaw-Harquahala RMP and the Prescott National Forest LRMP have no ROW exclusion or avoidance prescriptions for Northern Mexican Gartersnake proposed critical habitat. (3)
61-207 .007	USFS	Prescott National Forest	Yavapai, AZ	Narrow-headed Gartersnake proposed critical habitat (ESA-listed: threatened)	MP 65	GIS Analysis: proposed critical habitat and the corridor intersect.	A biological assessment would be required for a proposed major utility on Federal lands. The Prescott National Forest LRMP has no ROW exclusion or avoidance prescriptions for Narrow-headed Gartersnake proposed critical habitat. (3)
61-207 .008	USFS	Prescott National Forest	Yavapai, AZ	Loach Minnow critical habitat (ESA-listed: endangered)	MP 65	GIS Analysis: critical habitat and the corridor intersect.	A biological assessment would be required for a proposed major utility on Federal lands. The Prescott National Forest LRMP has no ROW exclusion or avoidance prescriptions for Loach Minnow critical habitat. (3)

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ID	Agency	Agency Jurisdiction	County	Primary Issue	Corridor Location (by Milepost [MP])	Source	Agency Review and Analysis ^{1,2}
61-207 .009	USFS	Prescott National Forest	Yavapai, AZ	Spikedace critical habitat (ESA-listed: endangered)	MP 65	GIS Analysis: critical habitat intersects corridor	A biological assessment would be required for a proposed major utility on Federal lands. The Prescott National Forest LRMP has no ROW exclusion or avoidance prescriptions for Spikedace critical habitat. (3)
61-207 .010	BLM	Hassayampa FO	Yavapai and Maricopa, AZ	Sonoran Desert Tortoise Category II and III Management Habitat (BLM sensitive species, not listed under ESA)	MP 0 to MP 9 MP 0 to MP 11	RFI: re-route to avoid siting new facilities in Sonoran Desert Tortoise Category II and III management habitat. Minimize impacts from new energy infrastructure development to the maximum extent practicable. Where impacts are unavoidable, utilize compensatory mitigation pursuant to BLM policy. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of Category II habitat. GIS Analysis: Sonoran Desert Tortoise habitat and the corridor intersect. Comment on corridor: 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.	Re-routing the corridor to avoid Sonoran Desert Tortoise habitat is not a likely solution because of prevalence of habitat and the value in collocating infrastructure to limit disturbance. The RMP states that no net loss will occur in the quality or quantity of Category I and II Sonoran Desert Tortoise habitat to the extent practicable. BLM will address and include mitigation measures in decision documents to offset the loss of quality or quantity of Category I, II, and III tortoise habitats. Activities must be mitigated in accordance with the Desert Tortoise Range-wide Plan and other applicable policy guidance. (3) 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)

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ID	Agency	Agency Jurisdiction	County	Primary Issue	Corridor Location (by Milepost [MP])	Source	Agency Review and Analysis ^{1,2}
						<p>Comment on abstract: Nearly 6 miles of the corridor passes through critical habitat for ESA-listed species and over 9 miles of corridor passes through Sonoran Desert Tortoise Category II and III Management Habitat.</p> <p>Reroute to avoid critical habitat for ESA-listed species. Avoid siting new facilities in Sonoran Desert Tortoise Category I and II management habitat. Where impacts are unavoidable, utilize compensatory mitigation pursuant to BLM policy. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within 4 mi of Category II habitat.</p>	
61-207 .011	BLM	Hassayampa FO	Yavapai, AZ	Arizona missing linkages: Granite Mountain - Black Hills Linkage Design	MP 36 to MP 37	GIS Analysis: the Black Hills Linkage Design and the corridor intersect.	<p>The Bradshaw-Harquahala RMP has no ROW exclusion or avoidance prescriptions for a corridor crossing the Black Hills linkage design. This is an AZGFD designation based on modeling.</p> <p>There is existing infrastructure in the corridor, and impacts on wildlife and connectivity will be examined on a project -specific basis. (3)</p>
61-207 .012	BLM	Hassayampa FO, Prescott NF	Yavapai, AZ	Pronghorn habitat	MP 23 to MP 65	Comment on abstract: corridor is proximate to Pronghorn habitat throughout the Paulden/Chino Valley/ Prescott Valley areas. It appears the corridor falls on the outer edge of the grassland habitat within	Ungulate winter habitat is an important consideration but further analysis of this species is not a consideration for corridor-level planning. (3)

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ID	Agency	Agency Jurisdiction	County	Primary Issue	Corridor Location (by Milepost [MP])	Source	Agency Review and Analysis ^{1,2}
						<p>this corridor, mostly in the transition area from grasslands to the mixed conifer/pinyon-juniper woodland vegetation of the rising foothill plateaus. Pronghorn use these edges during fawning season when grasses are too short to provide fawning cover. Recommend coordinating with AZGFD to ensure construction timeframes do not cause disturbance during fawning season.</p>	
61-207 .013	BLM	Hassayampa FO, Prescott NF	Yavapai, AZ	Verde River	MP 30, MP 65	<p>Comment on abstract: corridor crosses over two major rivers, (Verde River and Aqua Fria River). There are several species that are dependent on the Verde River. Limit project activities during the breeding season for birds, generally May through late August, depending on species in the local area. Raptors breed in early February through May. Conduct avian surveys to determine bird species that may be utilizing the area and develop a plan to avoid disturbance during nesting season.</p> <p>Be aware that aquatic species breed at different times throughout the year. Review the biology of each species to determine a timeframe and actions (e.g. limiting sediment input into the river during</p>	<p>Not a consideration for corridor-level planning. Impacts on aquatic species would be addressed at the project level and through management prescriptions in the RMP. (3)</p>

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ID	Agency	Agency Jurisdiction	County	Primary Issue	Corridor Location (by Milepost [MP])	Source	Agency Review and Analysis ^{1,2}
						<p>construction) that would minimize impact to the species.</p> <p>Comment on abstract: Riparian areas are impacted by transmission line maintenance roads. The roads increase sediment flow into aquatic systems and OHV use within stream channels and associated riparian areas. Please ensure roads are constructed in a way to limit erosion.</p>	
61-207 .014	BLM	Hassayampa FO, Prescott NF	Yavapai, AZ	Roundtail Chub	Not specified.	<p>Comment on abstract: corridor intersects Roundtail Chub habitat at the Verde River, according to the Arizona Heritage Data Management System. Although the Roundtail Chub is not currently listed it has been proposed for listing in the recent past and this river crossing has also numerous other T & E species (such as Northern Mexican Gartersnake, Narrow-headed Gartersnake, Loach Minnow, and Spikedace) with critical or proposed critical habitat.</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>
Lands with Wilderness Characteristics							
61-207 .015	BLM	Hassayampa FO	Maricopa and Yavapai, AZ	Lands with wilderness characteristics	MP 3 to MP 17	<p>RFI: Black Canyon Creek (BLM-inventoried lands with wilderness characteristics managed for protection).</p> <p>GIS Analysis: lands with wilderness characteristics parallels and is adjacent to the</p>	<p>The corridor is not located on lands with wilderness characteristics and best meets the siting principles. (1)</p>

CORRIDOR 61-207 REVIEW TABLE							
ID	Agency	Agency Jurisdiction	County	Primary Issue	Corridor Location (by Milepost [MP])	Source	Agency Review and Analysis ^{1,2}
						east and west sides of the corridor.	
61-207 .016	BLM	Hassayampa FO		Lands with wilderness characteristics	Not specified.	RFI: Agua Fria (BLM-inventoried lands with wilderness characteristics not managed for protection).	The BLM retains broad discretion regarding the multiple use management of lands possessing wilderness characteristics without Wilderness, WSA designations. As such, land possessing the characteristics of wilderness are not subject to the legal thresholds or other statutory obligations specified for congressionally designated Wilderness and WSAs. There are necessities that warrant land use and thus rationalize energy corridors as meeting the best siting principles, which include maximizing utility while minimizing impacts. In locations where the BLM is not managing lands with wilderness characteristics with protective allocations, project level planning will still consider ways to minimize or avoid impacts while meeting the purpose and need of various types of land use including energy projects. Furthermore, the impairment of wilderness characteristics does not, in and of itself, constitute a significant impact; or on its own, warrant the relocation of a corridor or corridor segment. BLM must consider all resources and resource uses and carefully weigh the current value for the present generation as well as for future generations. At this time, given the information available the corridor is determined as best meeting the siting principles of the settlement agreement. (1)

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ID	Agency	Agency Jurisdiction	County	Primary Issue	Corridor Location (by Milepost [MP])	Source	Agency Review and Analysis ^{1,2}
61-207 .017	BLM	Hassayampa FO		Citizens' proposed wilderness	Not specified. MP 7 to MP 9	RFI: Castle Creek Additions Comment on abstract: corridor intersects with BLM wilderness-quality lands. 286 acres overlap (Castle Creek Additions-citizens' wilderness proposal. BLM should exclude energy corridors from all wilderness-quality lands.	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. Consideration of citizens' wilderness proposal is beyond the Agencies scope and authority. As such, the corridor's current location best meets the siting principles. (1) At such time that citizens' 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.
Visual Resources							
61-207 .018	BLM	Hassayampa FO	Yavapai and Maricopa, AZ	VRM Class II	MP 6 to 23 MP 9 to MP 23	GIS Analysis: VRM Class II areas adjacent to corridor. Agency Input: corridor is adjacent to a visually sensitive area. Agua Fria National Monument parallels the eastern side of the corridor, and is as close as 1,600 ft from the corridor.	The corridor itself is VRM Class III within the corridor and is constricted on either side by VRM Class II. The corridor is wide enough to accommodate additional infrastructure without encroaching on VRM Class II areas. (1)
61-207 .019	BLM	Hassayampa FO	Yavapai and Maricopa, AZ	VRM Class III	MP 0 to 41	GIS Analysis: VRM Class III areas intersect corridor.	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)
61-207 .020	USFS	Prescott National Forest, Kaibab	Yavapai and Coconino, AZ	Recreation Opportunity	MP 41 to MP 48, MP 49 to MP 50, MP 51 to MP 58,	GIS Analysis: roaded modified areas intersect corridor.	Roaded modified areas characterize a predominantly modified environment. Corridor meets Settlement Agreement

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ID	Agency	Agency Jurisdiction	County	Primary Issue	Corridor Location (by Milepost [MP])	Source	Agency Review and Analysis ^{1,2}
		National Forest		Spectrum-Roaded Modified	MP 59 to MP 66, MP 66 to MP 71, MP 72 to MP 86, MP 88 to MP 96	Agency Input: for roaded modified areas, the visual quality is low.	general principles for corridor siting for minimum impact on the environment in terms of visual resources. (1)
61-207 .021	USFS	Prescott National Forest, Kaibab National Forest	Yavapai and Coconino, AZ	Recreation Opportunity Spectrum-Roaded Natural	MP 48 to MP 49, MP 58 to MP 59, MP 65 to MP 66, MP 70 to MP 72, MP 87 to MP 88, MP 91	GIS Analysis: roaded natural areas intersect corridor. Agency input: for roaded natural, the compatible Visual Quality Objectives (VQOs) are modification, partial retention, and retention.	In roaded natural areas, resource modifications and utilization practices may be evident but should be harmonious with the natural environment. Development allows for moderate change to the characteristic landscape. (1)
61-207 .022	USFS	Prescott National Forest, Kaibab National Forest	Yavapai and Coconino, AZ	Recreation Opportunity Spectrum-Semi-Primitive Motorized	MP 41 to MP 48, MP 45 to MP 48, MP 51 to MP 52, MP 82 to MP 86	GIS Analysis: semi-primitive motorized areas intersect corridor. Agency Input: for semi-primitive motorized, the compatible VQOs are retention and partial retention.	Future development within the corridor could be limited to retain semi-primitive visual quality objectives. (3)
61-207 .023	USFS	Prescott National Forest	Yavapai, AZ	Recreation Opportunity Spectrum-Semi-Primitive Non-Motorized	MP 64.3 to MP 65.8	GIS Analysis: semi-primitive non-motorized areas intersect corridor. Agency Input: for semi-primitive, non-motorized, the compatible VQO is retention.	Future development within the corridor would likely be limited to retain semi-primitive visual quality objectives. (3)
Cultural Resources							
61-207 .024	USFS	Prescott National Forest	Yavapai, AZ	Prehistoric and historic NRHP-eligible sites	MP 41 to MP 43, MP 45 to MP 48, MP 62 to MP 63, MP 66 to MP 68.	GIS Analysis: several high and very high-density clusters of cultural resources intersect with corridor. Agency Input: approximately 70 sites are intersected by the corridor on Prescott National Forest, the MP locations noted here indicate areas where site density is high.	The potential for cultural resources is a concern for the Agencies that cannot be resolved during corridor-level planning. Existing IOPs specific to cultural resources and tribal consultation would be followed in connection with any proposed energy project in the corridor. (3)

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ID	Agency	Agency Jurisdiction	County	Primary Issue	Corridor Location (by Milepost [MP])	Source	Agency Review and Analysis ^{1,2}
61.207 .025	USFS	Kaibab National Forest	Coconino, AZ	Ash Fork Hill	MP 87	GIS Analysis: Ash Fork Hill intersects corridor	The potential for cultural resources is a concern for the Agencies that cannot be resolved during corridor-level planning. Existing IOPs specific to cultural resources and tribal consultation would be followed in connection with any proposed energy project in the corridor. (3)
Land Use Concerns							
Military and Civilian Aviation							
61-207 .026	BLM	Hassayampa FO	Maricopa and Yavapai, AZ	MTR – VR	MP 0 to MP 14	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)
Public Access and Recreation							

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ID	Agency	Agency Jurisdiction	County	Primary Issue	Corridor Location (by Milepost [MP])	Source	Agency Review and Analysis ^{1, 2}
61-207 .027	USFS and State	Arizona DOT, Prescott National Forest	Yavapai, AZ	Mingus Mountain Scenic Road	MP 48	GIS Analysis: scenic road and corridor intersect.	The Prescott National Forest LRMP states that new major utility corridor development will be confined to the area identified and mapped in the WWEC PEIS. USFS can only authorize projects on USFS administered lands. Proposed development crossing the highway would require coordination with Arizona DOT. (3)
61-207 .028	USFS and State	Arizona DOT, Kaibab National Forest	Coconino, AZ	San Francisco Peaks Scenic Road	MP 121	GIS Analysis: scenic road and corridor intersect.	The Kaibab National Forest LRMP states that new major utility corridor development will be confined to the area identified and mapped in the WWEC PEIS. USFS can only authorize projects on USFS-administered lands. Proposed development crossing the highway would require coordination with Arizona DOT. (3)

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

ARMP = Amended Resource Management Plan; AZGFD = Arizona Game and Fish Department; BLM = Bureau of Land Management; DoD = Department of Defense; DOT = Department of Transportation; ESA = Endangered Species Act; FO = Field Office; GIS = geographic information system; IOP = Interagency Operating Procedure; LRMP = Land and Resource Management Plan; MCAGCC = Marine Corps Air Ground Combat Center; MP = milepost; MTR = Military Training Route; OHV = off highway vehicle; PEIS = Programmatic Environmental Impact Statement; REDA = Renewable Energy Development Area; RFI = Request for Information; RMP = Resource Management Plan; ROD = Record of Decision; ROW = right-of-way; SRMA = Special Recreation Management Area; USFS = U.S. Forest Service; VQO = visual quality objective; VR = Visual Route; VRM = Visual Resource Management; WSA = Wilderness Study Area; WWEC = West-wide Energy Corridor.