

**Corridor 30-52**  
**Region 1 Review**

# Corridor 30-52

*Palo Verde - Palm Springs*

## Introduction

Corridor 30-52 extends east along Interstate 10 (I-10) from Palm Springs in southern California to the Palo Verde Nuclear Generating Station and the western suburbs of Phoenix in central Arizona (Figures 1–3). Federally designated portions of this corridor are entirely on BLM-administered land; the corridor has a 10,560-ft width over most of its length in California, a 5,280-ft-width in Arizona from MP 112.1 to MP 174.9, and a 3,500-ft-width in Arizona from MP 174.9 to MP 199.8. The corridor width was designated in the existing land use plans and carried forward in the WWEC PEIS ROD. Corridor 30-52 is designated as multi-modal corridor and can therefore accommodate both electrical transmission and pipeline projects. The corridor spans 199.7-miles, with 97.7 miles designated on BLM-administered lands. The corridor's area is 94,001 acres or 146.4 square miles. This corridor is in Riverside County in California and La Paz and Maricopa Counties in Arizona. It is under the jurisdiction of the BLM California Desert District and the Lake Havasu, Lower Sonoran, Hassayampa, and Yuma Field Offices in Arizona. This corridor is primarily in Region 1, but extends into Region 2 between MP 174.0 and MP 199.7.

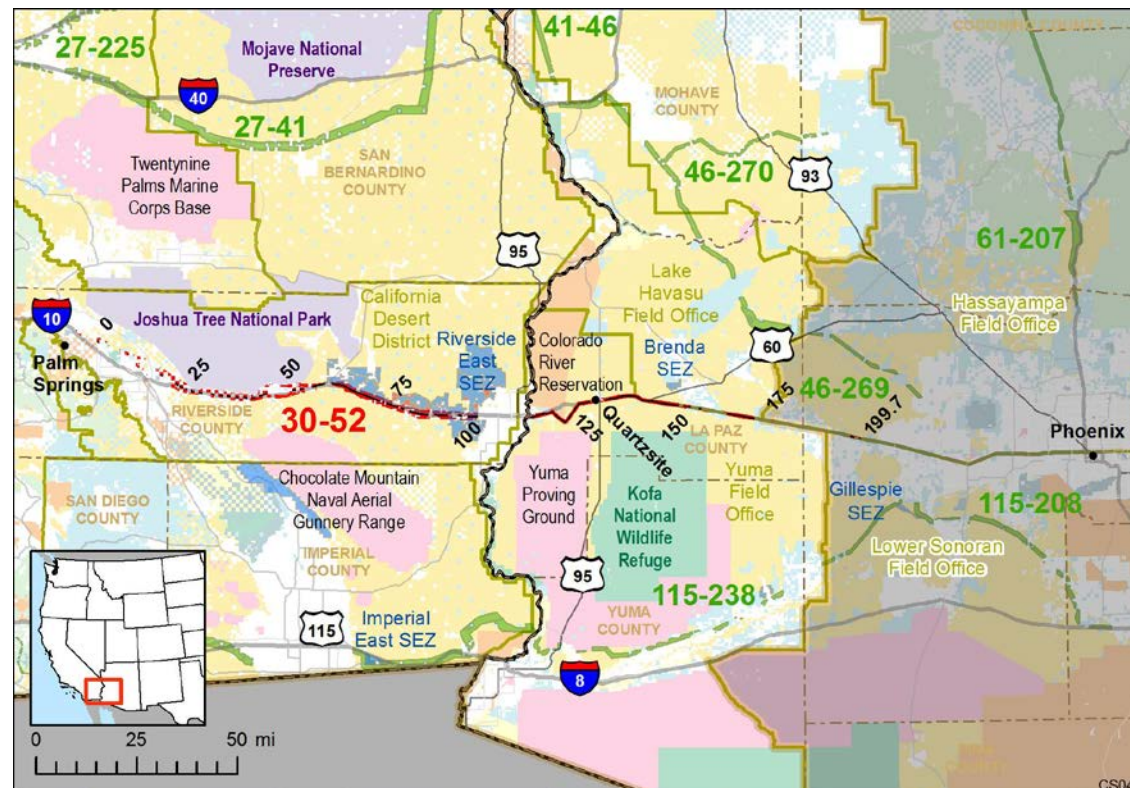
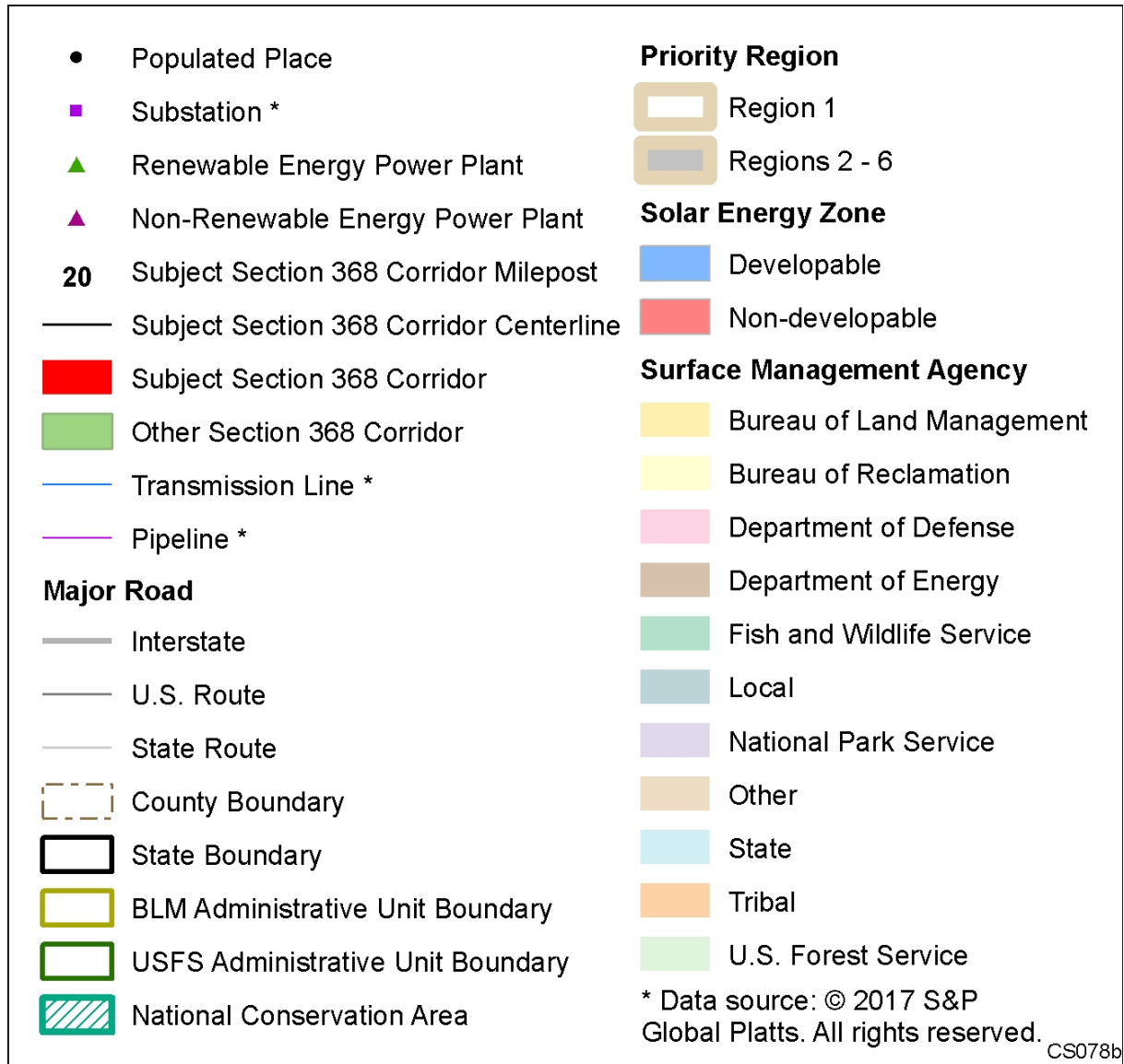


Figure 1. Corridor 30-52



Key

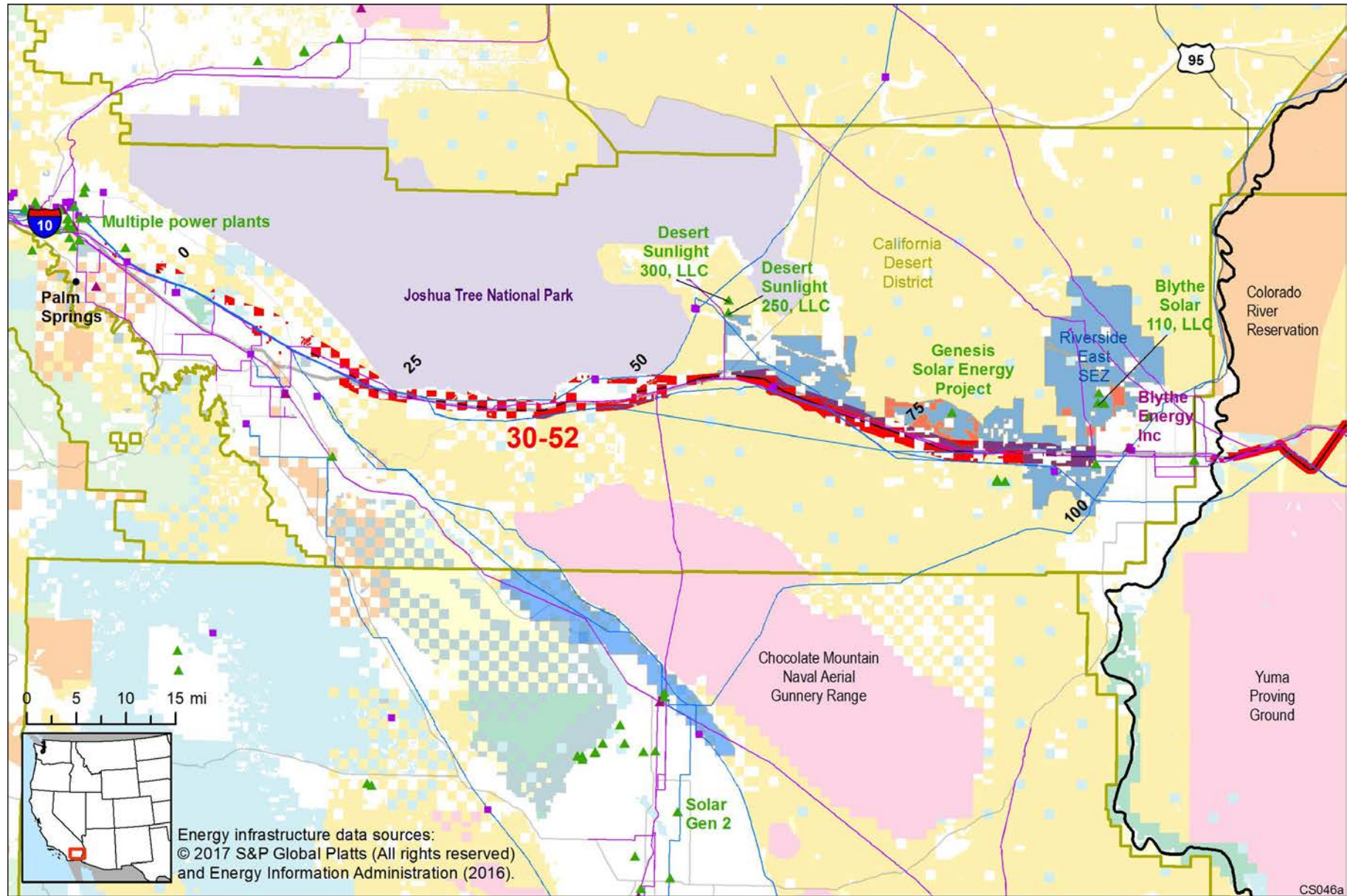


Figure 2. Western Portion of Corridor 30-52, Including Existing Energy Infrastructure

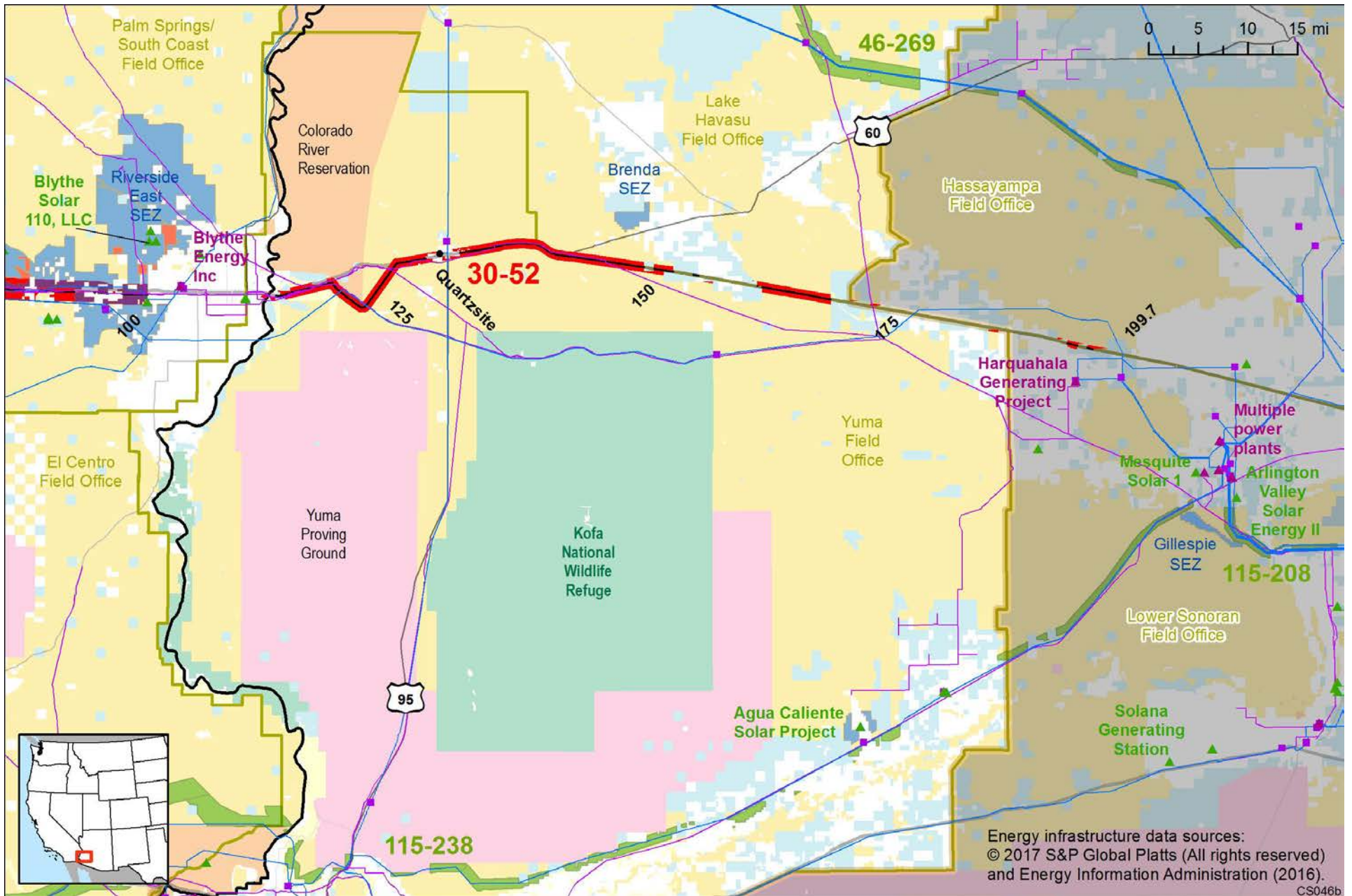


Figure 3. Eastern Portion of Corridor 30-52, Including Existing Energy Infrastructure

## Corridor Rationale

During scoping for the WVEC PEIS, routes generally following this corridor were suggested by the American Wind Energy Association; the New Mexico Energy, Minerals, and Natural Resources Department; and the Western Utility Group. The corridor was designated to provide a pathway for energy transport, particularly electricity transmission from Palo Verde Generating Station into California. Route location in Arizona generally follows the I-10 to avoid existing infrastructure crossing the Kofa National Wildlife Refuge (NWR) and Yuma Proving Ground, and with a deviation from the I-10 to avoid crossing the Colorado River Indian Tribe Reservation. In California, the route matches a previously designated California Desert District designated energy corridor.

*Existing Infrastructure:* Current infrastructure occupying parts of the corridor includes I-10, transmission lines operated by the Metropolitan Water District (230 kV) and the SCE (115 to 500 kV); and natural gas pipelines operated by the El Paso and Southern California Gas Company. There are five 500-kV SCE transmission lines, including a recently completed 500-kV project within parts of the corridor in California between the Devers and Colorado River substations. Five major transmission lines and several major natural gas pipelines run through the corridor. Many of the energy production projects along I-10 and the Riverside East SEZ have generation-tie lines that use the corridors, which create congestion near the major substations (Red Bluff and Colorado River). This congestion is compounded by the Mecca Hills and Orocochia Wilderness and Joshua Tree National Park, which reduce the size of and the potential for increasing the size of the corridor.

*Potential Future Development:* Within the California Desert District, the BLM Palm Springs-South Coast FO has received 24 ROW applications using Corridor 30-52 since publication of the PEIS. Two of the applications were entirely in the corridor, while the others were partly within it. Several new applications were filed for energy storage or production within the corridor and adjacent to substations that are between 5 and 25 Megawatts. Given that many of the utility companies are on target or exceeding their target for providing a percentage of the energy portfolio with renewable energy, not many new, large power purchase agreements (PPAs) are being issued. However, the utility companies are going out with smaller PPAs, which have modified the types of projects being proposed on public lands. Proposed out-of-state transmission projects that could affect this corridor include the SunZia Southwest Transmission Project and Southline Transmission, and SCE has indicated that queued generation makes this corridor likely to be used, that the corridor provides maximum utility and minimum environmental impact, and that the effect of corridor gaps should be minimal. The corridor has 4,690 MW of CAISO-queued generation near, or that could use, the corridor. The Riverside East SEZ overlaps the corridor in California, the Brenda SEZ is located 3 miles from the corridor in Arizona, REDAs overlap the corridor in Arizona, and the corridor is located within the RETI 2.0 Riverside East TAFE and the RETI 2.0 HSR to support 3,000 MW of renewable energy transmission from/to Arizona (or adjacent states). All provide opportunity for the corridor to accommodate transmission tied to renewable energy development.

*Capacity for new transmission projects:* The SCE Project is in progress to provide increased capacity in this corridor, but sources from the Generation Interconnection Studies and RETI 2.0 have determined that upgrades beyond the project may be needed for continued generation development along this corridor.

## Corridor of Concern Status

This corridor was not identified in the Settlement Agreement as a corridor of concern.

## Corridor Abstract Update

New data have been added to the Section 368 Energy Corridor Mapping Tool since the release of the draft abstracts in September 2016, including updated information made available in the ROD for the DRECP released later in September. A GIS view identifying high-, medium-, and low-conflict areas consistent with the screening criteria in 43 CFR 2804.35(a)-(c) has also been added to the mapping tool. A complete description of the mapping tool and the high-, medium-, and low-conflict areas, and a list of the GIS data sources are included in the corridor report for the Region 1 Regional Review.

On the basis of input from stakeholders and additional review by the Agencies, additions to the corridor analysis table include WWEC purpose (TAFAs), transmission and pipeline capacity, physical barriers, jurisdictional issues, military and civilian aviation, special status species, lands with wilderness characteristics, specially designated areas, tribal concerns, and visual resources.

Revisions, deletions, or additions to Section 368 energy corridors would be made only during the land use planning process through a plan amendment for an individual project or a plan revision. However, the Settlement Agreement sets forth a systematic process for the Agencies to review Section 368 corridors and provide recommendations for revisions, deletions, or additions to the corridors. Suggestions for corridor revision, deletion, or addition in response to the release of the draft abstracts included the following: consider alternate routes that have fewer impacts on sensitive cultural resources, wildlife corridors, threatened and endangered species habitat, Joshua Tree National Park, and the newly designated Chuckwalla ACEC; reduce the corridor width for a 33-mile stretch located along I-10 and west of Desert Center from 10,650 ft to 3,500 ft to reduce impacts on the Chuckwalla Desert Tortoise CHU and indirect impacts to Joshua Tree National Park; and eliminate the corridor south of I-10 to approximately 33 miles east of Desert Center, restricting new transmission line and pipeline development to the north side of the freeway. While the corridor overlaps with special status species habitat and specially designated areas across its length, mapping of potential conflict areas indicates there is no nearby previously disturbed alternative route that would avoid these areas. On the basis of Agency analysis, as well as input provided by stakeholders, corridor revisions are recommended for Corridor 30-52. The Agencies recommend revising the corridor between MP 120 and MP 143 and the possible addition of a second corridor segment. There are a number of different options with varying levels of impact to consider and discuss with tribes and other agencies regarding a reroute of the corridor including the following:

- Coordinate and consult with tribes to discuss a possible corridor revision near the reservation;
- Use current corridor and analyze engineering options and impacts for placing additional infrastructure through the pass;
- Redirect the corridor east of Quartzsite and drop south/southwest to meet with existing lines;
- Look at options for establishing a second route branching from the main route that would allow the corridor to split into two segments to retain the same capacity; and
- Integrate the Ten West Link analysis of alternatives and lessons learned when considering revisions, deletions, or additions to the currently designated corridor in the future.

## Corridor Analysis

The corridor analysis table below identifies concerns affecting Corridor 30-52, the location of the concerns within the corridor, and the results of the analysis of the concerns by the Agencies. Concerns are checked if they are known to apply to the corridor.

**Energy Planning Opportunities**

- Appropriate and acceptable uses
- WWEC purpose (e.g., renewable energy)
- Transmission and pipeline capacity opportunity

**Energy Planning Concerns**

- Physical barrier
- Jurisdictional concern
- Corridor alignment and spacing
- Transmission and pipeline capacity concern

**Land Management Responsibilities and Environmental Concerns**

- Acoustics
- Air quality
- Climate change
- Cultural resources
- Ecological resources
- Environmental justice
- Hydrological resources
- Lands and realty
- Lands with wilderness characteristics

Livestock grazing

- Paleontology
- Public access and recreation
- Socioeconomics
- Soils/erosion
- Specially designated areas
- Tribal concerns
- Visual resources
- Wild horses and burros

**Interagency Operating Procedures**

**REGION 1 – CORRIDOR 30-52 – ANALYSIS TABLE**

ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
<b>ENERGY PLANNING OPPORTUNITIES</b>							
<i>Appropriate and Acceptable Uses</i>							
30-52 .001	BLM	California Desert District	Riverside, CA	Designated leasing area (DLA), i.e., Riverside East SEZ overlaps the corridor	MP 60.1 to MP 99.8	GIS Analysis.	Solar energy development within the corridor reduces space for future development of transmission and pipelines. Agencies recommend avoidance or restriction of non-linear features, such as geothermal and solar energy development, within the Section 368 energy corridors.
<i>WWEC Purpose</i>							
30-52 .002	BLM	California Desert District	Riverside, CA	Nearest transmission corridor for facilitating development in the DLA, i.e., Riverside East SEZ in California	MP 60.1 to MP 99.8	GIS Analysis.	Most of the projects, including two major substations, are aligned along I-10. The Riverside East SEZ provides opportunity for the corridor to accommodate transmission tied to renewable energy development.



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ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
30-52 .003	BLM	Yuma FO	Yuma, AZ	Nearest transmission corridor for facilitating development in a DLA, i.e., Brenda SEZ in Arizona	2.7 miles from SEZ between MP 150.2 and MP 154.3	GIS Analysis.	The Brenda SEZ provides opportunity for the corridor to accommodate transmission tied to renewable energy development.
30-52 .004	BLM	Yuma FO	Yuma, AZ	Nearest transmission corridor to a DLA, i.e., REDA	MP 152 to MP 155 and MP 170 to MP 173	GIS Analysis.	The REDA provides opportunity for the corridor to accommodate transmission tied to renewable energy development.
30-52 .new1	BLM	California Desert District	Riverside, CA	Corridor resides in RETI 2.0 Riverside East TAFE and hypothetical study range (HSR)	Not specified	Comment on corridor abstract.	The TAFE and HSR provide opportunity for the corridor to accommodate transmission tied to renewable energy development.
30-52 .new2	BLM	California Desert District	Riverside, CA	DLA, i.e., DRECP DFA: All technologies	MP 60.1 to MP 61.2, MP 61.6 to MP 68.5, MP 69.4 to MP 82.1, MP 82.3 to MP 85.4, MP 89.5 to MP 100.3, MP 100.8 to MP 102.0, and MP 104.2	GIS Analysis.	The DFA provides opportunity for the corridor to accommodate transmission tied to renewable energy development.
<b>Transmission and Pipeline Capacity Opportunity</b>							
30-52 .new3	BLM	California Desert District and Yuma FO	Riverside, CA, and Yuma, AZ	Proposed Ten West Link transmission project		Comment on corridor abstract: proposed [sic] route runs through the Kofa NWR. The study area for alternative routes includes 30-52 along I-10.	Opportunity to look at range of alternatives for corridor designation at the NEPA level of analysis when considering revisions, deletions, or additions to the currently designated corridor in the future.
<b>ENERGY PLANNING CONCERNS</b>							
<b>Location-Specific Physical Barrier</b>							
30-52 .005	BLM	California Desert District	Riverside, CA	There is a bottleneck around the San Gorgonio Pass where it has been challenging in the past to site additional transmission.	San Gorgonio Pass is approximately 17 mi west of the corridor at MP 0, and the corridor was not designated in the pass.	RFI: this corridor should be developed only if a technological solution is found for placing additional transmission infrastructure through the San Gorgonio Pass. Routing transmission anywhere else in the area would significantly impact	The San Gorgonio Pass area is constrained with respect to additional development. There are two national monuments on either side of the Interstate, so there is not much room to site a transmission line elsewhere through the pass. Future planning efforts would have to consider major rerouting alternatives for analysis to make this end-portion of the corridor

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ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
						the existing natural and biological resources. GIS Analysis: confirms bottleneck.	viable for transmission of energy further west.
30-52 .015	BLM and CRIT	Yuma FO, CRIT Reservation	Yuma, AZ	Copper Bottom Pass – physical and topographic constraints in addition to jurisdictional constraint with the CRIT Reservation	MP 122 to MP 124	Agency Review and GIS Analysis.	The Agencies are looking to the Ten West Link project analysis for possible alternatives for getting through this area. If the Ten West Link route is approved, it could provide guidance for a revision to the Section 368 energy corridor designation (MP 99 to MP 173). Proposed project siting and collocation alternatives to address impacts would be analyzed as part of the project-specific environmental review required under NEPA and other Federal laws.
<b>Jurisdictional Concern</b>							
30-52 .013	BLM	California Desert District	Riverside, CA	Transmission lines, pipelines, and fragmented federal land	MP 0.0, western end of corridor north of Palm Springs	GIS Analysis: existing infrastructure and nearby development may limit the potential for additional projects.	There are many linear and site ROWs within this fragmented section of corridor. Future planning efforts would have to consider major rerouting alternatives for analysis to make this end-portion of the corridor viable for transmission of energy further west.
30-52 .009	BLM	California Desert District	Riverside, CA	Pipelines, Interstate, and town of Desert Center in corridor gap	MP 60.0 to MP 62.6	GIS Analysis: existing infrastructure and spans town of Desert Center.	There is room for additional projects. Proposed project siting and collocation alternatives to address impacts would be analyzed as part of the project-specific environmental review required under NEPA and other federal law. However, recommend that future land use plans present analysis of alternatives to allow future growth (widening) and make more efficient use of the corridor (through collocation, siting, high-density technologies, etc.).
30-52 .014		Private	La Paz, AZ	Town of Quartzsite	MP 131 to MP 135	Comment on corridor abstract: corridor passes	The Town of Quartzsite and La Paz County have both expressed concern about and

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ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
						directly through Quartzsite, AZ	opposition to transmission projects in the corridor within or near Quartzsite town limits. Stated concerns center on possible negative impacts on tourism and visual resources, as well as impacts on county-provided services. Some of these concerns also apply to BLM-administered lands county-wide. Strong opposition to projects in the private portion of the corridor can be expected, and both the town and the county can be expected to be cooperating agencies in any project-specific NEPA analysis. Proponents for projects on private land would have to negotiate with the landowners.
30-52 .016	BOR	BOR	La Paz, AZ	Central Arizona Project Aqueduct in BOR jurisdiction in line with corridor in undesignated gap	East of MP 172.8	GIS Analysis and comment from BOR.	Proposed project siting and collocation alternatives to address impacts would be analyzed as part of the project-specific environmental review required under NEPA and other Federal laws. At MP 172.8, due to an undesignated gap in the corridor, future projects would need to cross BOR-administered lands, subject to receiving authorization from that agency. The BOR reviews applications for rights-of-use on BOR-administered land within the corridor on a case-by-case basis to ensure that BOR projects are not impacted. For example: - Flood control structures on the lower Colorado River; - Irrigation canals (All-American and Coachella Canal O&M activities); and - Other facilities located inland (e.g., quarries, stockpile sites, and groundwater wells).

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ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
							Early coordination with BOR on proposed transmission lines and other facilities is encouraged.
30-52 .new4		Private	Riverside, CA	Paradise Valley Development	MP 28.4 to MP 32.4 (Situated just to the west of the Cottonwood Springs/ Box Canyon Road, north and south of I-10 on private land.)	Comment on corridor abstract: a future foreseeable project by Glorious Land Company, a proposed city of 8500 residential units, commercial units, light industrial space and open space. The proposed development on the north side of the I-10 nearest Pinkham Wash would be bounded to the west and east by the proposed [sic] 368 corridor. Riverside County has indicated that it will prepare a programmatic draft EIR in the spring or summer of 2017. At some point, the Paradise Valley project will have to obtain a federal permit for a fiber optic cable upgrade for the development, which will also trigger the NEPA process.	The corridor is not designated on private land and multiple pipelines and transmission lines are already present along I-10, which is also in the same pathway. Proposed project siting and collocation alternatives to address impacts would be analyzed as part of the project- specific environmental review required under NEPA and other federal law. A cumulative analysis to address reasonably foreseeable future actions would be included in that review. Suggest that future land use plans present analysis of alternatives to allow future growth (widening) and to make more efficient use of the corridor (e.g., collocation, siting, high-density technologies, and so on).
30-52 .new5	BLM	California Desert District	Riverside, CA	Coachella NWR	MP 0 to MP 6	Comment on corridor abstract: the existing corridor is crowded and will need to be expanded. Expansion to the south will have a greater impact on the Refuge and should be avoided; expansion to the	The Agencies do not recommend expanding the corridor to the south, so there should be no impact on the Coachella NWR.

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						north would be recommended.	
<b>Corridor Alignment and Spacing</b>							
30-52 .017	BLM	Yuma FO	La Paz, AZ	Pipelines are present in the corridor and cross from one side to the other.	MP 111.8 to MP 122.0	GIS Analysis: corridor and current infrastructure are not well aligned.	Proposed project siting and collocation alternatives to address impacts would be analyzed as part of the project-specific environmental review required under NEPA and other Federal laws.
30-52 .006	BLM	California Desert District	Riverside, CA	Transmission infrastructure	MP 0 to MP 99.8	RFI: large amount of existing transmission infrastructure.	There is room for additional projects. Proposed project siting and collocation alternatives to address impacts would be analyzed as part of the project-specific environmental review required under NEPA and other Federal laws. However, the Agencies recommend that future land use plans present analysis of alternatives to allow future growth (widening) and make more efficient use of the corridor (through collocation, siting, high-density technologies, etc.). The number of potential additional transmission lines would depend on such factors as location, voltage, and safety requirements.
30-52 .007	BLM	California Desert District	Riverside, CA	Transmission lines, pipelines, fragmented federal land, rugged terrain, and nearby development	MP 0.6 to MP 17.7	GIS Analysis: existing infrastructure and nearby development.	There is room for additional projects. Proposed project siting and collocation alternatives to address impacts would be analyzed as part of the project-specific environmental review required under NEPA and other Federal laws. However, recommend that future land use plans present analysis of alternatives to allow future growth (widening) and make more efficient use of the corridor (through collocation, siting, high-density technologies, etc.).
30-52 .008	BLM	California Desert District	Riverside, CA	Pipelines, transmission lines, Interstate, and rugged terrain	MP 22.1 to MP 29.4	GIS Analysis: existing infrastructure.	There is room for additional projects. Proposed project siting and collocation alternatives to address impacts would be

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							analyzed as part of the project-specific environmental review required under NEPA and other Federal laws. However, recommend that future land use plans present analysis of alternatives to allow future growth (widening) and make more efficient use of the corridor (through collocation, siting, high-density technologies, etc.).
30-52 .010	BLM	California Desert District	Riverside, CA	Transmission lines within and crossing corridor, pipeline, and Interstate	MP 70.8 to MP 75.7	GIS Analysis: existing infrastructure.	Proposed project siting and collocation alternatives to address impacts would be analyzed as part of the project-specific environmental review required under NEPA and other Federal laws. However, recommend that future land use plans present analysis of alternatives to allow future growth (widening) and make more efficient use of the corridor (through collocation, siting, high-density technologies, etc.).
30-52 .011	BLM	California Desert District	Riverside, CA	Pipelines, transmission lines, Interstate, and Blythe Airport	MP 97.3 to MP 99.8	GIS Analysis: existing infrastructure and near (just west of) Blythe Airport.	There is room for additional projects. Proposed project siting and collocation alternatives to address impacts would be analyzed as part of the project-specific environmental review required under NEPA and other Federal laws. However, recommend that future land use plans present analysis of alternatives to allow future growth (widening) and make more efficient use of the corridor (through collocation, siting, high-density technologies, etc.).
30-52 .012	BLM	Yuma FO	La Paz, AZ	Pipelines, transmission line, and Interstate	MP 111.8 to MP 122.0	GIS Analysis: existing infrastructure.	There is room for additional projects. Proposed project siting and collocation alternatives to address impacts would be analyzed as part of the project-specific environmental review required under NEPA and other Federal laws. However,

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<p>recommend that future land use plans present analysis of alternatives to allow future growth (widening) and make more efficient use of the corridor (through collocation, siting, high-density technologies, etc.). NERC spacing requirements must be considered and cathodic protection may be required on existing pipelines, but those factors can be addressed during project design.</p>							
<p><b>LAND MANAGEMENT RESPONSIBILITIES AND ENVIRONMENTAL CONCERNS</b></p>							
<p><b>Air Quality</b></p>							
30-52 .019	BLM	California Desert District	Riverside, CA	Joshua Tree Wilderness NPS Class I Area just north of the corridor	MP 37.7 to MP 54.0	Comment on abstract: 75 percent of the park is designated as a Class I area for air quality standards. Joshua Tree National Park monitors air quality at three locations (western, central and eastern) across two air basins (Salton Sea and Mojave Desert). In general, air quality improves in the eastern regions with the most pristine air quality in the Coxcombs and eastern Eagle Mountains (adjacent to the Riverside SEZ).	Impacts would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws. Avoidance is the primary mitigation tool that BLM uses in reaching an agency-preferred alternative during project development. Transmission lines and pipelines typically do not have a significant impact on air quality, and if they did, the impact would be addressed through mitigation measures, including siting the project elsewhere.
<p><b>Ecology: Special Status Plant Species</b></p>							
30-52 .020	BLM	California Desert District	Riverside, CA	Coachella Valley Milk-Vetch designated critical habitat	MP 0 to MP 6.9	RFI: consult with USFWS to avoid adverse modification to Coachella Valley Milk-Vetch designated critical habitat. Consider alternate routes.	Impacts would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws and in consultation with the USFWS as required under ESA. Regional Reviews are not resulting in decisions that require NEPA reviews or consultation. USFWS is participating in the Regional Reviews.

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ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
<p>There is no nearby alternative route that would avoid these habitats in an area with existing infrastructure.</p>							
<p><b>Ecology: Special Status Animal Species</b></p>							
30-52 .021	BLM	California Desert District	Riverside, CA	Coachella Valley Fringe-Toed Lizard designated critical habitat	MP 0.0 to MP 6.9	RFI: consult with USFWS to avoid adverse modification to Coachella Valley Fringe-Toed Lizard designated critical habitat.  Consider alternate routes.	Impacts would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws and in consultation with the USFWS as required under ESA. Regional reviews are not resulting in decisions that require NEPA reviews or consultation. USFWS is participating in the regional reviews.  There is no nearby alternative route that would avoid these habitats in an area with existing infrastructure.
30-52 .022	BLM	California Desert District, Yuma FO	Riverside, CA; La Paz, AZ	Desert Tortoise critical habitat; TCAs; Priority 1 and 2 habitat; and Habitat Linkages (Desert Tortoise TCA Habitat Linkages – USFWS 2013)	Critical Habitat: MP 28.4 to MP 92.4, MP 118 to MP 130.6, MP 140.4 to MP 153.1, and MP 165.8 to MP 169.1. TCAs: MP 44.9 to MP 60.3, MP 61.2 to MP 76.4, MP 78.3 to MP 78.5, and MP 81.1 to MP 92.5. Priority 1 and 2 Habitat: MP 60.1 to MP 60.4, MP 62.2, MP 66.3 to MP 67.5, MP 68.5 to MP 69.7, MP 71.7 to MP 72.4, and MP 90.5 to MP 94.1.	GIS Analysis. RFI: reroute to avoid siting new facilities in TCAs and Priority 1 and 2 Connectivity Habitat without existing transmission, and minimize additional transmission siting in these areas.  Consider alternate routes.	Impacts on habitat and habitat connectivity can be avoided, minimized, or mitigated through activities identified and implemented in consultation with the USFWS under ESA Section 7. Analysis would be completed through the NEPA process case by case with a full range of alternatives. BLM would apply its policy on mitigation hierarchy to avoid and then minimize impacts.  The corridor straddles I-10 rather than adding another layer of barrier.  The DRECP includes extensive CMAs that allow for project development while conserving Desert Tortoise.  There is no nearby alternative route that would avoid these habitats in an area with existing infrastructure.



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					Habitat Linkages: MP 92.1 to MP 92.8.		
30-52 .025	BLM	Yuma FO	La Paz, AZ	Yellow-billed Cuckoo proposed critical habitat	MP 111.8 to MP 112.8	GIS Analysis. Comment on corridor abstract: consider alternate routes;	In analysis, the BLM would look at whether the physical and biological features of the primary constituent elements are present in a project area and analyze how they would be affected in making a determination of effect. If effect is determined, BLM would consult with USFWS under Sec. 7(a)(2) of ESA. There is no nearby alternative route that would avoid these habitats in an area with existing infrastructure.
30-52 .026	BLM	California Desert District	Riverside, CA	Desert Bighorn Sheep connectivity in the Mojave Desert	Not specified	RFI: follow locally specific connectivity recommendations, such as those for the Southern California Wildlands Linkages and Arizona Missing Linkages, to avoid connectivity impacts on Desert Bighorn Sheep in the Mojave Desert (potential IOP?). Consider alternate routes.	Impacts on habitat and habitat connectivity would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws. There is no nearby alternative route that would avoid these habitats in an area with existing infrastructure.
30-52 .new6	BLM	Yuma FO	La Paz, AZ	Desert Bighorn Sheep	MP 140 to MP 146	Comment on corridor abstract: desert bighorn sheep connectivity is also a concern in Arizona for the Plomosa Mountains.	Impacts would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws.
30-52 .027	BLM	Yuma FO	La Paz, AZ	Razorback Sucker designated critical habitat	Razorback Sucker designated critical habitat observed to intersect this corridor between MP 111.9 and MP 112.3.	RFI: consult with USFWS to avoid adverse modification to Razorback Sucker designated critical habitat; Consider alternate routes.  GIS Analysis: confirms habitat.	In analysis, BLM would look at whether the physical and biological features of the primary constituent elements are present in a project area and analyze how they would be affected in making a determination of effect. If effect is determined, BLM would consult with USFWS under Sec. 7(a)(2) of ESA.

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							There is no nearby alternative route that would avoid these habitats in an area with existing infrastructure.
30-52 .028	BLM	California Desert District	Riverside, CA	Southern California Wildlands Linkage	Not specified	RFI: this corridor segment intersects a Southern California Wildlands Linkage.	Several linkages were designated ACECs under the DRECP ROD. Impacts on habitat connectivity would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws.
<b>Hydrology: Surface Water</b>							
30-52 .029	BLM	Yuma FO	Riverside, CA, and La Paz, AZ	Colorado River	MP 111.9 to MP 112.1	GIS Analysis.	Any project effects would be addressed during NEPA and ESA compliance.
<b>Hydrology: Groundwater</b>							
30-52 .030	BLM	AZ and CA	Riverside, CA; and La Paz and Maricopa, AZ	Unconsolidated sand and gravel aquifers, Basin and Range basin- fill aquifers	Full corridor extent, except for gaps in these areas: MP 119.8 to MP 128.3, MP 129.9 to MP 131.2, MP 149.7 to MP 150.8, and MP 167 to MP 168.2.	GIS Analysis.	Impacts would be analyzed and mitigated as part of the project effects addressed during specific environmental reviews required under NEPA, ESA, and other federal law.
<b>Lands and Realty: Rights-of-Way and General Land Use</b>							
30-52 .031	BLM	Yuma FO	Riverside, CA, and La Paz, AZ	Land ownership	MP 28.5 to MP 52.6, MP 80.5 to MP 81.3, MP 199.6 to MP 112.0, and MP 131.8 to MP 132.6.	GIS Analysis: a total of 1,275 acres which were originally designated as part of this corridor are no longer on federal land, according to the 5/12/2015 version of Surface Management Agency data.	BLM would consider adjusting the corridor designation in a future land use plan amendment to be consistent with the current jurisdiction, possibly during future project implementation.
<b>Lands and Realty: Minerals (Mining Claims)</b>							
30-52 .032	BLM	Yuma FO	La Paz, AZ	Mining	MP 123.1 to MP 127.7	GIS Analysis.	Corridor is only designated on BLM-administered lands. Proponents would have to coordinate with landowners to cross private lands. Proposed project siting and collocation alternatives to address

## REGION 1 – CORRIDOR 30-52 – ANALYSIS TABLE

ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
							impacts would be analyzed as part of the project-specific environmental review required under NEPA and other Federal laws.
<b>Lands and Realty: Military and Civilian Aviation</b>							
30-52 .033	BLM	California Desert District	Riverside, CA	Civilian Aviation – Chiriaco Summit Airport	MP 42.1 to MP 43.6	GIS Analysis: in line with corridor in undesignated gap in corridor.	Proposed project siting and collocation alternatives to address impacts would be analyzed as part of the project-specific environmental review required under NEPA and other federal law.
30-52 .034	BLM	California Desert District	Riverside, CA	Civilian Aviation – Julian Hinds Pump Plant Airstrip	MP 47.0 to MP 48.0	GIS Analysis: in line with corridor in an undesignated gap in corridor.	Proposed project siting and collocation alternatives to address impacts would be analyzed as part of the project-specific environmental review required under NEPA and other Federal laws.
30-52 .035	BLM	California Desert District	Riverside, CA	Civilian Aviation – Blythe Airport, Blythe Service Center Heliport, Clayton Heliport, and Cyr Aviation Airport	MP 99.7 to MP 111.7	GIS Analysis: all in line with the corridor, but in undesignated gaps in the corridor.	Proposed project siting and collocation alternatives to address impacts would be analyzed as part of the project-specific environmental review required under NEPA and other Federal laws.
30-52 .036	BLM	California Desert District, Yuma FO, and Hassayampa FO	Riverside, CA; La Paz and Maricopa, AZ	Military Training Route – Visual Route	MP 35 to MP 38, MP 74 to MP 80 (2), MP 76 to MP 84, MP 148 to MP 156, and MP 163 to MP 167.	GIS Analysis. Comment on corridor abstract: military training route (VR-1257) (VR-1267) (VR-1267A) (VR-1265) (VR-1268) with floor of 200 ft AGL. Potential for an obstruction in airspace used for military operations.	DoD identified no impact if structure remains below 200 ft AGL. Taller structures would require further analysis for operational impact. Adherence to IOP 1 under Project Planning in the WWEC PEIS ROD regarding coordination with DoD would be required.
30-52 .037	BLM	California Desert District	Riverside, CA	Military Training Route – Instrument Route	MP 48 to MP 55 and 49 to MP 67	GIS Analysis. Comment on corridor abstract/ Military training route (IR-216) and (IR-217) with floor of 200 ft AGL. Potential for an obstruction in airspace used for high speed, low altitude military aircraft operations, which	DoD recommends that structures remain below 200 ft AGL. Taller structures would require further analysis for operational and safety impacts. Adherence to IOP 1 under Project Planning in the WWEC PEIS ROD regarding coordination with DoD would be required.

## REGION 1 – CORRIDOR 30-52 – ANALYSIS TABLE

ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
						presents a potential safety risk.	
30-52 .new7	BLM	California Desert District, Lake Havasu FO and Yuma FO	Riverside, CA; La Paz, AZ	Military Training Route – Instrument Route	MP 42 to MP 73, MP 125 to MP 133, and MP 134 to MP 199.8.	Comment on abstract: military training route (IR-218) with floor of 500 ft AGL. Potential for an obstruction in airspace used for high speed, low altitude military aircraft operations, which presents a potential safety risk.	DoD recommends that structures remain below 400 ft AGL. Taller structures would require further analysis for operational and safety impacts. Adherence to IOP 1 under Project Planning in the WWEC PEIS ROD regarding coordination with DoD would be required.
30-52 .038	BLM	Yuma FO, AZ	La Paz, AZ	Military Training Route – Slow-speed Route	MP 111.7 to MP 120.8	GIS Analysis.	Impacts would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws. Adherence to IOP 1 under Project Planning in the WWEC PEIS ROD regarding coordination with DoD would be required.
<b>Lands and Realty: Transportation</b>							
30-52 .039	BLM	California Desert District, Yuma FO and Hassayampa FO	Riverside, CA; La Paz and Maricopa, AZ	I-10	Nearly full corridor extent	GIS Analysis.	Consistent with BLM ROW regulations, notification to adjacent ROW holders would be provided.
30-52 .040	BLM	California Desert District	Riverside, CA	Railroad	MP 51.9 to MP 54.9	GIS Analysis.	Consistent with BLM ROW regulations, notification to adjacent ROW holders would be provided.
<b>Lands with Wilderness Characteristics</b>							
30-52 .new8	BLM	California Desert District	Riverside, CA	Lands with Wilderness Characteristics	MP 75.6 to MP 78.8	GIS Analysis: corridor adjacent to land with wilderness characteristics to the north Comment on abstract: Wilderness Areas that may be impacted by Corridor 30- 52 include the Joshua Tree Wilderness, Chuckwalla Mountains Wilderness	The DRECP has CMAs for addressing impacts on lands with wilderness characteristics.

## REGION 1 – CORRIDOR 30-52 – ANALYSIS TABLE

ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
						Area, the Orocopia Mountains Wilderness, the Palen-McCoy Wilderness Area, and the Mecca Hills Wilderness. A proposed 10,560-ft-wide corridor in California will potentially allow development of multiple transmission corridors in this area, which is noted for its wilderness characteristics.	
<b>Public Access and Recreation</b>							
30-52 .041	BLM	California Desert District	Riverside, CA	Indio Hills Palms State Park	MP 6.0 to MP 7.8	GIS Analysis: corridor spans a state park in an undesignated gap in the corridor.	Impacts would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws.
<b>Specially Designated Areas</b>							
30-52 .042	BLM	California Desert District	Riverside, CA	Coachella Valley Fringe-toed Lizard ACEC	MP 2.8 to MP 6.0	GIS Analysis.	Impacts on the ACEC would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws. DRECP establishes a 1.0% disturbance cap.
30-52 .043	BLM	California Desert District	Riverside, CA	Coachella Valley DRECP National Conservation Lands <sup>1</sup>	MP 2.6 to MP 6.6, MP 23.6 to MP 50.6	GIS Analysis.	Impacts on National Conservation Lands would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws.
30-52 .new9	BLM	California Desert District	Riverside, CA	Colorado Desert DRECP National Conservation Lands <sup>1</sup>	MP 3.4 to MP 21.2.	GIS Analysis.	Impacts on the National Conservation Lands would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws.
30-52 .new10	BLM	California Desert District	Riverside, CA	Pinto Lucerne Valley and Eastern Slopes DRECP National Conservation Lands <sup>1</sup>	MP 7.9 to MP 8.8	GIS Analysis.	Impacts on the National Conservation Lands would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws.

## REGION 1 – CORRIDOR 30-52 – ANALYSIS TABLE

ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
30-52 .044	BLM	California Desert District	Riverside, CA	State Wildlife Preserve Coachella Valley Preserve - Thousand Palms Oasis Preserve	MP 2.5 to 4.9	GIS Analysis: in an undesigned gap in the corridor	Impacts would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws.
30-52 .045	BLM	California Desert District	Riverside, CA	Coachella Valley NWR	MP 4.5 to MP 7.0	GIS Analysis: Corridor is in line with the NWR, but in an undesigned gap in the corridor	Impacts on the Refuge would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws.
30-52 .046	BLM	California Desert District	Riverside, CA	Colorado River Resource Management Area	MP 11.8 to MP 112.0	GIS Analysis.	Impacts on the Resource Management Area would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws.
30-52 .047	BLM	California Desert District	Riverside, CA	Mecca Hills Wilderness	MP 22.1 to MP 32.4	GIS Analysis: wilderness is to the south of the corridor.	Impacts on wilderness would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws. The DRECP has CMAs for wilderness characteristics.
30-52 .048	BLM	California Desert District	Riverside, CA	Palen Ford ACEC	MP 71.8 to 78.1 and MP 80.0 to MP 90.2.	GIS Analysis.	Impacts on the ACEC would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws.
30-52 .049	BLM	California Desert District	Riverside, CA	Alligator Rock ACEC	MP 57.7 to MP 65.7	GIS Analysis: ACEC abuts corridor to the south.	Impacts on the ACEC would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws. The DRECP establishes a 0.5% disturbance cap.
30-52 .050	BLM	California Desert District	Riverside, CA	Joshua Tree Wilderness	MP 25.0 to MP 54.9	GIS Analysis: Wilderness is north of and sometimes abutting corridor.	Potential for expansion of the corridor would be restricted. Impacts on wilderness would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws. The DRECP has CMAs for wilderness characteristics.
30-52 .051	BLM	California Desert District	Riverside, CA	Orocopia Mountains Wilderness	MP 32.4 to MP 45.8	GIS Analysis: wilderness is south of the corridor.	Impacts on wilderness would be analyzed and mitigated as part of the project-specific

## REGION 1 – CORRIDOR 30-52 – ANALYSIS TABLE

ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
							environmental review required under NEPA and other Federal laws. The DRECP has CMAs for wilderness characteristics.
30-52 .052	BLM	California Desert District	Riverside, CA	Chuckwalla Mountains Wilderness	MP 54.0 to MP 76.0	GIS Analysis: wilderness is south of the corridor.	Impacts on wilderness would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws. The DRECP has CMAs for wilderness characteristics.
30-52 .053	BLM	California Desert District	Riverside, CA	Palen Dry Lake ACEC	MP 75.7 to MP 78.1	GIS Analysis: ACEC abuts corridor on the north side of the corridor.	Impacts on the ACEC would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other federal law. The DRECP establishes a 1.0% disturbance cap.
30-52 .054	BLM	California Desert District	Riverside, CA	Chuckwalla Valley Dune Thicket ACEC	MP 88.8 to MP 90.2	GIS Analysis: ACEC in corridor path, but in an undesignated gap in the corridor. Comment on corridor abstract: consider new information provided in the DRECP regarding the newly created Chuckwalla ACEC. The Project area lies within the Chuckwalla ACEC, which has the stated goal “to maintain desert tortoise habitat connectivity between the Chuckwalla and Chemehuevi ACECs.” The ACEC’s Nationally Recognized values in the DRECP state, “NLCS lands would protect an area of highest value desert tortoise habitat in northeastern Riverside	Corridors are identified and analyzed in the DRECP and for this ACEC. Use of the corridor in the ACEC is an allowable use. The DRECP establishes a 0.5% disturbance cap. Impacts on the ACEC would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws. While the corridor overlaps with specially designated areas across its length, there is no nearby alternative route that would avoid these areas in an area with existing infrastructure.

**REGION 1 – CORRIDOR 30-52 – ANALYSIS TABLE**

ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
						County (2009 USGS Desert Tortoise Habitat model). It would provide critical desert tortoise habitat connectivity between the two major desert tortoise populations identified in the Colorado Desert (i.e., the Chuckwalla and Chemehuevi critical habitat units) and Joshua Tree National Park.” (154-155 Appendix B Final DRECP).	
30-52 .new11	BLM	California Desert District	Riverside, CA	Palen-McCoy Wilderness Area	MP 73 to MP 92	GIS analysis: ACEC is 2-3 mi north of the corridor.	The corridor is not designated in the Wilderness Area. Impacts would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws. The DRECP has CMAs for wilderness characteristics.
30-52 .new12	BLM	California Desert District	Riverside, CA	Joshua Tree National Park	The route runs directly to the south of Joshua Tree National Park on the north side of I-10.	Comment on corridor abstract: for parcels between Frontage Road east and Rice Road along I-10, some parcels appear to be less than 100 feet, while other parcels may be located as much as a mile and a half, from the park boundary. Consider alternate routes. To reduce indirect impacts to Joshua Tree National Park, reduce the width of the corridor through the ±33-mile area located along I-10 and west of Desert	The Section 368 corridor is centered on a previously designated California Desert District energy corridor that has been in place for many years, is occupied by I-10 as well as several transmission lines and pipelines, and has capacity for additional infrastructure. Moving the Section 368 energy corridor could distribute energy infrastructure over a wider area rather than just confining it to the existing corridor with infrastructure in place. Moreover, there are designated Wilderness Areas to the south of the corridor.



## REGION 1 – CORRIDOR 30-52 – ANALYSIS TABLE

ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
						Center from 10,560 feet to 3,500 feet.	
30-52 .new13	BLM	California Desert District	Riverside, CA	Chuckwalla ACEC	MP 23.6 to MP 74.8, MP 82.8 to MP 90.8.	GIS Analysis. Comment on corridor abstract: to reduce impacts on the Chuckwalla desert tortoise CHU, reduce the width of the corridor through the 33-mile area located along I-10 and west of Desert Center from 10,560 feet to 3,500 feet. Eliminate all corridor polygons located south of I-10 to approximately 33 miles east of Desert Center, restricting new transmission line and pipeline development to the north side of the freeway.	Impacts on the ACEC would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws. The disturbance caps in the ACEC vary from 0.1% to 0.5% and 1.0% as established in the DRECP.
30-52 .new14	BLM	California Desert District	Riverside, CA	Mule McCoy Linkage ACEC	MP 88.4 to MP 92.4	GIS Analysis: ACEC abuts and intersects corridor.	Impacts on the ACEC would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws.
30-52 .new15	BLM	California Desert District	Riverside, CA	DRECP Chuckwalla SRMA	MP 50.6 to MP 83.0	GIS Analysis.	Impacts on the SRMA would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws.
30-52 .new16	BLM	California Desert District	Riverside, CA	DRECP Meccacopia SRMA	MP 36.6 to MP 41.2	GIS Analysis.	Impacts on the SRMA would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws.
<b>Tribal Concerns</b>							
30-52 .055	BLM	California Desert District	Riverside, CA	Agua Caliente Reservation	MP 0 to MP 18	GIS Analysis: Agua Caliente Reservation abuts corridor on the south.	Many California and Arizona tribes would be consulted on any proposal for use of the corridor. Impacts would be analyzed and mitigated as part of the project-specific

## REGION 1 – CORRIDOR 30-52 – ANALYSIS TABLE

ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
							environmental review required under NEPA and other Federal laws.
30-52 .056	BLM	Yuma FO	La Paz, AZ	CRIT Reservation	MP 118.6 to MP 128.3	GIS Analysis: corridor avoids crossing the CRIT Reservation.	Many California and Arizona tribes would be consulted on any proposal for use of the corridor. Avoidance of the CRIT Reservation occurred during the initial designation because the corridors could only be designated on BLM- and USFS-administered lands, and this resulted in the corridor being located in a sensitive area, including near Cunningham Peak in the Dome Rock Mountains, AZ. Topography through Copper Bottom Pass constrains the corridor and could push development onto CRIT lands, since the corridor abuts the CRIT Reservation through the pass. Proponents could work with the tribe to obtain consent to the grant of ROW by BIA to cross their lands.
<b>Visual Resources</b>							
30-52 .new17	BLM	Palm Springs-South Coast FO	Riverside, CA	VRM Class I	MP 42.0 to MP 42.4, MP 55.0 to MP 55.5, MP 66.3 to MP 72.1	GIS Analysis. VRM Class I areas are adjacent to corridor.	The corridor does not intersect VRM Class I or Class II areas. Impacts would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws.
30-52 .new18	BLM	Palm Springs-South Coast FO and Yuma FO	Riverside, CA, and La Paz, AZ	VRM Class II	MP 50.8 to MP 55.0, MP 57.1 to MP 60.2, MP 65.8 to MP 66.5, MP 72.1 to MP 77.8, MP 82.9 to MP 96.3, MP 120.0 to MP 125.9	GIS Analysis. VRM Class II areas are adjacent to corridor.	
30-52 .new19	BLM	Palm Springs-South Coast FO and Lake Havasu FO	Riverside, CA, and La Paz, AZ	VRM Class II	MP 0 to MP 50.8, MP 142.6 to MP 145.1	GIS Analysis.	VRM class objectives are binding land use plan decisions. Transmission facilities must demonstrate that they will conform to the VRM decisions in the land use plan through a hard-look visual impacts analysis outlined in BLM VRM Contrast Rating Handbook H 8431-1 (VRM Manual Section (MS) 8400, BLM 1986). Minimizing visual contrast
30-52 .058 and .059	BLM	Las Vegas FO, Palm Springs-South Coast	Clark, NV, Riverside, CA, and La Paz, AZ	VRM Class III	MP 10.5 to MP 11.8, MP 26.6 to MP 27.9, MP 30.4 to MP 31.4, MP 32.5 to MP 33.5,	GIS Analysis.	

## REGION 1 – CORRIDOR 30-52 – ANALYSIS TABLE

ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
		FO, and Yuma FO			MP 41.6 to MP 98.8, MP 119.6 to MP 132.6, MP 134.9 to MP 190.1		remains a requirement of applicable VRM class objectives even when the proposed action is in conformance with these VRM class objectives (VRM MS-8400).
30-52 .new20	BLM	Palm Springs-South Coast FO, Yuma FO, and Lake Havasu FO	Riverside, CA, and La Paz, AZ	VRM Class IV	MP 0 to MP 0.7, MP 11.2 to MP 15.2, MP 60.1 to MP 104.2, MP 130.6 to MP 136.7, MP 145.1 to MP 159.4, MP 164.8 to MP 167.2, MP 169.4 to MP 172.9	GIS Analysis.	While VRM Class IV objectives allow for major modification to occur and management activities may dominate the view, minimizing visual contrast remains a requirement of these VRM class objectives. Ratings are required in areas of high sensitivity or high impact (VRM MS-8400).
<b>INTERAGENCY OPERATING PROCEDURES (IOPS, OR BEST MANAGEMENT PRACTICES)</b>							
30-52 .061				Mitigation		RFI: minimize impacts from new energy infrastructure development to the maximum extent practicable, and where impacts are unavoidable, utilize compensatory mitigation pursuant to BLM policy.	BLM would apply its existing policy on the mitigation hierarchy to first avoid and minimize impacts and apply compensatory mitigation when warranted for unavoidable impacts.
30-52 .062				Connectivity		RFI: maintain connectivity in this region.	The Agencies have identified the need for creating a new IOP to include connectivity.
30-52 .063				Consultation		RFI: consult with USFWS to avoid adverse modification to designated critical habitat for Coachella Valley Milk-Vetch, Coachella Valley Fringe-Toed Lizard, and Desert Tortoise.	Impacts would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws, and the appropriate agencies would be consulted.
<b>Other Issues</b>							
30-52 .new22						One stakeholder requested that the Agencies analyze current power being transmitted in the corridor as well as information	The Agencies collected additional GIS data (including information developed for the DRECP to address pending applications and existing infrastructure, as well as new designations, species connectivity and

**REGION 1 – CORRIDOR 30-52 – ANALYSIS TABLE**

ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
						about pending applications to establish need and/or opportunity to retrofit existing infrastructure. Input was also provided clarifying existing capacity and potential for new capacity.	habitat, and have added the data to the corridor abstracts and the Section 368 Energy Corridor Mapping Tool. The input provided by stakeholders regarding existing capacity and potential for future capacity has been added to the corridor abstracts and has been considered in the Agencies' analysis.

Abbreviations: ACEC = Area of Critical Environmental Concern; AGL = at ground level; BLM = Bureau of Land Management; BOR = Bureau of Reclamation; CFR = Code of Federal Regulations; CHU = critical habitat unit; CRIT = Colorado River Indian Tribe; DFA = Development Focus Area; DLA = designated leasing area; DoD = U.S. Department of Defense; DRECP = Desert Renewable Energy Conservation Plan; ESA = Endangered Species Act; FO = Field Office; GIS = geographic information system; HSR = hypothetical study range; IOP = Interagency Operating Procedure; MP = milepost; NEPA = National Environmental Policy Act; NPS = National Park Service; NWR = National Wildlife Refuge; PEIS = Programmatic Environmental Impact Statement; REDA = Renewable Energy Development Area; RFI = Request for Information; ROW = right of way; SEZ = Solar Energy Zone; TAFA = transmission access focus area; TCA = Tortoise Conservation Area; USFWS = U.S. Fish and Wildlife Service; USFS = U.S. Forest Service; VRM = Visual Resource Management; WWEC = West-wide Energy Corridor

<sup>1</sup> California Desert Conservation Area replaced by DRECP National Conservation Lands

Corridor 30-52  
Region 2 Review

# Corridor 30-52

*Palo Verde – Palm Springs Corridor*

## Corridor Rationale

The corridor provides a pathway for energy transport, particularly electricity transmission from Palo Verde Generating Station into California. Input regarding alignment from the Arizona Public Service Electric Company and the American Wind Energy Association during the WWEC PEIS suggested following this route. The corridor is being considered for the Ten West Link project. Currently, there are no major pending or authorized ROWs for transmission line or pipeline projects within the corridor at this time.

### Corridor location (Region 2 portion):

Arizona (Maricopa Co.)  
 BLM: Hassayampa and Lower Sonoran Field Offices  
 Regional Review Region(s): Region 1 and Region 2

### Corridor width, length (Region 2 portion):

Width 3,500 ft  
 3.4 miles of designated corridor  
 24.9 mile-posted route, including gaps

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

- corridor is multi-modal

### Corridor of concern (N)

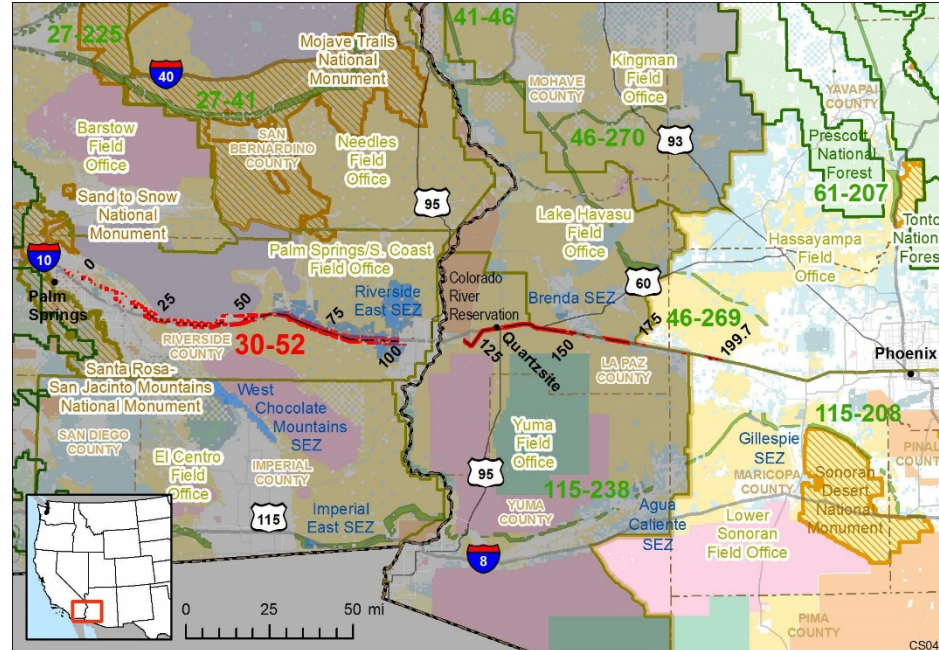
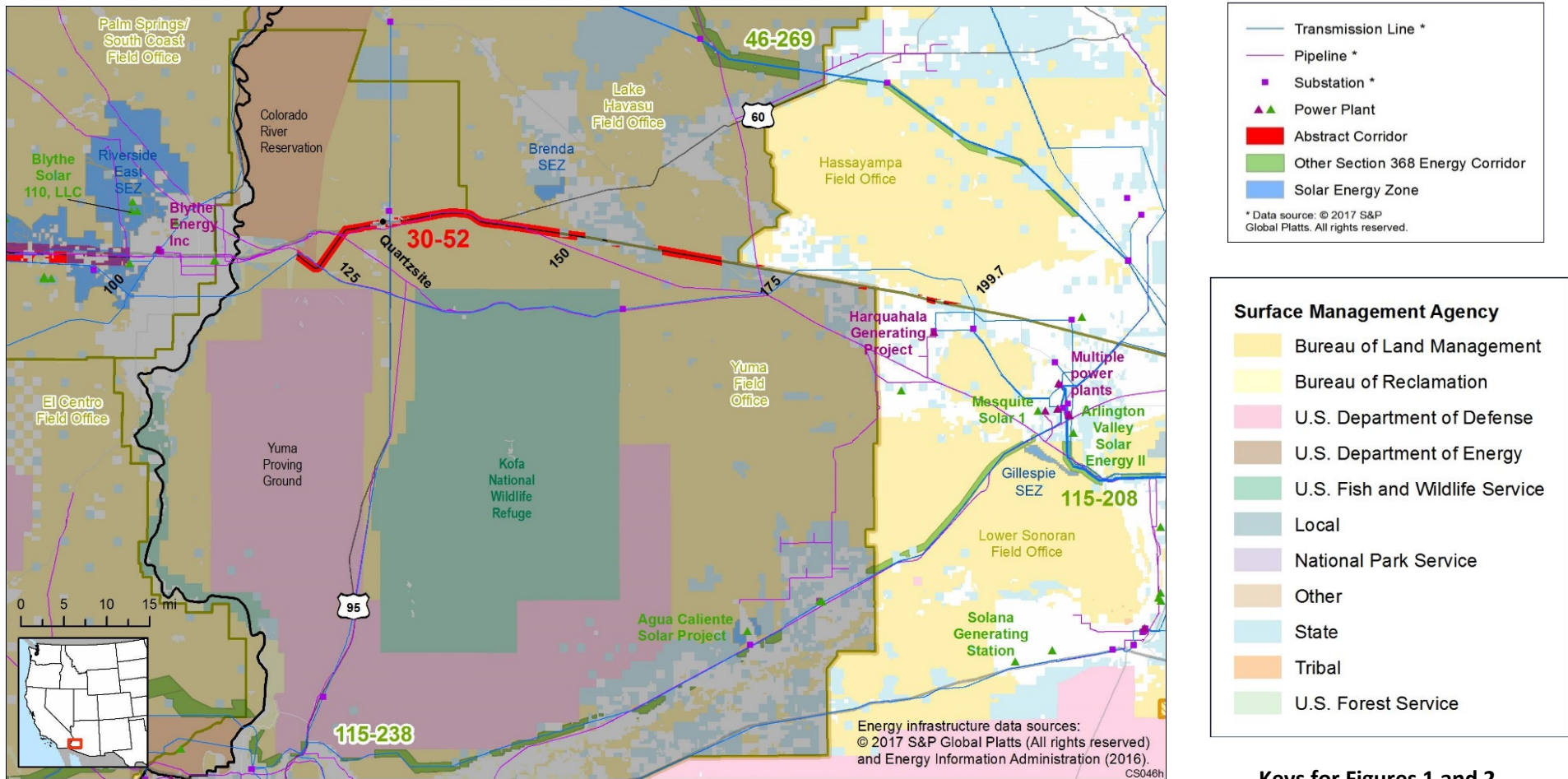


Figure 1. Corridor 30-52

### Corridor history:

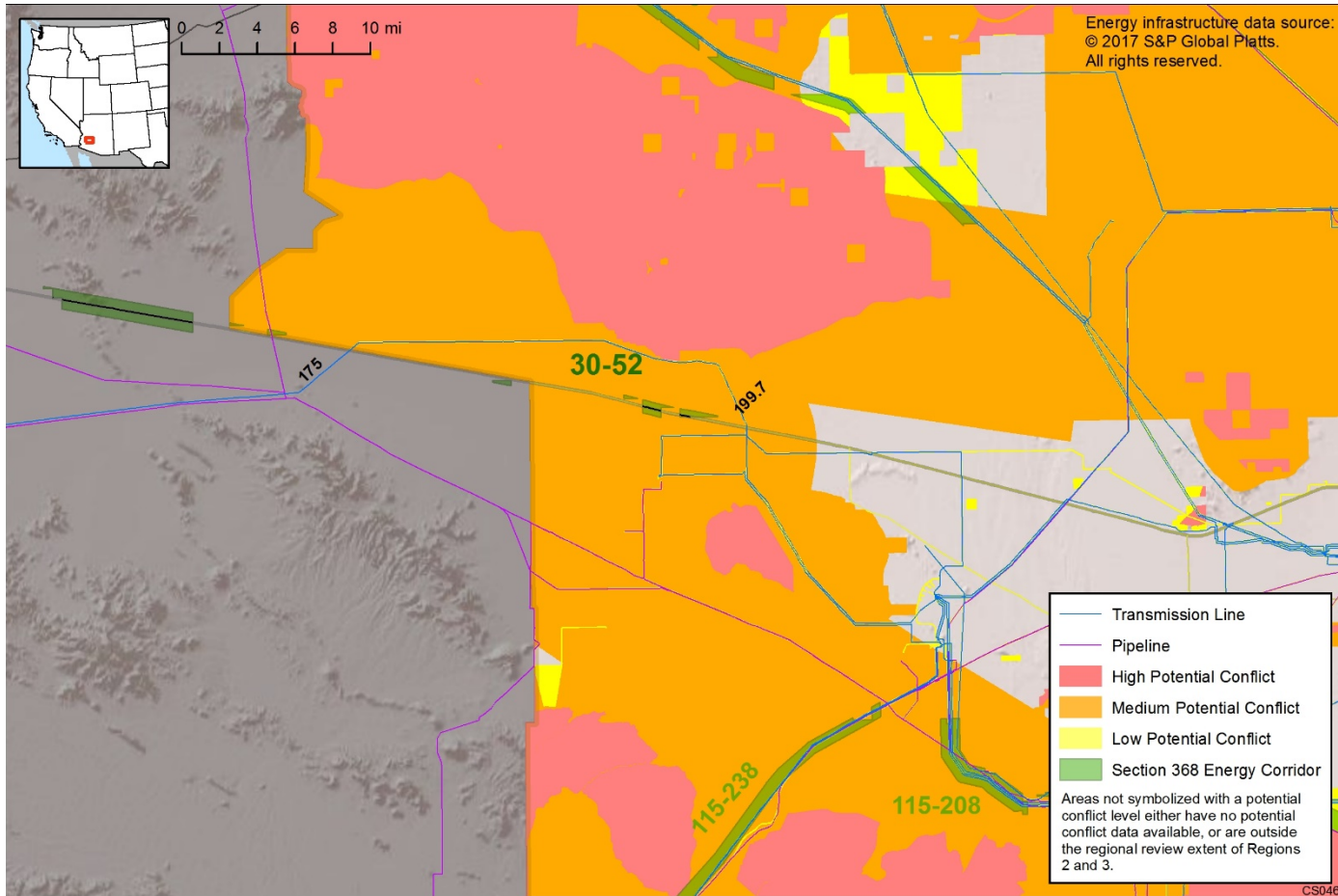
- Locally designated corridor prior to 2009 (N)
- Existing infrastructure (Y)
  - one power plant within 3 miles.
  - I-10 centered on corridor for most of its length.
- Energy potential near the corridor (Y)
  - REDA areas as close as 1,100 ft from MP 175 to MP 181
- Corridor changes since 2009 (N)



Keys for Figures 1 and 2

Figure 2. Corridor 30-52 and nearby electric transmission lines and pipelines (grayed out area outside of Region 2 and 3 Review)

## Conflict Map Analysis

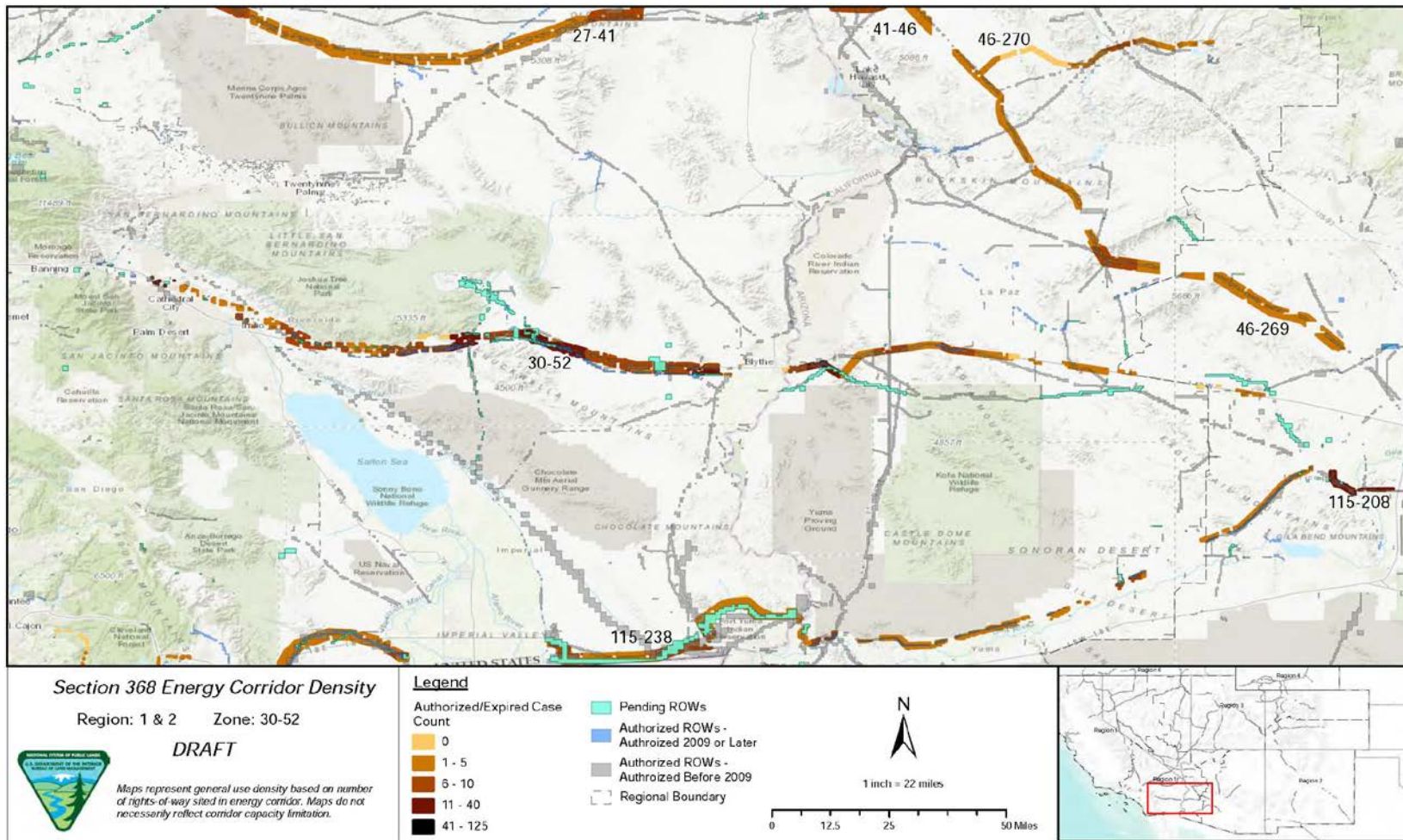


**Figure 3. Map of Conflict Areas in Vicinity of Corridor 30-52**

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/>)





**Figure 4. Corridor 30-52, 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

One stakeholder recommended deleting the corridor because development in the corridor (specifically the Ten West Link Transmission project) would threaten wildlife, impact cultural resources and landscapes, impact visual resources, damage small communities, create health hazards for nearby residents, and create a need for eminent domain on adjacent property owners, but would not benefit the local communities.

## 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 30-52 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>							
30-52 .001	BLM	Lower Sonoran FO	Maricopa and La Paz, AZ	Proposed Harquahala NCA	Not specified.	RFI: proposed Harquahala NCA	The proposed NCA has not been designated and is therefore not a consideration for corridor-level planning at the time of this review. (1)
<i>Ecology</i>							
30-52 .002	BLM	Hassayampa FO, Lower Sonoran FO	Maricopa, AZ	Sonoran Desert Tortoise habitat (BLM sensitive species, not listed under ESA)	MP 196 to MP 200	RFI/Comment on abstract: this corridor intersects Sonoran Desert Tortoise Category I and II management habitat and TCAs. 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 impacts within 4 mi of Sonoran Desert Tortoise Category I & II habitat and TCAs. Consult with USFWS to avoid adverse	Desert Tortoise habitat does not intersect corridor in the Region 2 portion of this corridor and therefore best meets the siting principles. (1)

CORRIDOR 30-52 REVIEW TABLE							
ID	Agency	Agency Jurisdiction	County	Primary Issue	Corridor Location (by Milepost [MP])	Source	Agency Review and Analysis <sup>1,2</sup>
						<p>modification to Desert Tortoise designated critical habitat.</p> <p>GIS Analysis: tortoise habitat less than 2 mi north of corridor, but does not intersect corridor in the Region 2 portion of this corridor.</p> <p>Comment on abstract: reroute to avoid Sonoran Desert Tortoise Category I and II management habitat and Mojave TCAs.</p>	
30-52 .003				Special status species	Not specified.	Comment on abstract: how many Desert Tortoise, Burrowing Owls, Kit Fox and American Badgers would be relocated or hazed out of burrows? (Ten West Link)	The project specific analysis of impacts of the Ten West Link project cannot fully be carried into this energy corridor review as this review is not a NEPA process. Further analysis to determine the presence of all species occurring within the area will be considered outside of corridor-level planning. (3)
30-52 .004	USFWS			Sonoran Pronghorn	Not specified.	Comment on abstract: USFWS recently introduced a population of Sonoran Pronghorn to the northern part of the Kofa National Wildlife Refuge. They oppose running this line through the refuge and prefer it follow the highway along an existing line. Expanding it will have biological and visual impacts to the refuge and the wildlife. (Ten West Link)	The corridor has an extremely small overlap with Sonoran pronghorn and it is not located within the Kofa National Wildlife Refuge. The Kofa National Wildlife Refuge was analyzed in the Region 1 Review. (1)
30-52 .005				Avian mortality	Not specified	Comment on abstract: BLM should estimate how many birds (raptors, passerines, etc.) would be killed or impacted by the	The project specific analysis of impacts of the Ten West Link project cannot fully be carried into this energy corridor review as this review is not a

CORRIDOR 30-52 REVIEW TABLE							
ID	Agency	Agency Jurisdiction	County	Primary Issue	Corridor Location (by Milepost [MP])	Source	Agency Review and Analysis <sup>1,2</sup>
						collision or electrocution from this corridor over its lifespan. (Ten West Link)	NEPA process. Further analysis to determine the presence of all species occurring within the area will be considered outside of corridor-level planning. (3)
30-52 .006				Wildlife migration	Not specified.	Comment on abstract: BLM should evaluate what wildlife migration corridors would be impacted by this project. Would the line disrupt movement of Burro Deer, Javelina, and Bighorn Sheep? (Ten West Link)	The project specific analysis of impacts of the Ten West Link project cannot fully be carried into this energy corridor review as this review is not a NEPA process. However, 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)
30-52 .007				Vegetation	Not specified.	Comment on abstract: construction within the corridor would stir up fugitive dust. The removal of established vegetation, biological soil crusts and centuries old desert pavement creates opportunities for dust to be airborne every time the wind blows.	The Agencies acknowledge the concern regarding fugitive dust; however, this issue is not easily resolved during corridor-level planning. (3)
<b>Visual Resources</b>							
30-52 .008	BLM	Hassayampa FO, Yuma FO	La Paz and Maricopa, AZ	VRM Class III	MP 93 to MP 193 and MP 196 to MP 200	GIS Analysis: VRM Class III areas and corridor intersect.	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)
30-52 .009	BLM	Hassayampa FO, Lower Sonoran FO	La Paz and Maricopa, AZ	VRM Class IV	MP 175 to MP 178 MP 197 to MP 198, MP 199 to MP 200	GIS Analysis: VRM Class IV areas and corridor intersect.	The existing corridor location best meets the siting principles. (1)
30-52 .010				Ten West Link visual impacts	Not specified.	Comment on abstract: the line (Ten West Link) would traverse	The project specific analysis of the Ten West Link project cannot fully be

CORRIDOR 30-52 REVIEW TABLE							
ID	Agency	Agency Jurisdiction	County	Primary Issue	Corridor Location (by Milepost [MP])	Source	Agency Review and Analysis <sup>1,2</sup>
						113 miles with 86 miles on BLM land and roughly 25 miles through the Kofa National Wildlife Refuge. The line would be visible from adjacent public lands and wilderness areas as well as from private properties. A structure this large would cumulatively impact the view from all BLM and other lands. Request that visual resources be evaluated from VRM Class I standards.	carried into this energy corridor review. The corridor is not located within the Kofa National Wildlife Refuge. The Kofa National Wildlife Refuge was analyzed in the Region 1 Review. (1)
<b>Land Use Concerns</b>							
<i>Corridor pinched by BLM or USFS authorized use</i>							
30-52 .011	USFWS			Kofa NWR	Not specified.	Comment on abstract: the BLM has a responsibility to protect all of these resources and recognize the cumulative effects of their actions. Please do not avoid this impact because it is on USFWS land. Please eliminate this energy corridor from consideration.	The project specific analysis of the Ten West Link project cannot fully be carried into this energy corridor review. The corridor is not located within the Kofa National Wildlife Refuge. The Kofa National wildlife Refuge was analyzed in the Region 1 Review. (1)
<b>Military and Civilian Aviation</b>							
30-52 .012	BLM	Lower Sonoran FO	Maricopa, AZ	MTR – VR	MP 175 to MP 193	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)
30-52 .013	BLM	Lower Sonoran FO	Maricopa, AZ	MTR – IR	MP 175 to MP 200	GIS Analysis: IR 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

CORRIDOR 30-52 REVIEW TABLE							
ID	Agency	Agency Jurisdiction	County	Primary Issue	Corridor Location (by Milepost [MP])	Source	Agency Review and Analysis <sup>1, 2</sup>
						Comment on abstract: MTR (IR-218) with floor of 500-ft AGL. Potential for an obstruction in airspace used for high speed, low altitude military aircraft operations, which presents a potential safety risk.	<p>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)</p> <p>DoD recommends structures remain below 500-ft AGL. Taller structure will require further analysis for operational and safety impacts.</p>
<b>Other noted land use concerns</b>							
30-52.014				Environmental Justice	Not specified.	Comment on abstract: Valley Electric, a utility that serves Southern Nevada, will be running this transmission line (Ten West Link) from all the way in Pahrump, Nevada. As a result, ratepayers in Nevada will see a ten percent rate hike over this. However, none of that power will go to the local people in Nevada. This would be an environmental justice issue for rate payers in Nevada.	The designation of energy corridor preferred pathways do not preclude project specific alternatives for projects such as the Ten West Link. (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

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; IR = Instrument Route; MP = milepost; MTR = Military Training Route; NCA = National Conservation Area; NEPA = National Environmental Policy Act; NWR = National Wildlife Refuge; PEIS = Programmatic Environmental Impact Statement; REDA = Renewable Energy Development Area; RFI = request for information; RMP = Resource Management Plan; ROW = right-of-way; TCA = Tortoise Conservation Area; USFS = U.S. Forest Service; USFWS = U.S. Fish and Wildlife Service; VR = Visual Route; VRM = Visual Resource Management; WVEC = West-wide Energy Corridor.