

Corridor 115-238
Region 1 Review

Corridor 115-238

Palo Verde- San Diego

Location

Corridor 115-238 generally extends west along I-8 in southern California and western Arizona, just north of the U.S./Mexico border (Figures 1–3). Federally designated portions of this corridor are predominantly on BLM-administered lands, with some USFS-administered segments. The corridor begins near the Palo Verde Nuclear Generating Station in the BLM Phoenix District, with a 5,280-ft width. It crosses the BLM Colorado River District with a 5,280-ft width to the south of Yuma Proving Ground. In California, the corridor turns north of the Fort Yuma-Quechan Reservation and crosses the California Desert District with a 10,560-ft width, narrowing to 3,500 ft. at the eastern side of Cleveland National Forest. In Cleveland National Forest and adjacent BLM jurisdictions along the Forest boundary, it has a 1,000-ft width. Tribal lands are located east of the corridor at the eastern side of the Cleveland National Forest. If corridors were designated in Agency land use plans prior to West-wide Energy Corridor (WWEC) designation, the corridor width reflects the previous designation. If there was no previous designation, the WWEC designation used a default 3,500-ft width and multimodal use authorization. This corridor is quite long and crosses several jurisdictions where it had been previously designated, as well as some locations where it had not been previously designated. As a result, the WWEC widths and authorized uses vary to reflect those previous designations and sections not previously designated.

Future projects in this area would need to cross tribal lands or be routed around them. Existing transmission lines follow each of these paths. The corridor is designated electric-only on the western end through Cleveland National Forest, but otherwise is multi-modal and can accommodate both electrical transmission and pipeline projects. The corridor spans 274.5-miles, with 146.6 miles designated on BLM- or USFS-administered lands. The designated area is 1,243,410 acres or 1,943 square miles. This corridor is in Imperial and San Diego Counties in California, and Maricopa and Yuma Counties in Arizona. BLM jurisdictions include the California Desert District and the Lower Sonoran and Yuma Field Offices; USFS jurisdiction includes the Cleveland National Forest in California. This corridor is primarily in Region 1, but starts in Region 2 between MP 0 and MP 24.7. An analysis of the roughly 25 miles of corridor in Region 2 is not included in this summary.

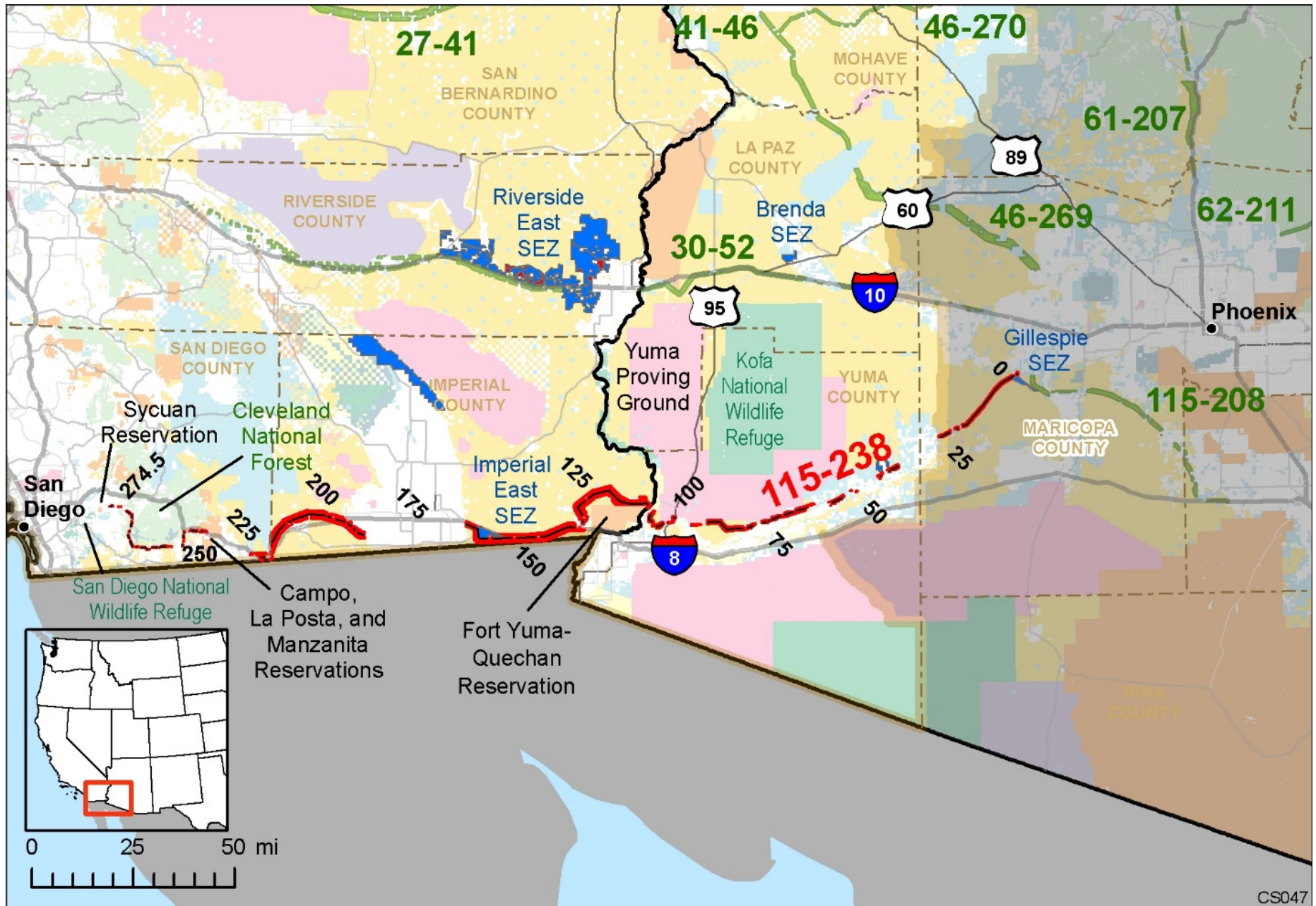
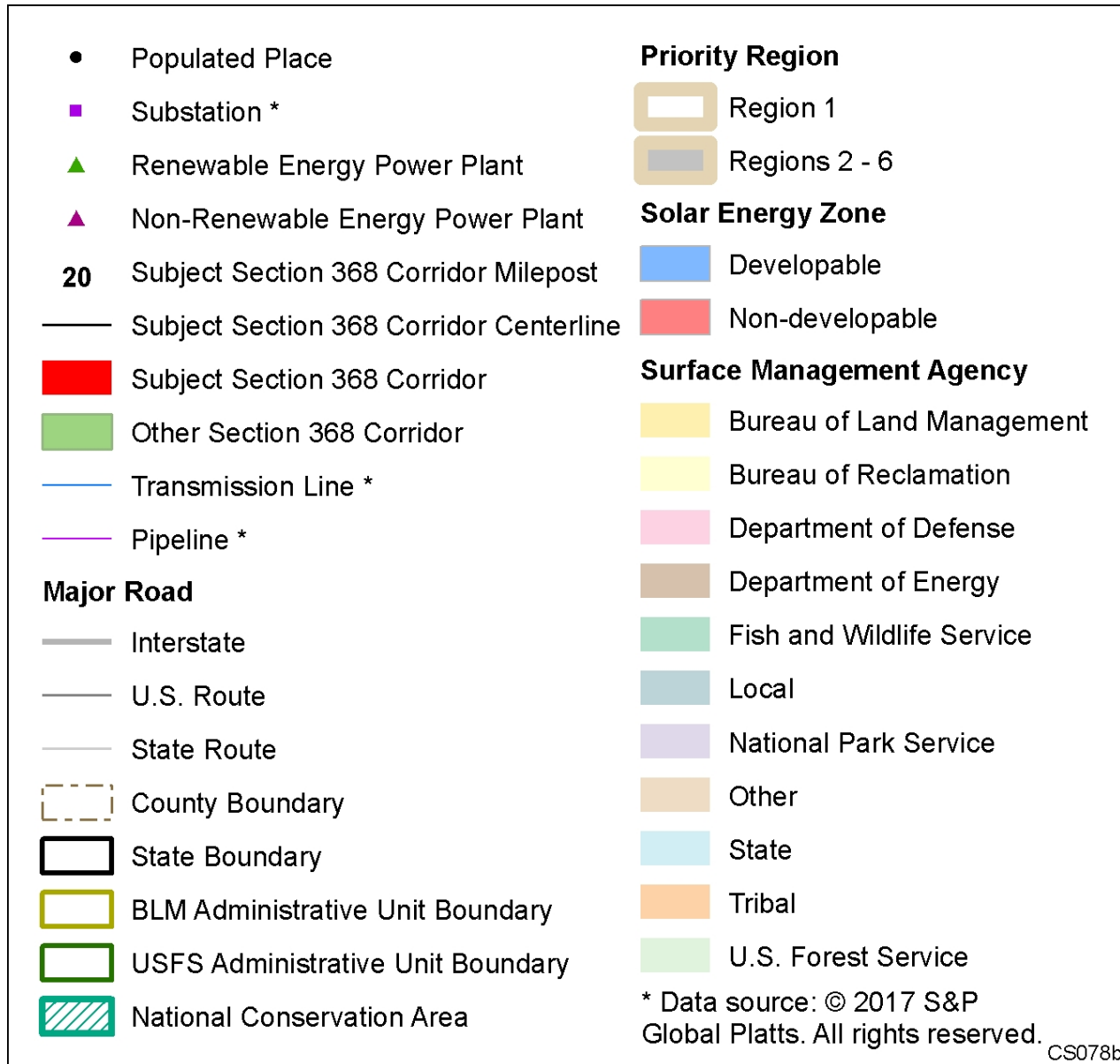


Figure 1. Corridor 115-238



Key

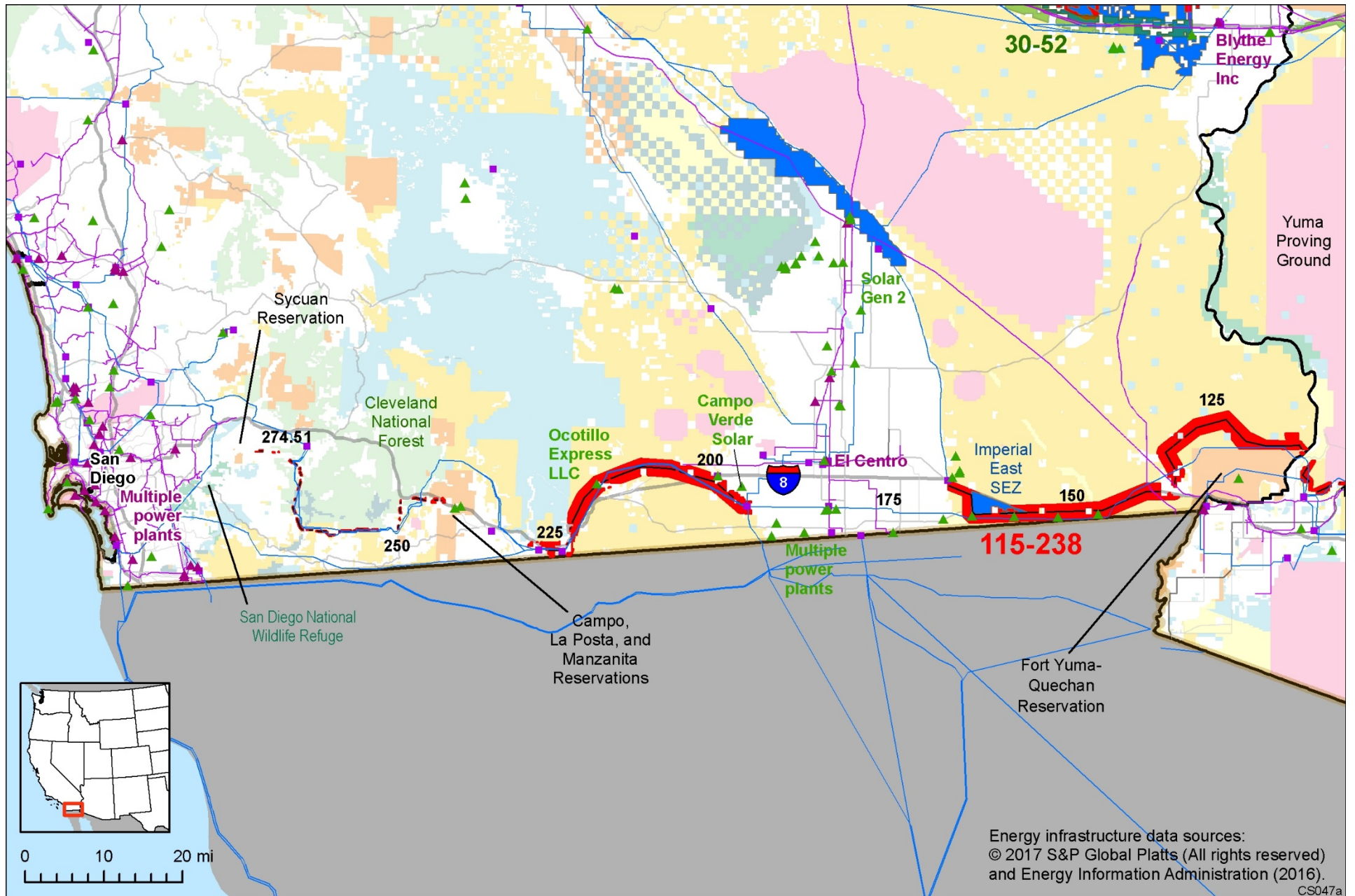


Figure 2. Western Portion of Corridor 115-238, Including Existing Energy Infrastructure

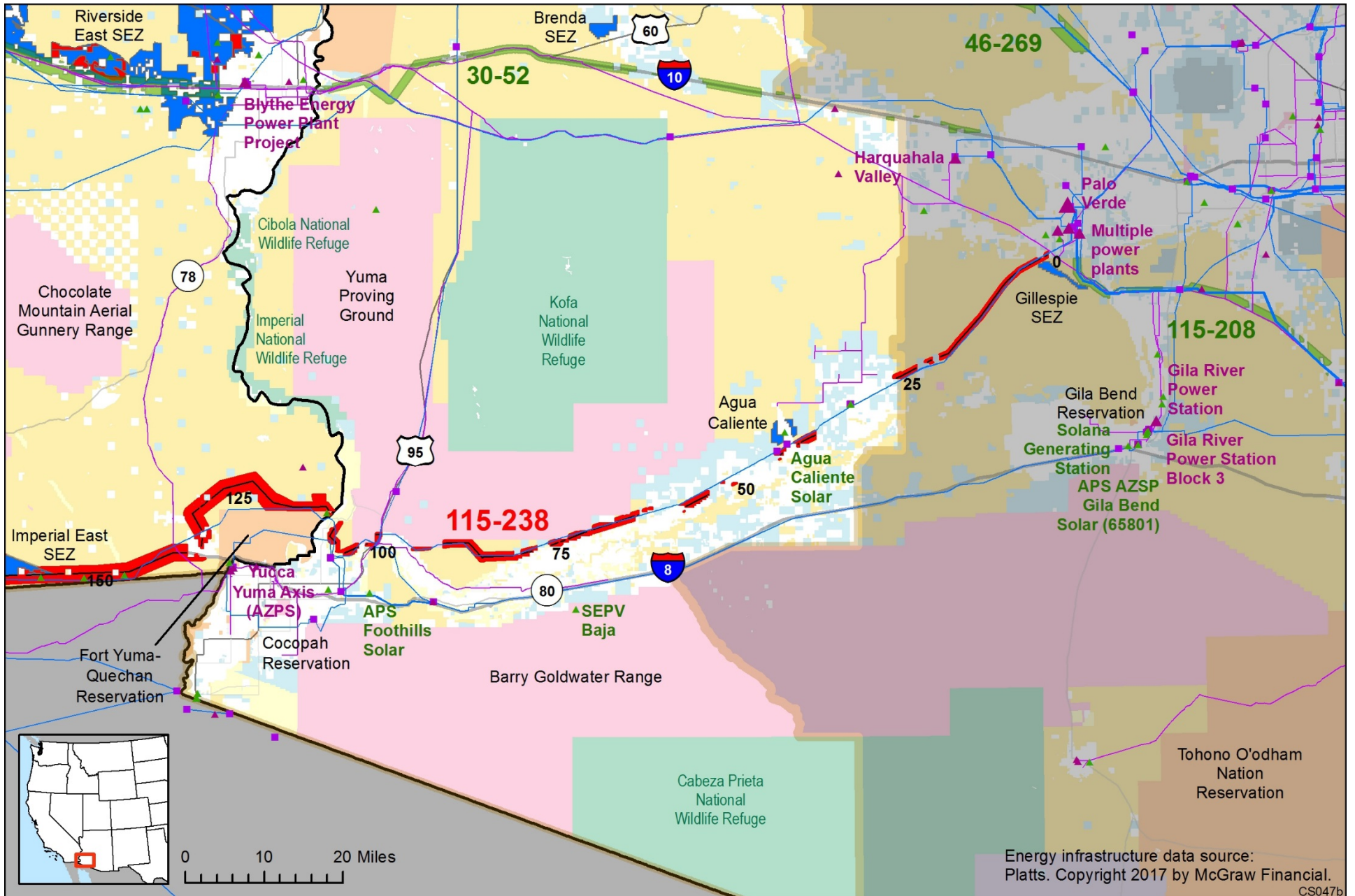


Figure 3. Eastern Portion of Corridor 115-238, Including Existing Energy Infrastructure

Corridor Rationale

During scoping for the WWEC PEIS, routes generally following this corridor were suggested by the Arizona Public Service Electrical Company; American Wind Energy Association; National Grid; New Mexico Energy, Minerals, and Natural Resources Department; TransWest Express, LLC; Tucson Electric Power Company; and Western Utility Group. The corridor was designated to include existing infrastructure and to provide a pathway for energy transport, particularly electrical transmission from the Palo Verde Nuclear Generating Station to southern California.

Existing Infrastructure: The corridor contains approximately 20 miles of I-8 in California, between MPs 138 and MP 158, and the highway also crosses the corridor at MP 198. The corridor follows various existing transmission lines throughout its entire length, including transmission lines operated by the Arizona Public Service Electrical Company (500 kV), the Imperial Irrigation District (34.5 to 115 kV), the Public Service Company of New Mexico (345 kV), the Salt River Project (500 kV), the San Diego Gas and Electric Company (69 to 500 kV), the Tucson Electric Power Company (345 kV), and the Western Area Power Administration (115 kV); and natural gas pipelines operated by El Paso Natural Gas Company and Transwestern Pipeline Company.

Potential Future Development: Planned projects seeking to use parts of the corridor include the 500-kV Southwest Transmission Partners, LLC, North Gila to Imperial Valley No. 2 transmission line project; the ECO Substation Project; and a new 138-kV transmission line. The Palo Verde-Saguaro 500-kV line plans to use a small portion of the corridor. Neither the BLM South Coast-Palm Springs FO nor the Cleveland National Forest indicated any pending applications. Proposed out-of-state transmission projects that could affect this corridor include SunZia Southwest Transmission Project and Southline Transmission Project. The corridor is located within the Imperial East RETI 2.0 TAFE and the RETI 2.0 HSR to potentially support 3,000 MW of transmission between California and Arizona. The Agua Caliente SEZ is located within 1 mile of the corridor in Arizona and the Imperial East SEZ overlaps the corridor in California.

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 Record of Decision for the DRECP released later in September. A GIS view identifying high, medium, and low conflict areas consistent with the screening criteria in BLM IM 2011-061 has also been added to the mapping tool. A complete description of the mapping tool, the high-, medium-, and low-conflict areas, and a list of the GIS data sources are included in the report for the Region 1 Regional Review.

Additions to the corridor analysis table, based on input from stakeholders and additional review by the Agencies, include jurisdictional issues, land use concerns, military and civilian aviation, special status species, lands with wilderness characteristics, public access and recreation (Mountain Springs Park and In-Ko-Pah Park), tribal concerns, specially designated areas (Juan Bautista de Anza National Historic Trail and Pacific Crest National Scenic Trail), 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 plan revision. However, the Settlement Agreement sets forth a systematic process for the Agencies to review Section 368 energy corridors and provide recommendations for revisions, deletions, or additions to the corridors. There were stakeholder recommendations in the 2014 RFI to reroute this corridor to avoid siting new facilities in Sonoran Desert Tortoise Category I and II management habitat. While the corridor crosses critical habitat for the Pierson's Milk-vetch and Arroyo Toad, proposed critical habitat for the Yellow-billed Cuckoo, Sonoran Desert Tortoise Category I and II Habitat, and Bighorn

Sheep habitat, mapping of potential conflict areas indicates there is no previously disturbed alternative route that would avoid these habitats and provide connectivity to renewable energy generation. Suggestions for corridor revision in response to the release of the draft abstracts included the following: provide support for the corridor to address a gap in the high-voltage transmission system between Arizona and California and improve reliability of the southern California system; consider a corridor that connects two existing corridors on either sides of the Colorado River and circumvents Mitty Lake; add to a portion of the corridor in the western Lake Cahuilla ACEC instead of following existing infrastructure; consider a corridor that follows the US/Mexico border; consider a corridor that follows the former and previously disturbed route of the now-realigned All-American Canal; and consider re-aligning the corridor adjacent to the Southwest Power & Light line (located near the Mexican border), adjacent to Hwy 94, and adjacent to I-8. On the basis of Agency analysis, as well as input provided by stakeholders, corridor revisions are recommended for Corridor 115-238. To improve corridor utility, the Agencies recommend re-aligning the corridor between MP 103 to MP144 and an alternate alignment at MP 241 to MP 248 to stay on BLM-administered lands and follow existing transmission routes.

Corridor Analysis

The corridor analysis table below identifies concerns affecting Corridor 115-238, 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
- WVEC 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 concerns

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 115-238 – ANALYSIS TABLE

ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
ENERGY PLANNING OPPORTUNITIES							
Appropriate and Acceptable Uses							
115-238 .001	BLM	El Centro FO	Imperial, CA	Imperial East SEZ	MP 153.4 to MP 166	GIS Analysis: the Imperial East SEZ overlaps the corridor, potentially restricting future development of transmission and pipelines.	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.
115-238 .new1	BLM	El Centro FO	Imperial, CA	Ocotillo Wind	MP 203 to MP 207	Agency review.	Provides opportunity for Section 368 energy corridor to accommodate transmission tied to renewable-energy development, but also reduces corridor width. Agencies recommend avoidance or restriction of non-linear features, such as geothermal and solar energy development, within the Section 368 energy corridors.
WVEC Purpose							
115-238 .002	BLM and USFS			Pathway to CA market	Entire corridor.	RFI: could be a good pathway to CA markets. The Town of Gila Bend is including this corridor in its study of potential renewable-energy transmission corridors in the region.	Provides opportunity for the corridor to accommodate transmission tied to renewable-energy development.
115-238 .new2	BLM	Yuma FO	Yuma, AZ	DLA (Agua Caliente SEZ)	MP 40 to MP 43	GIS Analysis: corridor is within one mile of the Agua Caliente SEZ.	The Agua Caliente SEZ provides an opportunity for the corridor to accommodate transmission tied to renewable energy development.
115-238 .new3	BLM	El Centro FO	Imperial, CA	DLA (Imperial East SEZ/DFA)	MP 153 to MP 166	GIS Analysis: corridor overlaps the Imperial East SEZ.	The Imperial East SEZ/DFA provides an 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
115-238 .new4	BLM	El Centro FO	Imperial, CA	RETI 2.0 Imperial East TAFE and RETI 2.0 HSR		GIS Analysis: corridor is located with the TAFE and HSR.	The TAFE and HSR provide opportunity for the corridor to accommodate transmission tied to renewable energy development.
115-238 .new5	BLM	El Centro FO	Imperial, CA	DLA (DRECP DFA: All Technologies)	MP 153.4 to MP 163	GIS Analysis.	The DFA provides opportunity for the corridor to accommodate transmission tied to renewable energy development.
115-238 .new6	BLM	El Centro FO	Imperial, CA	DLA (DRECP DFA: Geothermal)	MP 152.7 to MP 155.5 and MP 161.4 to MP 166	GIS Analysis.	The DFA provides opportunity for the corridor to accommodate transmission tied to renewable energy development.
ENERGY PLANNING CONCERNS							
<i>Jurisdictional Concern</i>							
115-238 .003	BLM and DoD	Yuma FO	Yuma, AZ	Yuma Proving Ground (YPG)	MP 68.7 to MP 73.1; MP 84.5 to MP 100.9	GIS Analysis: corridor segments abut, or route is in line with, boundary of YPG. Discontinuous and reduced-width sections of corridor include 2,382 acres of DoD-administered lands in YPG that were studied in the WWEC PEIS as part of this corridor, but were not designated.	The Muggins Mountains Wilderness abuts the YPG boundary, so there is no room between YPG and this Wilderness area on BLM-administered lands. Coordination by applicant with DoD would be required regarding issuance of a ROW.
115-238 .007	BLM and BOR	Yuma FO	Yuma, AZ, and Imperial, CA	Gap at Colorado River	MP 107.2 to MP 109.6	GIS Analysis: corridor has undesigned gaps across non-BLM land where proposed ROWs need to cross the Colorado River. Projects would need to cross lands under the jurisdiction of BOR, requiring additional authorization from that agency. Comment on corridor abstract: there is a need to refine land ownership and jurisdiction coverages at the river crossing to better identify potential corridor options.	There are issues with crossing the Colorado River in the corridor, including tribal concerns about archaeological and wildlife resources, from the area of the existing 500-kV transmission line crossing up to Imperial Dam. The area between Laguna and Imperial Dams includes two areas that mitigate impacts from Colorado River O&M. Under the Fish and Wildlife Coordination Act of 1958, the Arizona portion of this reach is managed for fish and wildlife by the Arizona Game and Fish Commission

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ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
						<p>Stakeholders recommended considering a corridor connecting existing corridors on both sides of the river to provide for the needed second high-voltage line in the area as well as a corridor circumventing Mittry Lake.</p>	<p>pursuant to a cooperative agreement that extends through 2032 as mitigation for impacts caused by the Colorado River Basin Salinity Control Project. In addition, the Lower Colorado River Multi-Species Conservation Program has created the 1200-acre Laguna Division Conservation Area along an old channel of the Colorado River that is managed as endangered species habitat to meet requirements under the ESA, as well as other species covered by the LCRMSCP. A portion of this conservation area is within a discontinuous section of the corridor. Further, the corridor crossing is a bad place for a transmission line from a migratory bird standpoint due to bird collisions with transmission lines, as waterfowl both use the area heavily and move through a narrow corridor there.</p> <p>At MP 108, 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 undesignated segments of the corridor on a case-by-case basis to ensure that BOR projects are not impacted. For example:</p> <ul style="list-style-type: none"> - flood control structures on the lower Colorado River

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ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
							- irrigation canals (All-American and Coachella Canal O&M activities) - other facilities located inland (e.g., quarries, stockpile sites, and groundwater wells). Early coordination with BOR on proposed transmission lines and other facilities is encouraged.
115-238 .008	BLM	Yuma FO and El Centro FO	Yuma, AZ, and Imperial, CA	Fort Yuma - Quechan Reservation	MP 102.8 to MP 136.2	<p>GIS Analysis: during the WWEC PEIS development, the location for this corridor on both sides of the Colorado River involved coordination with BLM in Arizona and California and DoD at YPG, which resulted in the current location. The routing around the Fort Yuma-Quechan Reservation on a CDCA-designated corridor was recommended by the El Centro FO to avoid crossing of the reservation by additional transmission projects.</p> <p>An alternative direct route across the southern portion of the Fort Yuma-Quechan Reservation was identified by the Quechan Tribe. If this route were to be developed, a corridor on BLM land would be necessary west of the Reservation where no corridor is currently designated. The BLM El Centro FO identified two potential options: one following the US/Mexico border and another following the former and previously disturbed route of the now realigned All-American Canal.</p>	<p>On the basis of the land pattern, there is no BLM-only corridor that works. The Agencies have identified a potential corridor revision to address some of these jurisdictional gaps within the corridor. Other options to address the concerns include developing new infrastructure along existing transmission lines; BOR considering allowing additional lines outside of BLM jurisdiction; and coordinating and consulting with the Quechan Tribe to discuss possible corridor revisions in the area. To avoid significant environmental issues identified by the tribe to the north, project proponents would work with the tribe to potentially route a project through the southernmost part of the reservation. To be viable, a corridor revision through the Fort Yuma-Quechan Reservation would require proponent negotiations with the Quechan Tribe and the Bureau of Indian Affairs (BIA). Proponents would have to work with the tribe for a tribal resolution consenting to the grant of ROWs (by BIA). BIA cannot grant ROWs without tribal consent.</p>

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ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
115-238 .new7	BLM			The State of California, State-owned school lands	The area within Township 15S Range 21E SBM, Cargo Muchacho Mining District, CA	Comment on corridor abstract: in some cases, the abstract does not reflect parallel information at the BLM, California Sacramento Office, on school land grant index cards. May not be suitable for energy corridors.	Section 368 energy corridors are only designated on BLM- and USFS-administered lands. 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.
Corridor Alignment and Spacing							
115-238 .009	BLM	Yuma FO	Yuma, AZ	Existing project	MP 84.5 to MP 99.8	GIS Analysis: existing project crosses corridor at an angle, the alignment making siting of additional projects more difficult.	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.
115-238 .010	BLM	Yuma FO	Yuma, AZ	Multiple transmission line projects	MP 104.5 to MP 107.2	GIS Analysis: multiple transmission line projects cross corridor at various angles.	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.
115-238 .004	BLM	El Centro FO	Imperial, CA	Multiple transmission lines, a pipeline, and I-8	MP 136.2 to MP 143.9	GIS Analysis: multiple transmission lines, a pipeline, and I-8 occupy much of the corridor.	Corridor is two miles wide and has capacity for future 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. The number of potential additional transmission lines would depend on such factors as location, voltage, and safety requirements.
115-238 .005	BLM	El Centro FO	Imperial, CA	Multiple transmission lines, and I-8	MP 157.1 to MP 166	GIS Analysis: multiple transmission lines and I-8 occupy much of the corridor.	Corridor is two miles wide and has capacity for future projects. Proposed project siting and collocation alternatives to address impacts would be analyzed as part of the project-

REGION 1 – CORRIDOR 115-238 – ANALYSIS TABLE							
ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
							specific environmental review required under NEPA and other Federal laws.
115-238 .011	BLM	El Centro FO	San Diego, CA	Existing transmission line	MP 196 to MP 214.6	GIS Analysis: existing transmission line crosses twice from one side of the corridor to the other.	Corridor is two miles wide and has capacity for future 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.
115-238 .012	BLM and USFS	El Centro FO and Cleveland National Forest	San Diego, CA	Existing transmission line	MP 251.5 to MP 253.3	GIS Analysis: existing transmission line crosses from one side of the corridor to the other in a 1000-ft-wide section.	Near the Descanso Ranger District, the corridor might be able to handle new development. With the completion of the Sunrise Powerlink in 2014, that corridor does have existing 500-kV power lines. 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.
115-238 .013	BLM	El Centro FO	San Diego, CA	Two existing transmission lines	MP 274.5 to MP 257.9	GIS Analysis: two existing transmission lines cross from one side of the corridor to the other in a 1000-ft-wide section.	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.
115-238 .014	USFS	Cleveland National Forest	San Diego, CA	Two existing transmission lines	MP 262.6 to MP 263.3	GIS Analysis: one existing transmission line is aligned to the corridor, while the other crosses from one side of the corridor to the other twice in a 1000-ft-wide section.	The corridor through the Descanso Ranger District might be able to handle new development. With the completion of the Sunrise Powerlink in 2014, that corridor does have existing 500-kV power lines. Proposed project siting and collocation alternatives to address impacts would be analyzed as part of the project-specific

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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.
LAND MANAGEMENT RESPONSIBILITIES AND ENVIRONMENTAL CONCERNS							
Ecology: Special Status Plant Species							
115-238 .016	BLM	El Centro FO	Imperial CA	Peirson's Milk-vetch critical habitat	MP 141.4 to MP 143.2	GIS Analysis: Peirson's Milk-vetch critical habitat intersects corridor.	There is no alternative corridor that would avoid these habitats and provide connectivity to renewable energy generation in a corridor with existing transmission. Impacts would be analyzed and mitigated as part of the project-specific environmental review required under NEPA, ESA, and other Federal laws and current agency policy and guidance.
Ecology: Special Status Animal Species							
115-238 .020 .019 .018	BLM	Yuma FO	Yuma, AZ	Yellow-billed Cuckoo proposed critical habitat	Intersects MP 108 to MP 109.6; approaches within 0.1 mile of MP 98.5; approaches within 0.5 mile of MP 79 to MP 80.6.	GIS Analysis; Yellow-billed Cuckoo habitat crosses or is near corridor.	Impacts would be analyzed and mitigated as part of the project- specific environmental review required under NEPA, ESA, and other Federal laws and current agency policy and guidance.
115-238 .021	BLM	Palm Springs/South . Coast FO and Cleveland National Forest	San Diego, CA	Arroyo Toad critical habitat	MP 242.6, MP 243.9 to MP 244.5, MP 245.0 to MP 245.5, MP 253.1 to MP 253.5, MP 253.8, MP 259.8, and MP 272.0 to MP 272.1	GIS Analysis: Arroyo Toad critical habitat intersects corridor.	Impacts would be analyzed and mitigated as part of the project- specific environmental review required under NEPA, ESA, and other Federal laws and current agency policy and guidance.
115-238 .023	BLM	Palm Springs/ South Coast FO	San Diego, CA	Golden Eagle	MP 260	BLM specialist input during abstract review: maintenance and construction of transmission lines (e.g., Sunrise Powerlink) in the steep, mountainous, roadless areas of San Diego County have been	Impacts would be analyzed and mitigated as part of the project- specific environmental review required under NEPA and other Federal laws and current agency policy and guidance.

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ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
						conducted by helicopter. The use of helicopters has been disruptive to Golden Eagles.	The Agencies recommend that future land use plans analyze corridor alternatives that do not impact Golden Eagles.
115-238 .024	BLM	Palm Springs/ South Coast FO	San Diego, CA	Desert Bighorn Sheep connectivity	MP 260	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.	Follow connectivity recommendations in Las California's Binational Conservation Initiative (2004) for San Diego/McAlmond Canyon section of corridor. Maintaining an inter-connected conservation network is critical to sustaining ecosystem processes. Impacts on habitat and habitat connectivity can be avoided, minimized, or mitigated through consultation with the USFWS during individual project review.
115-238 .025	BLM	El Centro FO	Imperial, CA	Peninsular Bighorn Sheep critical habitat	MP 216.2 to MP 219.9	GIS Analysis: peninsular bighorn sheep critical habitat intersects corridor.	Impacts would be analyzed and mitigated as part of the project-specific environmental review required under NEPA, ESA, and other federal laws and current agency policy and guidance.
Hydrology: Surface Water							
115-238 .026	BLM	Yuma FO and El Centro FO	Yuma, AZ; Imperial, CA,	Four intermittent stream crossings: Fourth of July Wash, Copper Wash, unknown wash, and Coyote Wash/Palm Canyon Wash	MP 25.4, MP 61.5, and MP 203.7 to MP 214.7	GIS Analysis.	Utilities can either span or be buried under intermittent streams. Riparian vegetation could be avoided or impacts minimized or mitigated.
115-238 .027	BLM	Yuma FO and , El Centro FO	Imperial, CA	Three canal crossings: All American Canal (2) and Westside Main Canal	MP 109.0, MP 138.7 to MP 146.0, MP 165.9, and MP 192.8 to MP 194.6	GIS Analysis.	Utilities can span or be routed under the canals.

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115-238 .028	BLM	Palm Springs/ South Coast FO	San Diego, CA	Cottonwood Creek	MP 260	BLM specialist input during abstract review: corridor intersects Cottonwood Creek; quality of water is a concern at the outflow to Barrett Reservoir (which supplies drinking water).	Impacts would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws.
Lands and Realty: Rights-of-Way and General Land Use							
115-238 .029	BLM and USFS	Yuma FO and Cleveland National Forest	Yuma, AZ, and San Diego, CA	Land ownership	Primarily MP 39.9 to MP 53.4, MP 72.2 to MP 74.3, MP 107.2 to MP 109.5, MP 200.6 to MP 201.7, MP 210.6 to MP 210.8, MP 242.6 to MP 242.7, MP 250.2 to MP 250.3, and MP 270.3 to MP 274.5	GIS Analysis: a total of 495 acres, which were originally designated as part of this corridor, are no longer on federal land, according to the 5/12/15 version of the Surface Management Agency data.	The Agencies 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.
115-238 .new8	Private		Imperial, CA	Private inholdings	MP 126.2 to MP 129.2	Comment on corridor abstract: stakeholders indicated that the area within Township 15S Range 21E SBM, Cargo Muchacho Mining District, CA, may not be suitable.	Section 368 energy corridors are only designated on BLM- and USFS-administered lands. There may be room in the corridor to avoid the private inholdings.
Lands and Realty: Military and Civilian Aviation							
115-238 .032	BLM	Yuma FO	Maricopa, AZ	Military Training Route – Instrument Route	MP 24.7 to MP 26.2	GIS Analysis.	Adherence to IOP 1 under Project Planning in the WWEC PEIS RODs regarding coordination with DoD would be required. Impacts would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws.
115-238 .033	BLM	Yuma FO	Yuma, AZ	Military Training Route – Visual Route	MP 49.8 to MP 50.4, MP 50.9 to MP 51.5,	GIS Analysis. Comment on corridor abstract: military training routes (VR-1267)	Adherence to IOP 1 under Project Planning in the WWEC PEIS RODs

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					and MP 53.3 to MP 57.6	and (VR-1267A) with floor of 200 ft AGL. Potential exists for an obstruction in airspace used for high-speed, low-altitude military aircraft operations, which presents a potential safety risk.	regarding coordination with DoD would be required. Recommend structures remain below 200 ft AGL. Structures exceeding 200 ft AGL will require further analysis for operational and safety impacts. Impacts would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws.
115-238 .034	BLM	Yuma FO	Yuma, AZ	Military Training Route – Instrument Route	MP 61.0 to MP 74.8 and MP 76.4 to MP 82.6	GIS Analysis. Comment on corridor abstract; military training route (IR-218) with floor of 500 ft AGL. Potential exists for an obstruction in airspace used for high-speed, low-altitude military aircraft operations, which presents a potential safety risk.	Adherence to IOP 1 under Project Planning in the WWEC PEIS RODs regarding coordination with DoD would be required. Recommend structures remain below 400 ft AGL. Structures exceeding 400 ft AGL will require further analysis for operational and safety impacts. Impacts would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws.
115-238 .035	BLM	El Centro FO	Imperial, CA	Emory Ranch airstrip	MP 211.2	GIS Analysis: Emory Ranch airstrip is located in an undesignated gap 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.
115-238 .036	BLM	Palm Springs/ South Coast FO	San Diego, CA	Pine Valley Border Patrol Station airstrip	MP 242.8	GIS Analysis: Pine Valley Border Patrol Station airstrip is located 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.

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Lands and Realty: Transportation							
115-238 .037	BLM	Yuma FO and El Centro FO	Yuma, AZ, and Imperial, CA	Railroad	MP 24.7 to MP 70.2, MP 134.1, MP 201.6 to MP 204.7, and MP 212.7 to MP 216.3	GIS Analysis: railroad parallels and passes in and out of corridor.	Consistent with BLM ROW regulations, notification to adjacent ROW holders would be provided.
115-238 .038	BLM	El Centro FO	Imperial, CA	I-8	MP 136.3 to MP 166, MP 197.2 to MP 200.9, and MP 214.2 to MP 225.0	GIS Analysis: I-8 parallels and intersects corridor throughout noted MP intervals.	Consistent with BLM ROW regulations, notification to adjacent ROW holders would be provided.
115-238 .039	BLM	El Centro FO	San Diego, CA	I-8	MP 238.5 to MP 239.0	GIS Analysis: I-8 intersects corridor.	Consistent with BLM ROW regulations, notification to; adjacent ROW holders would be provided.
Lands with Wilderness Characteristics							
115-238 .new9	Private		Imperial, CA	Private inholding – lands with wilderness characteristics (LWC)	MP 126.2 to MP 129.2	Comment on corridor abstract: stakeholders indicated that the area within Township 15S Range 21E SBM, Cargo Muchacho Mining District, CA may not be suitable for energy corridors because of LWC. The Department of Interior has previously designated the Cargo Muchacho Mountains, Chocolate Mountains, Mining Districts and Townsites as not suitable areas.	The DRECP allows for development on lands with wilderness characteristics but not managed to give priority for full protection of lands with wilderness characteristics through CMAs designed to minimize impacts on this resource.
Public Access and Recreation							
115-238 .new10			San Diego, CA	Mountain Springs Park	MP 218.8 to MP 219.4	Comment on corridor abstract: development could impact biological and visual resources.	Impacts on the park would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws.
115-238 .new11			San Diego, CA	In-Ko-Pah Park	MP 217.4 to MP 221.3	Comment on corridor abstract: development could impact biological and visual resources.	Impacts on the park would be analyzed and mitigated as part of the project-specific environmental review

REGION 1 – CORRIDOR 115-238 – ANALYSIS TABLE							
ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
							required under NEPA and other Federal laws.
<i>Specially Designated Areas</i>							
115-238 .040	BLM	Yuma FO, AZ	Yuma, AZ	Muggins Mountain Wilderness	MP 87.2 to MP 92.2	GIS Analysis: Muggins Mountain Wilderness abuts corridor to the south.	Corridor does not go through the Wilderness Area. When Wilderness was designated under the California Wilderness Act of 1984, many ROWs served as boundaries to those Wilderness Areas and pre-date the wilderness designation. Impacts would be analyzed as part of the project- specific environmental review required under NEPA and other Federal laws. The DRECP has CMAs for Wilderness.
				California Desert Conservation Areas	MP 110 to MP 218	Areas are located within the corridor.	Impacts would be analyzed as part of the project-specific environmental review required under NEPA and other Federal laws.
				Laguna Division Conservation Area	MP 107 to MP 109	Area is located within the corridor.	Impacts would be analyzed as part of the project-specific environmental review required under NEPA and other Federal laws.
115-238 .041	BLM	Palm Springs/ South Coast FO	San Diego, CA	Sensitive species and open-space values	MP 260	BLM specialist input during abstract review: current land-use revision alternative under consideration (no decision as of the writing of this comment) may designate the section of this corridor crossing the McAlmond Canyon area as a ROW avoidance area because of a Wildlife Habitat Management Plan for enhancement of sensitive species and open-space values	Impacts to an avoidance area or special designation would be analyzed and mitigated as part of the project- specific environmental review required under NEPA and other Federal laws.

REGION 1 – CORRIDOR 115-238 – ANALYSIS TABLE

ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
115-238 .new12	BLM	Yuma FO	Yuma, AZ	Juan Bautista de Anza National Historic Trail	MP 25 to MP 50	<p>Comment on corridor abstract: Potential recreational impacts exist at historic campsites, using the recreation retracement route; impacts on cultural resources, and visual impacts on the viewshed of the trail. Expedition Campsite 30 Aritoac (border of Region 1/2); Painted Rocks Petroglyph Site (border of Region 1 and 2); proposed Gila Bend National Monument (border of Region 1 and 2); Expedition Campsite 31 Agua Caliente (on non-BLM land in an undesignated segment of the corridor, but directly in the path of the corridor). Sears Point Archeological Area between MP 25 and MP 50; viewshed considerations.</p>	<p>Impacts on the Juan Bautista de Anza NHT by future proposals would be analyzed and avoided, minimized, or mitigated on a case-by-case basis. The DRECP has CMAs for National Historic and Recreational Trails, cultural resources, and the like plan-wide, by allocation, and specifically for impacts related to transmission. The Agencies have identified the need for an IOP to address development in Section 368 energy corridors while protecting values in Congressionally designated NSTs and NHTs, and in this case, recreational and scenic values for a “no trace” trail. For transmission corridors that intersect or parallel National Trail System components, or trails under study for potential designation, the National Trail administering agency or trail administrator; regional or State program leader; and a primary National Trail partner organization representative (in accordance with applicable law) will be advised and invited to attend pre-authorization or pre-application meetings, as applicable. Agencies may not permit proposed uses along congressionally designated National Scenic or Historic Trails [NTSA Sec. 5(a)], which will substantially interfere with the nature and purposes of the trail, and shall make efforts, to the extent practicable, to avoid authorizing activities that are incompatible with</p>

REGION 1 – CORRIDOR 115-238 – ANALYSIS TABLE

ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
							the purposes for which such trails were established [NTSA Sec. 7(c)]. While easements and rights-of-way may be granted, conditions shall be related to the policy and purposes of the National Trails Systems Act [NTSA Sec. 9(a)].
115-238 .042	BLM	Yuma FO	Yuma, AZ	Juan Bautista de Anza National Historic Trail	MP 49.5 to MP 75.0	GIS Analysis. Comment on Corridor Abstract: Juan Bautista de Anza National Historic Trail intersects the corridor and parallels the corridor within 0.5 to 1.0 mile. Potential recreational impacts exist at historic campsites listed below, using the recreation retracement route. There are potential impacts on cultural resources, and visual impacts on the viewshed of the trail. Follows northern edge of the historic trail; goal of a contiguous recreation trail will conflict with corridors along Gila River. Two of the historic campsites are along the banks of the Gila River near MP 50. Expedition Campsite 32 near the river (MP 50); Expedition Campsite 33 on the bank of the river (MP 50); Expedition Campsite 34 Cerro de San Pasqual (between MPs 50 and 75); and Expedition Campsite 35 Cerrito de Santa Cecilia/ Antelope Hill (MP 75).	Impacts on the Juan Bautista de Anza NHT by future proposals would be analyzed and avoided, minimized, or mitigated on a case-by-case basis. The Agencies have identified the need for an IOP to address development in Section 368 energy corridors while protecting values in Congressionally designated NSTs and NHTs, and in this case, recreational and scenic values for a “no trace” trail. The DRECP has CMAs for National Historic and Recreational Trails and cultural resources, plan-wide, by allocation, and specifically for transmission.
115-238 .043	BLM	Yuma FO	Yuma, AZ	Juan Bautista de Anza National Historic Trail	MP 97.8 to MP 103.0	GIS Analysis. Comment on corridor abstract: Potential recreational impacts exist	Impacts on the Juan Bautista de Anza NHT by future proposals would be analyzed and avoided, minimized, or

REGION 1 – CORRIDOR 115-238 – ANALYSIS TABLE

ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
					MP 100	<p>at historic campsites, using the recreation retracement route; impacts on cultural resources, and visual impacts on the viewshed of the trail. Juan Bautista de Anza National Historic Trail parallels corridor within half a mile. Near town of Kinter, corridor intersects with the Trail on the Gila River. There is a planned high-potential segment south of the corridor on the southern bank of the Gila River. Campsite 38 is also in this location.</p> <p>Prison Hill, Yuma Crossing National Historic Landmark (overlooks campsites #39, 40, 41) at MP 100.</p>	<p>mitigated on a case-by-case basis. The DRECP has CMAs for National Historic and Recreational Trails, cultural resources, and the like plan-wide, by allocation, and specifically for impacts related to transmission. The Agencies have identified the need for an IOP to address development in Section 368 energy corridors while protecting values in Congressionally designated NSTs and NHTs, and in this case, recreational and scenic values for a “no trace” trail.</p>
115-238 .new13	BLM	El Centro FO	Imperial, CA	Juan Bautista de Anza National Historic Trail	MP 200	<p>Comment on corridor abstract: Potential recreational impacts exist at historic campsites, using the recreation retracement route; impacts on cultural resources, and visual impacts on the viewshed of the trail. Yuha Wells is a significant attraction for visitors to the Imperial Valley. Corridor intersects with certified recreation trail and historic corridor and is 2.5 miles from the centerpoints of historic campsites associated with the Trail. Expedition Campsite 47 Wells of Santa Rosa/Yuha Wells.</p> <p>Imperial Valley: This area was designated a NLCS by the 2016 DRECP, which also called for protections for the trail</p>	<p>Impacts on the Juan Bautista de Anza NHT by future proposals would be analyzed and avoided, minimized, or mitigated on a case-by-case basis. The DRECP has CMAs for National Historic and Recreational Trails, cultural resources, and the like plan-wide, by allocation, and specifically for impacts related to transmission. The Agencies have identified the need for an IOP to address development in Section 368 energy corridors while protecting values in Congressionally designated NSTs and NHTs, and in this case, recreational and scenic values for a “no trace” trail.</p>

REGION 1 – CORRIDOR 115-238 – ANALYSIS TABLE

ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
					MP 200 to MP 215	<p>management corridors 1 mile on either side.</p> <p>NLCS-NSHT-2: Management Corridor – The National Trail Management Corridor has a width 1 mile from the centerline of the trail, and a 2-mile total width. Where the National Trail Management Corridors overlap CDNCL or other NLCS units, the more protective CMAs or land use allocations will apply. Conduct visual impact analysis across the desert landscape where transmission is within the viewshed of the trail management corridor and/or the recreation trail.</p> <p>The exclusion of cultural landscapes, high-potential historic sites, and high-potential route segments identified along historic trail corridors from renewable-energy ROWs will continue to preserve the landscape settings. Structure a dual-transmission and recreation corridor easement along the planned and existing Anza recreational trail. Add language that will allow compensatory mitigation dollars for recreational, cultural, and visual impacts to the Trail corridor, to be used to develop and/or enhance the recreation trail.</p>	
115-238 .new14				Juan Bautista de Anza National		Comment on corridor abstract: Potential recreational impacts exist	Impacts on the Juan Bautista de Anza NHT by future proposals would be

REGION 1 – CORRIDOR 115-238 – ANALYSIS TABLE

ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
				Historic Trail – Recreation Retracement Route and Historic Corridor		at historic campsites, using the recreation retracement route; impacts on cultural resources, and visual impacts on the viewshed of the trail. Impacts on visitor experience may occur at historic campsites, for those using the recreation retracement route. Need analysis of transmission siting along de Anza Trail, potential impacts, and compensatory mitigation. Develop a mitigation options for the recreation trail.	analyzed and avoided, minimized, or mitigated on a case-by-case basis. The DRECP has CMAs for National Historic and Recreational Trails, cultural resources, and the like plan-wide, by allocation, and specifically for impacts related to transmission. The agencies have identified the need for an IOP to address development in Section 368 energy corridors while protecting values in Congressionally designated NSTs and NHTs, and in this case, recreational and scenic values for a “no trace” trail.
115-238 .052	BLM	Palm Springs/ South Coast FO	San Diego, CA	Pacific Crest National Scenic Trail (NST)	MP 251 to MP 252.1	GIS Analysis. Comment on corridor abstract: corridor might have impacts on the VRM for the PCT. Corridor is poorly located because it is on a small swath of land between a BLM Wilderness Study Area and USFS Federally Designated Wilderness. Although the PCT Association typically encourages corridors to be tied to existing impacts on the trail experience, in this case there are better options for the corridor: reroute running adjacent to the Southwest Power & Light line (located near the Mexican border), continue adjacent to Hwy 94, and finally, running adjacent to I-8. Having the energy corridor aligned with already-existing, significant impacts on the trail is the best option.	Impacts on the Pacific Crest NST by future proposals would be analyzed and avoided, minimized, or mitigated on a case-by-case basis. The DRECP has CMAs for National Historic and Recreational Trails, cultural resources, and the like plan-wide, by allocation, and specifically for impacts related to transmission. The agencies have identified the need for an IOP to address development in Section 368 energy corridors while protecting values in Congressionally designated NSTs and NHTs, and in this case, recreational and scenic values for “no trace” trails. For transmission corridors that intersect or parallel National Trail System components, or trails under study for potential designation, the National Trail administering agency or trail administrator; regional or State program leader; and a primary

REGION 1 – CORRIDOR 115-238 – ANALYSIS TABLE							
ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
							National Trail partner organization representative (in accordance with applicable law) will be advised and invited to attend pre-authorization or pre-application meetings, as applicable. Agencies may not permit proposed uses along congressionally designated National Scenic or Historic Trails [NTSA Sec. 5(a)], which will substantially interfere with the nature and purposes of the trail, and shall make efforts, to the extent practicable, to avoid authorizing activities that are incompatible with the purposes for which such trails were established [NTSA Sec. 7(c)]. While easements and rights-of-way may be granted, conditions shall be related to the policy and purposes of the National Trails Systems Act [NTSA Sec. 9(a)].
115-238 .044	BLM	El Centro FO	Imperial, CA	Lake Cahuilla DRECP National Conservation Lands ¹	MP 116.9 to MP 131.7, MP 145.9 to MP 155.4, MP 159.9 to MP 162.1, MP 163.5 to MP 164.6, MP 191.3 to MP 204.9, and MP 214.0 to MP 220.7	GIS Analysis. Comment on corridor abstract/: add to a portion of the corridor in western Lake Cahuilla ACEC. Without these additions, a new line(s) in the area routed to follow the existing lines would require up to 7 additional miles of route, with associated impacts, to stay within the currently designated corridor.	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 DRECP National Conservation Lands.
115-238 .045	BLM	El Centro FO	Imperial, CA	Little Picacho Wilderness	MP 111.5 to MP 118.1	GIS Analysis: Little Picacho Wilderness abuts corridor to the north.	Corridor does not go through the Little Picacho Wilderness. When Wilderness was designated under the California Wilderness Act of 1984, many ROWs served as boundaries to those

REGION 1 – CORRIDOR 115-238 – ANALYSIS TABLE							
ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
							Wilderness Areas and pre-date the Wilderness designation. 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.
115-238 .046	BLM	El Centro FO	Imperial, CA	East Mesa ACEC	MP 144.5 to MP 155.5	GIS Analysis.	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 ACECs.
115-238 .047	BLM	El Centro FO	Imperial, CA	Lake Cahuilla – C & D ACEC	MP 159.8 to MP 165.9	GIS Analysis.	Impacts would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other federal law. The DRECP has CMAs for ACECs.
115-238 .048	BLM	El Centro FO	Imperial, CA	Yuha Basin ACEC	MP 191.3 to MP 204.8	GIS Analysis.	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 ACECs.
115-238 .049	BLM	El Centro FO	Imperial, CA	Jacumba Wilderness	MP 218.4 to MP 220.4	GIS Analysis: Jacumba Wilderness abuts corridor to the north.	Corridor does not go through the Jacumba Wilderness. When Wilderness was designated under the California Wilderness Act of 1984, many ROWs served as boundaries to those Wilderness Areas and pre-date the wilderness designation. Impacts would be analyzed and mitigated as part of the project-specific

REGION 1 – CORRIDOR 115-238 – 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.
115-238 .new15	BLM	El Centro FO	Imperial, CA	DRECP Plaster City Open OHV Area	MP 201.8 to MP 207.0	GIS Analysis.	While renewable-energy developments are not allowed in open OHV areas, transmission is allowed in these areas.
115-238 .new16	BLM	El Centro FO	Imperial, CA	DRECP Imperial Sand Dunes OHV Area	MP 137.8 to MP 145.4	GIS Analysis.	While renewable-energy developments are not allowed in open OHV areas, transmission is allowed in these areas.
115-238 .new17	BLM	El Centro FO	Imperial, CA	DRECP Hot Spring LTVA SRMA	MP 165.4 to MP 166.0	GIS Analysis.	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 SRMAs.
115-238 .new18	BLM	El Centro FO	Imperial, CA	DRECP Tamarisk LTVA SRMA	MP 155.3 to MP 155.4	GIS Analysis.	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 SRMAs.
115-238 .new19	BLM	El Centro FO	Imperial, CA	DRECP Plaster City SRMA	MP 201.9 to MP 207.0	GIS Analysis.	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 SRMAs.
115-238 .new20	BLM	El Centro FO	Imperial, CA	Table Mountain ACEC	MP 222.3 to MP 225.6	GIS Analysis.	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 ACECs.
115-238 .new21	BLM	El Centro FO	Imperial, CA	Ocotillo ACEC	MP 209.6 to MP 211.8 and	GIS Analysis.	Impacts would be analyzed and mitigated as part of the project-

REGION 1 – CORRIDOR 115-238 – ANALYSIS TABLE

ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
					MP 214.0 to MP 220.8		specific environmental review required under NEPA and other Federal laws. The DRECP has CMAs for ACECs.
115-238 .new22	BLM	El Centro FO	Imperial, CA	Picacho ACEC	MP 116.9 to MP 131.6	GIS Analysis.	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 ACECs.
115-238 .new23	BLM	El Centro FO	Imperial, CA	Plank Road ACEC	MP 143 to MP 144.0	GIS Analysis.	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 ACECs.
Tribal Concerns							
115-238 .050	BLM	Yuma FO	Yuma, AZ, and Imperial, CA	Fort Yuma-Quechan Reservation	MP 102.8 to MP 134.2	GIS Analysis corridor route turns to avoid the Fort Yuma-Quechan Reservation, passing north of it and abutting it in places. There are tribal concerns about archaeological and wildlife resources at the Colorado River crossing from the area of the existing 500-kV transmission line crossing up to Imperial Dam. The routing of the corridor around the Fort Yuma-Quechan Reservation from MP 102.8 to MP 136 is a concern as it also has an impact on the Colorado River crossing. The designated corridor was sited to avoid tribal lands to the extent possible.	The Quechan Tribe has expressed concerns about the Colorado River crossing in line with the corridor as well as archaeological and wildlife concerns. In past conversations, tribal representatives have indicated a preference for a more southern route than the northern one that has been designated on BLM-administered lands and contains sensitive resources. However, a corridor revision adjacent to the Fort Yuma-Quechan Reservation could require proponent negotiations with the Quechan Tribe and the BIA for the corridor revision to be a viable alternative. Proponent would have to work with the tribe to obtain a tribal resolution consenting to the grant of ROW (by BIA). BIA cannot grant ROWs

REGION 1 – CORRIDOR 115-238 – ANALYSIS TABLE

ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
							without tribal consent. The Agencies have identified a potential corridor revision to avoid crossing the reservation, if the tribe has identified avoidance of the reservation as its preference. The Quechan Tribe would be consulted on any project application using this corridor, and impacts would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws. BLM's policy on the mitigation hierarchy to first avoid impacts, where possible, would be followed.
115-238 .051	BLM	California Desert District, CA	San Diego, CA	Campo, La Posta, and Manzanita Reservations	MP 232.0 to MP 238.5	GIS Analysis: Campo, La Posta, and Manzanita Reservations are located in corridor gaps, creating a jurisdictional concern for development in the corridor.	Recommend future land use plan amendments analyze alternate corridor routes to avoid crossing the reservations. The tribes would be consulted on any project application using this corridor, and impacts would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws.
Visual Resources							
115-238 .053	BLM	Yuma FO and El Centro FO	Yuma, AZ, and Imperial, CA	VRM Class I	MP 87.3 to MP 91.7, MP 111.5 to MP 117.0, MP 209.3, and MP 219.7 to MP 221.4	GIS Analysis. VRM Class I areas are adjacent to corridor.	The corridor does not intersect VRM Class I and Class II areas. Impacts would be analyzed and mitigated as part of the project-specific environmental review required under NEPA and other Federal laws.
115-238 .054	BLM	Yuma FO and El Centro FO	Yuma, AZ, and Imperial, CA	VRM Class II	MP 49.6 to MP 50.2, MP 76.4 to MP 78.4, MP 79.2 to MP 89.4, MP 90.8 to MP 93.2,	GIS Analysis. VRM Class II areas are adjacent to corridor.	

REGION 1 – CORRIDOR 115-238 – ANALYSIS TABLE

ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
					MP 101.4 to MP 109.7, and MP 197.1		
115-238 .054	BLM	El Centro FO	Imperial, CA	VRM Class II	MP 110.3 to MP 112.4, MP 133.2 to MP 134.0, MP 136.6 to MP 146.2, MP 192.1 to MP 193.0, MP 200.0 to MP 204.8, and MP 206.7 to MP 208.1	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 remains a requirement of applicable VRM class objectives even when the proposed action is in conformance with these VRM class objectives (VRM MS-8400).
115-238 .055	BLM	Yuma FO and El Centro FO	Yuma, AZ, and Imperial and San Diego, CA	VRM Class III	MP 24.7 to MP 25.7, MP 38.0 to MP 40.9, MP 42.0 to MP 43.7, MP 49.8 to MP 51.4, MP 53.2 to MP 57.5, MP 61.0 to MP 74.8, MP 76.5 to MP 89.4, MP 91.0 to MP 93.4, MP 97.3 to MP 99.8, MP 101.0 to MP 108.0, MP 109.5 to MP 135.0, MP 136.9 to MP 137.9, MP 144.2 to MP 145.3, MP 146.8 to MP 153.2, MP 160.7 to MP 166.0, MP 191.4 to MP 221.2, and MP 226.1 to MP 226.4	GIA Analysis.	
115-238 .056	BLM	El Centro FO	Imperial and San Diego, CA	VRM Class IV	MP 116.3 to MP 116.8, MP 128.4 to MP 130.8, MP 134.4 to MP 146.0, MP 152.7 to MP 166.0, MP 191.2 to MP 191.5, MP 192.7 to MP 194.9, MP 196.0	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).

REGION 1 – CORRIDOR 115-238 – ANALYSIS TABLE

ID	Agency	Agency Jurisdiction	County	Primary Concern/ Opportunity	Corridor Location (by Milepost [MP])	Source: Context	Agency Review and Analysis
					to MP 196.3, MP 201.9 to MP 206.9, MP 221.2 to MP 221.8, and MP 226.2 to MP 226.4		
INTERAGENCY OPERATING PROCEDURES (IOPs, OR BEST MANAGEMENT PRACTICES)							
115-238 .new24				National Historic and Scenic Trails		Comment on corridor abstracts: need analysis of transmission siting along the de Anza Trail, potential impacts, and compensatory mitigation – develop mitigation options for the recreation trail.	Recommend development of IOP for NHTs.
Other Issues							
115-238 .new25						Some input clarified existing capacity and identified potential for new capacity. There were stakeholder suggestions for a second 500-kV line between the North Gila and Imperial Valley substations to address a gap in the high-voltage transmission system between Arizona and California and improve reliability of the southern California system.	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. The Agencies designate corridors and process applications for energy transport infrastructure; they do not propose routes or initiate improvements to transmission systems.

Abbreviations: ACEC = Area of Critical Environmental Concern; AGL = above ground level; BIA = Bureau of Indian Affairs; BLM = Bureau of Land Management; BOR = Bureau of Reclamation; CMA = conservation and management action; DoD = Department of Defense; DRECP = Desert Renewable Energy Conservation Plan; ESA = Endangered Species Act; FO = Field Office; GIS = geographic information system; IM = Instruction Memorandum; IOP = Interagency Operating Procedure; MP = milepost; NEPA = National Environmental Policy Act; NHT = National Historic Trail; NST = National Scenic Trail; OHV = off-highway vehicle; O&M = operations and maintenance; PCT = Pacific Crest Trail; PEIS = Programmatic Environmental Impact Statement; RFI = Request for Information; RMP = resource management plan; ROW = right-of-way; SEZ = solar energy zone; USFS = Forest Service; USFWS = U.S. Fish and Wildlife Service; VRM = Visual Resource Management; WWEC = West-wide Energy Corridor; YPG = Yuma Proving Ground.

¹ California Desert Conservation Area replaced by DRECP National Conservation Lands.

Corridor 115-238

Region 2 Review

Corridor 115-238

Palo Verde-San Diego Corridor

Corridor Rationale

This energy corridor provides a pathway for energy transport, particularly electrical transmission from the Palo Verde Nuclear Generating Station to southern California. Input regarding alignment from the Arizona Public Service Electrical Company; American Wind Energy Association; National Grid; New Mexico Energy, Minerals, and Natural Resources Department; TransWest Express, LLC; Tucson Electric Power Company; and Western Utility Group suggested following this route during the WWEC PEIS. There are no planned projects and no pending or recently authorized ROWs for transmission line or pipeline projects in the Region 2 portion of the corridor. An authorized transmission line project intersects the Region 2 portion of the corridor.

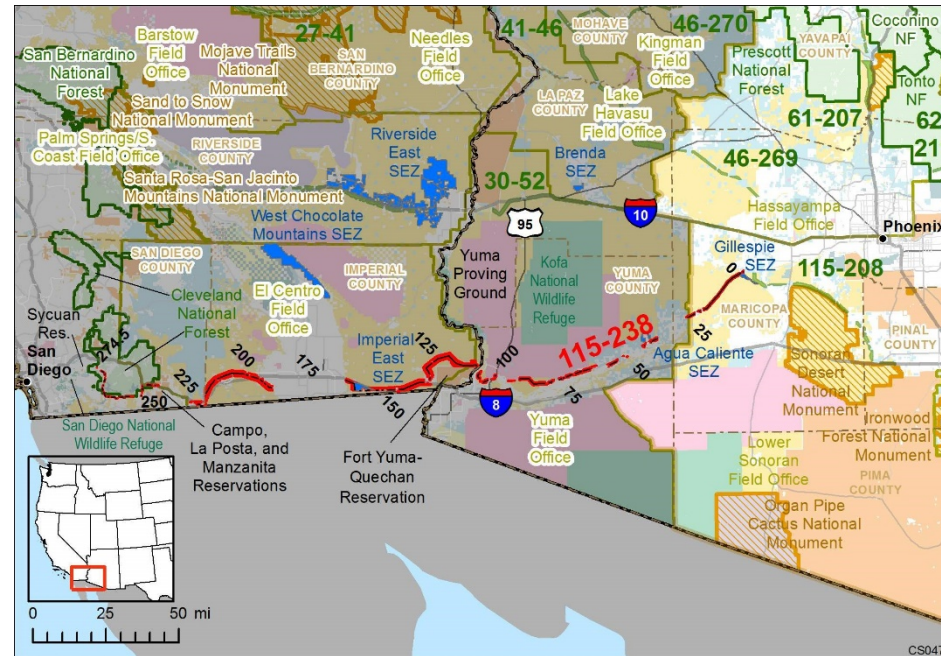
Corridor location (Region 2 portion; Region 1 evaluated in Region 1 Review):
 Arizona (Maricopa Co.)
 BLM: Lower Sonoran Field Office
 Regional Review Region(s): Region 1 and Region 2

Corridor width, length (Region 2 portion):
 Width 3,500 ft
 22.9 miles of designated corridor
 24.7 mile-posted route, including gaps

Sec 368 energy corridor restrictions: (N)

- corridor is multi-modal

Corridor of concern (N)



- Corridor history:**
- Locally designated corridor prior to 2009 (N)
 - Existing infrastructure (Y)
 - Electric transmission:
 - o two 500-kV lines (within corridor from MP 0 to MP 14 and adjacent to corridor for rest of Region 2)
 - Pipelines:
 - o refined product (within corridor from MP 0 to MP 7 and adjacent to corridor for rest of Region 2)
 - Energy potential near the corridor (Y)
 - Gillespie SEZ within 0.2 mi (MP 0 to MP 2)
 - six power plants (natural gas and solar) within 4.6 miles of MP 0
 - REDA adjacent to and within 5 mi (MP 1 to MP 8)
 - Corridor changes since 2009 (N)

Figure 1. Corridor 115-238

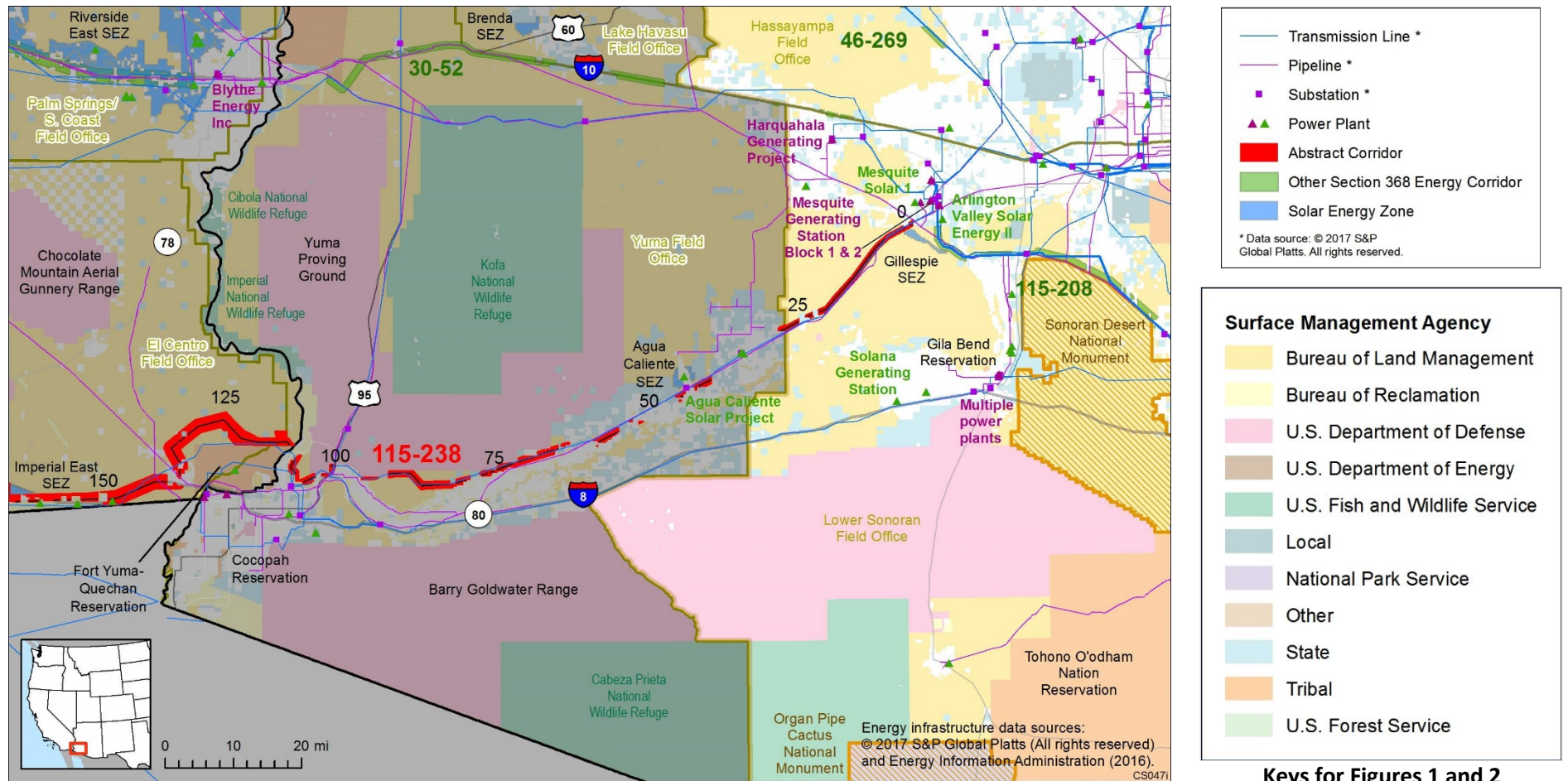


Figure 2. Corridor 115-238 and nearby electric transmission lines and pipelines (grayed out area outside of Region 2 and 3 Review)

Conflict Map Analysis

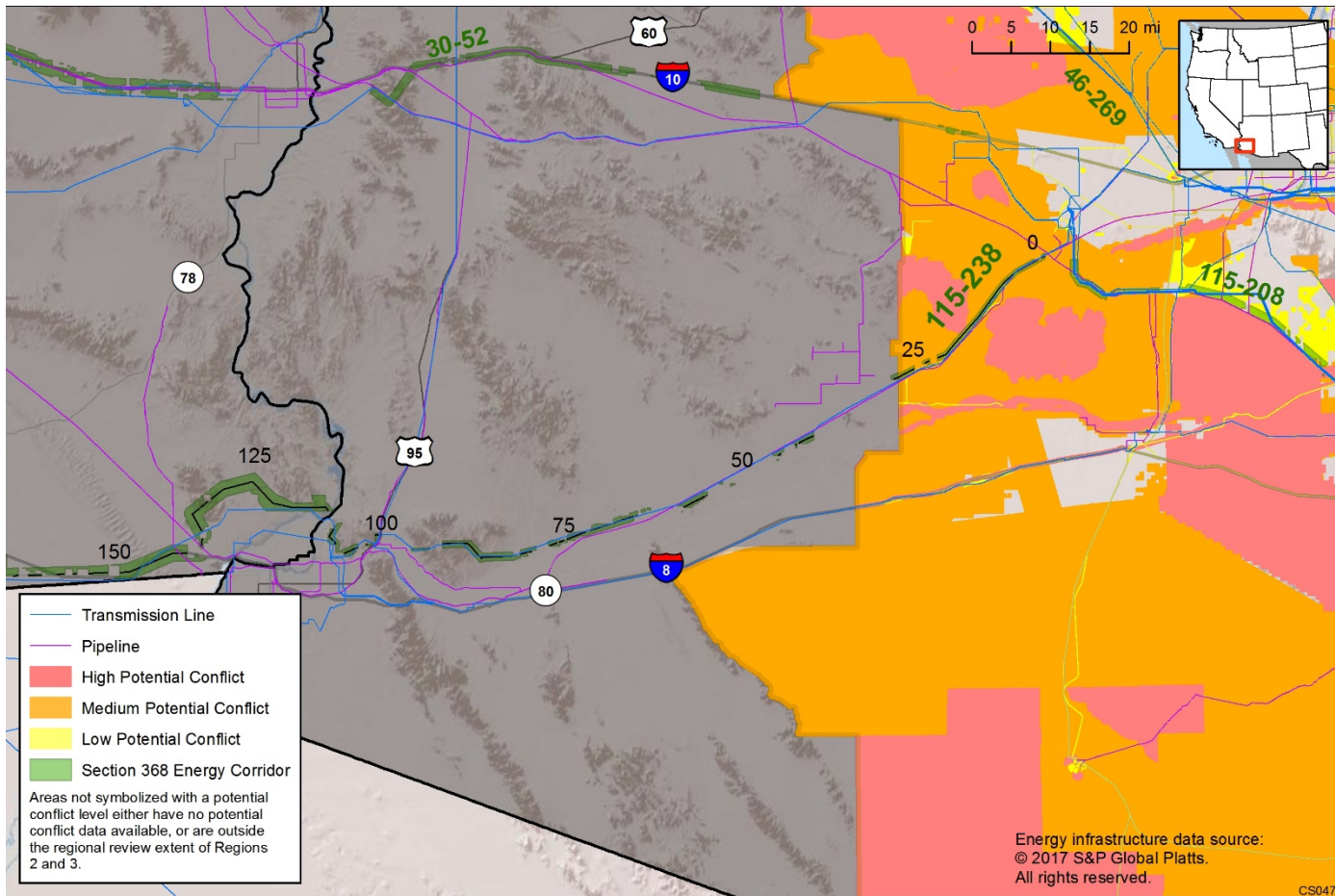


Figure 3. Map of Conflict Areas in Vicinity of Corridor 115-238

Figure 3 reflects a comprehensive resource conflict assessment developed to enable the Agencies and stakeholders to visualize a corridor’s proximity to environmentally sensitive areas and to evaluate options for routes with lower potential conflict. The potential conflict assessment (low, medium, high) shown in the figure is based on [criteria](#) found on the WWEC Information Center at www.corridoreis.anl.gov. To meet the intent of the Energy Policy Act and the Settlement Agreement siting principles, corridors may be located in areas where there is potentially high resource conflict; however, where feasible, opportunity for corridor revisions should be identified in areas with potentially lower conflict.

Visit the 368 Mapper for a full view of the Potential conflict map (<https://bogi.evs.anl.gov/section368/portal/>)

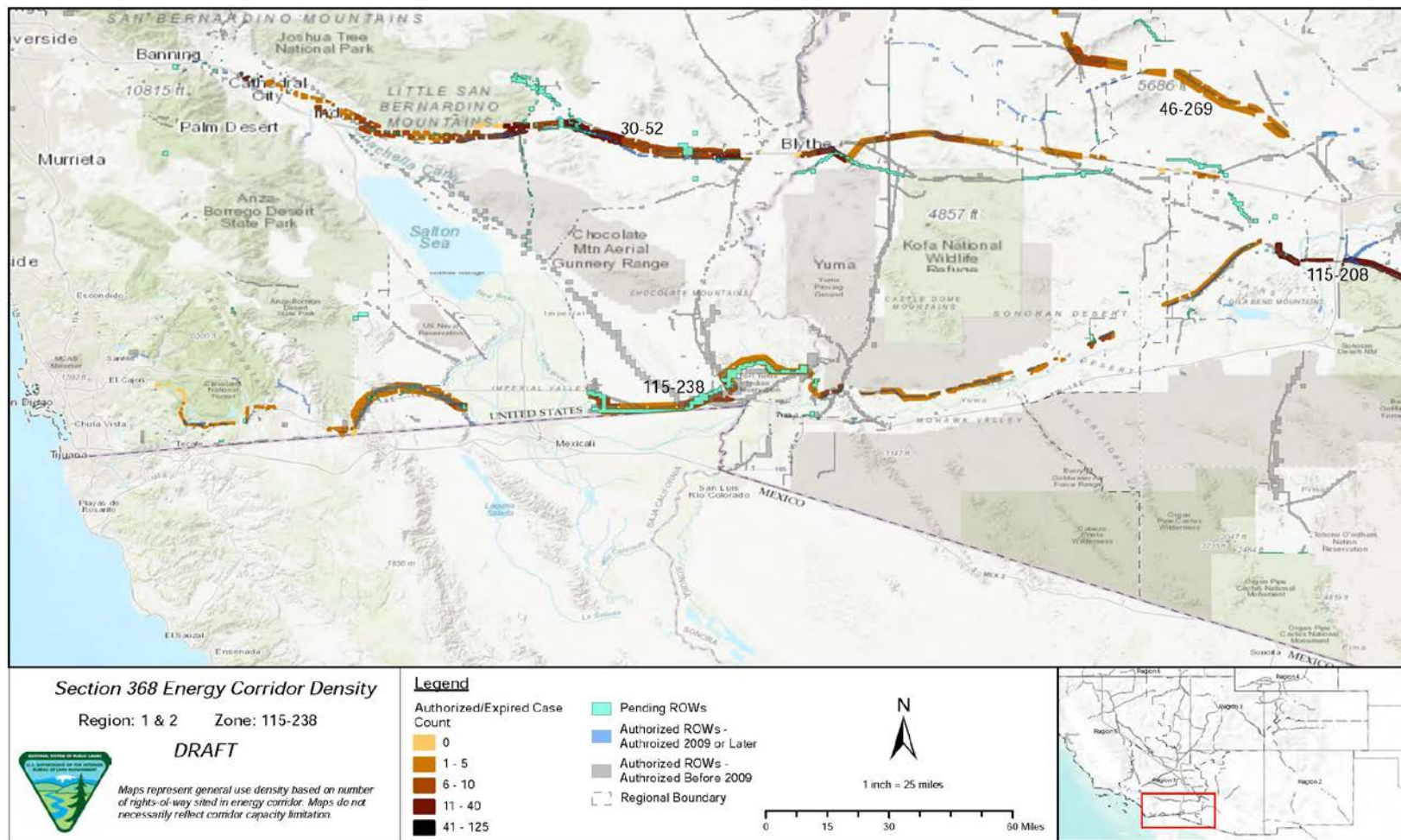


Figure 4. Corridor 115-238, Corridor Density Map

Figure 4 shows the density of energy use to assist in evaluating corridor utility. ROWs granted prior to the corridor designation (2009) are shown in grey; ROWs granted after corridor designation are shown in blue; and pending ROWs under current review for approval are shown in turquoise. Note the ROW density shown for the corridor is only a snapshot that does not fully illustrate remaining corridor capacity. Not all ROWs have GIS data at the time this abstract was developed. BLM and USFS are currently improving their ROW GIS databases and anticipate more complete data in the near future.

General Stakeholder Feedback on Corridor Utility

Stakeholders did not provide specific input on corridor utility.

Corridor Review Table

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

CORRIDOR 115-238 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>							
115-238 .001	BLM	Lower Sonoran FO	Maricopa, AZ	Signal Mountain Wilderness	MP 8 to MP 12 (near)	GIS Analysis: Wilderness Area as close as 1 mi to 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)
<i>Ecology</i>							
115-238 .002	BLM	Lower Sonoran FO	Maricopa and Pinal, AZ	Sonoran Desert Tortoise habitat (BLM-sensitive species, not listed under ESA)	MP 3 to MP 14 and MP 18 to MP 22	RFI: re-route to avoid siting new facilities in Sonoran Desert Tortoise Category I and II management habitat. Minimize impacts from new energy infrastructure development to the maximum extent practicable, and where impacts are unavoidable, utilize compensatory mitigation pursuant to BLM policy. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within four miles of Category I & II habitat. GIS Analysis: habitat is within the corridor.	The Lower Sonoran RMP states that Category I and II Sonoran Desert Tortoise habitats are avoidance areas for major linear land use authorizations. Future ROWs in the corridor would be mitigated in accordance with the Desert Tortoise Range-wide Plan and other applicable policy guidance, including CEQ mitigation hierarchy of avoid, minimize, mitigate. The preferred methodology to mitigate undue degradation of resources is to collocate future energy infrastructure across public land with existing infrastructure to the extent feasible. The corridor does contain existing infrastructure. (3)

CORRIDOR 115-238 REVIEW TABLE							
ID	Agency	Agency Jurisdiction	County	Primary Issue	Corridor Location (by Milepost [MP])	Source	Agency Review and Analysis ^{1,2}
					MP 3 to MP 14, MP 18 to MP 22	Comment on abstract: impacts to sensitive 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.	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)
Lands with Wilderness Characteristics							
115-238 .003	BLM	Lower Sonoran FO	Maricopa, AZ	Lands with wilderness characteristics	MP 14 to MP 15	GIS Analysis: lands, managed to protect wilderness characteristics adjacent to the corridor.	The lands managed to protect wilderness characteristics and corridor do not intersect and best meets the siting principles (1).
115-238 .004	BLM	Lower Sonoran FO	Maricopa, AZ	Citizens' proposed wilderness	Not specified. MP 8 to 14 MP 15 MP 16 to MP 21	RFI: citizens' proposed wilderness: Dixie Peak, Face Mountain Comment on abstract: corridor intersects with BLM wilderness-quality lands. 2,398 acres overlap (Dixie Peak-citizens wilderness proposal) 334 acres overlap (Yellow Medicine Butte- citizens wilderness proposal). 1,897 acres overlap (Face Mountain- 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 citizen wilderness proposals is beyond the Agencies scope and authority. As such, the corridor's current location best meets the siting principles. (1) At such time that citizen's 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.

CORRIDOR 115-238 REVIEW TABLE							
ID	Agency	Agency Jurisdiction	County	Primary Issue	Corridor Location (by Milepost [MP])	Source	Agency Review and Analysis ^{1,2}
Visual Resources							
115-238 .005	BLM	Lower Sonoran FO	Maricopa, AZ	VRM Class I	MP 7 to MP 12	GIS Analysis: VRM Class I as close as 1 mi south of corridor.	There are no VRM Class I areas in the corridor. (1)
115-238 .006	BLM	Lower Sonoran FO	Maricopa, AZ	VRM Class II	MP 14 to MP 15	GIS Analysis: VRM Class II areas and the corridor intersect.	The corridor slightly overlaps VRM Class II. The corridor could be narrowed to avoid VRM Class II area. (2)
115-238 .007	BLM	Lower Sonoran FO	Maricopa, AZ	VRM Class III	MP 2 to 25	GIS Analysis: VRM Class III areas and the 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)
115-238 .008	BLM	Lower Sonoran FO	Maricopa, AZ	VRM Class IV	MP 0 to 25	GIS Analysis: VRM Class IV areas and corridor intersect.	The existing corridor location best meets the siting principles. (1)
Land Use Concerns							
Military and Civilian Aviation							
115-238 .009	BLM	Lower Sonoran FO	Maricopa, AZ	MTR – VR	MP 0 to MP 8 and MP 20 to MP 25	GIS Analysis: VR and the 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)
115-238 .010	BLM	Lower Sonoran FO	Maricopa, AZ	MTR – IR	MP 8 to MP 25	GIS Analysis: IR and the corridor intersect.	

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

BLM = Bureau of Land Management; DoD = Department of Defense; ESA = Endangered Species Act; FO = Field Office; GIS = geographic information system; IOP = Internal Operating Procedure; IR = Instrument Route; MCAGCC = Marine Corps Air Ground Combat Center; MP = milepost; MTR = Military Training Route; PEIS = Programmatic Environmental Impact Statement; REDA = Renewable Energy Development Area; RFI = request for information; RMP = Resource Management Plan; ROW = right-of-way; SEZ = Solar Energy Zone; USFS = U.S. Forest Service; VR = Visual Route; VRM = Visual Resource Management; WSA = Wilderness Study Area; WWEC = West-wide Energy Corridor.