

Corridor 232-233(E)(W)

Southern Nevada North-South Connector

Corridor Rationale

This energy corridor provides supplemental north-south connectivity between Idaho and Las Vegas, Nevada. Input regarding alignment from AWEA, National Grid, Maximus USA, the Rocky Mountain Area Transmission Study, the Seams Steering Group-Western Interconnection, and the Western Utility Group during the WWEC PEIS suggested following this route. There is a planned 500-kV electric transmission line project that follows the entire path of Corridor 232-233(W); while there is no planned projects within Corridor 232-233(E). A ROW has been approved for Kane Springs Water project within Corridor 232-233(E), and Corridor 232-233(W) has an approved ROW for a 69-kV transmission line. Currently, there are no other pending or recently authorized ROWs within or intersecting the corridors.

Corridor location:

Nevada (Lincoln Co.)

BLM: Caliente Field Office

USFS: Humboldt-Toiyabe National Forest

Regional Review Region(s): Region 3

Corridor width, length:

Width 3,500 ft

34.3 miles of designated corridor [Corridor 232-233(E)] and 34.3 miles of designated corridor [Corridor 232-233(W)]

45.3 mile-posted route, including gaps [Corridor 232-233(E)] and 34.3 mile-posted route, no gaps [Corridor 232-233(W)]

Sec 368 energy corridor restrictions: (N)

- corridor is multi-modal

Corridor of concern (N)

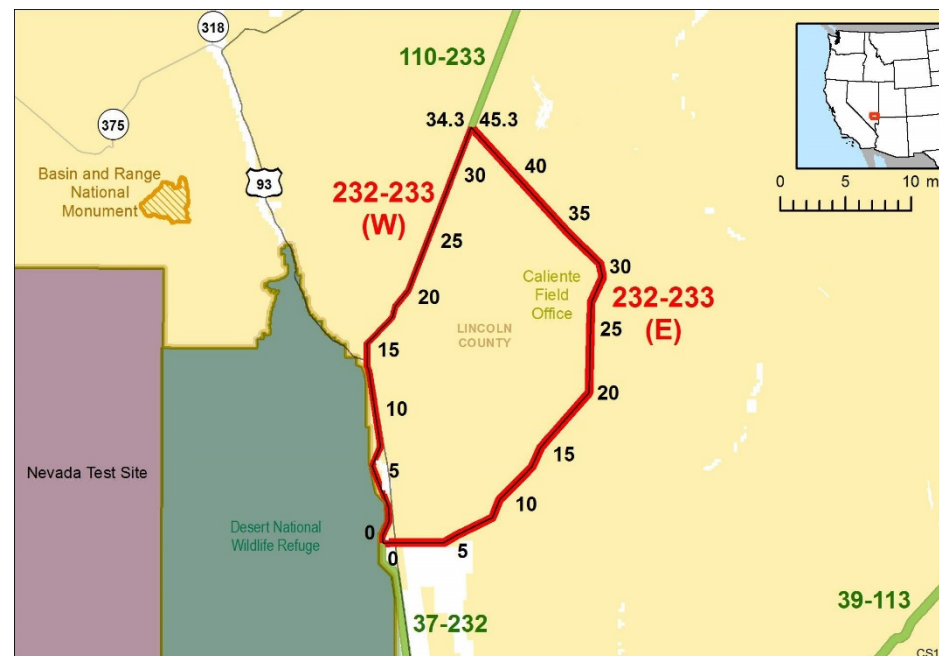


Figure 1. Corridor 232-233(E)(W)

Corridor history:

- Locally designated corridor prior to 2009 (Y)
- Corridor 232-233(W) is locally designated.
- Existing infrastructure (Y)
 - Electric transmission:
 - 500 kV [MP 0 to MP 34 in Corridor 232-233(W)]
 - 69 kV [MP 0 to MP 34 in Corridor 232-233(W)]
 - Highways:
 - U.S. Hwy 93 [MP 8 to MP 15 in Corridor 232-233(W)]
- Energy potential near the corridor (Y)
 - 1 substation in Corridor 232-233(W) (MP 17)
- Corridor changes since 2009 (N)

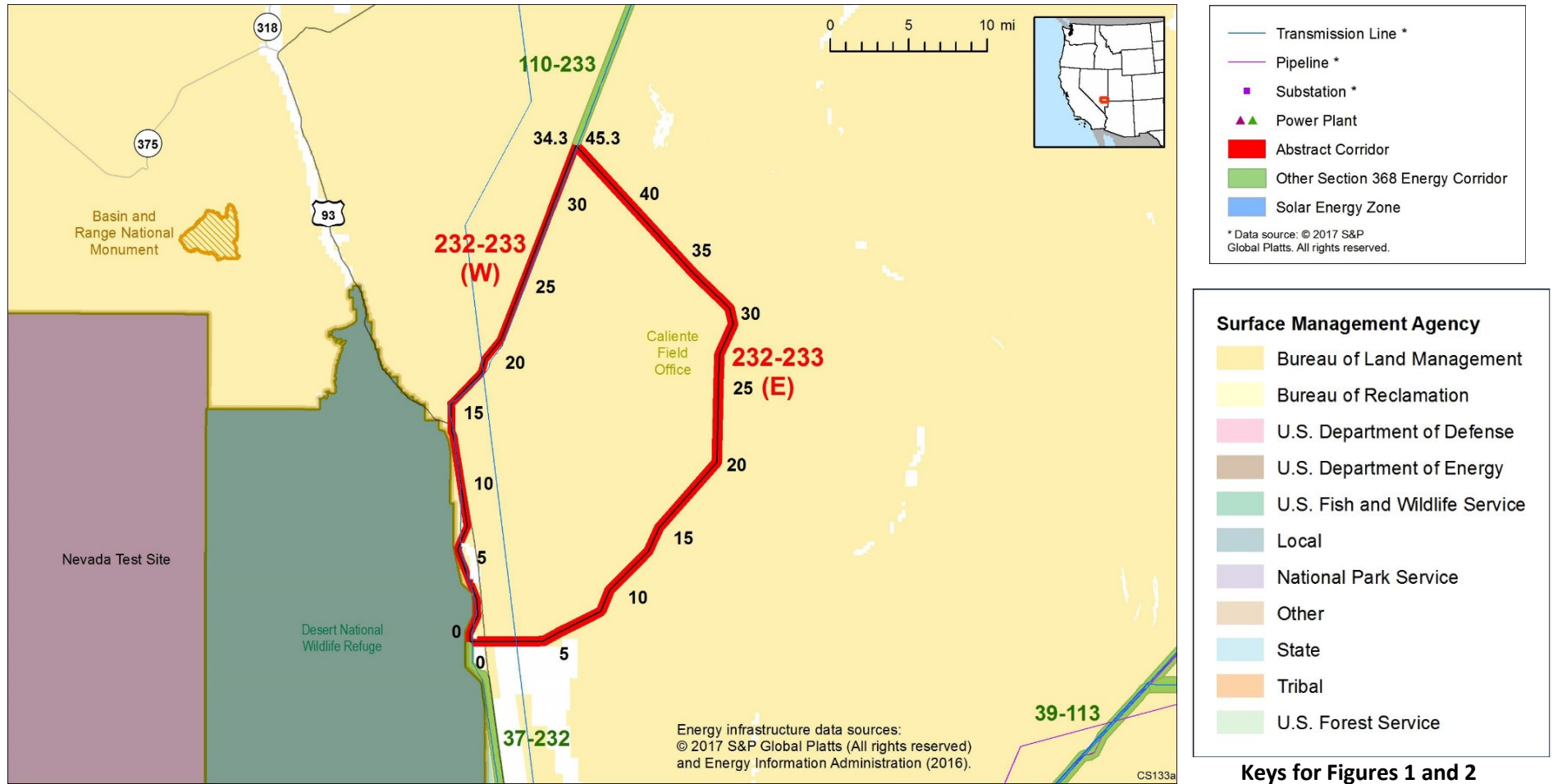


Figure 2. Corridor 232-233(E)(W) and nearby electric transmission lines and pipelines

Conflict Map Analysis

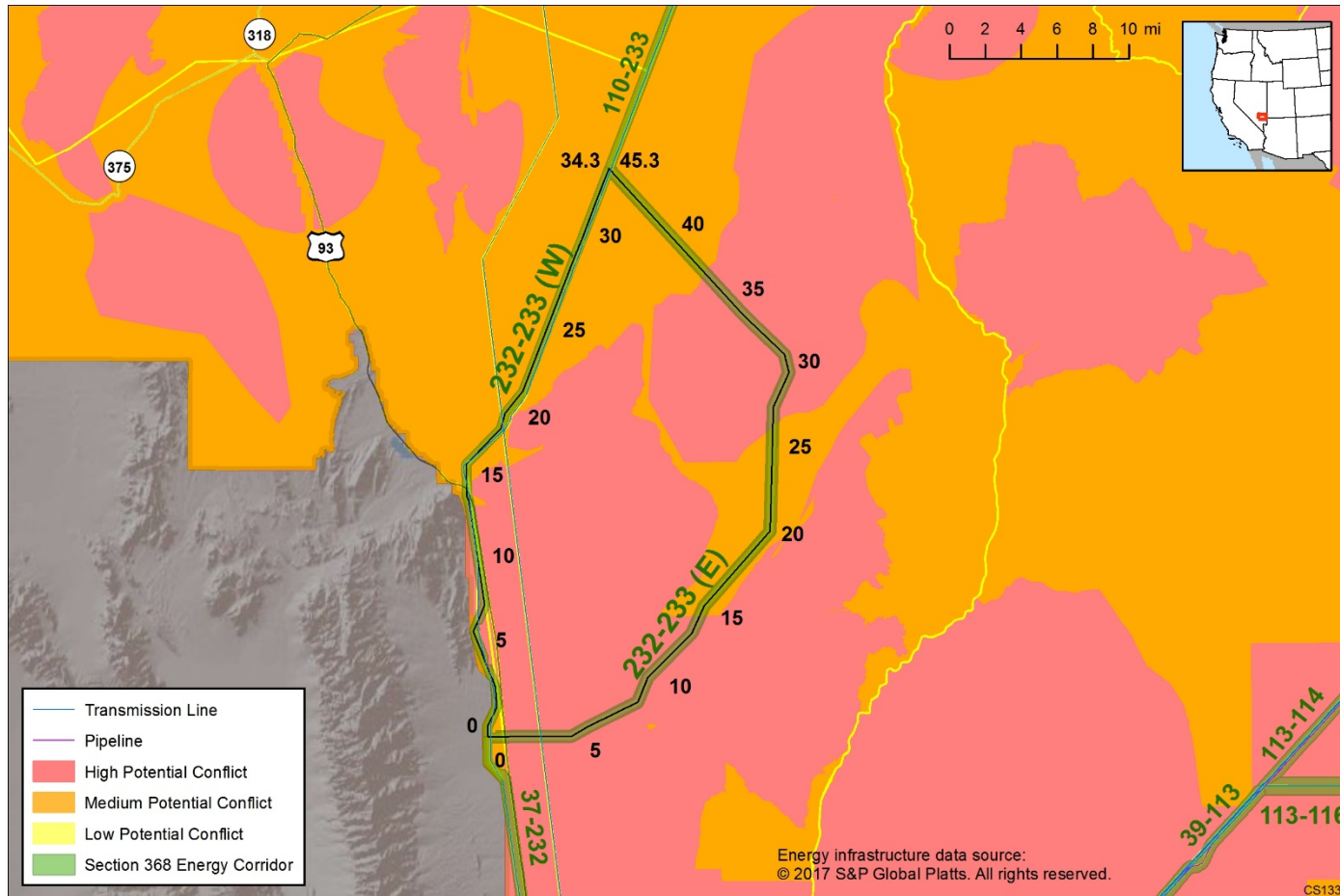


Figure 3 reflects a comprehensive resource conflict assessment developed to enable the Agencies and stakeholders to visualize a corridor’s proximity to environmentally sensitive areas and to evaluate options for routes with lower potential conflict. The potential conflict assessment (low, medium, high)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

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

Figure 3. Map of Conflict Areas in Vicinity of Corridor 232-233(E)(W)

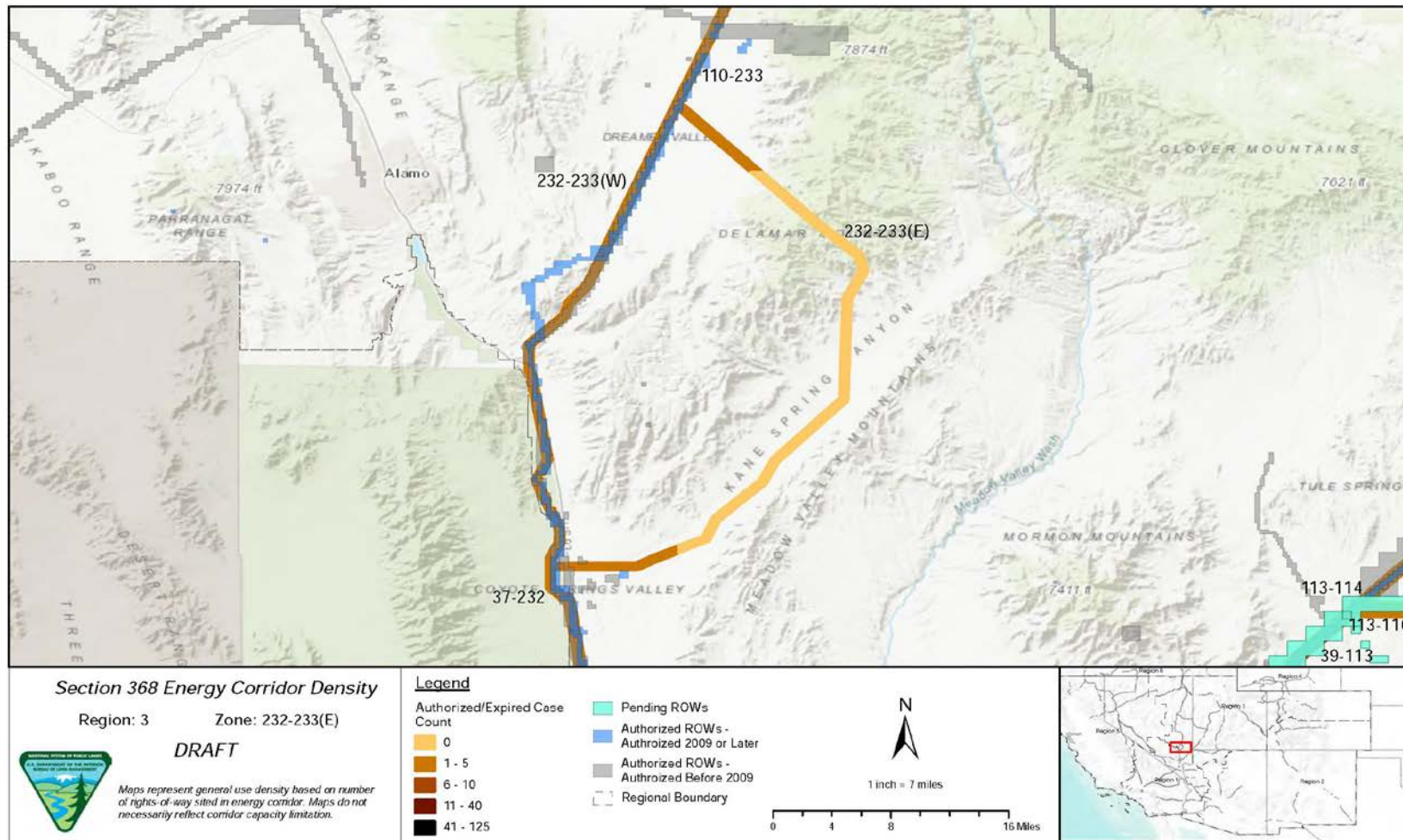


Figure 4. Corridor 232-233 (E)(W), Corridor Density Map

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

General Stakeholder Feedback on Corridor Utility

Stakeholders did not provide specific input on corridor utility.

Corridor Review Table

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

| CORRIDOR 232-233(E)(W) 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> | | | | | | | |
| 232-233 (E)(W) .001 | BLM | Caliente FO | Lincoln, NV | Delamar Mountains Wilderness | 232-233(E) MP 3 to MP 17 232-233(W) MP 14 to MP 15 232-233(W) MP 2 to MP 14, MP 15 to MP 22 | GIS Analysis: wilderness area as close as 1,100 ft north of corridor. GIS Analysis: wilderness area adjacent to corridor. GIS Analysis: wilderness area as close as 1,100 ft east of 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) |
| 232-233 (E)(W) .002 | BLM | Caliente FO | Lincoln, NV | Meadow Valley Range Wilderness | 232-233(E) MP 7 to MP 21 | GIS Analysis: wilderness area as close as 2,600 ft south of 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) |
| 232-233 (E)(W) .003 | BLM | Caliente FO | Lincoln, NV | Kane Springs ACEC | 232-233(E) MP 1 to MP 15 232-233(W) MP 2 to MP 3 and MP 8 to MP 12 | GIS Analysis: ACEC intersects corridor. GIS Analysis: ACEC adjacent to corridor. | The ACEC is an avoidance area for ROWs and other land use authorizations in the future, but additional ROWs could be authorized subject to environmental impact analysis and Section 7 consultation for specific applications. (3) |
| Ecology | | | | | | | |
| 232-233 (E)(W) .004 | BLM | Caliente FO | Lincoln, NV | Desert Tortoise | | RFI: Corridor 232-233 (E)-consult with USFWS to avoid adverse | Ely RMP decision states that ROWs in Desert Tortoise habitat should be managed the same as the three Desert |

CORRIDOR 232-233(E)(W) REVIEW TABLE

| ID | Agency | Agency Jurisdiction | County | Primary Issue | Corridor Location (by Milepost [MP]) | Source | Agency Review and Analysis ^{1,2} |
|---------------------|--------|---------------------|-------------|-----------------|--------------------------------------|---|--|
| | | | | | MP 1 to MP 15 MP 0 to MP 27 | modification to Desert Tortoise designated critical habitat. GIS Analysis: critical habitat intersects corridor. GIS Analysis: connectivity area intersects corridor. | Tortoise ACECs (LR-45), as avoidance areas: the ACECs are avoidance areas for ROWs and other land use authorizations in the future, but additional ROWs could be authorized subject to environmental impact analysis and Section 7 consultation for specific applications. Corridor 232-233 |
| 232-233 (E)(W) .005 | BLM | Caliente FO | Lincoln, NV | Desert Tortoise | Not specified. | RFI: Corridor 232-233 (W) – re-route to avoid siting new facilities in TCAs without existing transmission, and minimize additional transmission siting in TCAs. If additional transmission is permitted, site as close together as possible and with as little ground disturbance and vegetation clearing as possible. Re-route to avoid siting new facilities in Priority 1 & 2 Connectivity Habitat without existing transmission, and minimize additional transmission siting in these areas. Use full mitigation hierarchy to avoid, minimize, and compensate for impacts within four miles of TCAs and P1 & P2 habitat. Re-route to avoid "Very High" risk to the number and magnitude of flowline crossings by WWEC segments. Where flowlines must unavoidably be crossed, minimize impacts to connectivity. Consult with USFWS to avoid adverse modification to Desert Tortoise designated critical habitat. | (W) includes existing infrastructure while 232-233 (E) contains no infrastructure. There is no alternative route in which the corridor could be co-located with existing infrastructure or a locally designated corridor that would avoid desert tortoise critical habitat. In addition, 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 (3) |

CORRIDOR 232-233(E)(W) REVIEW TABLE

| ID | Agency | Agency Jurisdiction | County | Primary Issue | Corridor Location (by Milepost [MP]) | Source | Agency Review and Analysis ^{1,2} |
|---------------------|--------|---------------------|-------------|------------------------|---|---|---|
| | | | | | MP 2 to MP 13 MP 0 to MP 13 and MP 14 to MP 15 | Comment on abstract: re-route to avoid Desert Tortoise TCAs. GIS Analysis: critical habitat intersects corridor. GIS Analysis: connectivity area intersects corridor. | |
| 232-233 (E)(W) .006 | | | | Special status species | Not specified | Comment on abstract: additional species not identified in the corridor abstract may be present: Southwestern Willow Flycatcher, Western Yellow-billed Cuckoo, Yuma Clapper Rail, Hiko White River Springfish, Pahrnagat Roundtail Chub, White River Spinedace, and White River Springfish. Conduct further analysis to determine the presence of abovementioned species. | This corridor location within the current range where these species may occur is not easily resolved or avoided by corridor-level planning because alternate routes could still require siting through the current range of these species. Further analysis to determine the presence of all species occurring within the area will be considered outside of corridor-level planning. (3) |
| 232-233 (E)(W) .007 | BLM | Caliente FO | Lincoln, NV | Flowline crossings | 232-233(E): entire corridor | RFI: Corridor 232-233 (E) - delete/replace this segment. This segment scores "Very High" risk for both Flowlines and Permeability. | Not a corridor-level planning issue. Connectivity flowline is not a BLM-recognized term, but impacts on habitat connectivity would be addressed at the project level and through management prescriptions in the RMP. (3) |
| 232-233 (E)(W) .008 | BLM | Caliente FO | Lincoln, NV | Mule Deer | MP 12 to MP 17 | Comment on abstract: these areas have been identified as Mule Deer migration corridors and should be avoided if at all possible. Unimpaired migration is crucial to Mule Deer life cycles. | 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) |

CORRIDOR 232-233(E)(W) REVIEW TABLE

| ID | Agency | Agency Jurisdiction | County | Primary Issue | Corridor Location (by Milepost [MP]) | Source | Agency Review and Analysis ^{1,2} |
|--|--------|---------------------|-------------|------------------------------|---|---|--|
| Lands with Wilderness Characteristics | | | | | | | |
| 232-233 (E)(W) .009 | BLM | Caliente FO | Lincoln, NV | BLM wilderness-quality lands | MP 4 MP 5 to MP 14 MP 15 MP 15 MP 16 to MP 26 MP 25 to MP 42 | Comment on abstract: corridor intersects with BLM wilderness-quality lands. 108 acres overlap (BLM). 3,258 acres overlap (BLM). 99 acres overlap (BLM). 176 acres overlap (BLM). 2,929 acres overlap (BLM). 5,253 acres overlap (BLM). Corridor 232-233 (E) cuts through BLM-inventoried lands with wilderness characteristics. This area includes several large BLM Wilderness Areas as well as many contiguous and adjacent lands with wilderness characteristics. Energy infrastructure development in this area would have unacceptable impacts on wilderness resources and does not access a population center or provide apparent benefits. This large and wild area would be bisected by the energy corridor. BLM should delete the eastern arm of this corridor to eliminate unnecessary impacts to wilderness resources. | The corridor does not intersect with designated Wilderness Areas, Wilderness Study Areas, or Lands with Wilderness Characteristics; however, the corridor runs adjacent to BLM designated Wilderness Areas. The Agencies are exploring an opportunity for adding an IOP related to wilderness-quality areas to ensure appropriate consideration occurs with proposed development within the energy corridor. (2) |

CORRIDOR 232-233(E)(W) REVIEW TABLE

| ID | Agency | Agency Jurisdiction | County | Primary Issue | Corridor Location (by Milepost [MP]) | Source | Agency Review and Analysis ^{1,2} |
|-------------------------|--------|---------------------|-------------|---------------|---|---|---|
| Visual Resources | | | | | | | |
| 232-233 (E)(W) .010 | BLM | Caliente FO | Lincoln, NV | VRM Class I | 232-233(E): MP 5 to MP 9, MP 10 to MP 14, MP 17 to MP 18, MP 18 to MP 19 232-233(W): MP 3 to MP 4, MP 14 to MP 15, MP 18 to MP 20 232-233(W): MP 15 | GIS Analysis: VRM Class I area is as close as 1 mi from corridor. Agency Input: corridor as close as 530 ft west of VRM Class I area (VRM Class I area overlaps most of Delamar Mountains Wilderness). | The corridor does not cross any VRM Class I areas. (1) |
| 232-233 (E)(W) .011 | BLM | Caliente FO | Lincoln, NV | VRM Class III | 232-233(E): MP 1 to MP 5 to MP 19, MP 21 to MP 27, and MP 37 to MP 43 232-233(W): MP 15 232-233(W): MP 14 to MP 15 | GIS Analysis: VRM Class III areas and corridor intersect. Agency Input: corridor adjacent to Delamar Mountains Wilderness (closest portions of the wilderness to the corridor are VRM Class III). | VRM Class III allows for moderate change to the characteristic landscape, although minimizing visual contrast remains a requirement. Management activities may attract the attention of the casual observer, but shall not dominate the view. (1) |
| 232-233 (E)(W) .012 | BLM | Caliente FO | Lincoln, NV | VRM Class IV | 232-233(E): MP 0 to MP 6, MP 15 to MP 22, MP 43 to MP 45 232-233(W): MP 0 to MP 34 | GIS Analysis: VRM Class IV areas and corridor intersect. | The existing corridor location best meets the siting principles. (1) |

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| ID | Agency | Agency Jurisdiction | County | Primary Issue | Corridor Location (by Milepost [MP]) | Source | Agency Review and Analysis ^{1,2} |
|---------------------------------------|--------|---------------------|-------------|-----------------------|--|---|---|
| Tribal Concerns | | | | | | | |
| 232-233 (E)(W) .013 | BLM | Caliente FO | Lincoln, NV | Traditional Use Areas | Scattered throughout | Agency Input: Clark, Lincoln, and White Pine Counties Groundwater Development Project Final Ethnographic Assessment | Agencies are aware of the existence of traditional use areas but will defer to the tribes for exact locations. Acknowledge this is an issue that cannot be resolved during corridor-level planning. (3) |
| Land Use Concerns | | | | | | | |
| Military and Civilian Aviation | | | | | | | |
| 232-233 (E)(W) .014 | BLM | Caliente FO | Lincoln, NV | MTR – VR | 232-233(E) MP 2 to MP 9, MP 30 to MP 31 232-233(W) MP 8 to MP 26 MP 9 to MP 26 MP 2 to MP 9 | GIS Analysis: VR intersects and is adjacent to corridor. GIS Analysis: VR intersects corridor. Comment on abstract: MTR VR-1253, Floor of 200-ft AGL. Comment on abstract: MTR VR-1253, Floor of 200-ft AGL. | The concern related to MTRs is noted and the adherence to existing IOP regarding coordination with DoD would be required to ensure this potential conflict is considered at the appropriate time. In addition, there is an opportunity to consider a revision to the existing IOP to include height restrictions for corridors in the vicinity of DoD training routes. (2) DoD requests the height of any proposed transmission structures not exceed height of any existing infrastructure in the ROW. Taller structure will require further analysis for operational impact. |
| 232-233 (E)(W) .015 | BLM | Caliente FO | Lincoln, NV | DoD SUA - MOA | 232-233(E) and 232-233(W) entire length of corridor | GIS Analysis: MOA intersects corridor. Comment on abstract: adjacent to Nevada Test and Training Range (NTTR) Operations. All Restricted Airspace needs to be avoided due to hazardous operations and access to any sites. Height should be no higher than existing structures if outside the Restricted Airspace. | 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) |

| CORRIDOR 232-233(E)(W) REVIEW TABLE | | | | | | | |
|--------------------------------------|--------|---------------------|-------------|---------------|--------------------------------------|--|---|
| ID | Agency | Agency Jurisdiction | County | Primary Issue | Corridor Location (by Milepost [MP]) | Source | Agency Review and Analysis ^{1, 2} |
| <i>Other noted land use concerns</i> | | | | | | | |
| 232-233 (E)(W) .016 | USFWS | DNWR | Lincoln, NV | DNWR | MP 0 to MP 7, MP 13 to MP 14 | GIS Analysis: DNWR adjacent to corridor. | While the corridor is located adjacent to the DNWR, the corridor does not traverse the DNWR. However, the proximity to the DNWR does require a narrower corridor width and limits the amount of additional development that would be allowed. (3) |

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

² (1) = confirm existing corridor best meets siting principles; (2) = identify opportunities to improve corridor placement or IOPs; (3) = acknowledge concern not easily resolved or avoided by corridor-level planning.

Abstract Acronyms and Abbreviations

ACEC = Area of Critical Environmental Concern; AGL = above ground level; AWEA = American Wind Energy Association; BLM = Bureau of Land Management; ESA = Endangered Species Act; DNWR = Desert National Wildlife Range; DoD = Department of Defense; FO = Field Office; GIS = geographic information system; IOP = interagency operating procedure; MOA = Military Operations Area; MP = milepost; MTR = Military Training Route; PEIS = Programmatic Environmental Impact Statement; RFI = request for information; ROD = Record of Decision; ROW = right-of-way; SUA = special use airspace; TCA = Tortoise Conservation Area; USFS = U.S. Forest Service; USFWS = U.S. Fish and Wildlife Service; VR = Visual Route; VRM = Visual Resource Management; WWEC = West-wide Energy Corridor.