Draft Compatibility Determination

Title

DRAFT Compatibility Determination for issuance of a Right-of-Way permit for Tri-State for limited use of airspace outside pre-existing easement, Sevilleta National Wildlife Refuge.

Refuge Use Category

Rights-of-way and Rights to Access

Refuge Use Type(s)

Rights-of-way (utility) – the right to use and possibly alter the landscape through construction, maintenance, and operation of water or fuel pipeline, power line, telecommunications line or tower, or other utility.

Refuge

Sevilleta National Wildlife Refuge (Sevilleta NWR)

Refuge Purpose(s) and Establishing and Acquisition Authority(ies)

The Sevilleta NWR was acquired by donation from a Grantor, The Nature Conservancy, subject to deed restrictions. The Warranty Deed (December 28, 1973) states, among other terms:

- "The purpose of this donation is to preserve and enhance the integrity and the natural character of the ecosystems of the [Sevilleta NWR] by creating a wildlife refuge managed as nearly as possible in its natural state, employing only those management tools and techniques that are consistent with the maintenance of a natural ecological process."
- "In addition, it is the intent of the Grantor that the property not be subjected to commercial exploitation."
- "The intent of the Grantor is that the land and the flora and fauna supported by it be managed to permit the natural ecological successions and processes typical of the area to prevail."
- "The Grantor has … determined that administration of the area as a national wildlife refuge under the National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee) would best meet its objectives and the public interest in the preservation and sound management of the Sevilleta Grant."
- "The property shall not be … leased or used for any commercial purpose other than where deemed appropriate by the Bureau [of Sport, Fisheries and

Wildlife] and The Nature Conservancy for the purposes of sound wildlife management…"

- "The use of motorized vehicles by other than the Grantee's authorized employees, agents or independent contractors, shall not be permitted except upon roads and trails designated for public use by the Grantee…"

In addition, the Refuge Improvement Act, 16 U.S.C. 668dd(a)(4)(D) states:

- "…if a conflict exists between the purposes of a refuge and the mission of the System, the conflict shall be resolved in a manner that first protects the purposes of the refuge, and, to the extent practicable, that also achieves the mission of the System."

National Wildlife Refuge System Mission

The mission of the National Wildlife Refuge System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans (Pub. L. 105-57; 111 Stat. 1252).

Description of Use

Is this an existing use?

No, the use by Tri-State of airspace for conductor blowout or "line sway" is not a pre-existing use. Tri-State Generation and Transmission Association has an easement from 1951, pre-dating the 1973 establishment of the Sevilleta NWR, that reserves its right to "construct, operate, and maintain an electric transmission line, withall [*sic*] poles, cross arms, cables, wires, guys, supports, fixtures and devices, used or useful in the operation of said line, through, over, and across" the Sevilleta NWR. The easement states that the "transmission line and every part thereof shall … be confined to lands within 25 feet of either side of the … center line, except that [Tri-State] shall have the rightand [*sic*] privilege of placing and maintaining guys and anchorages at greater distances from said center line where reasonably necessary to support said transmission line." The grant of easement conveyed "the right to enter upon said premises, survey, construct, maintain, operate, control and use said transmission line and to remove objects interfere [*sic*] therewith, and the right to permit the attachment of wires of others." Thus, actions to maintain laydown areas and expand access roadways or spur roads within and outside of the existing easement footprint are existing use rights reserved by the easement holder, whereas use for operations outside the 25 feet from either direction of the center line called out in the easement in the form of conductor blowout/line-sway is not an expressly authorized or pre-existing use.

What is the use?

a. SunZia Project

SunZia Transmission, LLC (SunZia) submitted an application to the Bureau of Land Management (BLM) New Mexico State Office and the U.S. Forest Service (USFS) on March 27, 2020, to request amendment of their existing right-of-way on public land issued September 2016. One component was a re-route of the SunZia Southwest Transmission Line Project that would include co-locating within up to two pre-existing transmission line easements through the Sevilleta NWR. The BLM is the lead Federal agency for National Environmental Policy Act compliance and a Final Environmental Impact Statement was published on February 17, 2023 and can be found at https://eplanning.blm.gov/public_projects/2011785/200481766/20073926/250080108/SunZia_Right-of-way%20Amendment%20Public%20Final%20EIS_Vol%201_508_rev.pdf.

b. Proposed line sway and conductor blowout use at Sevilleta NWR

Tri-State currently operates and maintains a 115 kV line within a 50-foot easement across Sevilleta NWR. Tri-State notified the U.S. Fish and Wildlife Service by letter dated February 13, 2023, that they would be rebuilding their line to allow the SunZia project to co-locate within Tri-State's existing easement in accordance with their reserved easement right to permit the attachment of wires of others.

In their February 13, 2023, communication, Tri-State and SunZia jointly requested from Sevilleta NWR a special use permit for what the industry calls blowout. Conductor blowout, or line sway, refers to the magnitude of the horizontal displacement of a conductor due to wind. This is most commonly caused by steady winds. Blowout is one of the design constraints considered when designing a transmission line. Blowout is normal and expected behavior of a transmission line conductor (BLM, 2023, pgs. 2-11).

On March 24, 2023, Tri-State and SunZia submitted a memorandum comparing potential impacts on Sevilleta NWR from proposed and no-blowout designs for rebuilding of the existing Bernardo-Socorro Transmission Line. This document described an anticipated impact comparison between the proposed request (blowout) to operate an additional 9.3 feet outside of the existing 50-foot easement strictly for the purpose of conductor blowout, or "line sway" (see Figure 1) and impacts of the no-blowout design. This comparison applies to the entire length of the project (approximately 11.6 miles) that extends through the Sevilleta NWR. See Tri-State/SunZia, March 2023.

The April 20, 2023, memorandum from POWER Engineers, Inc. to Pattern Energy, was provided to the USFWS which included a summarization of potential environmental impacts in association with the proposed request (blowout) and no-blowout design

options. See Power Engineers, April 2023.

On May 23, 2023, Tri-State and SunZia submitted an application for right-of-way permit that would authorize Tri-State's conductor blowout, or line sway, which it recalculated at an additional 16 feet to the east and seven feet to the west outside of the existing 50-foot easement (as opposed to 9.3 feet in both directions described in March 24th and April 20th documents). Additional supporting documentation was provided including an updated project description for periodic wind driven line sway (attached), maps showing the extent of blow-out areas and data sheet.

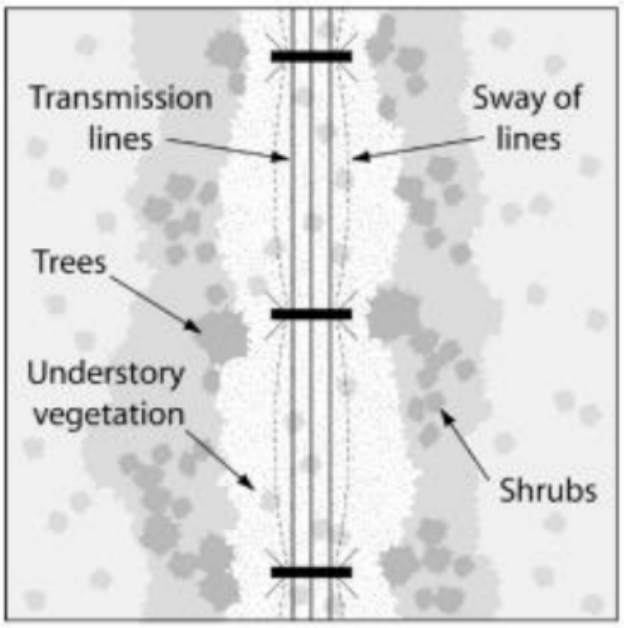


Figure 1: Example of Transmission line-sway or blowout.

c. Related Activities in Sevilleta NWR that are not subject to a compatibility analysis

Other than blowout, Tri-State and SunZia intend to complete other activities, related to construction and long-term maintenance, for which they seek special use permits. However, these other activities do not require the completion of a compatibility determination because they are related to Tri-State's existing rights under the easement. Per the easement, Tri-state is allowed reasonable access and use of existing refuge roads. For construction and long-term maintenance, the SunZia project would widen existing roads up to 35ft. This would impact roads within and outside the existing easement footprint that are currently utilized by Tri-State. Tri-State and SunZia seek separate special use permits for construction and long-term maintenance activities, with the recognition that, "In the case of reserved rights, the refuge manager should work with the owner of the property interest to develop

stipulations in a special use permit or other agreement to alleviate or minimize adverse impacts to the refuge." 603 FW 2, § 2.10(B)(1). Due to the pre-existing, reserved nature of the right to construct and maintain, those special use permits are not subject to a compatibility determination. *See id.*

However, the easement states that the "transmission line and every part thereof shall … be confined to lands within 25 feet of either side of the … center line, except that [Tri-State] shall have the right and [*sic*] privilege of placing and maintaining guys and anchorages at greater distances from said center line where reasonably necessary to support said transmission line." The exception does not expressly contemplate conductor blowout, or "line sway." Thus, although actions to maintain laydown areas and expand access roadways or spur roads within and outside of the existing easement footprint are existing use rights reserved by the easement holder, use for operations outside the 25 feet from either direction of the center line called out in the easement in the form of conductor blowout, or line-sway, is not an expressly authorized use.

d. No-Blowout/No new right-of-way option

On March 24, 2023, Tri-State and SunZia provided a memorandum to the U.S. Fish and Wildlife Service titled: "*Comparison of Potential Impacts on Sevilleta National Wildlife Refuge From Proposed and No-Blowout Designs for Rebuild of Existing Bernardo-Socorro Transmission Line*" (Tri-State/SunZia, March 24, 2023) (attached), which describes a project refinement limiting conductor blowout, or line sway, to occur only within the 50-foot Tri-State easement. The project refinement would remove the need for authorization for conductor blowout, or line sway (Tri-State, March 24, 2023).

On April 20, 2023, Power Engineers produced a memorandum that further defined the impact comparison between the proposed request (blowout) and no-blowout designs (See Power Engineers, April 2023) (attached).

In addition, a project description for periodic wind driven line sway was provided (attached) within the May 23, 2023 right-of-way application packet, which further updated project design calculations, resulting in an expanded right-of-way request to accommodate blowout 16 feet to the east and seven feet to the west, and perhaps more, with the amount unspecified during high wind events. Additionally, the number of monopole structures needed for both proposed blowout and no-blowout designs was updated.

Under a no-blowout alternative, all of the activities would be within the rights granted by Tri-State's existing easement, and no additional right-of-way permit or compatibility determination would be required. We are including information about this no-blowout option as a comparison to the proposed use.

As described within the March 24, 2023, April 20, 2023 and May 23, 2023 supporting documents, this no-blowout construction refinement would increase the number of poles needed within the 50-foot easement by an estimated 35%, approximated at 24 additional monopole structures. The no-blowout construction refinement would permanently disrupt an additional 1.51 acres and temporarily disrupt an additional 21.7 acres of existing habitat within the easement, under the no-blowout design. The additional structures would roughly increase the disturbance footprint outside of the 50-foot easement by an estimated 30% in the form of new spur roads and laydown/maintenance areas, resulting in disruption of 17.22 acres outside of the easement. All other actions/disturbances would remain as described within the FINAL Plan of Development and associated Reclamation Plan (BLM, 2023).

If the right-of-way application for blowout was granted, reclamation of temporarily disturbed areas within the easement would occur and approximately 15.1 acres of new permanent disturbance would remain around the foundation of new structures and through modifications to existing access roads.

Is the use a priority public use?

No

Where would the use be conducted?

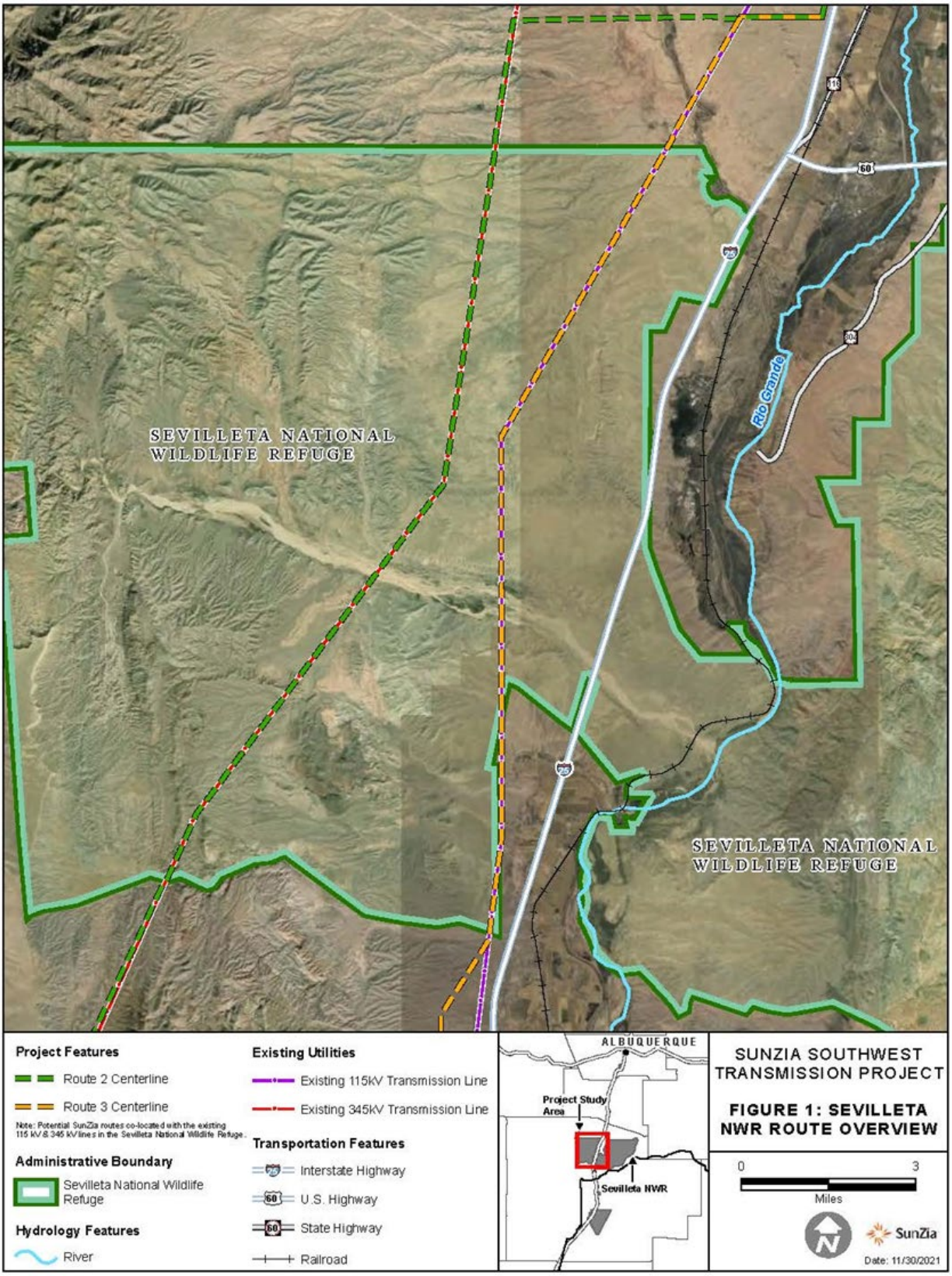
The Sevilleta NWR is uniquely situated at the junction of four different biomes—the Colorado Plateau Shrub Steppe, Great Plains Short Grass Prairie, Chihuahuan Desert, and Pinyon-Juniper Woodland (USFWS 2020). The Project area lies within the southeast corner of the Colorado Plateau within the Arizona/New Mexico Plateau—Albuquerque Basin Level IV ecoregion (Griffith et al. 2006). Three major vegetation communities were identified through a vegetation assessment along the Tri-State easement: grasslands, mixed desert shrublands, and riparian. Grasslands are dominated by a diverse mix of warm-season grasses including six species of dropseed (*Sporobolus* spp.), three species of muhly *(Muhlenbergia* spp.), three species of grama (*Bouteloua* spp.), three species of threeawn (*Aristida* spp.), James' galleta (*Hilaria jamesii*), and burrograss (*Scleropogon brevifolius*). Grasslands transition into mixed desert shrubland communities dominated by varying amounts of broom dalea (*Psorothamnus scoparius*), creosote bush (*Larrea tridentata*), fourwing saltbush (*Atriplex canescens*), and honey mesquite (*Prosopis glandulosa*). Riparian communities are present along waterways and arroyos. Smaller arroyos contain riparian shrublands while larger arroyos, including the Rio Salado, contain riparian woodlands. Riparian shrublands in the smaller arroyos are dominated by Apache plume (*Fallugia paradoxa*), mule fat (*Baccharis salicifolia*), and willow baccharis (*Baccharis salicina*). The riparian woodlands in the large arroyos are dominated by salt cedar (*Tamarix ramosissima*), Russian olive (*Elaeagnus angustifolia*), and coyote

willow (*Salix exigua*). A total of 154 vascular plant species were identified during the assessment, including 143 native and 11 introduced species. Two of the introduced species were noxious weeds: Russian olive and salt cedar.

The Tri-State line is located approximately 1.3 miles west of the Rio Grande. There are several ephemeral or intermittent washes through the Sevilleta NWR which cross the Project area, including the Rio Salado and adjacent to the Rio Puerco which ultimately drain into the Rio Grande. No wetlands have been identified in the Project area, aside from possible seasonal riverine wetlands that correspond to the intermittent or ephemeral washes.

The area proposed for conductor blowout includes all areas 16 feet east and seven feet west of the current Tri-state 115 kV 50-foot easement footprint, which extends approximately 11.6 miles through the refuge. The line-sway/blowout area would include approximately 32.34 additional acres (calculation: 11.6 miles (61,248 feet) X 23 feet (16 + 7 feet) = 1,408,704 sq feet, converts to 32.34 acres) outside of the current easement (See Map 1). The blowout itself would not cause any ground disturbances or loss of habitat.

To construct and for long-term maintenance of infrastructure in relation to the overall action through Sevilleta NWR, Tri-State would require road upgrades outside of the existing road matrix (widening up to 35 feet) along the entire stretch of road utilized for easement access, some of which occurs outside of the easement. Total area of surface disturbance impacted outside of the existing easement is 57 acres. An estimated 17.22 additional acres (30% more area) would be disturbed if the no-blowout design is implemented, as extrapolated from the memorandum provided by Tri-State and SunZia (Tri-State/SunZia March 24, 2023, and Power Engineers April 20, 2023) attached.



Map 1: Tri-State Easement signified as Existing 115kV Transmission Line overlayed with Route 3 Centerline (proposed – SunZia DRAFT Construction Plan Sevilleta NWR December 2021).

When would the use be conducted?

This action is for operation of the line in the form of conductor blowout, which occurs during minor and major windy conditions. This action would occur throughout the life of the project, for which the Bureau of Land Management (BLM) is issuing SunZia a 50-year right-of-way grant.

How would the use be conducted?

Construction, maintenance, and operation of the line will be completed in accordance with the FINAL Plan of Development and associated Reclamation Plan that can be found at https://eplanning.blm.gov/eplanning-ui/project/2011785/570.).

Why is this use being proposed or reevaluated?

SunZia proposed to amend the existing right-of-way grant from BLM in four components. One of those components was a re-route that would include co-locating within up to two existing transmission lines through Sevilleta NWR (Segment 3). El Paso Electric Company has a 345-kilovolt line in a 100-foot easement, and Tri-State has a 115-kilovolt line in a 50-foot easement. Tri-State is proposing to replace the existing Tri-State line infrastructure with infrastructure that could accommodate both the existing line and the proposed SunZia line.

Tri-State has also requested temporary access to refuge lands outside of the existing easement footprint for construction support and long-term maintenance. Figure 2 below shows the tower configuration. Given the narrow width of the Tri-State easement, this request is to allow operations outside of this existing footprint in the form of line-sway/blowout for the estimated 11.6 mile stretch that extends through the refuge, in lieu of pursuing a no-blowout refinement that would impact additional acreage within the refuge. Analysis of the design concluded that there may be up to 16 feet to the east and seven feet to the west of line-sway beyond the 50-foot easement at mid-span (and perhaps more during high wind events) with the conductor approximately 40 feet in the air (SunZia 2022a).

With the no-blowout refinement, additional acreage would be impacted both within and outside of the 50-foot easement (Tri-State/SunZia, March 24, 2023, and Power Engineers April 20, 2023). Refuge management is comparing impacts caused by both requested actions (blowout versus no-blowout) as they are new requests not previously evaluated.

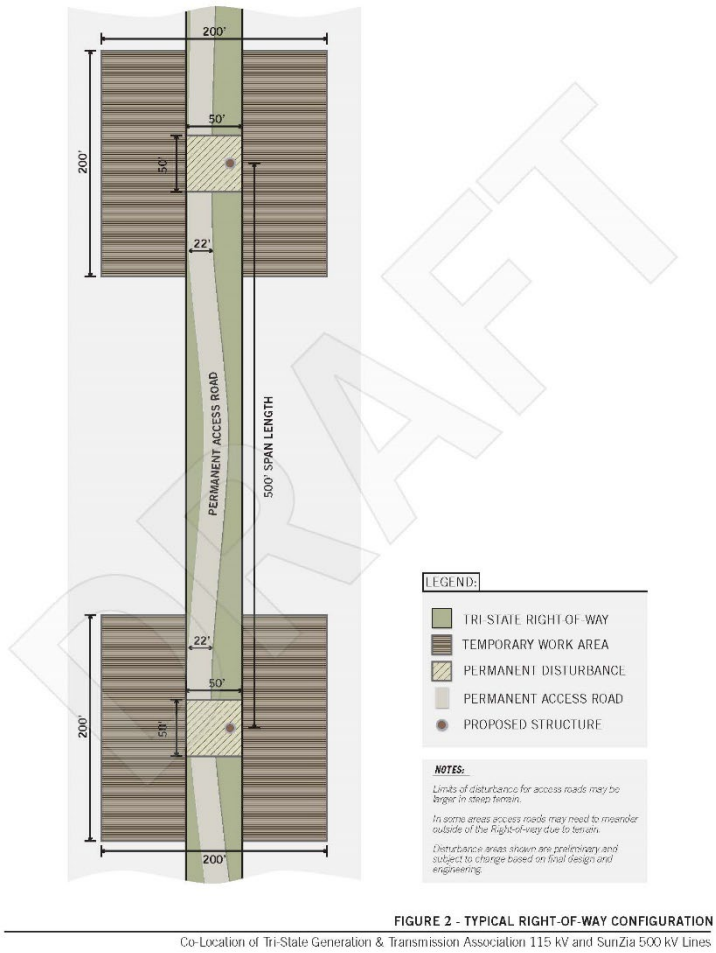


Figure 2: Proposed configuration for re-build of Tri-State Transmission Line.

SunZia conducted a detailed siting study during 2019-2020 that resulted in the network of alternative routes. The alternative routes were developed to avoid specially designated lands to the extent feasible. Full alterative descriptions can be found in the Final Environmental Impact Statement, on the BLM's Project ePlanning website at https://eplanning.blm.gov/eplanning-ui/project/2011785/510.

Availability of Resources

Costs associated with this request include staff time to develop environmental compliance documents, permits, and initial administration are approximately $33,000. Additionally, monitoring of the permit for the life of the project would be approximately $5,000 annually.

Anticipated Impacts of the Use

Potential impacts of a proposed use on the refuge's purpose(s) and the Refuge System mission

The newly requested action, authorization of line-sway/blowout areas, would result in no additional ground disturbance that is not already described within the FINAL Plan of Development and associated Reclamation Plan, since line-sway will occur above the ground surface.

Due to significant land use restrictions within the Sevilleta NWR and lack of significant vegetation and maximum height of the tree species within and adjacent to the two alternative routes within Sevilleta NWR, line-sway outside the Tri-State easement is not a safety risk (SunZia 2022a). Upon field review of the locations within the Sevilleta NWR, there are minimal trees and/or vegetation that meet such criteria for removal, therefore, vegetation management within the Sevilleta NWR is expected to be minimal (SunZia 2022a). The no-blowout refinement would result in additional long-term soil compaction, vegetation loss, erosion issues and overall alteration of the natural ecosystem within and outside of the current easement footprint. The additional road widening, maintenance actions and ecosystem disturbance required to occur within and outside of the existing easement footprint would occur for the life of the project.

As described in the FEIS, surface disturbance within the Sevilleta NWR outside of the existing transmission line footprint would be considered a long-term impact to the refuge, regardless of the project activity. For example, the use of a temporary work areas are considered a temporary project activity, but the surface disturbance associated with a temporary work area would have long-term impacts due to the challenges and long time frames required to reestablish native vegetation in arid ecosystems. This disturbance would have long-term negative impacts to the natural state and is inconsistent with the maintenance of natural and ecological processes of the property in conflict with the refuge purpose.

Operations such as blowout/line-sway would be considered a commercial activity. As outlined in the Warranty Deed, “the property shall not be sold, exchanged, transferred or abandoned, nor shall it be leased or used for any commercial purpose other than where deemed appropriate by the Bureau [Service] and The Nature Conservancy for the purposes of sound wildlife management.”

The proposed refinement to limit blowout/line-sway within the easement only (no-blowout alternative), would increase the number of poles needed within the easement by an estimated 35%, increase the disturbance footprint outside of the existing easement footprint by an estimated 30% (new spur roads and laydown/maintenance

areas), and increase disturbance in the form of road widening efforts by 1.5 acres within easement. These actions would result in additional negative impacts on the Sevilleta NWR's natural state and conflict more with the purpose of sound wildlife management than would issuing a right-of-way for blowout/line-sway to occur outside of the current easement. Accordingly, a decision to decline to authorize conductor blowout/line sway would undermine the Sevilleta NWR purpose more than would a decision to authorize conductor blowout/line sway, thus minimizing surface impacts to the Sevilleta NWR. For that reason, we propose that issuance of a right-of-way for the purpose of authorizing conductor blowout/line sway be recognized as compatible.

Public Review and Comment

The draft compatibility determination will be available for public review and comment for 30 days during the review period for the SunZia Final EIS. The public will be made aware of this comment opportunity through website posting and mailings to potentially interested parties. A hard copy of this document will be posted at the Refuge Headquarters or Visitor Center. Please let us know if you need the documents in an alternative format. Concerns expressed during the public comment period will be addressed in the final version of this document.

Determination

Is the use compatible?

Yes

Stipulations Necessary to Ensure Compatibility

The blowout/line-sway use is compatible as this right-of-way action will minimize disturbance to the landscape as a result of the no-blowout refinement. Some stipulations to ensure compatibility include:

- This right-of-way applies to airspace only and will not result in easement expansion to include below ground or ground surface resources outside of the current Tri-State 50-foot easement.
- Additional negative impacts cannot occur beyond what is described within the Final Plan of Development and Sevilleta NWR Reclamation Plan.
- All Stipulations associated with special use permits for construction and maintenance must be adhered to.
- All Sevilleta NWR Consolidated List of Refuge Regulations (attached) apply to anyone entering refuge closed areas and must be adhered to.
- Additional terms and conditions outlined within the right-of-way regulations found at 50 CFR 29.21 - 4, 29.21 – 8 will be included.

Justification

The Sevilleta NWR Warranty Deed established refuge purpose(s) including: "…to preserve and enhance the integrity and the natural character of the ecosystems of the above property by creating a wildlife refuge managed as nearly as possible in its natural state, employing only those management tools and techniques that are consistent with the maintenance of a natural ecological process."

As outlined in 603 FW 2, a compatible use will not materially interfere with or detract from the fulfillment of the National Wildlife Refuge System mission or the purposes of the national wildlife refuge. The Service has determined that permitting an action that would extend outside of the existing easement is less impactful to the naturalness and natural ecosystem function than that of not granting a right-of-way for blowout/line-sway and accepting the actions proposed by Tri-State and SunZia to construct additional power poles, supported by more laydown/maintenance sites and additional spur roads. Actions associated with the no-blowout refinement would interfere with and detract from the purposes for which the refuge was established more so than that of the blowout/line sway option, as outlined below:

- Long-term soil compaction, vegetation loss, erosion issues and overall alteration of the natural ecosystem outside of the existing easement footprint. The additional required maintenance actions and ecosystem disturbance required to occur outside of the existing easement would occur for the life of the project. This disturbance would have long-term negative impacts to the natural state and is inconsistent with the refuge purpose.

The newly requested actions (blowout/line-sway areas) include a request outside of the current easement footprint that would be considered a commercial activity. As outlined in the Warranty Deed, "the property shall not be sold, exchanged, transferred or abandoned, nor shall it be leased or used for any commercial purpose other than where deemed appropriate by the Bureau [Service] and The Nature Conservancy for the purposes of sound wildlife management." However, the no-blowout alternative is within the easement holder's reserved rights and is more impactful than that of allowing blowout/line-sway to occur.

Signature of Determination

Refuge Manager Signature and Date

Signature of Concurrence

Regional Chief Signature and Date

Mandatory Reevaluation Date

Literature Cited/References

Bureau of Land Management. 2023. SunZia Southwest Transmission Line Project. Right-of-Way Amendment. Final Environmental Impact Statement and Proposed Resource Management Plan Amendment. https://eplanning.blm.gov/eplanning-ui/project/2011785/510

Erik Nyquist to Adam Cernea and Natalie McCue, April 20, 2023, Power Engineer, Inc., SunZia Southwest Transmission Project-Environmental Resource Impact Comparison of Potential Impacts on Sevilleta National Wildlife Refuge From Proposed and No-Blowout Designs for Rebuild of Existing Bernardo-Socorro Transmission Line, 180194

Grant of Easement between The United States of America and Campbell Farming Corporation (Rio Grande Project, New Mexico – Texas Contract and Grant of Easement) dated Jan. 16, 1951, Socorro County, New Mexico, Deed Book 160: 66 - 68 (filed March 28, 1951, 10:00 a.m.)

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Power Engineers, Inc. to Pattern Energy, April 20, 2023, SunZia Southwest Transmission Project – Environmental Resource Impact Comparison of Potential Impacts on

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2022a. SunZia Southwest Transmission Line Response to NREL Memo: Follow-up review on ROWs for SunZia Transmission Project Through Sevilleta Wildlife Refuge. March 7, 2022.

SunZia Transmission, LLC. 2021. Sunzia Southwest Transmission Line Project Preliminary Construction Plan. SunZia Southwest Transmission Line Project. December 2021

Tri-State Generation and Transmission Association (Tri-State), Inc. and SunZia Transmission, LLC (SunZia) to Amy Leuders, February 13, 2023, Tri-State and SunZia, Intent to Enter into Negotiations regarding a Special Use Permit for SunZia Project/Rebuild of TSGT Transmission Line Crossing Sevilleta NWR

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U.S. Fish and Wildlife Service. 2000. Compatibility, Fish and Wildlife Service Manual. Policy - Part 603 FW 2

U.S. Fish and Wildlife Service (USFWS). 2020a. Sevilleta National Wildlife Refuge. Available at https://www.fws.gov/refuge/Sevilleta/wildlife_and_habitat.html. Accessed January 2020.

Warranty Deed between The Nature Conservancy and the United States of America dated Dec. 28, 1973, Socorro County, New Mexico, Deed Book 315: 242-251 (filed December 31, 1973, 11:18 a.m.)