BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF PUBLIC SERVICE COMPANY OF NEW MEXICO'S APPLICATION FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT, OWN, AND OPERATE, LOCATION APPROVAL, AND RIGHT-OF-WAY DETERMINATION FOR THE MID-STATE 345 KV TRANSMISSION PROJECT	)	**Docket No. 26-0000XXX**
PUBLIC SERVICE COMPANY OF NEW MEXICO,	)	
Applicant.	)	

DIRECT TESTIMONY

OF

ADAM K. MCCLELLAN

October 30, 2026

NMPRC DOCKET NO. 26-0000XXX
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PUBLIC SERVICE COMPANY OF NEW MEXICO

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Affidavit

DIRECT TESTIMONY
OF ADAM K. MCCLELLAN
NMPRC DOCKET NO. 26-0000XXX

I. INTRODUCTION AND PURPOSE

Q. Please state your name, position, and business address.

A. My name is Adam K. McClellan. I am the Senior Manager of Land Services for PNMR Services Company. My business address is 2401 Aztec Road NE, Albuquerque, New Mexico 87107. I am testifying on behalf of Public Service Company of New Mexico ("PNM" or "Company").

Q. Please summarize your educational background and professional qualifications.

A. My educational background and professional experience are summarized in PNM Exhibit AKM-1.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to support PNM's request for location approval for the Project, including the Proposed Route within the Transmission Study Corridor, and PNM's request for a 200-foot right-of-way ("ROW") width determination. I also discuss the routing study and route selection process, affected land ownership, PNM's ROW and easement acquisition activities, co-location considerations, required land permits and authorizations, stakeholder outreach, and the notice required for PNM's requested ROW determination.

Q. How is your testimony organized?

A. My testimony is organized into eight sections. Section I provides my introduction and the purpose of my testimony. In Section II, I discuss the routing study and selection of the Proposed Route. Within Section III I describe the Project location and affected land ownership. In Section IV, I address PNM's public outreach process. Section V includes discussion regarding the acquisition of ROW and easements and co-location considerations. Within Section VI, I identify required land permits and other authorizations. In Section VII, I address the required ROW notification. Lastly, in Section VIII I summarize my testimony and present my conclusions.

II. ROUTING STUDY

Q. Was a routing study conducted for the Mid-State Project?

A. Once the need for the Project was identified,[1] PNM had Mid-State LLC's consultant conduct a routing study for the Project. The routing study identified and compared various routes that met PNM's requirements to increase transmission capacity and enhance the electrical system reliability and resiliency in the Albuquerque metro and surrounding areas. The routing study identified a network of geographically distinct route options comprised of interconnecting segments that connect the

[1] For a detailed explanation of the need for the Project, please see the Direct Testimony of Kelsey L. Martinez.

Project endpoints, the Western Spirit Switchyard and Hidden Mountain Substation. Resource data, land use, visual, biological, cultural, water and paleontological including existing gas infrastructure, transmission and transportation corridors were reviewed to aid in the review of each route. PNM and Pattern Energy ("Pattern") reviewed the routes during numerous meetings and added or modified routes to reduce potential impacts on existing and planned land uses, as well as environmental and cultural resources.

PNM updated the routing study and identified three routes that meet the Project requirements to increase transmission capacity and enhance the electrical system by increasing access to eastern New Mexico renewable resources in PNM's load areas. The three routes are described in the routing study, included as PNM Exhibit AKM-2. To be clear, PNM is proposing one route. The other routes are presented as alternatives that PNM considered.

During Project meetings and meetings with stakeholders, PNM developed the Proposed Route described in PNM Exhibit AKM-2 to avoid or reduce potential impacts on environmental, cultural and existing or planned land use during construction and operation of the Project. The Proposed Route was selected because it would maximize use of existing ROW, avoid or minimize the potential cultural, environmental and land use impacts.

Q. What was the purpose of the routing study?

A. The routing study aimed to identify, compare, and refine transmission routes to increase capacity and enhance electrical reliability in the PNM load serving areas. It served to select a preferred route that minimizes impacts on environmental, cultural, and land-use resources by mapping constraints and engaging with stakeholders while maximizing use of existing ROWs.

Q. Did the routing study evaluate the multiple routing alternatives?

A. Yes.

Q. How was the initial study area identified?

A. The scope of this Transmission Line Routing Study ("Routing Study") includes identifying, analyzing, and evaluating feasible route alternatives to then identify a Preferred Route and two route alternatives for the proposed 345 kV transmission line between the existing Western Spirit Switchyard and Hidden Mountain Substation. Transmission line feasibility refers to the degree to which a proposed transmission line route can be practically engineered, permitted, constructed, and operated considering technical constraints, environmental resources, land ownership, regulatory requirements, cost, and stakeholder considerations. This Routing Study does not address detailed engineering and design, stakeholder

engagement, ROW acquisition, or construction, operation, and maintenance activities for the planned 345 kV transmission line.

Q. What factors were considered in establishing the study area?

A. The factors considered in establishing the study area include the following, route length and use of existing ROW, environmental, cultural, and existing or planned land use during construction and operation of the Project.

Q. Please describe the routing methodology used for the Mid-State Project?

A. The routing methodology used a comprehensive, five-step evaluation process to define, analyze, and evaluate route alternatives for the proposed transmission line.

The process included the following steps:

Step 1: Define the Study Area. Geographic boundaries were established to encompass the area most likely to accommodate a feasible transmission line between the Project endpoints while providing flexibility to identify, compare, and refine potential route alternatives.

Step 2: Conduct Data Inventory and Mapping. Desktop land use, environmental, engineering, and infrastructure data within the Study Area were compiled and mapped using geographic information system ("GIS") technology. These data were

used to characterize existing conditions, identify resource features, and support the evaluation of routing opportunities and constraints for the transmission line.

Step 3: Establish Routing Criteria and Assign Sensitivity Levels. Routing criteria were developed to evaluate potential route alternatives based on engineering, environmental and land use resources, and permitting considerations. Resource-specific routing criteria developed for the Routing Study were applied to the mapped data to classify resources as low, moderate, or high sensitivity, or as exclusion areas. Sensitivity classifications were based on factors such as resource value, regulatory protections, land use compatibility, engineering constraints, constructability considerations, and the potential for conflicts with transmission line construction, operation, and maintenance.

Step 4: Identify Opportunities and Constraints. The sensitivity classifications and mapped resource data were integrated to identify routing opportunities and constraints throughout the Study Area. Composite sensitivity mapping was used to distinguish areas that may constrain transmission line development from areas that may provide feasible transmission line routing opportunities.

Step 5: Identify Route Alternatives. Using aerial imagery, desktop environmental and engineering data, and the results of the GIS opportunities and constraints

analysis, end-to-end route alternatives were developed for subsequent evaluation and comparison. Route alternatives were refined to maximize the use of existing infrastructure corridors, avoiding or minimizing conflicts with sensitive resources.

Q. What objectives guided the routing study?

A. The routing study objectives are:

1. Define a practical study area between the Western Spirit Switchyard and Hidden Mountain Substation that is broad enough to support feasible route development and comparison.
2. Develop a defensible routing methodology using a structured five-step process: study area definition, data inventory/mapping, routing criteria and sensitivity classification, opportunities/constraints analysis, and route alternative identification.
3. Identify feasible transmission line route alternatives for the proposed approximately 102.8-mile, 345 kV Mid-State Transmission Project.
4. Evaluate alternatives consistently based on engineering feasibility, constructability, environmental resources, land use compatibility, permitting requirements, land ownership, existing infrastructure corridors, and stakeholder considerations.
5. Classify routing constraints and opportunities by assigning low, moderate, high, and exclusion sensitivity levels to mapped resources.

6. Avoid or minimize impacts to sensitive resources such as national monuments, cultural resources, wetlands, flood plains, biological resources, visual resources, residences, airports, and other land use constraints.
7. Maximize use of existing infrastructure corridors where practicable, including existing transmission lines, roads, utility corridors, and parcel boundaries.
8. Identify a preferred route that represents the most feasible alignment at this stage of project development while recognizing that the route may be refined as engineering, permitting, consultation, and ROW activities progress.
9. Support regulatory review and future project development by documenting the basis for route comparison, screening, and preferred-route selection.
10. Clarify study limitations by noting that detailed design, stakeholder engagement, ROW acquisition, construction, operation, and maintenance activities will occur in later phases.

Q. Were all routing alternatives evaluated using the same route criteria?

A. Yes.

Q. What constraints were evaluated during the screening process?

A. The constraints evaluated included:

1. Land use constraints: airports/heliports, national monuments, Superfund sites, communication towers, conservation easements, parks/open space, habitable

structures, schools, childcare facilities, churches, active/inactive mines, oil and gas wells, water wells, prime farmland, grazing allotments, and forestry priority areas.

2. Visual resource constraints: national monuments, scenic byways, National Historic Trails, urban areas, Bureau of Land Management ("BLM") Visual Resource Management areas, U.S. Forest Service ("USFS") Scenic Integrity Objective areas, and visually sensitive viewers.
3. Cultural resource constraints: National Historic Landmarks, National Register of Historic Places ("NRHP")-listed or eligible properties, State Register properties, archaeological sites, historic sites, historic trails, and potential Traditional Cultural Properties.
4. Water resource constraints: U.S. Fish and Wildlife Service ("USFWS") National Wetlands Inventory wetlands, riverine/lake/pond features, perennial and intermittent streams, ephemeral drainages, Federal Emergency Management Agency ("FEMA") flood zones, and the Rio Grande corridor.
5. Biological resource constraints: wildlife habitat, sensitive/threatened/endangered species, USFWS-designated critical habitat, riparian areas, wetlands, and special management areas.
6. Paleontological constraints: geologic units and Potential Fossil Yield Classification areas.
7. Engineering/geologic constraints: elevation, slope, karst topography, terrain/access limitations, constructability issues, and co-location limitations.

8. Cost: While the routing study evaluated potential constraints posed by the various natural and human environmental conditions described above, we also considered the potential all-in costs of the three alternatives. Both the Rio-Sol and Western Spirit Transmission 2 routes would have presented significantly higher costs. The construction process to safely build the Western Spirit Transmission 2 route without temporarily decommissioning the existing Western Spirit Transmission line (which itself would cause significant, high-cost outages) would have been significantly more expensive than the process for construction of the 115 kV Rebuild line, which can more easily be constructed without long term outages. The Rio-Sol route ROW acquisition would have been more costly than the proposed route.

The report also specifically identifies "Siting Constraints" and a table titled "Siting Land Use and Environmental Constraints," along with an engineering constraints table, indicating that both environmental/land use and technical constraints were formally considered.

Q. How did these constraints influence route development?

A. The constraints influenced the routing study in the following ways:

1. They shaped the Study Area and route corridors. The team used mapped environmental, land use, engineering, and infrastructure constraints to identify where a transmission line could reasonably be located.

2. They established a screening framework. Resources were classified as low, moderate, high, or exclusion sensitivity, which created a consistent basis for comparing areas across the Study Area.
3. They guided avoidance and minimization. High-sensitivity and exclusion areas—such as national monuments, airports, cultural resources, wetlands, floodplains, and sensitive biological habitats were treated as areas to avoid where practicable or to minimize impacts if avoidance was not feasible.
4. They helped identify routing opportunities. Areas with fewer constraints, existing transmission corridors, roads, parcel boundaries, and previously disturbed utility corridors were favored because they reduced new disturbance and potential conflicts.
5. They informed route alternative development. Route alternatives were refined to balance constructability, permitting feasibility, land ownership, ROW considerations, environmental sensitivity, and compatibility with existing land uses.
6. They supported route comparison and preferred route selection. Constraints were not just cataloged; they were used to evaluate the relative feasibility of each alternative and help determine which alignment was most practical at this stage of project development.

7. In short, the constraints acted as the primary screening tool for deciding where routes should go, where they should not go, and where additional engineering, permitting, consultation, or mitigation would likely be needed.

Q. How many route alternatives were evaluated?

A. Three route alternatives were evaluated along with a statement for the "No project" alternative.

Q. Were opportunities evaluated to utilize existing utility corridors where feasible?

A. Yes. The study treats use of existing routes/corridors as a key alternative-routing strategy rather than defaulting entirely to new greenfield alignment. Existing routes and infrastructure corridors were evaluated as opportunities to reduce new disturbance, improve constructability, and limit environmental and land use conflicts. The report emphasizes paralleling or co-locating with existing transmission lines, roads, utility corridors, and parcel boundaries where practicable.

Q. What route was ultimately selected as the proposed route?

A. **115 kV Rebuild Route (Proposed):** Uses portions of the existing PNM WL 115 kV ROW by rebuilding the 115 kV line onto new structures capable of supporting both the existing 115 kV circuit and the new 345 kV circuit. This reduces the need

for a completely new ROW along portions of the route. The proposed route map can be seen at PNM Exhibit AKM-4.

Q. Why was that route selected?

A. Overall, using existing routes was considered favorable because it could minimize new linear disturbance, leverage established utility corridors, reduce fragmentation, improve permitting defensibility, and potentially lessen impacts to sensitive resources.

III. PROJECT LOCATION

Q. Please present the location of the Project.

A. The Project is located in central New Mexico. It is a proposed approximately 102.8-mile, 345 kV transmission line that would extend from the existing Western Spirit Switchyard in Torrance County to the existing Hidden Mountain Substation in Valencia County. See PNM Exhibit AKM-4 for a map of the area.

Q. Please state the total length of the line for the proposed route.

A. The total approximate length of the proposed route is 542,608.7 feet (approximately 102.8 miles).

Q. Please identify the type of ownership of the land that the transmission line will cross and the number of feet the transmission line will cross over each owner's land.

A. Mid-State 345 kV Line Identification of Land Ownership and corresponding length best known at the time of this filing for the proposed route is as follows:

Landowner	**Feet**	**Miles**
Private	440,095.7	83.4
New Mexico State Land Office ("NMSLO")	87,303.2	16.5
United States Forest Service ("USFS")	11,189.3	2.1
Middle Rio Grande Conservancy District ("MRGCD")	1,620.0	0.3
New Mexico Department of Wildlife[2] ("NMDOW")	1,537.6	0.3
New Mexico Department of Transportation ("NMDOT")	742.6	0.1
Bureau of Land Management ("BLM")	120.3	0.02
Total	**542,608.7**	**102.8**

The exact route lengths will not be solidified until after Commission approval and detailed engineering design plans are completed. Any changes to the route will arise during the negotiation of acquiring land and easements. For PNM to acquire all required land and easements prior to Commission approval would not represent good utility practice. Any material deviation from the Commission-approved one-

[2] Pursuant to NMSA 1978, § 17-1-1.1, effective July 1, 2026, the former New Mexico Department of Game and Fish is renamed the Department of Wildlife. References to engagement with that agency prior to July 1, 2026, may use the former name.

mile Transmission Study Corridor will be addressed in accordance with applicable regulatory requirements.

Q. Does this Project require any local jurisdiction approvals?

A. Based on PNM's current permitting review, PNM has not identified any local jurisdiction approvals required for the Project.

Q. Has any analysis been conducted as to the potential environmental impacts of the Project?

A. Yes. Please refer to the Direct Testimony of Ian Evans.

IV. PUBLIC OUTREACH PROCESS

Q. Has PNM engaged in public outreach efforts with local communities and constituents (OLE[3] Issue 1)?

A. Yes. PNM's outreach has included communications with affected and nearby landowners, coordination with governmental and land-management agencies, Tribal outreach, and public open houses held on August 24, 2026. Please see PNM Exhibit AKM-3 for a summary of the outreach performed. Please also refer to the Direct Testimony of PNM witness Cathy Newby for discussion of Tribal outreach.

[3] All references to "OLE" throughout this testimony relate to requirements from Case No. 2382 (Ojo Line Extension), Final Order (November 20, 1995), p. 104.

Q. What was PNM's process for identifying stakeholders?

A. Based on prior project experience, current best practices for public outreach, and reviews of jurisdictional maps and maps of communities within 1,000 feet of the Project, PNM created an outreach plan to identify and involve stakeholders that include Tribes that have cultural and historical ties to the Project area, nearby residents, and neighborhoods within 1,000 feet each side of the Project centerline. As we meet with individuals and groups, PNM asks them for their input into who else should be involved to receive information from PNM and to provide additional input and perspectives to inform the planning and design of the Project.

Q. What types of stakeholders have been engaged during the Project development?

A. PNM has reached out to the following types of stakeholders:

1. Private landowners
2. Sixteen Tribes associated with the historical Salinas Pueblo missions in the area. For additional information on Tribal outreach refer to PNM witness Newby.
3. Public agencies with land administration responsibilities along the Project route, including USFS, BLM, NMSLO, MRGCD, and NMDOW.
4. Other environmental and natural resources agencies, including USFWS and NMDOW. Please refer to the Direct Testimony of PNM witness Ian Evans for additional details on environmental and natural resources agency consultations.

Q. Why is stakeholder engagement important during the development of a transmission project?

A. Stakeholder engagement is important during the development of a transmission project because it provides PNM with direct input from landowners, Tribes, local communities, agencies, and other interested parties who may be affected by the proposed facilities. That input helps identify local concerns, land use considerations, cultural and environmental resources, access issues, and potential design or construction constraints early in the process. By engaging stakeholders throughout project development, PNM can better evaluate route options, avoid or minimize impacts where practicable, improve communication and transparency, and support a more informed and defensible planning, permitting, and regulatory review process.

Q. What was the outcome of the stakeholder engagement process?

A. The stakeholder engagement process provided PNM with useful information regarding landowner, agency, and community interests and concerns associated with the Project. Comments received included general opposition from some landowners who do not want the transmission line located on or near their property; questions and concerns regarding potential electric and magnetic field impacts; questions regarding whether PNM would pursue condemnation if voluntary

agreements cannot be reached; and questions regarding whether the power transmitted by the Project would be sold to California or used to serve data centers. PNM has been in communication with landowners, governmental agencies, and key stakeholders to share Project information, receive and evaluate comments, and incorporate stakeholder input where practicable. PNM will continue that communication and engagement throughout the Project timeline.

Q. Has PNM continued to offer stakeholder engagement opportunities?

A. Yes. PNM has and will continue to offer stakeholder engagement opportunities throughout the planning, regulatory review, design, and construction processes. PNM has created a webpage for the Project where interested parties can get updates on the Project, ask questions, and provide comments (https://www.pnm.com/mid-state-transmission). PNM will respond to any request for a meeting from an identified stakeholder or stakeholder group. PNM will continue to hold additional meetings with stakeholders as they are identified or as requested by identified stakeholders.

Q. How is PNM incorporating stakeholder input in the planning and design process?

A. PNM evaluates comments received from communities, Tribes, landowners, agencies, and other interested stakeholders and uses that input to identify

opportunities to avoid, minimize, or mitigate potential impacts. This includes considering visual simulations and structure color options, incorporating cultural resource survey results and Tribal input into design and construction activities, addressing aviation-related concerns through marker balls and tower lighting, and continuing coordination with stakeholders as engineering, permitting, and construction planning progress.

Q. Will PNM continue to offer stakeholder engagement opportunities?

A. Yes. PNM has and will continue to offer stakeholder engagement opportunities throughout the planning, regulatory review, design, and construction processes. PNM has created a webpage for the Project where interested parties can get updates on the Project, ask questions, and provide comments (https://www.pnm.com/mid-state-transmission). PNM will respond to any request for a meeting from an identified stakeholder or stakeholder group. PNM will continue to hold additional meetings with stakeholders as they are identified or as requested by identified stakeholders.

Q. How will continued stakeholder input be incorporated into the Project, and how does this support PNM's commitment to meaningful stakeholder engagement?

A. PNM will incorporate stakeholder outreach input into the Project design by evaluating comments received from communities, Tribes, landowners, agencies, and other interested stakeholders and using that input to identify opportunities to avoid, minimize, or mitigate potential impacts. This includes considering visual simulations and structure color options, incorporating cultural resource survey results and Tribal input into design and construction activities, addressing aviation-related concerns through marker balls and tower lighting, and continuing coordination with stakeholders as engineering, permitting, and construction planning progress.

Q. Will PNM receive input from the NMSLO regarding the route for the Project?

A. Yes. This Project crosses NMSLO parcels. PNM must apply for a license to occupy NMSLO land. In the first part of 2026, PNM notified the NMSLO about the Project. The NMSLO stated that they would review the Project when the application has been submitted. However, to submit the application, PNM must perform the required cadastral survey. The cadastral survey is scheduled to be completed by the first part of March 2027. Upon completion, PNM will file the application with the NMSLO. Following the filing of the application with the NMSLO, the biological and cultural surveys can be submitted to NMSLO. In discussions with the NMSLO, since the line voltage is proposed at 345 kV, the NMSLO states that a public comment hearing will be required as part of their review process.

V. ACQUISITION OF ROW AND EASEMENTS AND CO-LOCATION CONSIDERATIONS

A. Acquisition of ROW and Easements

Q. Has PNM begun the process of obtaining easements and ROW from other property owners?

A. Yes. PNM has begun the process of obtaining easements and ROW from private landowners (see PNM Exhibit AKM-4 for the Project Overview map).

B. Co-Location Considerations

Q. Why is use of existing corridors often beneficial when developing transmission infrastructure?

A. The study treats use of existing routes/corridors as a key alternative-routing strategy rather than defaulting entirely to new greenfield alignment. Existing routes and infrastructure corridors are identified as opportunities to reduce new disturbance, improve constructability, and limit environmental and land use conflicts. The Project design emphasizes paralleling or co-locating with existing transmission lines, roads, utility corridors, and parcel boundaries where practicable.

Q. What benefits can result from co-location with existing transmission facilities, where feasible?

A. Use of existing routes and infrastructure corridors can potentially reduce the amount of new ROW acquisition required, new disturbance, improve constructability, and limit environmental and land use conflicts.

Q. To the extent practicable, have the benefits outlined in the previous question been considered during the Project development?

A. Yes.

VI. LAND PERMITS AND OTHER AUTHORIZATIONS

Q. Has PNM determined which land permits and other authorizations will need to be obtained for the Project and the status of each?

A. Yes. PNM has reviewed the proposed route and identified that Cibola National Forest, BLM, NMSLO and NMDOT authorizations would be required for the areas where the Project crosses lands administered by these agencies. For the status of the NMSLO application, see the NMSLO section above. For the NMDOT permit, the application will be submitted within 6 months of the start of construction per the NMDOT process. Based on PNM's current permitting review, PNM has not identified any local jurisdiction approvals. The Project crosses approximately two miles of federal lands administered by the U.S. Forest Service and BLM. PNM has initiated coordination regarding applicable federal land authorizations. Please refer

to the Direct Testimony of PNM witness Evans for discussion of environmental review and environmental authorizations.

VII. ROW NOTIFICATION

Q. What notice is PNM required to provide regarding the requested 200-foot ROW width for the Project?

A. NMSA 1978, Section 62-9-3.2(D) requires that PNM provide notice of the time and place of hearing on the application for ROW width determination to be given to any owner of property proposed to be taken and, if applicable, to the occupant of the property. PNM will promptly mail the notice issued by the Commission to all affected property owners.

VIII. CONCLUSION

Q. Please summarize your testimony.

A. My testimony supports PNM's request for approval of the Proposed Route and the associated ROW determination for the Mid-State 345 kV Transmission Project from a land perspective. PNM conducted a structured routing study that evaluated feasible route alternatives using consistent criteria related to land use, environmental and cultural resources, engineering feasibility, constructability,

permitting requirements, existing infrastructure corridors, and stakeholder considerations.

PNM selected the 115 kV Rebuild Route as the Proposed Route because it maximizes use of existing ROW and infrastructure corridors where practicable, reduces the need for new ROW, and avoids or minimizes potential impacts on environmental, cultural, and existing or planned land uses. Based on the routing study, land ownership, ROW acquisition, co-location, permitting, and stakeholder-coordination matters discussed in my testimony, the Proposed Route and requested 200-foot ROW width are reasonable and appropriate from a land and ROW perspective.

PNM has identified the land interests, permits, and other authorizations required for the Project and has begun stakeholder outreach and ROW and easement acquisition activities. PNM will continue to engage affected landowners, Tribes, governmental and land-management agencies, local communities, and other interested stakeholders as the Project advances through regulatory review, engineering, permitting, ROW acquisition, and construction planning. Accordingly, PNM's requested location approval for Project within the Transmission Study Corridor, and the requested 200-foot ROW width

determination are reasonable, necessary, and appropriate to support development of the Project.

Q. Does this conclude your direct testimony?

A. Yes.

GCG#535981

Adam K. McClellan's Educational Background and Relevant Employment Experience

PNM Exhibit AKM-1

Is contained in the following 3 pages.

ADAM MCCLELLAN



Adam is a senior manager with over 32 years of extensive experience in electrical utilities. His last 20 years have been focused on the management and program/process development of complex multi-million-dollar, multi-state and leading multi-disciplinary teams for major engineering and construction projects at Southern California Edison, FirstEnergy Corp, Georgia Power Co, Puerto Rico Electric Power Authority and Public Service New Mexico. Responsibilities included management of the following project aspects: Programmatic Stakeholder Engagement Initiatives, GO 131-D, California Public Utilities Commission, CEQA, NEPA, SHPO, ACOE, BLM, California Air Quality Districts, California, Regional Water Quality Districts, California State Water Board, California Department of Fish and Wildlife, National Forest, Ohio Power Siting Board, PA Public Utility Commission, State Transportation Departments (ODOT, PenDOT, CalTrans), FEMA support, siting and licensing, real estate, public involvement, vegetation management, GIS, project management, construction execution, development and implementation of regulatory strategies, program tools, policies and procedures, ad staff development and management.

EDUCATION

Bachelors, Psychology, 2003

2 YEARS WITH PNM

10 YEARS WITH BURNS & MCDONNELL

32 YEARS OF EXPERIENCE

PNM Senior Manager Lands Support | PNM – Public Service Company of New Mexico

Oct 2024 - Present

Senior Manager, Lands Support Group. Currently managing PNMs Lands Support Department, managing all land fee and easement acquisitions and non-environmental permits.

PNM Environmental Program Management (BMcD Consultant) | PNM – Public Service Company of New Mexico

Jan 2022 – Oct 2024

Environmental Support Services Manager. Providing program management and process development support to their real estate, environmental, stakeholder engagement (communications), land-use and GIS teams. Guide program leadership throughout all program/project phases, ensuring initiatives are fully supported from the top down. Established the coordinated project process map, permit matrix database and other tools and reports to support achieving program goals. Stakeholder Engagement activities included managing a team to coordinate with landowners with respect to construction, of distribution and transmission lines, to support the New Service Delivery teams with addressing customer's concerns and needs.

Distribution Rehabilitation Program (BMcD Consultant) | PUERTO RICO ELECTRIC POWER AUTHORITY

Oct 2020 - Apr 2021

Environmental Support Services Manager. The Burns & McDonnell team worked as an extension of the utility to build up the foundation of what would become the Distribution Rehabilitation Program. Initial efforts comprised using a combination of available PREPA data and GIS technology to identify mainline or backbone segments of 95 of the feeders most heavily damaged by Maria. In conjunction with this effort came documenting and cataloging critical load facilities across the island with the intent of hardening the feeds to these facilities with redundancies and new technologies. Shepherd a skilled team of 12 persons supporting PREPA's comprehensive multi-project Electric Infrastructure Revitalization Program, which reaches across areas such as environmental permitting and compliance, real estate, public involvement, and geographic information systems (GIS). Advise client staff on a wide range of initiatives in addition to developing program processes to manage the FEMA Environment & Historical Plan (EHP) component of the program.

ADAM MCCLELLAN
(continued)

- Guide program leadership throughout all program/project phases, ensuring initiatives are fully supported from the top down.
- Successfully aided PREPA in finalizing the Fish and Wildlife Services Revised Endangered Species Act Technical Report.
- Established the coordinated EHP process map, permit matrix database and Power BI reports for the Grant Management and EHP program components to support achieving program goals.

Georgia Power Company - Grid Investment Program (BMcD Consultant) | GEORGIA POWER CO

Atlanta, Georgia | Jan 2020 - Sep 2020

Environmental Service Manager. Georgia Power's Grid Investment Plan is a multi-year initiative to enhance service and reliability in communities across Georgia. Georgia Power is committed to making smart investments for Georgias energy future to verify their customers are provided the clean, safe, reliable and affordable energy they expect and deserve. The company is investing $1.3 billion over the next three years as the initial phase of their multi-year grid investment plan. The investment plan focuses on upgrading transmission and distribution infrastructure across the power grid to decrease the number and length of power outages experienced by customers. Instrumental in setting up the real estate and public engagement components for GPC's reliability enhancement program. Georgia Power's "Grid Investment Plan" covers distribution projects across the northeastern portion of Georgia and transmission infrastructure projects across the state of Georgia.

- Coordinated and advised client management on a wide range of initiatives in addition to engaging in direct oversight of all contracted real estate consultants involved in multiple program/project areas.
- Guide program leadership throughout all program/project phases, ensuring initiatives are fully supported from the top down.
- Established the business plans, processes, and cost control tools for a wide range of organizations to ensure unified approaches to achieving program goals.
- Managed staff for the environmental, real estate, public involvement, GIS and vegetation management groups
- Set up Public Engagement Inquiry Log Database
- Set up workflow processes for the program

Transmission Reliability Excellence Plan (TREP) (BMcD Consultant) | FirstEnergy Corp.

Confidential Location | Nov 2013 - Jan 2020

Environmental Group Project Manager. Driving force behind a skilled team of 20-30 and 3rd-party consultants supporting FirstEnergy's comprehensive multi-state, multi-project Energizing the Future Transmission Expansion Program, which reaches across areas such as environmental permitting and compliance, real estate, public involvement, geographic information systems (GIS), and forestry/vegetation management. Duties and Activities Performed:

- Advise client staff on a wide range of initiatives in addition to developing program processes to manage the FEMA Environment & Historical Plan (EHP) and Hazard Mitigation component of the program (PREPA Specific).
- Successfully aided Client in the development and management of various permits and licenses
- Established the coordinated EHP process map, permit matrix database and Power BI reports for the Grant Management and EHP program components to support achieving program goals.
- Guide program leadership throughout all program/project phases, ensuring initiatives are fully supported from the top down.
- Established the business plans, processes, and cost control tools for a wide range of organizations to ensure unified approaches to achieving program goals.
- Coordinated and advised client management on a wide range of initiatives in addition to engaging in direct oversight of all contracted services involved in multiple program/project areas.
- Managed staff for the environmental, real estate, public involvement, GIS and vegetation management

ADAM MCCLELLAN
(continued)

SOUTHERN CALIFORNIA EDISON, Southern California 2009 – 2013
Environmental Group Senior Project Manager

Spearheaded the Environmental Group's contributions to two of the company's largest renewable transmission projects, the ***Tehachapi Renewable Transmission Project (TRTP)*** and ***Eldorado Ivanpah Transmission Project (EITP)***. TRTP involved gaining approval for and building a 150 mile, 500kV transmission line that crossed federal, state, and private lands. EITP was a multijurisdictional, multi-state project that crossed 36 miles of Bureau of Land Management property.

- Continually liaised with senior management while directing the Environmental Support Service team and 150+ consultants over the course of both projects.
- Forged strategic partnerships with multiple state and federal agencies to successfully negotiate all necessary permits and project parameters.
- Optimized allocation of a $280M budget, holding expenditures to within 5% of approved budgetary parameters.
- Architected and spearheaded the development of a highly effective field compliance management database tool.
- Set up the processes and cost control tools utilized across the organization.

SOUTHERN CALIFORNIA EDISON, Southern California 2006 – 2008
Environmental Power Delivery Projects Manager

Rose through the ranks with Southern California Edison, culminating in assuming leadership of the Environment, Health, and Safety (EH&S) Power Delivery Projects Coordinator group with oversight of a $5M to $10M annual consultant budget.

- Spearheaded the coordination and submission of the California Public Utilities Commission's Transmission Licensing Process documents to enable Transmission Distribution Business Unit (TDBU) projects to move forward in accordance with CPUC and CEQA regulations.
- Played a key role in the development of all public involvement processes and the company's CPUS, GO 131 D project environmental licensing process.
- Developed multiple cross-organizational processes that took operations to new levels of performance.
- In prior roles, led the development of the Primavera scheduling and Document management tools that significantly improved the Project Management group's capabilities.

Prior experience with Southern California Edison includes T&D Process Administration Project Manager, Assistant Project Manager, and more.

Mid-State Transmission Line Routing Study

PNM Exhibit AKM-2

Is contained in the following 83 pages.

Mid-State Transmission Project

Routing Study Report

Mid-State Transmission LLC on behalf of Public Service Company of New Mexico

2026-09-11

US-WSP-0053179.0920-001

Document Distribution

Mid-State Transmission Project

Routing Study Report

2026-09-11

US-WSP-0053179.0920-001

Prepared for:

Mid-State Transmission LLC on behalf of Public Service Company of New Mexico

Prepared by:

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Abbreviations

Abbreviation	Description
BLM	Bureau of Land Management
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
GIS	geographic information system
kV	kilovolt
Mid-State	Mid-State Transmission, LLC
NHT	National Historic Trail
NM-	New Mexico State Road
NMSLO	New Mexico State Lands Office
NEPA	National Environmental Policy Act
NPS	National Park Service
NWI	National Wetlands Inventory
Pattern	Pattern Development USA, LLC
PFYC	Potential Fossil Yield Classification
PNM	Public Service Company of New Mexico
Project	Mid-State Transmission Project
RETA	Renewable Energy Transmission Authority
Routing Study	Transmission Line Routing Study
ROW	right-of-way
RSHME	Rio Sol + Hidden Mountain Extension
TCP	Traditional Cultural Property
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
VRM	Visual Resource Management
WSP	WSP USA Inc.
WST2	Western Spirit Transmission 2

Executive Summary

Mid-State Transmission LLC (Mid-State) retained WSP USA Inc. (WSP) on behalf of Public Service Company of New Mexico (PNM) to prepare this Transmission Line Routing Study (Routing Study) for the Mid-State Transmission Project (Project). The Routing Study identifies, analyzes, and evaluates feasible route alternatives for the proposed transmission line and supports ongoing Project planning and regulatory review. Based on the evaluation of engineering, environmental, land use, and permitting considerations, the Routing Study identifies a preferred transmission line route that represents the most feasible alignment at this stage of Project development. The preferred route selected by this report is indicative of the general route that is most likely to be pursued; over the course of development, the preferred route may evolve or shift to accommodate new information and further development goals.

The Project is a 102.7-mile-long, 345-kilovolt (kV) transmission line located in central New Mexico between the existing Western Spirit Switchyard and Hidden Mountain Substation, crossing Valencia, Torrance, and Socorro Counties.

The Project would facilitate the integration of new generation resources in eastern New Mexico into the existing PNM regional electric transmission system for delivery to the Albuquerque area. The Project would promote efficient utilization of existing transmission and generation assets and improve overall system reliability and capacity.

Routing Study Approach

WSP utilized a comprehensive, five-step evaluation process for identifying, analyzing, and selecting route alternatives for the planned 345-kV transmission line. The steps included:

- Step 1 Define the Study Area
- Step 2 Conduct Data Inventory and Mapping
- Step 3 Establish Routing Criteria and Assign Sensitivity Levels
- Step 4 Identify Opportunities and Constraints
- Step 5 Identify Route Alternatives

Route Alternatives

Three route alternatives were identified for evaluation and comparison. A No-Action Alternative is included in the report to acknowledge the potential of not implementing the proposed Project; however, because it does not involve construction of a transmission line or meet the Project's purpose and need, it is not considered as part of the routing analysis.

All route alternatives parallel existing linear facilities and land use features, to the extent practicable, including roads, transmission lines, and parcel boundaries. Each alternative was evaluated using a consistent methodology that considered engineering feasibility, constructability, land use compatibility, environmental resources, permitting requirements, opportunities for avoidance and minimization, and the ability to utilize existing infrastructure corridors. All route alternatives begin at the existing Western Spirit switchyard in Torrance County and end at the Hidden Mountain Substation in Valencia County. The No-Action Alternative is described below and the three route alternatives are described below and depicted in Figure ES-1.

115-kV Rebuild Route (Preferred)

The 115-kV Rebuild route incorporates a new 345-kV transmission circuit extending from the Western Spirit Switchyard to Hidden Mountain Substation, consisting of both greenfield 345-kV segments and 115-kV Rebuild segments. Between the Western Spirit Switchyard and Willard Substation, the route follows a new greenfield alignment that generally parallels the existing Western Spirit Transmission line corridor, maximizing the use of an established utility corridor and minimizing the need for a new linear disturbance. From Willard Substation to just south of Hidden Mountain Substation, the route primarily utilizes the existing PNM WL 115-kV right-of-way (ROW). In this segment, the existing 115-kV line will be rebuilt onto new structures designed to support both the new 345-kV Mid-State Transmission circuit and the existing PNM WL 115-kV circuit. After the rebuild is complete, the existing 115-kV structures within the rebuilt segments would be removed and decommissioned. Where technical constraints prevent rebuilding the existing 115-kV line, the route transitions to new greenfield 345-kV segments.

For the final approximately 9 miles approaching Hidden Mountain Substation, the 345-kV line returns to a full greenfield alignment, while the existing 115-kV line remains on its current structures and continues to the Sun Ranch Switching Station. Overall, the line would be co-located with the PNM WL 115-kV lines for approximately 31 miles and would operate as a standalone 345-kV line for approximately 71 miles.

The 115-kV Rebuild would span approximately 102.7 miles, including 2.1 miles on United States Forest Service (USFS) land, 16.5 miles on New Mexico State Land Office land, and 83.7 miles on privately owned land. The alignment would cross 612 parcels, including 601 privately owned parcels, and would include approximately 110 habitable structures within 500 feet of the transmission centerline.

RioSol + Hidden Mountain Extension Route

The RioSol Transmission Project is a 500-kV single-circuit transmission line being developed by Southwest Power Group and Renewable Energy Transmission Authority (RETA). It has completed significant permitting milestones and environmental review under National Environmental Policy Act as the “second line” to the SunZia Transmission Project, which has completed construction as of Q2 2026. The Hidden Mountain Extension Transmission Project, a 345-kV single-circuit line developed by Agua Fria LLC (an affiliate of Southwest Power Group) and RETA, proposed to connect RioSol to the PNM Grid at Hidden Mountain Substation. In

order to utilize this route for the construction of Mid-State Transmission, appropriate rights would need to be obtained from Southwest Power Group, RioSol LLC, and/or RETA.

The combined RioSol + Hidden Mountain Extension (RSHME) Route spans approximately 104.2 miles. This alignment traverses 0.3 miles managed by the Bureau of Land Management (BLM), 24.3 miles over New Mexico State Land Office property, and 79.6 miles on private land. Altogether, the RSHME route passes through 319 parcels, with 290 of those privately owned. There are roughly 29 habitable structures located within 500 feet of the transmission centerline.

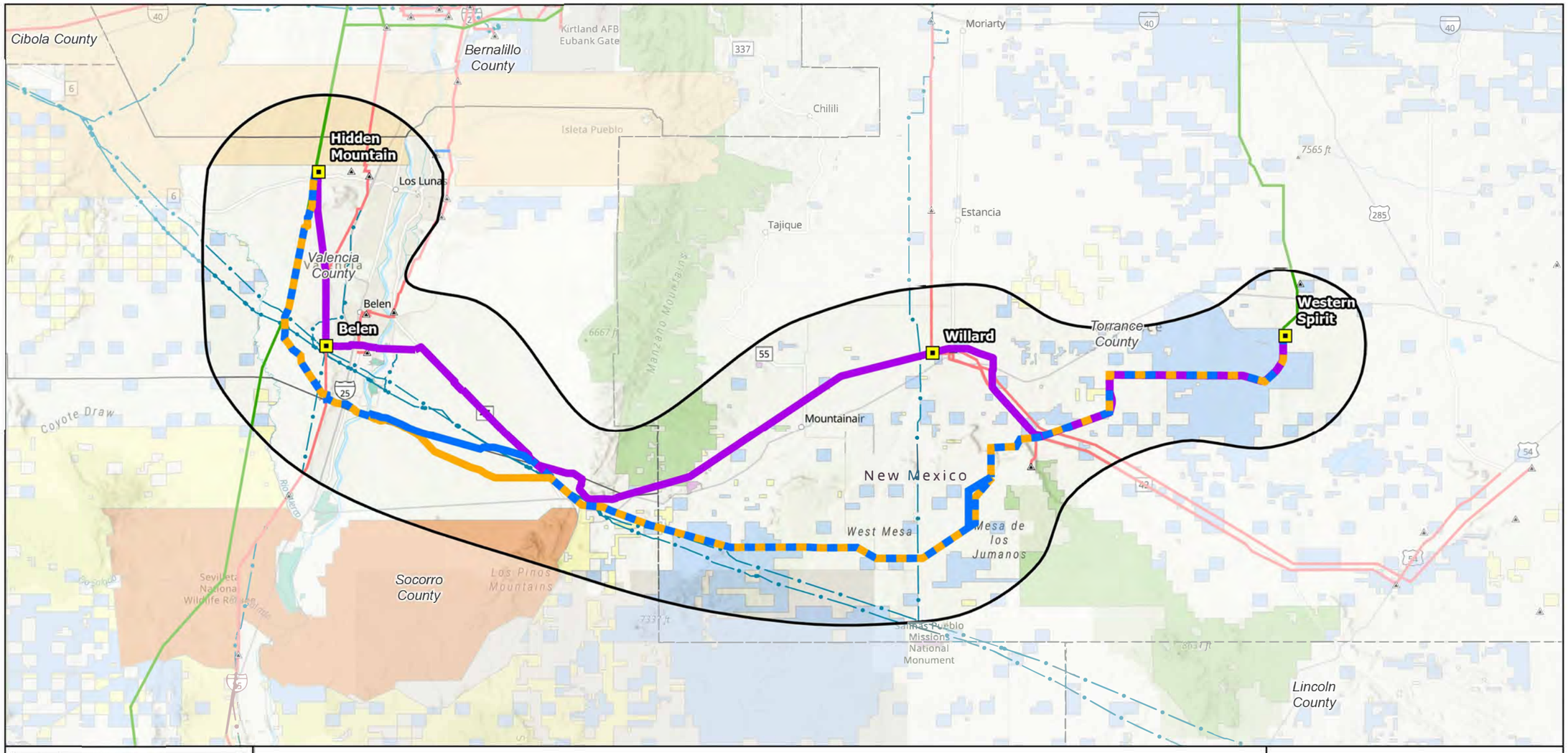
Western Spirit Transmission 2 Route

The Western Spirit Transmission Project is an existing 345-kV single-circuit transmission line originally developed and constructed by Pattern Development USA, LLC (Pattern) and the New Mexico RETA that is currently owned by PNM. The Western Spirit Transmission 2 (WST2) Project would utilize the existing ROW to reconstruct the existing line by upgrading transmission structures and related facilities and adding a second 345-kV circuit for the Project. This analysis presumes that the current 150-foot ROW is generally adequate to accommodate the conversion to a double-circuit transmission facility.

The WST2 Route spans 103.6 miles, crossing through the New Mexico State Land Office land for 22.2 miles, and privately owned land for 81.4 miles. The route traverses 435 parcels, 404 of which are privately owned. There are approximately 18 habitable structures located within 500 feet of the transmission centerline.

No-Action Alternative

Under the No-Action Alternative, the Project would not be constructed, and the potential environmental impacts associated with the Project would not occur. However, selection of the No-Action Alternative would not meet the purpose and need of the Project and would limit Mid-State's ability to develop and support sufficient power reliability for customers in the region. Furthermore, the benefits of the Project, including enhanced grid reliability and resilience, increased employment, secondary spending, and increased tax revenues, would not be realized under the no-action alternative. If the Project is not constructed, similar transmission and power infrastructure would be expected to be developed in the same region to meet the demand for additional power supply to end users. As a result, the environmental impacts and benefits associated with meeting this purpose and need would likely be shifted to alternative projects and delayed in time rather than avoided altogether. Additionally, such projects may not incorporate the same comprehensive protection measures described herein. Therefore, the No-Action Alternative will not be evaluated in detail and will not be carried forward for further analysis.


Cibola County
Bernalillo County
Kirtland AFB
Eubank Gate
Moriarty
Chilili
Isleta Pueblo
Hidden Mountain
Los Lunas
Tajique
Estancia
7565 ft
Valencia County
Belen
Belen
Manzano Mountains
Willard
Torrance County
Western Spirit
Coyote Draw
Mountainair
New Mexico
West Mesa
Mesa de los Jumanos
Socorro County
Los Pinos Mountains
Sevilleta National Wildlife Refuge
Salinas Pueblo Missions National Monument
Lincoln County
Project Area
NEW MEXICO
Albuquerque
Las Cruces
El Paso
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Forest Service
Fish & Wildlife Service
National Park Service
Tribal Land
State
State Game & Fish
State Park
Private
Reference Features
Existing Substation
115kV Transmission Line
230kV Transmission Line
345kV Transmission Line
Natural Gas Pipeline
MID-STATE TRANSMISSION PROJECT
Figure ES-1
Route Alternatives
0 5 10 15 20
Miles

1. Project Overview

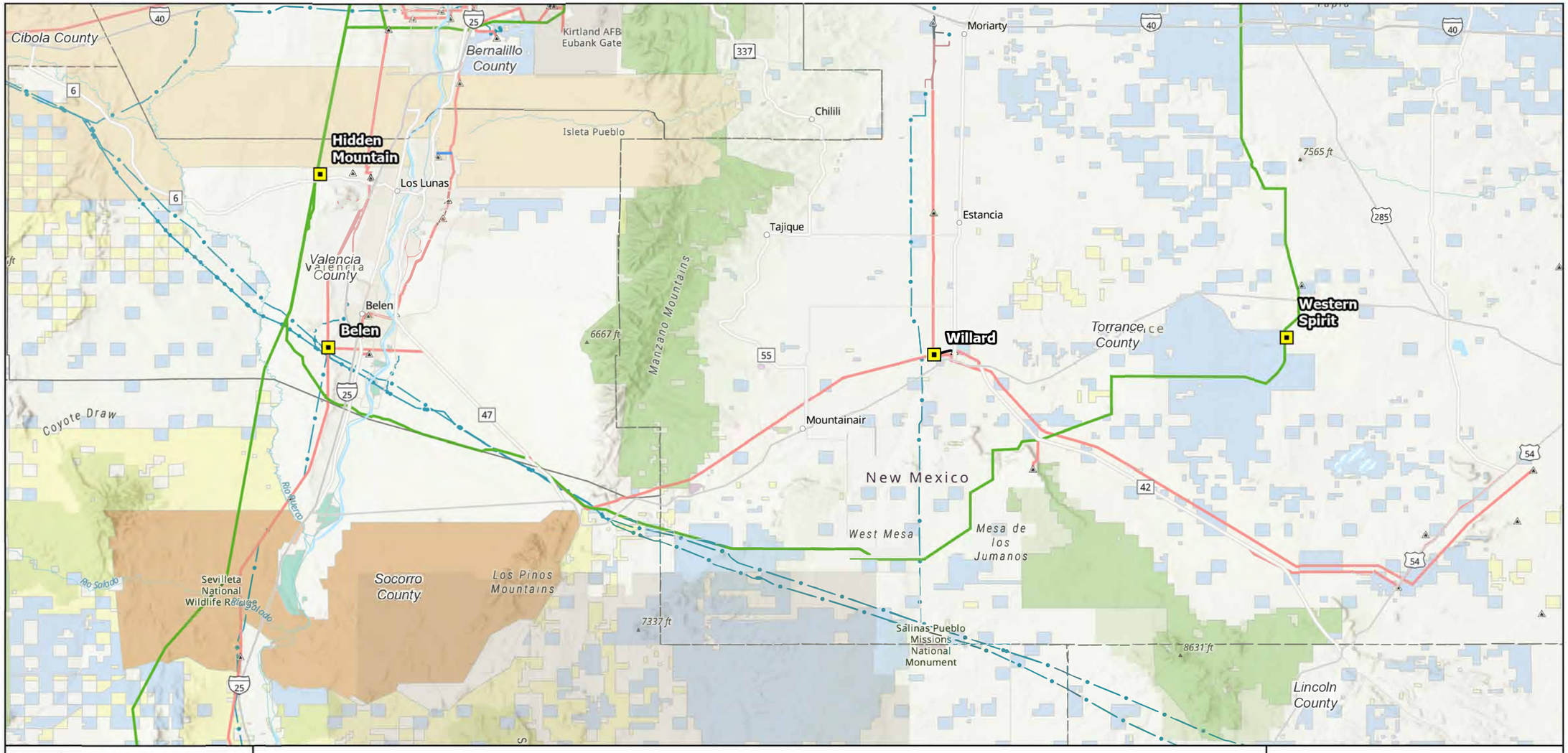
On behalf of the Public Service Company of New Mexico (PNM), Mid-State Transmission LLC (Mid-State) is developing the Mid-State Transmission Project (Project), a 102.7-mile-long 345-kilovolt (kV) transmission project. The Project would begin at the existing Western Spirit switchyard in Torrance County, New Mexico, and terminate at the existing Hidden Mountain substation in Valencia County, New Mexico. The Project would cross federal, state, and private lands (see Figure 1, Project Vicinity).

The Mid-State Transmission Project is essential for integrating new generation resources located in eastern New Mexico into the existing PNM grid, enabling delivery to the Albuquerque area. The Mid-State Transmission Project will facilitate the efficient utilization of current transmission and generation assets while enhancing overall system reliability.

This report documents the identification, analysis, evaluation, and comparison of reasonable and feasible route alternatives for the proposed Project. The report also describes the routing methodology, opportunities and constraints analysis, resource sensitivity evaluations, and the basis for identifying a preferred route for continued Project development.

1.1 Scope of Routing Study

The scope of this Transmission Line Routing Study (Routing Study) includes identifying, analyzing, and evaluating feasible route alternatives to then identify a Preferred Route and two route alternatives for the proposed 345-kV transmission line between the existing Western Spirit Switchyard and Hidden Mountain Substation. Transmission line feasibility refers to the degree to which a proposed transmission line route can be practically engineered, permitted, constructed, and operated considering technical constraints, environmental resources, land ownership, regulatory requirements, cost, and stakeholder considerations. This Routing Study does not address detailed engineering and design, stakeholder engagement, right-of-way (ROW) acquisition, or construction, operation, and maintenance activities for the planned 345-kV transmission line. These activities will occur in subsequent phases of Project development.





Project Components
- Project Substation

Land Jurisdiction
- Bureau of Land Management
- Forest Service
- Fish & Wildlife Service
- National Park Service
- Tribal Land
- State
- State Game & Fish
- State Park
- Private

Reference Features
- Existing Substation
- 115kV Transmission Line
- 230kV Transmission Line
- 345kV Transmission Line
- Natural Gas Pipeline

MID-STATE TRANSMISSION PROJECT

Figure 1
Project Vicinity

0 5 10 15 20 Miles

2. Routing Study Approach

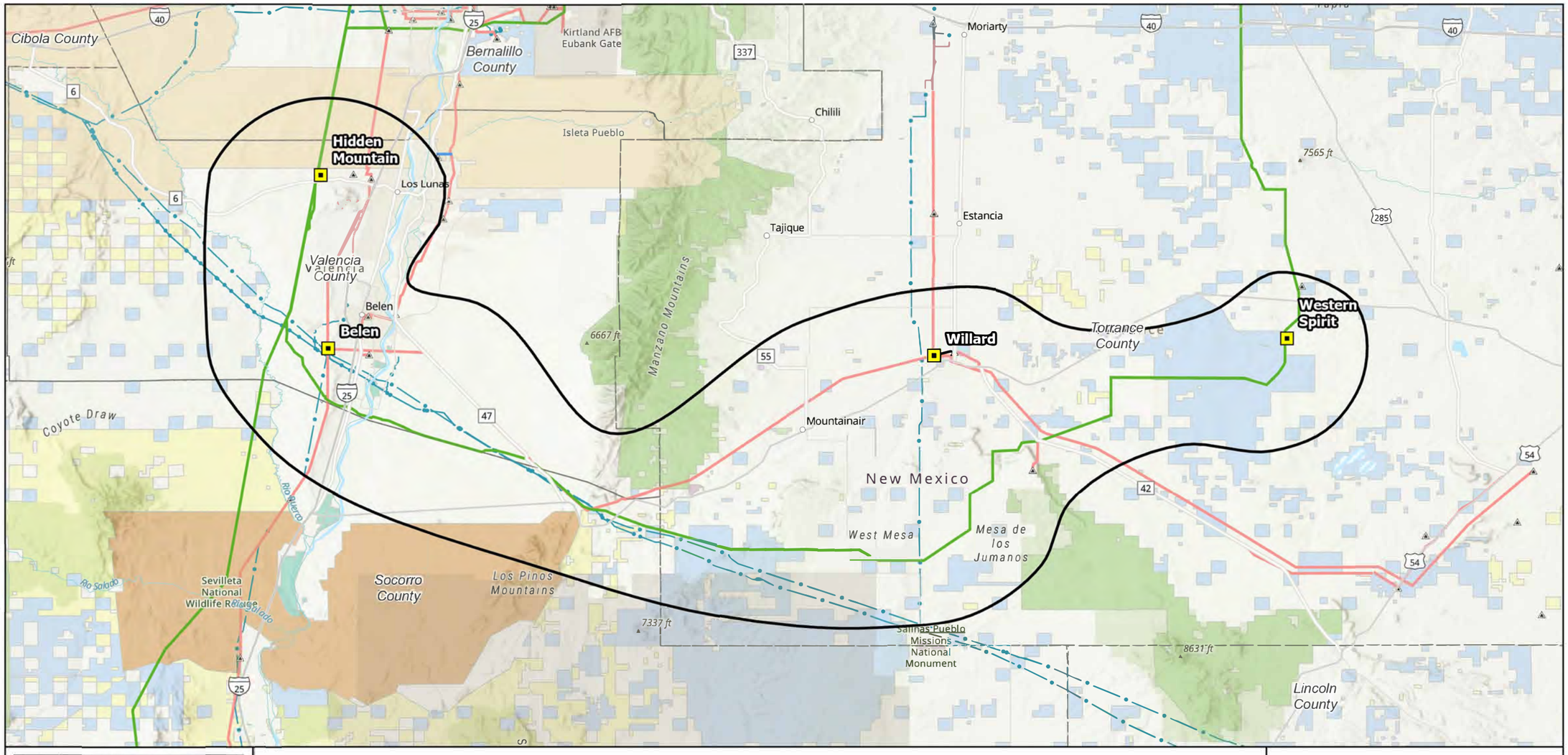
WSP USA Inc. (WSP) utilized a comprehensive, 5-step evaluation process to define, analyze, and evaluate route alternatives for the proposed transmission line. The process included the following steps:

- **Step 1** **Define the Study Area.** Geographic boundaries were established to encompass the area most likely to accommodate a feasible transmission line between the Project endpoints while providing flexibility to identify, compare, and refine potential route alternatives.
- **Step 2** **Conduct Data Inventory and Mapping.** Desktop land use, environmental, engineering, and infrastructure data within the Study Area were compiled and mapped using geographic information system (GIS) technology. These data were used to characterize existing conditions, identify resource features, and support the evaluation of routing opportunities and constraints for the transmission line.
- **Step 3** **Establish Routing Criteria and Assign Sensitivity Levels.** Routing criteria were developed to evaluate potential route alternatives based on engineering, environmental and land use resources, and permitting considerations. Resource-specific routing criteria developed for the Routing Study were applied to the mapped data to classify resources as low, moderate, or high sensitivity, or as exclusion areas. Sensitivity classifications were based on factors such as resource value, regulatory protections, land use compatibility, engineering constraints, constructability considerations, and the potential for conflicts with transmission line construction, operation, and maintenance.
- **Step 4** **Identify Opportunities and Constraints.** The sensitivity classifications and mapped resource data were integrated to identify routing opportunities and constraints throughout the Study Area. Composite sensitivity mapping was used to distinguish areas that may constrain transmission line development from areas that may provide feasible transmission line routing opportunities.
- **Step 5** **Identify Route Alternatives.** Using aerial imagery, desktop environmental and engineering data, and the results of the GIS opportunities and constraints analysis, end-to-end route alternatives were developed for subsequent evaluation and comparison. Route alternatives were refined to maximize the use of existing infrastructure corridors, avoiding or minimizing conflicts with sensitive resources and land uses, and maintaining a technically feasible and constructible transmission line alignment.

3. Resource Screening and Sensitivity Analysis

3.1 Study Area Definition (Step 1)

The Study Area was defined to consider reasonable and feasible alternatives that could accommodate a high-voltage transmission line. The Project Study Area is bounded by substation endpoints at the western and eastern termini of the Project and the central portion was identified to provide sufficient flexibility for route development while considering engineering requirements, existing infrastructure, land ownership, jurisdictional boundaries, and environmental and land use constraints. The Study Area encompasses portions of Bernalillo, Torrance, Socorro, and Valencia Counties in New Mexico.


Cibola County
Bernalillo County
Kirtland AFB
Eubank Gate
Moriarty
Chilili
Isleta Pueblo
Hidden Mountain
Los Lunas
Valencia County
Belen
Tajique
Estancia
7565 ft
Manzano Mountains
6667 ft
Willard
Torrance County
Western Spirit
Coyote Draw
Mountainair
New Mexico
West Mesa
Mesa de los Jumanos
Rio Puerco
Rio Salado
Sevilleta National Wildlife Refuge
Socorro County
Los Pinos Mountains
7337 ft
Salinas Pueblo Missions National Monument
8631 ft
Lincoln County
NEW MEXICO
Project Area
Albuquerque
Las Cruces
El Paso
Project Components
Project Substation
Study Area
Land Jurisdiction
Bureau of Land Management
Forest Service
Fish & Wildlife Service
National Park Service
Tribal Land
State
State Game & Fish
State Park
Private
Reference Features
Existing Substation
115kV Transmission Line
230kV Transmission Line
345kV Transmission Line
Natural Gas Pipeline
MID-STATE TRANSMISSION PROJECT
Figure 2
Project Study Area
0 5 10 15 20
Miles

3.2 Data Inventory and Mapping (Step 2)

Land use, environmental resources, and engineering data were compiled from publicly available online databases and local, state, and federal agency sources. The inventory included mapped data (e.g., GIS layers and printed maps), as well as tabular (associated attribute data and descriptive information), and written (e.g., local land use plans) information as appropriate. GIS data were used to depict resources within the Project Study Area. Mapped information was based on the best available digital GIS data from agencies and organizations. Where digital data were unavailable, WSP GIS analysts digitized the relevant information. Resource inventory maps for the topics listed below are provided in Appendix A.

A general list of the data considered in the Routing Study is outlined below.

- Land Use Resources
  - Existing land use (including airports and communication towers)
  - Utility corridors
  - Parks, recreation, and preservation areas
  - Places of worship, schools, childcare facilities, residences
  - Transportation corridors (highways and railroads)
- Visual Resources
  - Existing setting and visual conditions
  - Sensitive viewers
  - Scenic Byways
  - USFS Scenic Objective Integrity areas
  - Bureau of Land Management (BLM) Visual Resource Management areas
- Cultural Resources
  - Cemeteries
  - Known archaeological sites and historical/architectural resources
  - National Register of Historic Places properties and National Historic Trails (NHT)
- Water resources
  - United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) resources (wetland, riverine, lake, pond)
  - Perennial, intermittent, and ephemeral stream crossings
  - Federal Emergency Management Agency (FEMA) flood zones

- Biological Resources
  - Wildlife habitat
  - Sensitive, threatened, and endangered species (wildlife and plants)
  - Special management areas
- Paleontological Resources
  - Potential Fossil Yield Classification Index
  - Geological units
- Engineering and Geologic Resources
  - Elevation
  - Slope
  - Karst Topography

3.3 Establish Routing Criteria and Assign Sensitivity Levels (Step 3)

Routing criteria were developed to provide a consistent framework for evaluating potential transmission line route alternatives within the Study Area. These criteria were established to identify and compare engineering, environmental and land use resources, and permitting considerations that may influence route development, feasibility, constructability, and long-term operation of the Project.

The routing criteria were designed to support the identification of opportunities and constraints associated with transmission line development and to provide a defensible basis for comparing route alternatives. Factors considered in developing the routing criteria included the presence of sensitive resources, regulatory requirements, engineering limitations, existing infrastructure, land ownership, land use compatibility, and the potential for conflicts with transmission line construction, operation, and maintenance activities.

Resource sensitivity is a measure of the potential for a resource to be affected by the construction, operation, and maintenance of a proposed transmission line. Sensitivity analyses, by themselves, do not account for the application of avoidance, minimization, or mitigation measures throughout development and construction. These analyses typically evaluate impacts under baseline conditions, without incorporating design refinements. In practice, however, measures such as co-location, corridor paralleling, micrositing to avoid identified resources, and enhanced construction practices, are routinely implemented to reduce potential effects. Accordingly, sensitivity classifications should not be interpreted as representative of final Project impacts following engineering design, environmental review, and implementation of avoidance

and minimization measures. Section 4 provides examples of measures that may be used to avoid, minimize, or mitigate impacts to sensitive resources.

In determining the sensitivity of a resource to the Project, the following factors were qualitatively considered:

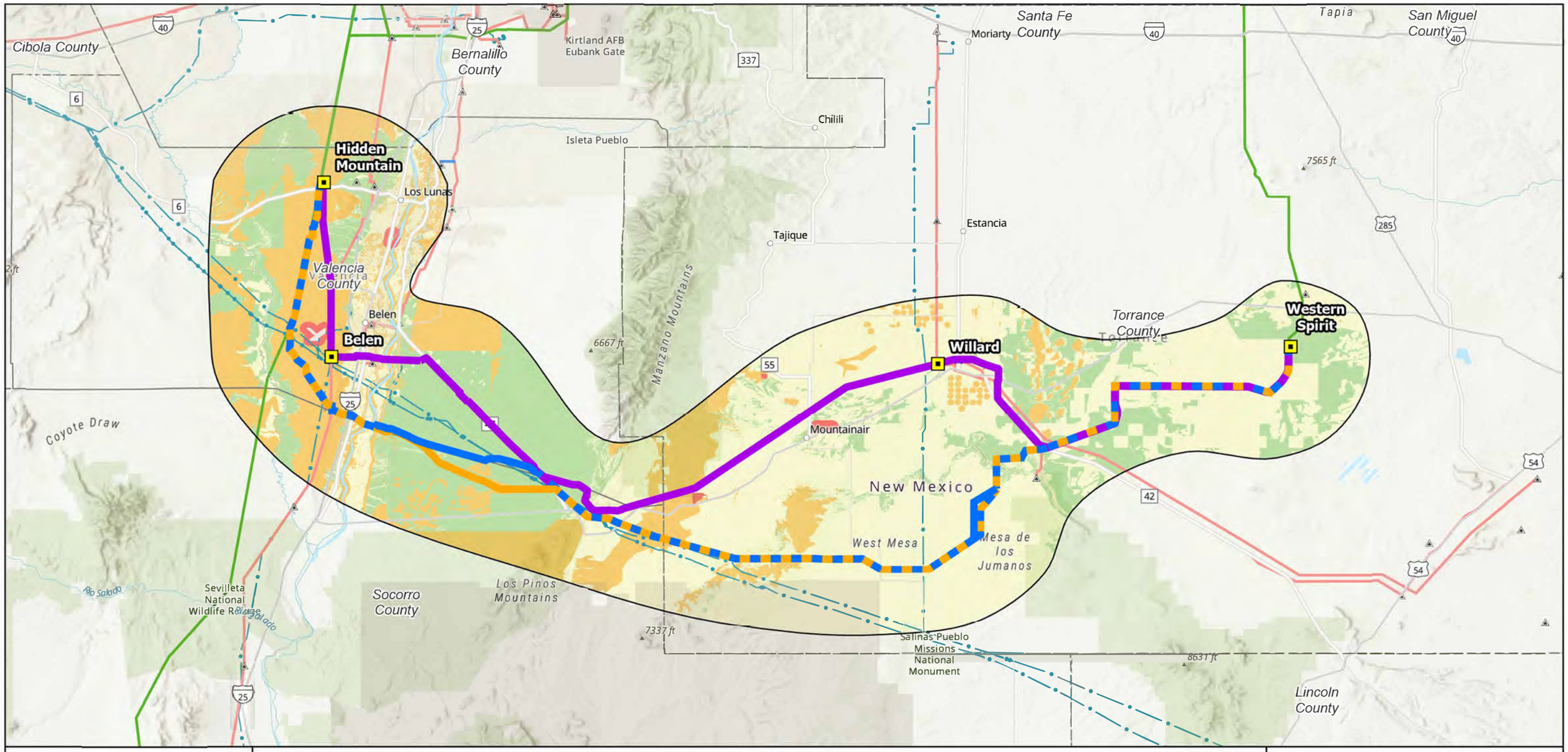
- **Resource Value** - A measure of rarity, high intrinsic worth, singularity, or diversity of a resource in the Project Study Area.
- **Protective Status** - A measure of the formal concern expressed for a resource, either through legal protection or by designation of special status, by law or ordinance.
- **Present and Future Uses** - A measure of the level of conflict based on policies of land management and/or use, community values, and political opinion.
- **Hazards** - A measure to which a resource or site condition presents a risk to the safe construction, operation, or maintenance of the transmission line.
- **Technical -** A measure of the engineering feasibility, constructability, and operational compatibility of a potential route, including terrain, access, existing infrastructure, opportunities for co-location or corridor paralleling, and other factors that may influence the design, construction, operation, or maintenance of the transmission line.

Considering the factors described above, the data were evaluated and assigned a sensitivity level of low, moderate, high, and exclusion as defined below. The lower the sensitivity of a resource, the more compatible it would be for routing a transmission line across or in proximity to that resource.

- **Low Sensitivity** - Areas where resource conflicts with the Project identified through the Routing Study process are minimal. These areas of low sensitivity are of minimal constraint, or high opportunity, for routing a transmission line.
- **Moderate Sensitivity** - Areas of potential environmental effects due to Project impacts on important or valued resources, resources assigned protective status, or those with higher potential for conflict with current or future use of the resources. Locations of moderate sensitivity are considered to be moderate constraint areas and less desirable than low sensitivity areas for routing a transmission line.
- **High Sensitivity** - Areas determined to be less suitable because of unique, highly valued, complex, historic, or protected resources and significant potential conflict with the Project, or areas posing substantial hazards to construction and operation of the transmission line. Locations of high sensitivity are considered to be high constraint or least desirable for routing a transmission line.
- **Exclusion Areas** - Areas determined to be unsuitable for the Project because of unique, highly valued, complex, or legally protected resources; significant potential conflict between the Project and existing or planned use; and/or areas posing substantial hazard to the Project's construction, operation, or maintenance. These areas may also represent

significant cumulative impacts from the interaction between resources. For purposes of identifying the route alternatives, these areas should be avoided.

After classifications were assigned, GIS was used to map sensitivity levels for each resource inventoried within the Study Area. A composite sensitivity overlay was then used to identify areas that may constrain transmission line development, as well as areas with fewer constraints that may provide feasible routing opportunities. Figure 3 shows the composite distribution of low, moderate, high, and exclusion sensitivity areas within the Project. Resource-specific sensitivity criteria are presented in Sections 3.3.1 through 3.3.6 and shown in Figures A-1 through A-7 and provide the basis for classifying resources and evaluating their relative influence on transmission line routing.


Cibola County
Bernalillo County
Kirtland AFB
Eubank Gate
Santa Fe County
Moriarty
Tapia
San Miguel County
Chilili
Isleta Pueblo
Hidden Mountain
Los Lunas
7565 ft
Estancia
Tajique
Valencia County
Belen
Belen
Manzano Mountains
6667 ft
Torrance County
Willard
Western Spirit
Coyote Draw
Mountainair
New Mexico
West Mesa
Mesa de los Jumanos
Río Salado
Sevilleta National Wildlife Refuge
Socorro County
Los Pinos Mountains
7337 ft
Salinas Pueblo Missions National Monument
8631 ft
Lincoln County
NEW MEXICO
Project Area
Albuquerque
Las Cruces
El Paso
Project Components
Project Substation
Study Area
Route Alternatives
115kV Rebuild
Western Spirit Transmission 2
Rio Sol + Hidden Mountain Extension
Resource Sensitivity
Exclusion
High
Moderate
Low
Reference Features
Existing Substation
115kV Transmission Line
230kV Transmission Line
345kV Transmission Line
Natural Gas Pipeline
MID-STATE TRANSMISSION PROJECT
Figure 3
Composite Sensitivity
0 5 10 15 20
Miles

3.3.1 Land Use

Jurisdiction and Land Ownership

The Study Area includes lands under federal, state, local, and private jurisdiction. Federal lands are managed by the National Park Service (NPS), USFS, BLM, Bureau of Indian Affairs, and USFWS. State-managed lands include those administered by the New Mexico Department of Game and Fish, the New Mexico State Land Office (NMSLO), and the New Mexico Department of Transportation. Local jurisdictions include city and county lands, along with privately owned lands. USFS lands are administered by the Mountainair Ranger District, and BLM lands are administered by the Albuquerque District Office. The Study Area encompasses portions of Torrance, Valencia, Bernalillo, and Socorro Counties.

Land Cover

A review of the 2024 National Land Cover Database identified 13 major cover types: shrub/scrub and grassland/herbaceous covering 67% and 18.6%, respectively, in the Project Study Area. Table 1 below summarizes the National Land Cover Database cover types in the Study Area.

Table 1: Land Cover Database for Project Study Area

Land Use	Acres	Percent
Barren Land (Rock/Sand/Clay)	3,094	0.3%
Cultivated Crops	19,749	1.9%
Deciduous Forest	0	0%
Developed, Low Intensity	17,567	1.7%
Developed, Medium Intensity	3,268	0.3%
Developed, Open Space	20,990	2%
Developed, High Intensity	421	0.04%
Emergent Herbaceous Wetlands	11,238	1.1%
Evergreen Forest	53,848	5.1%
Grassland/Herbaceous	194,310	18.6%
Open Water	844	0.1%
Pasture/Hay	17,199	1.6%
Shrub/Scrub	700,480	67%
Woody Wetlands	2,820	0.3%
Total Acreage	**1,045,828**	**100%**

Land use types in the Study Area are classified as exclusion, high, moderate, or low sensitivity. There are several land-use types that are classified as exclusion, some of which are statutory (e.g., airports, wilderness areas, wilderness study areas, national monuments). Therefore, introduction of transmission lines in these designated areas is prohibited. Table 2 provides the land use sensitivities in the Study Area and Appendix A, Figure A-1 shows land use resources in the Study Area.

Table 2: Summary of Land Use Sensitivity/Constraints

Area or Resource	Location*
Exclusion Areas	
Airports and Heliports (municipal and private runways less than 5,000 feet) – Federal Aviation Administration (FAA) safety dictates these are not approved areas for transmission line projects.	■ Belen Regional Airport – 3.5 miles southwest of Belen ■ Flying H Private Airstrip – 1.5 mile southeast of Bosque ■ Skywagon Farm Private Airstrip – 2 miles southeast of Bosque ■ Burris Ranch 1 Private Airstrip – 15 miles southeast of Belen ■ Mid Valley Airpark – 3 miles south of Los Lunas ■ Mountainair Municipal Airport – 1 mile northeast of Mountainair ■ J & M Farms Private Airstrip – 3 miles west-southwest of Willard
National Monuments are places of historic, scenic, or scientific interest set aside for preservation usually by presidential proclamation.	■ Salinas Pueblo Mission National Monument (Abo, Quarai, and the Gran Quivira units) – all three ruins are located within a 25-mile radius of Mountainair
Superfund Sites are contaminated areas designated by the United States Environmental Protection Agency as hazardous to public health, welfare, or the environment.	■ Pagano Salvage – 1.25 acres located 1.0 mile southeast of Los Lunas
High Sensitivity	
Department of Defense (DoD) White Sands Missile Range (WSMR) Northern Call Up Area (NCUA) is an area north of the missile range and partially coincides with restricted airspace. Priority Call-Up Areas are designated zones where the U.S. Army places the highest priority on limiting incompatible development to protect military readiness and operational security.	■ Priority Call-Up Areas are located near the southern boundary of the Study Area.

Area or Resource	Location*
Federal Communications Commission (FCC) – registered communication towers are structures for transmitting or receiving electronic communications that are licensed under the FCC (e.g., interstate and international communications by radio, television, satellite).	■ CommNet Cellular Inc. Cellular Tower – 10 miles southeast of Bosque ■ CommNet Cellular Inc. Cellular Tower – 2.5 miles south of Bosque ■ CommNet Cellular Inc. Cellular Tower – 2 miles southeast of Jarales ■ CommNet Cellular Inc. Cellular Tower – 5 miles west of Los Lunas ■ CommNet Cellular Inc. Cellular Tower – 1 mile northwest of Los Lunas ■ New Cingular Wireless PCS, LLC Cellular Tower – 0.5 mile northwest of Mountainair ■ New Cingular Wireless PCS, LLC Cellular Tower – 1 mile east of Willard ■ New Cingular Wireless PCS, LLC Cellular Tower – 9 miles northeast of Lucy ■ ALLTEL Corporation Cellular Tower – 1 mile east of Willard ■ KARS – 2 miles north of Belen
FAA very high frequency (VHF) omni-directional ranger (VOR) antenna are a type of short-range VHF radio navigation system for aircrafts.	■ None in the Study Area
Conservation Easements are voluntary legal agreements on the part of a private landowner which contains permanent restrictions on the use or development of the land.	■ Wetlands Reserve Program (WRP) – 2 miles east of Belen
National Wildlife Refuge (NWR) Lands are a network of federal public lands and waters managed by USFWS for conservation of wildlife, plants, and their habitats.	■ Portion of the northeast corner of the Sevilleta National Wildlife Refuge located within the Study Area
State Parks are recreational areas managed by the state that typically include hiking, camping, picnic areas, and playgrounds.	■ Manzano Mountains State Park – 8 miles northwest of Mountainair
Local Parks and Open Space are areas often managed by the local city or county, providing opportunities for recreation, conservation, and preservation of cultural heritage.	■ El Cerro de Los Lunas Preserve located in the western portion of the Study Area, managed by the Village of Los Lunas.
Habitable Structures refers to buildings that are regularly occupied by people and where people live, work, receive services, or congregate.	■ Located throughout the Study Area, primarily along the Rio Grande.
Central Pivot Agriculture refers to a system of irrigation used for large-scale crop production.	■ Clustered north and south of Willard
Oil and Gas Wells are drilled/bored holes designed to explore or extract hydrocarbons and are registered with the state Oil Conservation Division.	■ 4 approximately 12 miles northeast of Progresso ■ 2 approximately 5 miles north of Willard ■ 1 just south of Mountainair

Area or Resource	Location*
	■ 3 approximately 6 miles northeast of Mountainair ■ 16 miles southwest of Willard
Water wells allow for extraction of groundwater which can be used for drinking water, agriculture, and industrial uses.	■ Throughout the Study Area, with a higher density surrounding the Rio Grande
Churches are identified places for the organization of public worship.	■ San Isidro Church – 1 mile south of Las Nutrias ■ San Juan Church – 0.5 mile south of Veguita ■ Church of the Nazarene; Mountainair Christian Center; Assembly of God Church; First Baptist Church; Saint Alice Church; – located in Mountainair ■ San Antonio Church – 2 miles south of Bosque ■ La Cienega Mission – 4 miles south of Manzano ■ Willard Baptist Church – located in Willard ■ San Isidro Church – 1 mile south of Pueblitos ■ Belen Mennonite Church; First Presbyterian Church; Saint Phillips Episcopal Church; Valley Baptist Church; Belen Christian Church; First Baptist Church; Sierra Vista Baptist Church; Calvary Baptist Church; First Assembly of God Church– located in Belen ■ Catholic Church of Tome – located in Tome ■ El Cerro Church – 1 mile east of El Cerro ■ Los Lunas Christian Church; Valley Lutheran Church; Christ the King Lutheran Church; Los Lunas Kingdom Hall of Jehovah's Witnesses; San Clement Church of Los Lunas; First Baptist Church of Los Lunas; Good News Baptist Church; Valencia Valley Church; Seventh Day Adventist Church Spanish; Los Lunas Seventh Day Adventist Church; Hosanna Assembly of God Church – located in Los Lunas ■ Valencia Church – located in Valencia ■ Saint Anthony Church – 1 mile northeast of Los Lunas ■ Peralta Memorial United Methodist Church; Our Lady of Guadalupe Church – located in Peralta

Area or Resource	Location*
Schools are identified places for education instruction from pre-school to high school.	■ Located throughout the Study Area, primarily in the communities along the Rio Grande
Licensed Childcare Facilities are identified as child care centers, out-of-school-time programs, family child care homes, and other early care and education programs.	■ Located throughout the Study Area, primarily in the communities along the Rio Grande
Active Mines and Gravel/Sand Extraction Sites are mines which are currently conducting extraction of natural deposits, including milling, smelting, and reclamation activities.	■ Operations are distributed throughout the Study Area, although they occur at relatively low density.
Inactive Mines are mines that are permanently closed but may not be reclaimed.	■ Inactive mines are distributed throughout the Study Area, although they occur at relatively low density.
Moderate Sensitivity	
Natural Resources Conservation Service (NRCS) Prime Farmland is land that has the best combination of physical and chemical characteristics for crop production. Only projects which utilize federal funding or otherwise have a federal nexus, are subject to regulations pertaining to prime farmlands.	■ Located throughout the Study Area, with higher density surrounding the Rio Grande and the eastern portion of the Study Area
NM State Forestry Priority Landscapes are areas with forest and woodland cover identified for restoration, with an emphasis on wildfire risk, importance for water source protection and biodiversity.	■ East Mountains – located 6 miles north of Mountainair
BLM Livestock Grazing Allotments are areas designated and managed by BLM for livestock grazing.	■ Located south and east of the Manzano Mountains

*All mileage provided is approximate.

3.3.2 Visual Resources

This section summarizes the visual resources in the Project Study Area and identifies visually sensitive areas that may be affected by the siting of a transmission line. The summary includes a description of the study methodology, Study Area overview, and the sensitivity analysis.

Visual resource information was compiled from federal and county agency sources, including the BLM New Mexico data library, which provides available BLM Visual Resource Management (VRM) data for the Rio Puerco Resource Management Plan (Rio Puerco Field Office) and the Socorro Resource Management Plan (Socorro Field Office).[1] County-level comprehensive plans

[1] Scenic Integrity Objectives for the Cibola National Forest were not available from publicly available GIS datasets and were subsequently digitized from the Cibola National Forest Land Management Plan maps.

and zoning ordinances were also reviewed, where available, to identify designated scenic or visual resources and to document applicable policies or guidance related to VRM.

Existing Setting and Visual Conditions

The Study Area spans multiple physiographic provinces. The western portion lies within the Mexican Highlands and Sacramento Sections of the Basin and Range Physiographic Province, while the eastern portion is within the Pecos Valley Section of the Great Plains Physiographic Province (Fenneman 1931; NPS 2017). The Mexican Highlands are characterized by north-south-trending mountain ranges separated by broad intermontane basins, including the Manzano and Los Pinos Mountains. The central Study Area occupies the Sacramento Section, a plateau-like transition zone along the eastern margin of the Basin and Range. The Pecos Valley Section consists of eastward-sloping plains bordered by steep escarpments, with terrain ranging from flat plains to rocky canyonlands. Elevations across the Study Area generally range from approximately 4,800 to 7,400 feet. The Rio Grande traverses the western portion of the Study Area, generally paralleling Interstate 25 (I-25) and New Mexico State Roads (NM-) 47 and NM-314, while the Rio Puerco crosses the far western boundary in Valencia County. Vegetation within the Study Area is primarily desert scrub, such as creosote, and grasslands, with more varied vegetation, such as piñon-juniper, spruce, and ponderosa pine in higher elevations.

The Study Area is comprised of undeveloped lands, rural communities, agricultural lands, and a network of existing linear infrastructure and energy development features. Existing transmission infrastructure is a prominent visual element throughout much of the Study Area and includes numerous high-voltage transmission corridors that traverse the region, particularly between the Western Spirit Switchyard, existing substations, renewable energy generation facilities, and load centers in the Rio Grande Valley. These facilities occur across a variety of landscape settings, including open rangelands, agricultural valleys, and areas adjacent to major transportation corridors, and contribute to the existing visual character of the Study Area. Existing transmission lines, substations, roads, railroads, pipelines, and other utility infrastructure provide established corridors that influence both the visual environment and opportunities for future infrastructure co-location.

Much of the land is privately owned with tribal lands in the northwest portion and New Mexico State Trust Lands and some BLM, USFS and NPS lands scattered throughout the central and eastern portion of the Study Area. The Manzano Mountains are under USFS management. A portion of the Sevilleta National Wildlife Refuge is within the south-central portion of the Study Area and is managed by the USFWS. Residential areas are primarily associated with the city of Albuquerque and communities concentrated along the Rio Grande/I-25 corridor, and other smaller communities such as Mountainair and Willard in the central and eastern portion of the Study Area. Agricultural land uses are prevalent along the Rio Grande Valley, and the Study Area also includes some industrial development (e.g., aggregate mines). The eastern portion of the Study Area contains extensive renewable energy development, including utility-scale wind energy facilities, solar generation facilities, associated substations, and high-voltage transmission infrastructure. As a result, much of the Study Area already exhibits a visual

character influenced by existing utility and energy development corridors, particularly in areas where transmission facilities and renewable energy infrastructure are concentrated.

Sensitive Viewers

The Study Area includes scenic and visual resources that may experience changes to existing scenic vistas, including National Monuments, National Scenic Byways, travel routes, and nearby residential areas.

Urban Areas

Municipalities within the Study Area are identified below. No municipalities occur within the Study Area in Bernalillo or Socorro Counties.

Torrance County

- Town of Mountainair
- Village of Willard

Valencia County

- City of Belen
- City of Los Lunas
- City of Rio Communities
- Bosque Farms (Rural Village)
- Town of Peralta

National and State Parks, National Wildlife Refuges, and Recreation Areas

The NPS manages the Salinas Pueblo Missions National Monument, a collection of three sites that preserve the remnants of Indigenous villages and seventeenth century Spanish mission churches in Torrence and Socorro County (NPS 2025). Two units, the Abó and Quarai, are located within the Study Area. The Abó Unit is approximately 8.0 miles southwest of the town of Mountainair, and the Quarai Unit is approximately 5.0 miles northwest of Mountainair. The third unit, Gran Quivira, is located approximately 2.0 miles south of the Study Area.

The USFWS owns and manages the Sevilleta National Wildlife Refuge, which is located in the southwestern portion of the Study Area. The refuge encompasses four distinct biomes that support a high level of biological diversity. The Rio Grande flows through the center of the refuge, providing a critical water source and creating an oasis for wildlife within the surrounding arid landscape. Recreational opportunities within the refuge include fishing, hunting, picnicking, hiking, camping, and bird watching; however, these activities are primarily concentrated along the Rio Grande corridor. No designated trails or other developed recreational areas occur within the portion of the refuge that lies inside the Study Area.

There are no National or State Parks or other designated recreational areas identified within the Study Area.

National Historic Trails

El Camino Real de Tierra Adentro NHT crosses the western portion of the Study Area within the Rio Grande Valley and generally follows existing roadways, including the El Camino Real National Scenic Byway. The historic road was added to the National Trails System in 2000 as El Camino Real de Tierra Adentro National Historic Trail. The trail is administered jointly by the Bureau of Land Management and the NPS (BLM n.d.). Tomé Hill, located approximately 10 miles south of Isleta Pueblo, east of NM-47, is a prominent cultural and visual landmark associated with the NHT and is a destination for religious pilgrimage and recreational use (NPS 2023).

National and State Scenic Roads or Scenic Byway/Historical Marker

There are two National Scenic Byways within the Study Area: Historic Route 66 and El Camino Real, and two State Scenic Byways: Abó Pass Trail and Salt Mission. There is one historical marker that is associated with the Abó Pass Trail Scenic Byway (Federal Highway Administration n.d.).

- Historic Route 66, which includes portions of I-40 and NM-6, NM-47, and NM-314, and Central Avenue in Valencia County. Historic Route 66 crosses the northwestern portion of the Study Area.
- El Camino Real, which includes portions of NM-47 and NM-314 in Socorro and Valencia Counties. El Camino Real, roughly parallels the east side of the Rio Grande corridor.
- Abó Pass Trail Scenic Byway includes portions of United States Highway (US Hwy) 60 and NM-47 in Torrance and Valencia Counties. This scenic byway is in the central portion of the Study Area and begins on the east side of the Rio Grande, and continues southeast and east, and ends approximately 5 miles southwest of the town of Mountainair. Salt Mission Scenic Byway, which includes portions of US Hwy 60 and NM-41 and NM-55 in Torrance County. This scenic byway is located in the northeastern portion of the Study Area and includes US Hwy 60 between the town of Mountainair and the village of Willard, NM-55 extending north from US Hwy 60 toward the Quarai Unit of the Salinas Pueblo Missions National Monument, and NM-41 continues north toward the town of Estancia.
- Abó Pass Trail Historic Marker, which is located on the north side of US Hwy 60 between post miles 189 and 190 (NMHPD 2019).

Travel Routes

The following travel routes, including Interstates, US highways, and State Routes are in the Project Study Area:

- I-25 and I-40
- US Hwy 60
- NM-6, NM-42, 4 NM-7, NM-55, and NM-314

Federal Lands

The USFS and, to a lesser extent, the BLM, manage most public lands within the Study Area. Through land use planning and resource management frameworks, these agencies establish visual and recreation management objectives that guide the evaluation of scenic quality, recreation values, and landscape character. These objectives also provide the basis for identifying visual resource sensitivities and areas where transmission line development may be constrained or require additional consideration. Both agencies are responsible for balancing scenic and recreational values with other authorized land uses, including utility and energy infrastructure development.

The USFS and BLM inventory scenic resources and apply management frameworks to guide acceptable levels of visual change. The BLM uses its VRM system (Manual 8411), which classifies landscapes from Class I (preserve existing character with minimal change) to Class IV (allow substantial modification). Similarly, the USFS applies Scenic Integrity Objectives under its Scenery Management System, ranging from Very Low (heavily altered landscapes where changes may dominate), to Very High (unaltered or nearly intact landscape character).

These systems establish thresholds for visual change and desired landscape conditions. Introduction of transmission lines and associated facilities can alter the visual environment and must be evaluated for consistency with the applicable VRM classes and Scenic Integrity Objectives to determine potential conflicts with agency management objectives.

Local Municipality

A review of land use plans and ordinances for Bernalillo, Socorro, Torrance, and Valencia Counties indicates that visual resources are addressed in a limited and largely indirect manner, with no formal VRM frameworks in place.

Torrance County addresses visual considerations primarily through its Zoning Ordinance (1990, updated 2024), which applies to specific uses such as wind and solar development but does not establish scenic designations, visual classifications, or measurable standards. The 2003 Comprehensive Plan provides broader policy guidance emphasizing the protection of cultural, historic, scenic, and environmentally sensitive resources. The plan identifies several designated scenic and historic corridors, including the Salt Missions Trail, Abo Pass Trail, and Historic Route 66, and encourages tourism-related development that preserves and enhances the area's scenic character. However, the plan does not establish specific VRM objectives or enforceable visual impact standards.

Valencia County provides similarly limited treatment of visual resources in its Comprehensive Plan (2022). The plan focuses primarily on water resources and environmental concerns, while acknowledging visual character through descriptions of cultural and natural features such as historic communities, acequia systems, prominent landmarks, and landscapes including the Manzano Mountains, Rio Grande and bosque, and Rio Puerco valley. It also identifies scenic

corridors and historic trails, including El Camino Real, Historic Route 66, and Abo Pass Trail, but does not include specific visual Protection Measures or impact evaluation standards.

Socorro County addresses visual resources through its Environmental Planning and Review Process Ordinance rather than a comprehensive plan. The ordinance requires evaluation of impacts to the "human environment," including aesthetic considerations, within Environmental Impact Reports, specifically referencing effects on community aesthetics, cultural and historic sites, scenic vistas, riverways, and landscapes. While this establishes a process for identifying and mitigating visual impacts, it remains qualitative and does not define formal visual classifications, designated viewsheds, or quantitative thresholds. Additionally, no publicly available comprehensive plan for Socorro County was identified online.

Bernalillo County includes a portion of the Study Area located on tribal lands, where land use planning frameworks are not publicly documented in the same manner as county plans. As a result, it is unclear whether formal visual resource policies or standards apply, and county-level plans are not relied upon for visual resource characterization in this area.

Overall, while all counties acknowledge scenic, cultural, and visually distinctive landscapes, particularly along historic and scenic corridors, these considerations are addressed at a programmatic or impact-based level. None of the counties establish formal VRM systems, protected viewsheds, or measurable standards for assessing or mitigating visual impacts.

Table 3 details the combined visual and recreation resource sensitivities in the Study Area and Appendix A, Figure A-2 shows visual resources in the Study Area.

Table 3: Summary of Visual Resources Sensitivity/Constraints

Designation	Location
Exclusion Area	
National Monuments, National Parks	▪ Salinas Pueblo Missions National Monument (Abó and Quarai Units)
BLM VRM Objective Class I	▪ None in the Study Area
USFS SIO Very High	▪ None in the Study Area
High Sensitivity	
BLM VRM Class II	▪ None in the Study Area
USFS SIO High	▪ Located in Cibola NF along Forest Road 422, beginning approximately 1 mile north of US Hwy 60.
National Historic Trail	▪ El Camino Real de Tierra Adentro – along the Rio Grande Valley ▪ Tomé Hill – Ten miles south of Isleta Pueblo, east of NM-47

Designation	Location
National and State Scenic Roads and Byways/Historical Markers	■ Historic Route 66 - portions of I-40 and NM-6 and NM-314 ■ El Camino Real - portions of NM-47 and NM-314 ■ Abo Pass Scenic Byway - portions of US Hwy 60 and NM-47 ■ Salt Mission Scenic Byway - portions of US Hwy 60 and NM-41 and NM-55
Urban Areas	■ Located at various points in the Study Area, including Albuquerque, Belen, Mountainair, Willard, and along the Rio Grande.
Moderate Sensitivity	
BLM VRM Class III	■ Areas located in the central portion of the Study Area, south of US Hwy 60 and east of the Sevilleta National Wildlife Refuge
USFS SIO Moderate	■ Located in the Cibola NF in the central and eastern portion of the Study Area.
National Wildlife Refuge	■ Portion of the Sevilleta National Wildlife Refuge located within the Study Area
Low Sensitivity	
BLM VRM Class IV	■ Areas located throughout the Study Area
USFS SIO Low	■ Located in the Cibola NF in the central and eastern portion of the Study Area.
Highways (including Interstates, U.S. highways, and State Routes)	■ I-25 and I-40 ■ US Hwy 60 ■ NM-6, NM-42, NM-47, NM-55, and NM-314

Notes: BLM = Bureau of Land Management; SIO = Scenic Integrity Objective; SRMA = Special Recreation Management Area; USFS = United States Forest Service; VQO = Visual Quality Objective; VRM = Visual Resource Management; US Highway = United States Highway

3.3.3 Cultural Resources

Cultural resources encompass pre-contact, historic, and Traditional Cultural Properties (TCPs). These may include districts, archaeological sites, historic structures, trails, and objects that hold cultural, scientific, traditional, religious, or other forms of significance for a specific community or cultural group. The cultural resources sensitivity analysis was based on the results of the Class I/literature review of previously recorded sites and properties within the Study Area. Table 4 details the cultural resource sensitivities in the Study Area and Appendix A, Figure A-3 shows the publicly available cultural resources in the Study Area; many of the cultural resources considered for this study were not included in this figure for cultural sensitivity reasons.

Table 4: Summary of Cultural Resources Sensitivity/Constraints

Area or Resource	Location
Exclusion Areas	
National Historic Landmarks (NHL)/Monuments are resources designated for importance to the Nation's history	■ Abo (San Gregorio de Abo Mission) Mission National Historic Landmark, NR 66000497. ■ Quarai National Historic Landmark, NR 66000498.
Archaeological and Historic Sites	■ Potential for archaeological sites or historic properties with cemeteries or human remains.
High Sensitivity	
National Register of Historic Places (NRHP) Properties, such as districts, sites, buildings, structures, or objects, are listed on the NRHP	■ Torrence County: Abo Mission Ruin NHL (NR 66000497, State Register [SR] 1); Quarai Ruin NHL (NR 66000498, SR 238); Ranch Bonito (NR 78001834, SR 514); Shaffer Hotel (NR 78003077, SR 517); Mountainair Municipal Auditorium (NR 87000651, SR 1371). ■ Valencia County: Tome Jail (NR 77000932, SR 257); Luna-Otero, Tranquilino, House (NR 75001175, SR 283); Baca, Miguel E., House (NR 78001835, SR 335); Atchison, Topeka & Santa Fe Railroad Depot (NR 79001562, SR 616); Belen City Hall (NR 100003676, SR 2052); Chaves, Felipe, House (NR 80002575, SR 766); Belen Hotel (NR 80002574, SR 774): Belen Harvey House (NR 83004180, SR 886); Wittwer, Dr. William Fredrick, House (NR 87000131, SR 1128); El Cerro Tome Site (NR 96000739, SR 1637)); Otero's 66 Service Station (NR 3000051, SR 1824).
State Register of Historic Places Properties, such as buildings, structures, or objects, are listed on the New Mexico State Register	■ Torrence County: Atchison, Topeka & Santa Fe Railway Depot, Mountainair (SR 349); Willard Mercantile Company (SR 2048). ■ Valencia County: Our Lady of the Immaculate Conception Church (SR73); Huning Merchantile and House (SR 130); Our Lady of Guadalupe Catholic Church (SR 477); Pottery Mound (SR 724); Valencia Church (SR 887); Dust Bowl Home (SR1409); Jarales Schoolhouse, Old (SR 1594); Cooperative (SR 1632); Romero, Paia, Café (SR 1648); Old Peralta School (SR 1836); La Capilla de San Antonio de Los Lentes (SR 1855); Woodall House (SR 1789).
Archaeological and Historic Districts, Sites, Buildings, Structures and Objects	■ Multiple cultural resources, pre-contact and historic, have been determined eligible for listing on the NRHP under Criteria A, B, C, and/or D.

Area or Resource	Location
Moderate Sensitivity	
National Historic Trails are designated to identify and protect historic routes, historic remnants, and artifacts for public use and enjoyment	■ El Camino Real de Tierra Adentro National Historic Trail, Route 66.
Archaeological and Historic Sites	■ Multiple cultural resources, pre-contact and historic, remain Unevaluated for inclusion on the NRHP.
Low Sensitivity	
Archaeological and Historic Sites	■ Multiple cultural resources, pre-contact and historic, have been recommended Not Eligible for inclusion on the NRHP.

No known cultural resources constraints that would preclude development of any of the route alternatives were identified within the Study Area. However, the presence of TCPs cannot be evaluated through desktop analysis. Consultation with Tribes and other consulting parties during subsequent phases of Project development may identify previously unknown cultural resources, including TCPs, that could require route modifications, additional avoidance measures, or other protective actions. Typical sites and property types within the Study Area include pre-contact artifact scatters, pre-contact artifact scatters with features, pre-contact habitation sites, historic homesteads and structures, historic roads, and the El Camino Real de Tierra Adentro National Historic Trail. While the El Camino Real de Tierra Adentro has been recorded in multiple segments throughout the area and a general route is known going from Mexico City, Mexico to Santa Fe, New Mexico, no recorded segment intersect any of the route corridors. Should additional cultural resources be encountered, similar types of sites and properties are expected in similar frequencies along any of the routes.

While some routes may have a higher potential to encounter cultural resources than others, cultural resources do not represent a determining factor in the alternative route ranking based on the current suite of routes assessed. Additionally, this Routing Study is based on the assumption that impacts are minimized by primarily co-locating with or paralleling existing infrastructure. An intensive Class III cultural resource inventory that adheres to state and federal cultural resource guidelines and regulations will be required upon route selection. This inventory will identify cultural resources, evaluate their eligibility for inclusion on the National Register of Historic Places, and assess the potential for the Project to adversely affect those that are Eligible. Regardless of eligibility status, all sites and properties will need to be recorded and updated during the Class III inventory. If any site or property is expected to be adversely affected during route construction and maintenance, then mitigation measures will need to be developed and detailed in a Historic Properties Treatment Plan. Ultimately, consultation with state or federal agencies will determine cultural resource management and treatment.

3.3.4 Water Resources

National Wetlands Inventory Data

The primary streams within the Study Area include the Abo Arroyo, Arroyo Seco, the Rio Grande, and the Rio Puerco. Other mapped stream features are either endorheic (closed) systems that do not discharge to downstream waters or function as tributaries to these major drainages. Most stream features in the Study Area are classified as ephemeral systems supporting temporary or seasonal flows.

A series of dry lake beds and playas occur in the Estancia Basin known as the Pinos Wells Playa. The Laguna del Perro, located southeast of Willard, New Mexico, is the largest feature of this type. These playas represent remnant deposits of Pleistocene-era Lake Estancia, with extensive evaporite (salt) crusts still evident. Surface water is typically absent from these features except during or immediately following significant precipitation events.

Wetland resources within the Study Area are limited. The only substantial wetland complexes mapped by the USFWS NWI are associated with the Rio Grande floodplain, particularly within the river valley near Veguita and Los Lunas, New Mexico.

Impacts to waters of the United States, as regulated by the United States Army Corps of Engineers (USACE), are expected to be largely avoidable or minimized through Project design measures, such as spanning drainages and wetlands and limiting access road crossings. However, given the extent of wetlands associated with the Rio Grande corridor, certain transmission alignments may necessitate the placement of structures within NWI-mapped wetlands. Should impacts to jurisdictional waters be unavoidable, authorization from the USACE under Section 404 of the Clean Water Act, potentially under Nationwide Permit 57 (Electric Utility Line and Telecommunications Activities), would be required, along with a Section 401 Water Quality Certification issued by the New Mexico Environment Department, if applicable. Additional federal, state, and local permits, approvals, and authorizations may also be required depending on the nature and extent of the impacts.

Floodplains

Floodplains within the Study Area are mapped by FEMA as 100-year flood hazard zones (Zones A, AE, and AH), which represent areas with a 1% annual chance of inundation. These zones are typically subject to flood depths ranging from approximately 1 to 3 feet. The majority of mapped floodplains are associated with the Rio Grande and the Rio Puerco, both perennial river systems.

Potential impacts to high-risk flood zones are expected to be largely avoidable through Project design measures, such as spanning drainages and surface water features. However, where avoidance is not practicable, Project activities within designated floodplains may require coordination with local jurisdictions and the acquisition of applicable floodplain development permits.

Rio Grande

The Rio Grande corridor in New Mexico represents a high-sensitivity environmental and regulatory constraint for transmission routing due to the presence of jurisdictional waters, wetlands, and mapped floodplains. The river supports extensive riparian ecosystems, including cottonwood gallery forests and associated wetland communities, which provide important ecological functions such as wildlife habitat, hydrologic connectivity, and sediment transport. Wetlands within the corridor, ranging from emergent to scrub-shrub systems, are often hydrologically connected to the river or influenced by shallow groundwater and irrigation systems. In addition, FEMA-designated floodplains along the Rio Grande, including 100-year (Zone AE) and 500-year (Zone X) flood hazard areas, introduce both environmental and engineering considerations. These resources are regulated under the Clean Water Act, National Environmental Policy Act (NEPA), and applicable executive orders, all of which emphasize avoidance and minimization of impacts.

Transmission routing through the Rio Grande corridor is constrained by ecological sensitivity, permitting requirements, and engineering challenges associated with flood-prone and saturated environments. Routing strategies should prioritize avoidance of the active channel, wetlands, and riparian vegetation, with preference given to existing disturbed corridors and upland areas outside the floodplain. Where crossings are unavoidable, design measures such as spanning jurisdictional features, minimizing structure placement within wetlands, and implementing erosion and sediment controls can be utilized to minimize impacts. With appropriate avoidance and minimization measures, impacts are typically localized and temporary; however, projects that require permanent fill or placement within wetlands or floodplains may trigger more complex permitting and mitigation obligations depending on the extent of disturbance.

Levels of high, moderate, and low sensitivity were assigned to the water resources in the Study Area. Resources with a high sensitivity are those that have federal or state statutory or regulatory protection and may require additional permitting or mitigation for impacts.

Resources with moderate sensitivity are not considered rare, but they are limited in extent, may be unique in structure, or are considered in agency planning documents. All other water resources received a low sensitivity rating. Table 5 details the water resources sensitivity areas in the Study Area and Appendix A, Figure A-4 shows the water resources inventory in the Study Area.

Table 5: Summary of Water Resources Sensitivity/Constraints

Area or Resource	Project Location
High Sensitivity	
NWI Resources (Wetland, Riverine, Lake, Pond)	■ Throughout the entire Study Area in association with major streams and tributaries. ■ Along the entire length of the Rio Grande and associated tributaries.

Area or Resource	Project Location
Moderate Sensitivity	
Perennial and Intermittent Stream Crossings	■ Throughout the entire Study Area in association with major streams and tributaries. ■ Along the entire length of the Rio Grande, Rio Puerco, and associated tributaries.
FEMA 100-year Flood Zones	■ Throughout the entire Study Area in association with major streams and tributaries, particularly the Rio Grande and associated tributaries.
Low Sensitivity	
FEMA Flood Zone X	■ Throughout the entire Study Area.
Ephemeral Stream Crossings	■ Throughout the entire Study Area in association with drainage channels, surface runoff features, and feeder streams for larger perennial and intermittent stream crossings.

While some routes may present a higher likelihood of encountering aquatic resources than others, water resources are not a differentiating factor in ranking the current route alternatives. Following selection of a preferred route, an aquatic resource delineation should be conducted in accordance with applicable federal guidelines and regulations. This delineation would identify jurisdictional waters and wetlands and inform associated permitting requirements, avoidance and minimization measures, and any necessary compensatory mitigation.

3.3.5 Biological Resources

The Study Area traverses a diverse gradient of habitat types representative of central New Mexico, transitioning from semi-arid upland rangelands and desert grasslands to riparian and agricultural valley systems associated with the Rio Grande. Upland portions of the alignment are characterized primarily by Chihuahuan Desert grassland and shrubland communities. Localized areas of pinyon-juniper woodland may occur in higher-elevation or transitional zones, providing structurally diverse habitat for migratory birds, small mammals, and raptors. These upland systems are generally adapted to arid conditions, with sparse vegetation cover and low surface water availability, resulting in relatively low wetland density but moderate wildlife use across broad landscapes.

As the Study Area approaches the Rio Grande, habitat conditions shift to riparian, wetland, and agricultural ecosystems. The Rio Grande floodplain supports cottonwood-willow gallery forests, dense understory vegetation, and adjacent palustrine emergent and scrub-shrub wetlands, which provide high-value habitat for migratory birds, special status species, and other wildlife. Irrigated agricultural lands and acequia systems create a mosaic of disturbed and semi-natural habitats that can support foraging and movement but may also be fragmented. These lower-elevation valley habitats represent higher biological sensitivity relative to uplands, due to increased biodiversity, presence of jurisdictional waters, and habitat connectivity along the Rio

Grande corridor. As such, routing in these areas typically warrants a greater emphasis on avoidance, span design, and minimization of vegetation clearing, particularly within riparian and wetland complexes.

Species of Concern

An initial list of species of concern potentially occurring in the Study Area was identified through reviewing both federal and New Mexico state-protected species with potential to occur in the Study Area. An Information for Planning and Consultation (IPaC) report was obtained from USFWS detailing species which are identified as candidates, proposed for listing, or listed under the federal Endangered Species Act (ESA), as well as those listed under the Bald and Golden Eagle Protection Act. A New Mexico Environmental Review Tool report was also reviewed, listing state-listed species of concern, and species which are protected by the New Mexico Department of Game and Fish under the Wildlife Conservation Act in New Mexico. Additionally, a list of sensitive animal and plant species was obtained for the Cibola National Forest from the USFS and for the Rio Puerco Field Office from the BLM (Appendix B). WSP biologists evaluated species-specific habitat requirements, known distributions, and publicly available GIS datasets to identify species of concern and potentially suitable habitat within the Study Area.

Federally Listed Species

Nine federally listed species have the potential to occur within the Study Area and are included in Table 6 below. The Study Area also overlaps USFWS-designated Critical Habitat for 3 species: Rio Grande silvery minnow (*Hybognathus amarus*), southwestern willow flycatcher (*Empidonax traillii extimus*), and yellow-billed cuckoo (*Coccyzus americanus*). Critical habitat for all 3 of these species is associated with the Rio Grande River corridor. Additionally, monarch butterfly (*Danaus plexippus*) and Suckley's cuckoo bumble bee (*Bombus suckleyi*), which are proposed for listing under the ESA, have potential to occur in the Study Area. Consultation with the USFWS will be required to ensure that the selected route does not jeopardize the continued existence of listed species or destroy or adversely modify designated Critical Habitat. Pre-construction field surveys to determine species presence/absence in areas of suitable habitat and avoidance and minimization measures during construction may be required to reduce impacts on ESA species.

Table 6: Federal-listed Species with Potential to Occur in the Study Area

Species	Regulatory Status
Mammals	
Mexican wolf *Canis lupus baileyi*	Experimental population, non-essential
New Mexico meadow jumping mouse *Zapus hudsonius luteus*	Federally Endangered
Birds	
Mexican spotted owl *Strix occidentalis lucida*	Federally Threatened
Northern Aplomado falcon *Falco femoralis septentrionalis*	Experimental population, non-essential
Piping Plover *Charadrius melodus*	Federally Threatened
Southwestern willow flycatcher *Empidonax traillii extimus*	Federally Endangered
Yellow-billed cuckoo *Coccyzus americanus*	Federally Threatened
Fishes	
Rio Grande silvery minnow *Hybognathus amarus*	Federally Endangered
Insects	
Monarch butterfly *Danaus plexippus*	Proposed Threatened
Suckley's cuckoo bumble bee *Bombus suckleyi*	Proposed Endangered
Plants	
Pecos sunflower *Helianthus paradoxus*	Federally Threatened

Biological resources within the Study Area were assigned high, moderate, or low sensitivity classifications based on their relative importance, rarity, regulatory status, and potential to be affected by transmission line development. Resources assigned a high sensitivity rating include federally or state-protected species, designated critical habitat, rare species, or habitats that support sensitive biological resources. Resources assigned a moderate sensitivity rating are not typically rare but may be limited in extent, provide unique habitat features, or be identified in agency planning documents as resources warranting consideration during Project development. Resources assigned a low sensitivity rating generally do not have special regulatory protections and are common or widely distributed throughout the Study Area. Table 7 summarizes the biological resource sensitivity classifications within the Study Area, and Appendix A, Figure A-5 depicts the biological resources inventory.

Table 7: Summary of Biological Resource Sensitivity/Constraints

Area or Resource	Project Location
High Sensitivity	
Rio Grande Silvery Minnow USFWS Critical Habitat	■ Within most of the length of the Rio Grande located in Study Area
Southwestern Willow Flycatcher USFWS Critical Habitat	■ Along the Rio Grande from Los Lunas to the southern boundary of the Study Area
Yellow-billed Cuckoo USFWS Critical Habitat	■ Along the Rio Grande from Los Lunas to the southern boundary of the Study Area
Mexican Spotted Owl USFWS Critical Habitat	■ Along the Manzano Mountains from Mosca Peak to Manzano Peak
Moderate Sensitivity	
New Mexico Important Plant Areas are mapped areas that support either a high diversity of sensitive plant species or are the last remaining locations of New Mexico's most endangered plants.	■ Along the Rio Grande at Belen ■ Sevilleta Basin – along the southern boundary of the Study Area in the Los Pinos Mountains ■ Manzano Mountains – along the northern boundary of the Study Area in the Manzano Mountains ■ Encino to Vaugh – along the northern boundary of the Study Area near Encino
BLM Rio Puerco Field Office Special Status Species Habitat	■ A complete list of BLM Rio Puerco Field Office Special Status Plant and Animal Species, and their likelihood of occurrence within the Study Area, are included in Appendix B. This list includes all sensitive plant and animal species present within the Rio Puerco Field Office, and each species' likelihood of occurrence was evaluated based on the habitat present on BLM lands within the Study Area.
USFS Cibola National Forest Special Status Species Habitat	■ A complete list of USFS Cibola National Forest Special Status Plant and Animal Species, and their likelihood of occurrence within the Study Area, are included in Appendix B. This list includes all sensitive plant and animal species present within the Cibola National Forest, and each species' likelihood of occurrence was evaluated based on the habitat present on USFS lands within the Study Area.
Low Sensitivity	
New Mexico Audubon Important Bird Areas are habitats and landscapes that are essential to birds, with a particular focus on riparian areas.	■ Estancia Valley – north of US Hwy 60 between Willard and Mountainair ■ Ladd S. Gordon Waterfowl Complex – along the Rio Grande Between Bosque and Belen

Mexican spotted owls were identified on the IPaC report as potentially occurring within the Study Area; however, there is no suitable habitat for this species. Mexican spotted owls are typically associated with steep-walled canyons and mature conifer forests, habitat conditions

that are absent from the Study Area. Therefore, Project-related effects to this species are not anticipated. In contrast, southwestern willow flycatcher, yellow-billed cuckoo, and Rio Grande silvery minnow are associated with riparian and aquatic habitats within the Rio Grande corridor. Potential effects to these species would be limited to areas where the Project intersects or occurs in proximity to the Rio Grande and associated habitats..

3.3.6 Paleontological Resources

The BLM developed the Potential Fossil Yield Classification (PFYC) system as a uniform tool to assess potential occurrences of paleontological resources and evaluate possible impacts using mapped geologic units (BLM 2023). The PFYC system provides baseline guidance for assessing paleontological resources as part of initial planning efforts and determining the need for further assessment of Project impacts on resources. Based on a review of the BLM's PFYC system, whose designations extend beyond BLM-managed lands and supplemented by a search of the online Paleobiology Database for fossil collections from geologic formations crossed by the routes in Torrance, Socorro, and Valencia Counties, the geologic units within the Project Study Area are assigned PFYCs that describe the potential for paleontological resources to be contained within these units which are then translated into resource sensitivities.

While geologic units with high or moderate sensitivity for paleontological resources do not preclude development across them, they would require more extensive mitigation efforts in the future including additional assessment of museum records of known localities, pre-construction pedestrian surveys, and a construction monitoring program. Table 8 details the paleontological resource sensitivity areas in the Study Area and Appendix A, Figure A-6 shows the paleontological resources inventory in the Study Area.

Table 8: Summary of Paleontological Resource Sensitivity/Constraints

Area or Resource	Location
High Sensitivity	
PFYC 5 are highly fossiliferous geologic units that consistently and predictably produce significant paleontological resources.	■ Rocks of the Santa Fe Group contain rich deposits of significant vertebrate fossils. – Santa Fe Group rocks are prevalent to the west of the Rio Grande. – Fossils from the Santa Fe Group (2.6 to 7 million years ago) include 1,000s of specimens in the American Museum of Natural History's collections and represent more than 100 species representing ancestors of all major mammalian groups (e.g., camels, horses, rhinoceroses, dogs, bears, rodents) and many extinct mammalian lineages (e.g., gomphotheres, oreodonts) as well as birds, frogs, lizards, tortoises (Kues and Lucas 1979).

Area or Resource	Location
PFYC 4 are geologic units that are known to contain a high occurrence of paleontological resources.	■ Rocks of the Abo Formation are known to contain plant mega fossils and tetrapod trace fossils. – Present west of Abo, New Mexico.
Moderate Sensitivity	
PFCY 3 are sedimentary geologic units where fossil content varies in significance, abundance, and predictable occurrence.	■ Yeso Formation – Present in the eastern portion of the Study Area. – Paleozoic-age (Permian) fossils that vary by location and strata with marine microfossils in some areas and terrestrial tetrapod trackways near Lucero. ■ Bursum Formation – Present west of Abo. – Paleozoic-aged (Pennsylvanian) fossils including giant, temnospondyl amphibian, early reptiles, and fish and sharks from marine components.
Low Sensitivity	
PFYC 2 are geologic units that are not likely to contain paleontological resources.	■ Generally include younger (Holocene-aged) alluvial deposits, that are unlikely to contain significant paleontological resources.
PFYC 1 are geologic units that are not likely to contain recognizable paleontological resources.	■ Igneous rocks including volcanic basalt flows. Igneous rocks do not contain paleontological resources.

4. Identification of Opportunities and Constraints (Step 4)

Where practicable, the WSP planning team prioritized routing opportunity areas and avoided locations with environmental constraints or incompatible land uses. Opportunities and constraints were identified by evaluating each resource's sensitivity to the Project and incorporating resource information, agency data, and engineering constraints. In general, resources with lower sensitivity were considered more compatible with transmission line development than resources with higher sensitivity or exclusionary constraints. These data were combined into a composite sensitivity overlay to identify areas that may constrain transmission line development, as well as areas with fewer constraints that may offer feasible routing opportunities.

4.1 Siting Opportunities

Selection of precise infrastructure locations within an overall route or ROW provides significant opportunities to avoid or minimize potential impacts to sensitive resources. Siting opportunities were identified by evaluating the route options against the established routing criteria and assigned sensitivity levels, with preference given to areas of lower sensitivity and locations that minimize potential conflicts with sensitive resources and existing land uses. Opportunities may include areas in proximity to, or parallel to, existing or planned linear facilities; previously disturbed corridors; or corridors designated for future use as utility corridors or industrial uses. These opportunities were considered in comparing route options and refining potential alignments to minimize resource conflicts and maximize compatibility with existing and planned land uses.

Paralleling and co-locating new transmission facilities with existing linear infrastructure, such as transmission lines, roadways, railroads, and pipelines, can provide numerous environmental, engineering, and land use benefits. When practicable, these approaches help concentrate infrastructure within existing developed corridors, thereby reducing the need to establish new corridors across previously undisturbed landscapes. Key benefits include:

- **Reduces habitat fragmentation** by concentrating disturbance within existing developed corridors rather than creating new linear disturbances through intact habitats.
- **Minimizes new land disturbance** by utilizing previously disturbed ROWs, existing access roads, and established utility corridors, reducing the amount of vegetation clearing and ground disturbance.

- **Reduces visual impacts** by consolidating infrastructure within existing corridors, limiting the introduction of new visual features across the landscape.
- **Improves construction efficiency** through the use of existing access roads, staging areas, and maintenance routes, which can reduce temporary construction impacts and costs.
- **Supports efficient land use** by maximizing the use of existing utility corridors and reducing the need for additional easements or new ROWs.
- **Reduces potential impacts to natural and cultural resources** by avoiding previously undisturbed areas where sensitive biological, cultural, or recreational resources may occur.
- **Facilitates long-term operations and maintenance** by allowing shared or adjacent access routes and reducing the need for additional maintenance infrastructure.
- **Supports agency land use and infrastructure planning objectives**, which often encourage consolidating infrastructure to reduce cumulative landscape disturbance and promote efficient corridor management.
- **May streamline environmental review and permitting** by demonstrating avoidance and minimization of environmental impacts consistent with NEPA and other permitting requirements.

Identification of opportunities for routing the planned transmission line was based on an analysis of the sensitivity that a resource may exhibit to construction, operations, and maintenance of the transmission line into the Study Area (Table 9). Opportunities such as parallelling of existing ROWs or co-location of existing infrastructure allow for routing the Project's facilities in order to:

- Minimize impacts on private property owners by paralleling property lines, section lines, or half-section lines.
- Minimize impacts on productive agricultural uses.
- Maximize the use of existing access and minimize new access road construction.
- Facilitate efficient and cost-effective transmission line design and construction.

Table 9: Siting Opportunities

Category	Level of Opportunity
Parallel and/or Co-location of Existing Transmission Lines	High
Designated Utility Corridors (Legacy Locally Designated Corridors, BLM, USFS)	High
Major Interstate and State Highways	Moderate
Railroads	Moderate
Existing Secondary Access Roads	Moderate

4.2 Siting Constraints

Siting constraints for a transmission line are defined as environmentally sensitive and other restrictive areas including engineering constraints. Avoidance and minimization of siting constraints were fundamental considerations throughout the transmission line routing process. The routing methodology emphasized avoiding or reducing potential impacts to environmental, engineering, land use, and community sensitive resources to the maximum extent practicable while maintaining a technically feasible and constructible transmission line.

The avoidance and minimization measures presented in this section are representative examples of the strategies incorporated during route development refinement to avoid and/or minimize impacts to siting constraints:

- Maximize the separation distance from and/or minimize impacts on residences.
- Maximize the separation distance from and/or minimize impacts on schools, hospitals, and other community facilities.
- Avoid and/or minimize the need for relocation of existing barns, garages, commercial buildings, and other nonresidential structures.
- Minimize impacts on agricultural use, including the operation of irrigation infrastructure.
- Avoid crossing cemeteries and known burial places.
- Minimize crossing designated public resource lands, such as national and state forests and parks, large camps and other recreational lands, historic resources and sites, and state designated wildlife management areas.
- Minimize crossing large lakes, major rivers, and large wetland or playa complexes.
- Minimize impacts on known critical habitat, protected species, and other identified sensitive natural resources.
- Maintain the existing visual character, viewshed, and landscape setting to the extent practicable by minimizing visual impacts to scenic vistas and other visual resources associated with Project facilities and infrastructure.

The resulting sensitivity classifications identified in Step 3 helped identify areas where routing conflicts may occur and areas where impacts associated with transmission line construction, operation, and maintenance could potentially be reduced through route selection, co-location with existing infrastructure, or other design measures. Table 10 summarizes the land use and environmental constraints considered in the Routing Study and the sensitivity criteria used to evaluate their relative influence on route development.

Table 10: Siting Land Use and Environmental Constraints

Constraint	Sensitivity Level	Sensitivity Criteria
Land Use		
Airports and Heliports	Exclusion	Within 0.5 mile
Federal Wilderness Areas	Exclusion	Within ROW
National Monuments	Exclusion	Within ROW
Federal Wilderness Study Areas	Exclusion	Within ROW
United States Environmental Protection Agency Superfund Sites	Exclusion	Within ROW
BLM Areas of Critical Environmental Concern	High	Within ROW
National or State Wildlife Refuges	High	Within ROW
Federal Communications Commission (FCC) registered communication towers	High	Within 1,000 feet
Federal Aviation Administration (FAA) very high frequency omni-directional range (VOR) antenna	High	Within 200 feet
Conservation Easements	High	Within ROW
State Parks	High	Within ROW
Local Parks and Open Space	High	Within ROW
Agricultural Areas - Pivot Agriculture	High	Within ROW
Habitable Structures	High	Within 300 feet
Oil and Gas Wells	High	Within 200 feet
Water Wells	High	Within 200 feet
Churches	High	Within 300 feet
Schools and Childcare Facilities	High	Within 300 feet
Active/Inactive Mines	High	Within 0.5 mile
Gravel/Sand Extraction Sites	High	Within 0.5 mile
Agricultural Areas - Irrigated (Flood/Drip) Agriculture	Moderate	Within ROW
NRCS Prime Farmland	Moderate	Within ROW
NM State Forestry Priority Landscapes	Moderate	Within ROW
BLM/United States Fish and Wildlife Service (USFWS)/State/Tribal Livestock Grazing Allotments	Moderate	Within ROW
Vacant/Undeveloped	Low	Within ROW
Visual and Recreation		
National Monuments	Exclusion	Within ROW
BLM Visual Resource Management (VRM) Class I	Exclusion	Within ROW
USFS Scenic Integrity Objective (SIO) Very High	Exclusion	Within ROW
BLM VRM Class II	High	Within ROW

Constraint	Sensitivity Level	Sensitivity Criteria
USFS SIO High	High	Within ROW
National Historic Trails	High	Within 0.25 mile
Scenic Roads or Byways/Historic Markers	High	Within 0.25 mile
BLM VRM Class III	Moderate	Within ROW
USFS SIO Moderate	Moderate	Within ROW
Special Recreation Management Areas	Moderate	Within 0.25 mile
BLM VRM Class IV	Low	Within ROW
USFS SIO Low and SIO Very Low	Low	Within ROW
Cultural Resources		
National Historic Landmarks/Monuments	Exclusion	Within ROW
Cemeteries	Exclusion	Within ROW
National Register Listed or Determined Eligible Sites	High	Within ROW
New Mexico State Register (SR) of Cultural Properties	High	Within ROW
Traditional Cultural Properties (TCPs)	High	Within ROW
Resources Determined Eligible for Listing on the National Register of Historic Places	Moderate	Within ROW
Resources Determined Unevaluated or Unknown for Listing on the National Register of Historic Places	Moderate	Within ROW
National Historic Trails	Moderate	Within ROW
Resources Determined Not Eligible for Listing on the National Register of Historic Places	Low	Within ROW
Biological Resources		
Rio Grande Silvery Minnow USFWS Critical Habitat	High	Within ROW
Southwestern Willow Flycatcher USFWS Critical Habitat	High	Within ROW
Yellow-billed Cuckoo USFWS Critical Habitat	High	Within ROW
Mexican Spotted Owl Habitat	High	Within ROW
New Mexico Important Plant Areas	Moderate	Within ROW
BLM Rio Puerco Field Office Special Status Species Habitat	Moderate	Within ROW
USFS Cibola National Forest Special Status Species Habitat	Moderate	Within ROW
New Mexico Audubon Important Bird Areas	Low	Within ROW
Water Resources		
NWI Resources (Wetland, Riverine, Lake, Pond)	High	Within ROW
Perennial and Intermittent Stream Crossings	Moderate	Within ROW
FEMA 100-year Flood Zones (A, AE, AH, and AO)	Moderate	Within ROW

Constraint	Sensitivity Level	Sensitivity Criteria
FEMA Flood Zone X (Moderate to Low-Risk Areas)	Low	Within ROW
Ephemeral Stream Crossings	Low	Within ROW
Paleontological Resources		
BLM Potential Fossil Yield Classification (PFYC) 4 and 5	High	Within ROW
BLM PFYC 3	Moderate	Within ROW
BLM PFYC 1 and 2	Low	Within ROW

In addition to the evaluation of potential land use and environmental constraints, the GIS data were also used to determine initial levels of constraint associated with the traditional construction of Project facilities. Engineering constraints were evaluated using desktop topographic and geologic data to identify factors that may influence transmission line routing and constructability. These evaluations support corridor-level routing decisions and do not replace subsequent geotechnical investigations. The intent of this analysis was to provide preliminary information that could assist the engineers in identifying transmission line corridors where ground disturbance (e.g., access road construction, structure locations) could be minimized and to optimize route length by minimizing circuitous routes, cost, and special design requirements. Table 11 is a summary of characteristics that could pose potential engineering constraints within the Study Area.

Table 11: Summary Of Engineering Constraints for Transmission Lines

Constraint	Sensitivity Level
Above 7,000 feet mean sea level in elevation. Higher elevations reduce air density, requiring larger electrical clearances, longer insulators, and larger transmission structures. High-elevation terrain may also present rocky soils, steeper slopes, and more difficult construction access, increasing engineering complexity and construction costs.	High
Areas of slope greater than 35%.	High
Areas of slope between 10% and 35%.	Moderate
Karst topography is a landscape produced by the dissolution of soluble rock types such as limestone, dolomite, marble, gypsum, salt sinkholes or closed depressions, caves, dry valleys, sinking streams, and resurgences or springs.	Moderate
Areas of slope less than 10%.	Low

4.2.1 Protection Measures

Protection Measures would be implemented during Project design, construction, operation, and maintenance to avoid or minimize impacts to environmental and land use constraints. These measures may include route refinements, construction timing restrictions, resource-specific avoidance measures, and implementation of best management practices such as erosion control, dust suppression, spill prevention, and vegetation management. Where practicable, these measures can reduce the potential for impacts to sensitive resources and, in some cases, reduce the degree to which a resource influences route selection. As a result, route segments initially associated with higher levels of constraint may become more viable through the application of avoidance, minimization, and mitigation measures that reduce potential resource conflicts and improve compatibility with surrounding land uses and environmental conditions.

A comprehensive list of the Project's Protection Measures is identified in the Environmental Report and Project permitting documents. Below are a few examples of Protection Measures that could reduce impacts to each resource type addressed in the Routing Study.

Land Use Resources

- Coordinate with landowners for potential measures, including routing, to reduce Project impacts on uses on specific properties.
- Coordinate with appropriate state and federal land management agencies to obtain applicable permits and easements for portions of the transmission line traversing public lands.
- Plan and conduct construction activities to reduce temporary disturbance, displacement of crops, and interference with agricultural activities.

Visual Resources

- Leave (where possible) plants smaller than 8 ft in height within the ROW to help reduce the effect of the ROW of visual and aesthetic resources.
- Transmission structures shall, to the extent reasonably possible, use materials, colors, textures, screening and landscaping that will blend the facility into the natural setting and existing environment.

Cultural Resources

- Cultural surveys in known areas of ground disturbance for the Project will be completed ahead of construction, where applicable. No ground disturbance activities will be completed prior to cultural survey work being completed.
- The Project will engage with tribes that may have a cultural affiliation to areas within the Project ROW.

- If sites are found at the location of planned infrastructure, micrositing techniques will be used to move around and/or span sites to the greatest extent practicable.

Water Resources

- Develop and implement a Project-specific Stormwater Pollution Prevention Plan. The Stormwater Pollution Prevention Plan may include measures such as silt barrier fences to control runoff, sediment traps and basins, and minimizing exposed soils by using temporary and permanent seeding and mulching.
- Disturbed areas will be restored to their original condition to the extent practicable. Such areas shall be reseeded and reclaimed as practicable, with consideration of the growing season. Seed mix and seeding rates will be developed through consultation with the local agency and landowner preference.
- Appropriate buffer zones will be established around wetlands, waterbodies, and other aquatic features based on resource type, infrastructure, location, and proximity to other constraints. Buffers may utilize staking, flagging, and/or fencing around wetlands as necessary to prevent disturbance and minimize encroachment.

Biological Resources

- Prior to construction, an avian risk assessment will be completed for the Project following Avian Power Line Interaction Committee guidance to identify areas where there is relatively greater risk for avian collisions (e.g., near wetlands). The results of the assessment will help identify where the Project may install bird diverters to minimize collision risk.
- Conducting pre-construction nest surveys prior to initiating construction activities unless vegetation clearing has been completed prior to the nesting season. If nests are discovered, a species appropriate buffer will be implemented, and construction activities will be avoided within such buffer until the species has fledged.
- Field surveys will be conducted, as appropriate, to identify potentially suitable habitat for listed species and to evaluate species presence or probable absence within the Project area. Known population concentrations, including leks, nesting areas, roost sites, and other important congregation areas, will be avoided through Project design to the maximum extent practicable. Where avoidance is not feasible, species-specific buffers and other protective measures will be implemented in coordination with the appropriate resource agencies and in accordance with applicable guidance and permit requirements.

Paleontological Resources

- Follow an Unanticipated Discovery Protocol, providing protection upon discovery of unknown sites.

Additional opportunities to avoid and minimize impacts will continue to be evaluated during final engineering and permitting. Structure locations, access roads, pulling and tensioning sites, and other temporary work areas will be refined based on field surveys, agency coordination,

landowner input, and resource-specific investigations. This iterative process will further reduce impacts while maintaining compliance with applicable engineering standards, environmental requirements, and Project objectives.

5. Identification of Route Alternatives (Step 5)

Utilizing Google Earth imagery, land use and environmental resource data, and the results of the GIS opportunities and constraints analysis, a network of route alternatives was developed to connect the Western Spirit Switchyard and Hidden Mountain Substation. Through iterative review and refinement, three end-to-end route alternatives were identified for detailed evaluation (Figure 4). A No-Action Alternative is included in the report to acknowledge the potential of not implementing the proposed Project; however, because it does not involve construction of a transmission line or meet the Project's purpose and need, it is not considered as part of the routing analysis.

Voltage, typical ROW width, and approximate mileage for the route alternatives are summarized in Tables 12, 13, and 14, respectively. Table 15 provides a comparative evaluation of the route alternatives, including approximate route length, constructability considerations, environmental resource factors, and potential permitting requirements. The routing criteria applied to assess land use, environmental resource data, and engineering constraints for comparing route alternatives are provided in Appendix C.

5.1 Route Alternatives

All route alternatives begin at the Western Spirit Switchyard and terminate at the Hidden Mountain Substation, traversing Torrance, Socorro, and Valencia Counties, New Mexico. To the extent practicable, the alternatives are co-located with or parallel existing linear features, including roads, transmission lines, utility corridors, and parcel boundaries, to minimize the creation of new infrastructure corridors and reduce potential land use and environmental conflicts.

Route lengths presented in this report are approximate and reflect the current level of route development. Final transmission line lengths may vary as engineering and design progress, including refinement of structure locations, span lengths, access requirements, and final ROW alignments.

Typical ROW widths also vary among the alternatives, particularly for the 115-kV Rebuild route and the RSHME route. In some areas, the Project would utilize a variable-width ROW rather than a uniform corridor width. The ROW would be tailored to site-specific engineering and environmental conditions to accommodate the rebuilt transmission facilities while minimizing unnecessary expansion of the corridor. This approach minimizes unnecessary corridor expansion, reduces impacts to sensitive resources, agricultural operations, and private property, and provides flexibility to avoid site-specific constraints where practicable.

115-kV Rebuild (Preferred Route)

The 115-kV Rebuild route incorporates a new 345-kV transmission circuit extending from the Western Spirit Switchyard to Hidden Mountain Substation, consisting of both greenfield 345-kV segments and 115-kV Rebuild segments. Between the Western Spirit Switchyard and Willard Substation, the route follows a new greenfield alignment that generally parallels the existing Western Spirit Transmission line corridor, maximizing the use of an established utility corridor and minimizing the need for a new linear disturbance. From Willard Substation to just south of Hidden Mountain Substation, the route primarily utilizes the existing PNM WL 115-kV ROW. In this segment, the existing 115-kV line will be rebuilt onto new structures designed to support both the new 345-kV Mid-State Transmission circuit and the existing PNM WL 115-kV circuit. Following construction and energization of the new facilities, the existing 115-kV structures within the rebuild segments will be removed and the associated facilities retired from service. Where technical constraints prevent rebuilding the existing 115-kV line, the route transitions to new greenfield 345-kV segments.

For the final approximately 9 miles approaching Hidden Mountain Substation, the 345-kV line returns to a full greenfield alignment, while the existing 115-kV line remains on its current structures and continues to the Sun Ranch Switching Station. Overall, the line would be co-located with the PNM WL 115-kV lines for approximately 31 miles and would operate as a standalone 345-kV line for approximately 71 miles.

The 115-kV Rebuild would span approximately 102.7 miles, including 2.1 miles on United States Forest Service (USFS) land, 16.5 miles on New Mexico State Land Office land, and 83.7 miles on privately owned land. The alignment would cross 612 parcels, including 601 privately owned parcels, and would include approximately 110 habitable structures within 500 feet of the transmission line centerline.

Table 12: 115-kV Rebuild Details

Segment Name	Voltage	Typical ROW Width	Approximate Mileage
Western Spirit to Willard	345-kV (MST new build)	200 feet	35.9
Willard to Belen	115-kV (existing) and 345-kV (MST new build)	200 feet[1]	48.4
Belen to Hidden Mountain	115-kV (existing) and 345-kV (MST new build)	200 feet[1]	18.4

Notes:
1: Portions of this segment will include ROW widths varying from 50 feet to 200 feet.

RioSol + Hidden Mountain Extension Route

The RioSol Transmission Project is a 500-kV single-circuit transmission line being developed by Southwest Power Group and Renewable Energy Transmission Authority (RETA). It has completed significant permitting milestones and environmental review under NEPA as the

“second line” to the SunZia Transmission Project, which has completed construction as of Q2 2026. The Hidden Mountain Extension Transmission Project, a 345-kV single-circuit line developed by Agua Fria LLC (an affiliate of Southwest Power Group) and RETA, proposed to connect RioSol to the PNM Grid at Hidden Mountain Substation. To utilize this route alternative for the Mid-State Transmission Project, easement rights or other necessary property interests would need to be obtained from Southwest Power Group, RioSol LLC, and/or RETA.

The combined RioSol + Hidden Mountain Extension (RSHME) Route spans approximately 104.2 miles and traverses approximately 0.3 miles of BLM land, 24.3 miles of NMSLO land, and 79.6 miles of privately owned property. The alignment crosses 319 parcels, including 290 privately owned parcels, and the transmission centerline passes within 500 feet of approximately 29 habitable buildings.

Table 13: RioSol + Hidden Mountain Extension Details

Segment Name	Voltage	ROW Width	Mileage
Western Spirit to RioSol	345-kV new build	200 feet	24.1
RioSol	500-kV new build	200 feet	59.1
Hidden Mountain Extension	345-kV new build	180 feet	21.1

Western Spirit Transmission 2

The Western Spirit Transmission Project is an existing 345-kV single-circuit transmission line originally developed and constructed by Pattern Development USA, LLC (Pattern) and the New Mexico RETA that is currently owned by PNM. The Western Spirit Transmission 2 (WST2) Project would utilize the existing ROW to reconstruct the existing line by upgrading transmission structures and related facilities and adding a second 345-kV circuit for the Project. This analysis presumes that the current 150-foot ROW is generally adequate to accommodate the conversion to a double-circuit transmission facility.

The WST2 Route spans 103.6 miles, crossing through the New Mexico State Land Office land for 22.2 miles, and privately owned land for 81.4 miles. The route traverses 435 parcels, 404 of which are privately owned. There are approximately 18 habitable structures located within 500 feet of the transmission centerline.

Table 14: Western Spirit Transmission 2 Details

Segment Name	Voltage	ROW Width	Mileage
Western Spirit Transmission 2 (existing)	345-kV Double circuit rebuild	150 feet	103.6

No-Action Alternative

Under the No-Action Alternative, the Project would not be constructed, and the potential environmental impacts associated with the Project would not occur. However, selection of the No-Action Alternative would not meet the purpose and need of the Project and would limit Mid-State's ability to develop and support sufficient power reliability for customers in the region. Furthermore, the benefits of the Project, including enhanced grid reliability and resilience, increased employment, secondary spending, and increased tax revenues, would not be realized under the no-action alternative. If the Project is not constructed, similar transmission and power infrastructure would be expected to be developed in the same region to meet the demand for additional power supply to end users. As a result, the environmental impacts and benefits associated with meeting this purpose and need would likely be shifted to alternative projects and delayed in time rather than avoided altogether. Additionally, such projects may not incorporate the same comprehensive protection measures described herein. Therefore, the No-Action Alternative was not evaluated in detail and will not be carried forward for further analysis.

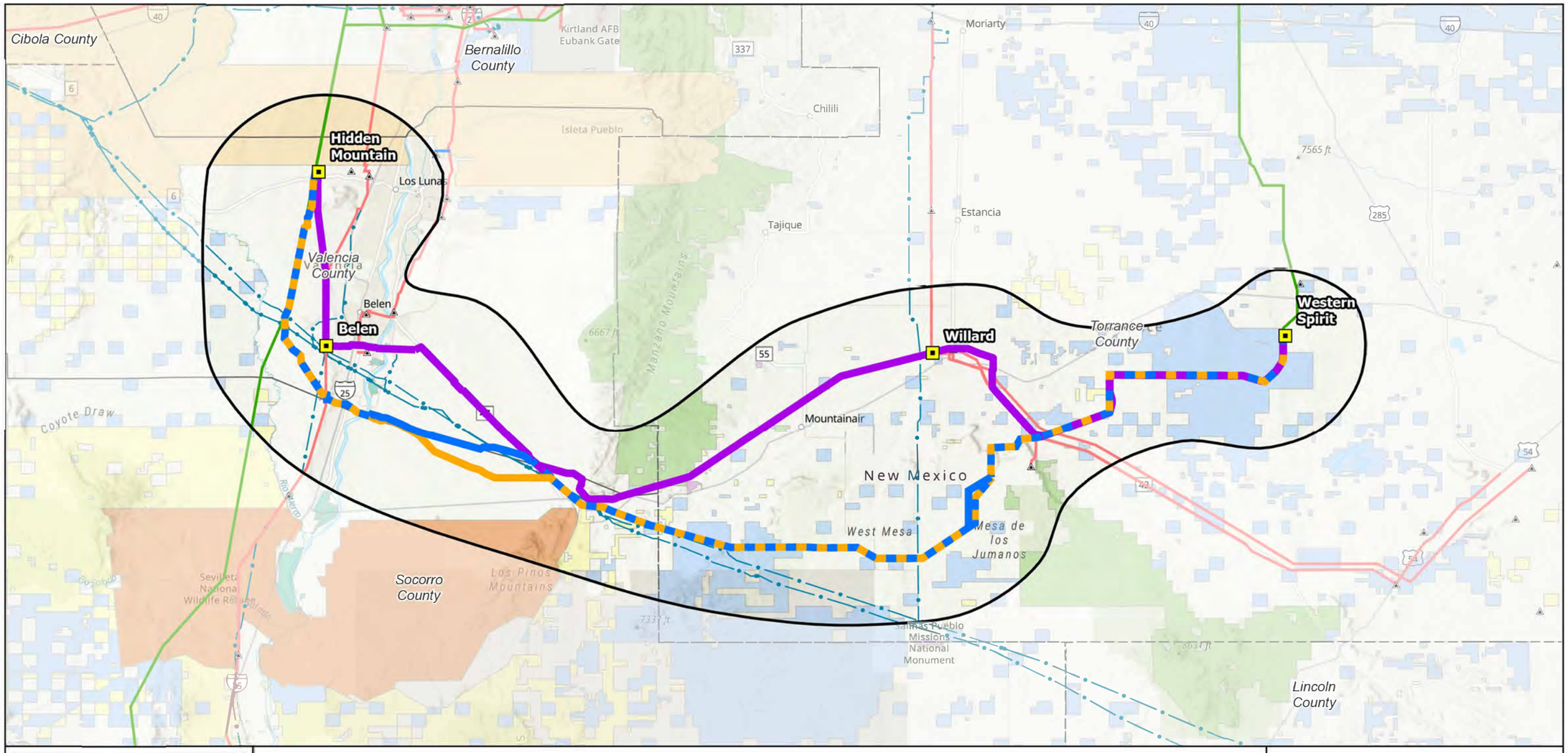

Cibola County
Bernalillo County
Kirtland AFB
Eubank Gate
Moriarty
Chilili
Isleta Pueblo
Hidden Mountain
Los Lunas
Valencia County
Belen
Tajique
Estancia
7565 ft
Western Spirit
Willard
Torrance County
Manzano Mountains
Coyote Draw
Mountainair
New Mexico
West Mesa
Mesa de los Jumanos
Socorro County
Los Pinos Mountains
Salinas Pueblo Missions National Monument
Lincoln County
NEW MEXICO
Project Area
Albuquerque
Las Cruces
El Paso
Project Components
Project Substation
Study Area
Route Alternatives
115kV Rebuild
Western Spirit Transmission 2
Rio Sol + Hidden Mountain Extension
Land Jurisdiction
Bureau of Land Management
Forest Service
Fish & Wildlife Service
National Park Service
Tribal Land
State
State Game & Fish
State Park
Private
Reference Features
Existing Substation
115kV Transmission Line
230kV Transmission Line
345kV Transmission Line
Natural Gas Pipeline
MID-STATE TRANSMISSION PROJECT
Figure 4
Route Alternatives
0 5 10 15 20
Miles

Table 15: Alternative Route Feasibility Comparison

Resources	115-kV Rebuild (Preferred)	RioSol + Hidden Mountain Extension	Western Spirit Transmission 2
Approx Length (miles)	102.7	104.2	103.6
Parallel/Co-locate	Parallel existing transmission: 32.9 miles Co-locate with existing transmission: 31 miles	Parallel existing transmission: 27 miles	Parallel existing transmission: 14.6 miles Co-locate with existing transmission: 103.6 Railroads: 0.6 miles Highways: 0.6 miles
Potential Eng/Const Issues	**High Sensitivity:** -≥7,000 feet above msl: 0.03 miles crossed -Slope>35%: 0.8 miles crossed **Moderate Sensitivity:** -Slope 10-35%: 6.5 miles crossed -Karst terrain: 15.2 miles crossed	**High Sensitivity:** -≥7,000 feet above msl: 1.5 miles crossed -Slope>35%: 2 miles crossed **Moderate Sensitivity:** -Slope 10-35%: 7.4miles crossed -Karst terrain: 35.7 miles crossed	**High Sensitivity:** ≥7,000 feet above msl: 1.2 miles crossed -Slope>35%: 1.7 miles crossed **Moderate Sensitivity:** -Slope 10-35%: 7.4 miles crossed -Karst terrain: 34.9 miles crossed
Composite Sensitivity	**Exclusion Area:** 1 mile crossed **High Sensitivity:** 33.4 miles crossed **Moderate Sensitivity:** 55.9 miles crossed **Low Sensitivity:** 16.5 miles crossed	**Exclusion Area:** 0 miles crossed **High Sensitivity:** 30.4 miles crossed **Moderate Sensitivity:** 53 miles crossed **Low Sensitivity:** 19.9 miles crossed	**Exclusion Area:** 0 miles crossed **High Sensitivity:** 31.8 miles crossed **Moderate Sensitivity:m**53.2 miles crossed **Low Sensitivity:** 18.7 miles crossed
Land Use Resources	**High Sensitivity:** -110 habitable structures within 500 feet -FCC Comm towers: 6 within 1 mile buffer **Moderate Sensitivity:** -NRCS Prime Farmland: 9.5 miles crossed -NM State Forestry Priority Landscapes: 2.7 miles crossed **Parcels Crossed:** 612	**High Sensitivity:** -29 habitable structures within 500 feet -Private airstrip: 1 within a mile buffer -FCC Comm towers: 4 within 1 mile buffer **Moderate Sensitivity:** -NRCS Prime Farmland: 15.8 miles crossed -NM State Forestry Priority Landscapes: 2 miles crossed **Parcels Crossed:** 319	**High Sensitivity:** -18 habitable structures within 500 feet -Private airstrip: 2 within a mile buffer -FCC Comm towers: 4 within 1 mile buffer **Moderate Sensitivity:** -NRCS Prime Farmland: 16.3 miles crossed -NM State Forestry Priority Landscapes: 2 miles crossed **Parcels Crossed:** 452

Resources	115-kV Rebuild (Preferred)	RioSol + Hidden Mountain Extension	Western Spirit Transmission 2
Visual Resources	**High Sensitivity:** 7 Scenic Highway crossings: - Abo Pass State Scenic Byway (3 crossings) - El Camino Real National Scenic Byway (1 crossing) -Historic Route 66 National Scenic Byway (1 crossing) -Salt Mission Trail State Scenic Byway (2 crossings) -El Camino Real de Tierra Adentro National Historic Trail (2 crossings)	**High Sensitivity:** 4 Scenic Highway Crossings: - Abo Pass State Scenic Byway (2 crossings) - El Camino Real National Scenic Byway (1 crossing) -Historic Route 66 National Scenic Byway (1 crossing) -El Camino Real de Tierra Adentro National Historic Trail (2 crossings)	**High Sensitivity:** 4 Scenic Highway Crossings: - Abo Pass State Scenic Byway (2 crossings) - El Camino Real National Scenic Byway (1 crossing) -Historic Route 66 National Scenic Byway (1 crossing) -El Camino Real de Tierra Adentro National Historic Trail (2 crossings)
Bio/Water Resources	**High Sensitivity:** -T&E Species Critical Habitat (Rio Grande silvery minnow, southwestern willow flycatcher, and yellow-billed cuckoo): 0.5 miles crossed - NWI Resources: 0.5 miles crossed **Moderate Sensitivity:** -NM Important Plant Areas: 2.3 miles crossed -Stream Crossings: 46 crossings -FEMA 100 year flood zones: 2.5 miles crossed	**High Sensitivity:** -T&E Species Critical Habitat (Rio Grande Silvery Minnow, Southwestern Willow Flycatcher, and Yellow-billed Cuckoo): 0.4 miles crossed -Mexican Spotted Oil Habitat: 1.0 miles crossed -NWI Resources: 0.6 miles crossed **Moderate Sensitivity:** -Stream Crossings: 39 crossings -FEMA 100 year flood zones: 4.1 miles crossed	**High Sensitivity:** -T&E Species Critical Habitat (Rio Grande Silvery Minnow, Southwestern Willow Flycatcher, and Yellow-billed Cuckoo): 0.4 miles crossed -Mexican Spotted Oil Habitat: 0.3 miles crossed - NWI Resources: 0.6 miles crossed **Moderate Sensitivity:** -NM Important Plant Areas: 2.2 miles crossed -Stream Crossings: 37 crossings -FEMA 100 year flood zones: 4 miles crossed
Paleontological Resources	**High Sensitivity:** PFYC Class 5:16.2 miles crossed PFYC Class 4: 3.1 miles crossed **Moderate Sensitivity:** PFYC Class 3: 9.8 miles crossed	**High Sensitivity:** PFYC Class 5: 21.4 miles crossed PFYC Class 4: 3.3 miles crossed **Moderate Sensitivity:** PFYC Class 3: 30.2 miles crossed	**High Sensitivity:** PFYC Class 5: 21.2 miles crossed PFYC Class 4: 3.7 miles crossed **Moderate Sensitivity:** PFYC Class 3: 29.4 miles crossed
Fed and State Agency Permit Requirements	USFS, BLM, Tribal, State	BLM	Tribal, State
County Permit Requirements	As applicable	As applicable	As applicable

Note: Portions of the 115kV Rebuild will include ROW widths varying from 50 feet to 200 ROW widths would vary based on engineering and site-specific constraints, using only the width necessary to safely construct, operate, and maintain the facilities while minimizing impacts to environmental resources and adjacent landowners.

5.2 Conclusion

This Routing Study identified, analyzed, and compared three feasible route alternatives for the Project. Each alternative was evaluated using a consistent methodology that considered engineering feasibility, constructability, land use compatibility, environmental resources, permitting requirements, opportunities for avoidance and minimization, and the ability to utilize existing infrastructure corridors.

Based on the results of the Routing Study, the 115-kV Rebuild Route is identified as the preferred route for continued Project development. This route provides the most balanced and practical solution when considering the full range of engineering, environmental, land use, permitting, and operational factors evaluated in this study.

A key advantage of the 115-kV Rebuild Route is its extensive use of existing PNM transmission infrastructure and ROW corridors. From Willard Substation to near Hidden Mountain Substation, the route would largely follow the existing 115-kV corridor, allowing the new 345-kV facilities to be co-located with current transmission infrastructure for approximately 31 miles. This approach would limit the need for new utility corridors, reduce disturbance in previously undeveloped areas, and make efficient use of existing infrastructure. The route also supports system reliability by balancing the need to minimize potential outages with the objective of maximizing co-location with existing facilities.

From a permitting and implementation perspective, the 115-kV Rebuild Route benefits from its use of an existing transmission corridor and offers substantial opportunities for co-location, route refinement, and application of avoidance and minimization measures. These factors enhance route viability and reduce the potential for land use and environmental conflicts.

The RSHME and WST2 routes remain viable alternatives and offer certain advantages, including fewer parcel crossings and fewer nearby habitable buildings. However, both alternatives rely more heavily on third-party infrastructure, traverse greater areas of engineering constraints, or provide fewer opportunities to utilize existing PNM transmission corridors. Consequently, neither alternative offers the same overall balance of constructability, operational efficiency, environmental compatibility, and long-term Project feasibility as the 115-kV Rebuild Route.

Accordingly, the 115-kV Rebuild Route is recommended as the preferred route for Project and should be carried forward for detailed engineering, environmental review, permitting, agency consultation, and ROW acquisition. As engineering and environmental studies progress, refinements to the alignment may occur to address site-specific constraints, incorporate stakeholder and agency input, and further avoid or minimize potential impacts while maintaining consistency with the routing objectives identified in this Routing Study.

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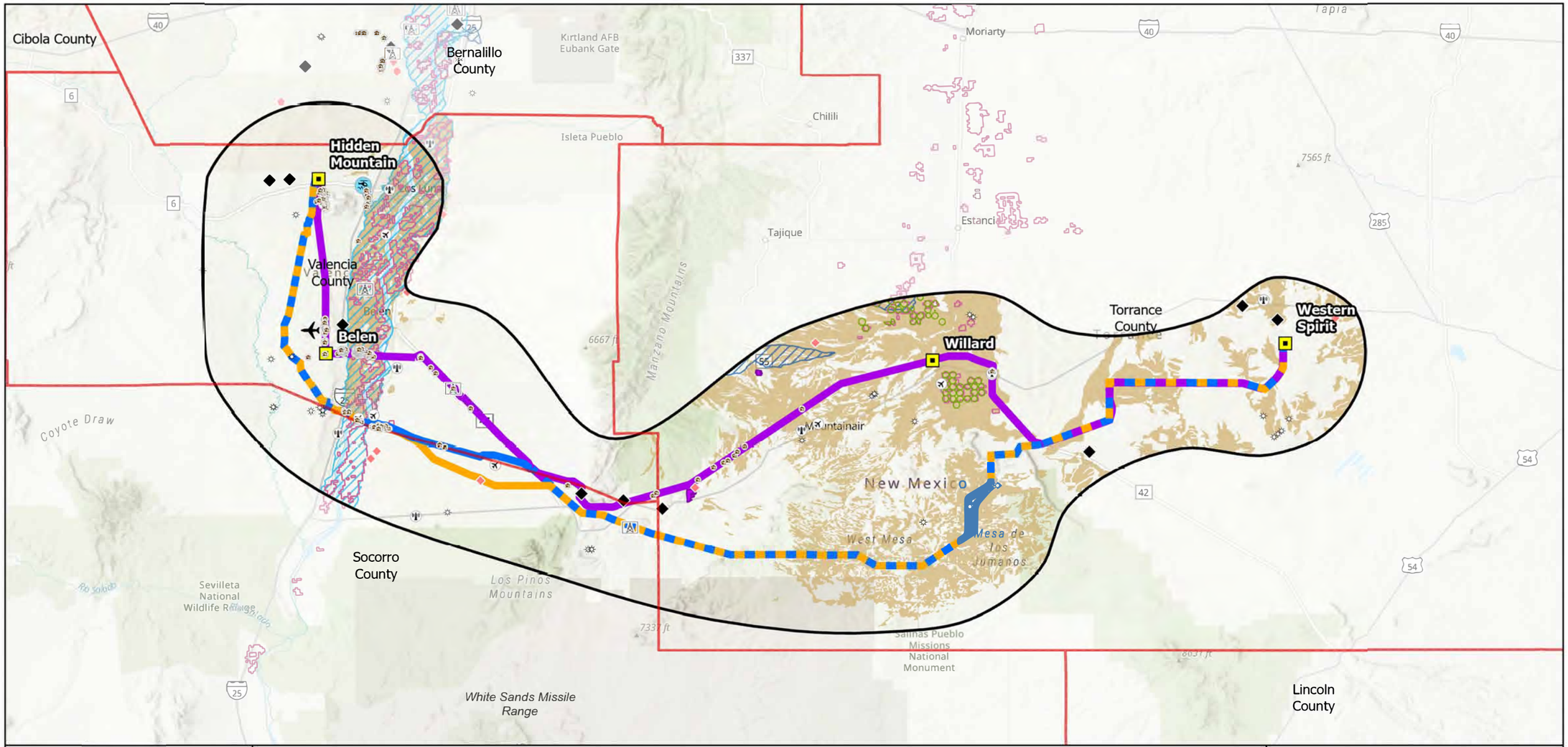
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Appendix A - Figures





Project Components
- Project Substation
- Study Area

Route Alternatives
- 115kV Rebuild
- Western Spirit Transmission 2
- Rio Sol + Hidden Mountain Extension

Land Use Resources
- Belen Regional Airport
- Private Airstrip
- Heliport
- AM/FM Radio Transmission Tower
- FCC Communications Tower
- Oil Gas Well
- Mine (Active)
- Mine (Inactive)
- Gravel Sand Extraction Point
- Habitable Structure within 500 Feet
- Central Pivot Agriculture
- NRCS Prime Farmland
- Irrigated Agriculture
- Salinas Pueblo Mission National Monument

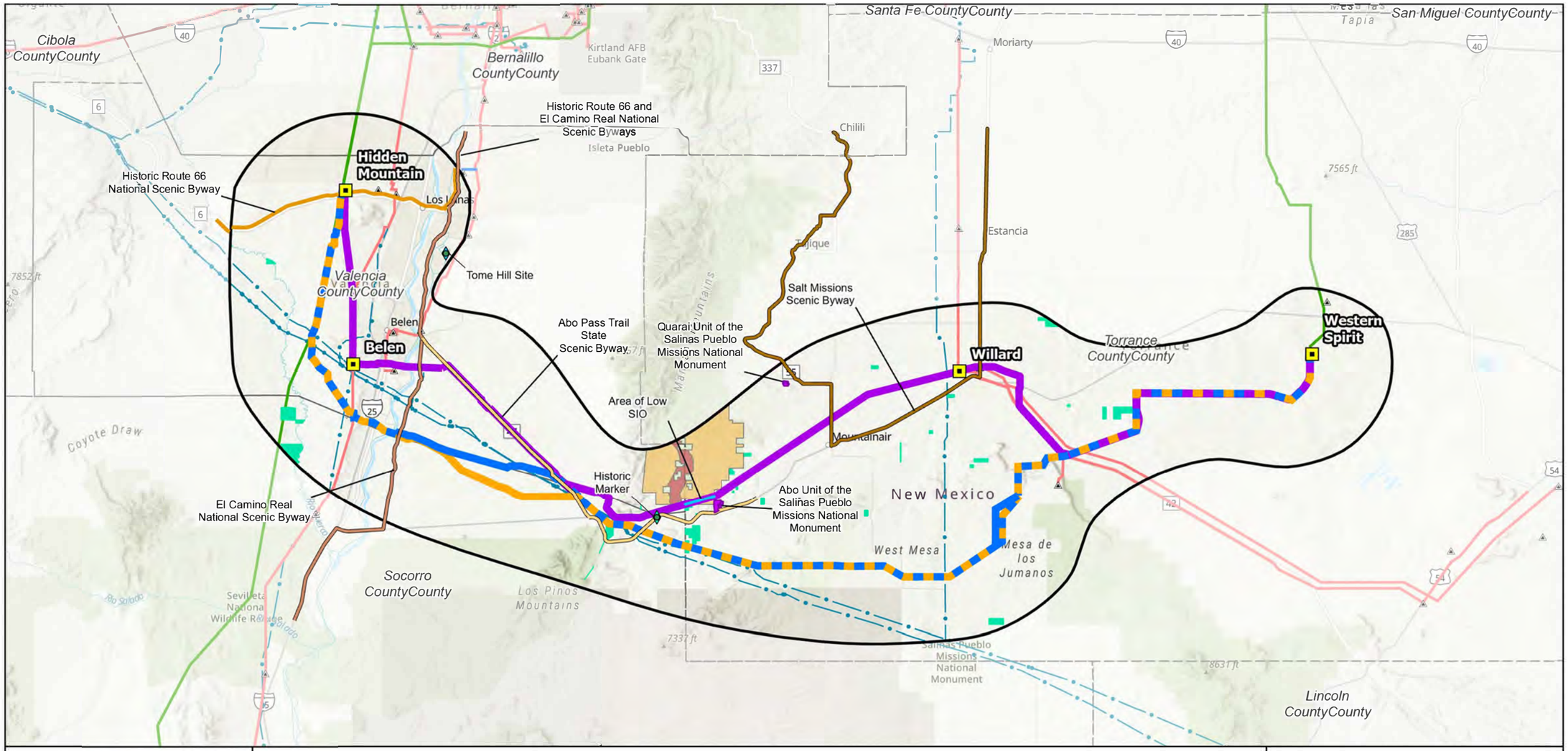
NM State Forestry Priority Landscape
- East Mountains
- Riparian - Middle Rio Grande

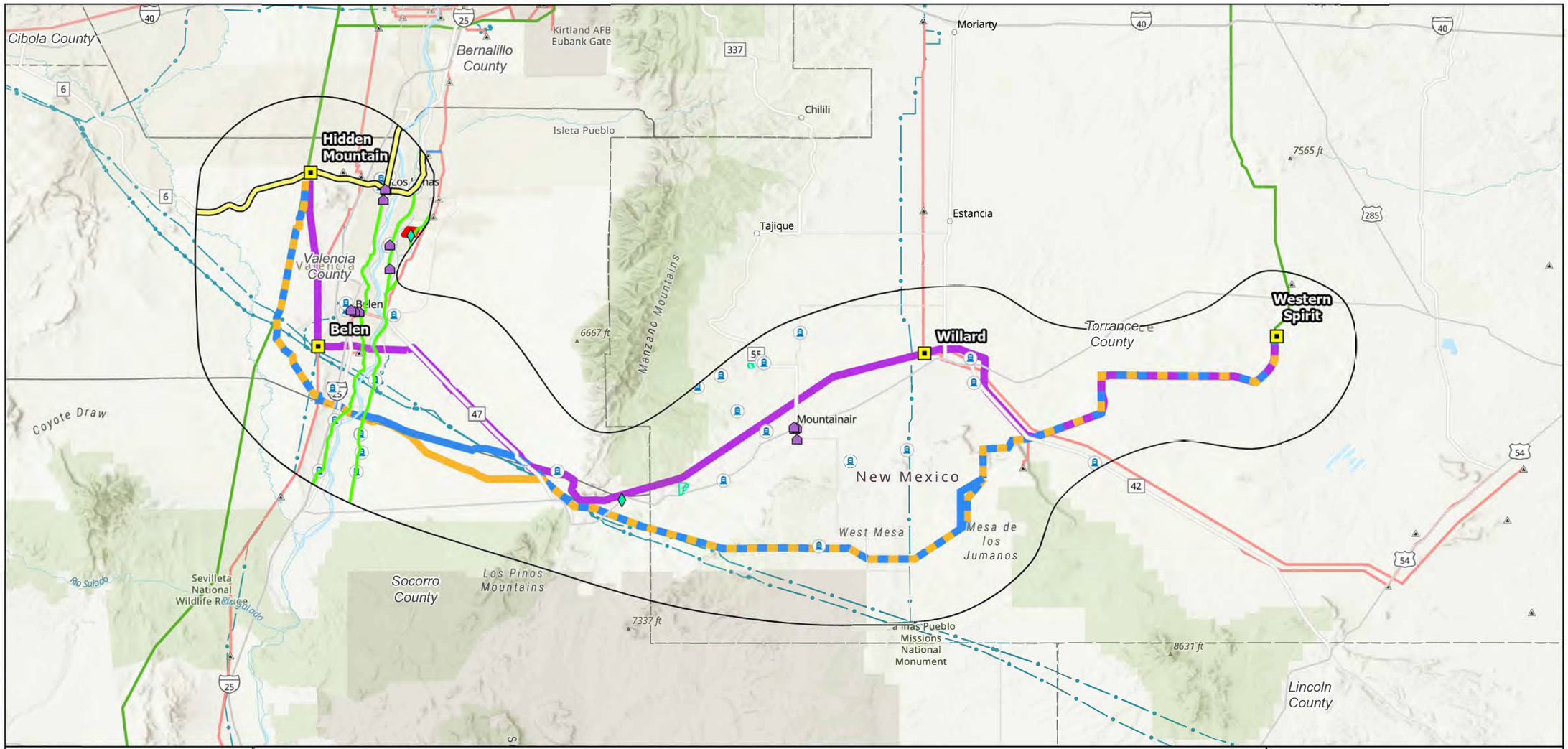
Reference Features
- Existing Substation
- 115kV Transmission Line
- 138kV Transmission Line
- 230kV Transmission Line
- 345kV Transmission Line
- Natural Gas Pipeline

MID-STATE TRANSMISSION PROJECT

Figure A-1
Land Use Resources

0 5 10 15 20 Miles


Cibola CountyCounty
Bernalillo CountyCounty
Santa Fe CountyCounty
San Miguel CountyCounty
Kirtland AFB
Eubank Gate
Moriarty
Tapia
Historic Route 66 and
El Camino Real National
Scenic Byways
Chilili
Isleta Pueblo
Hidden Mountain
Historic Route 66
National Scenic Byway
Los Lunas
7565 ft
Estancia
Tajique
Tome Hill Site
7852 ft
Valencia CountyCounty
Salt Missions
Scenic Byway
Belen
Belen
Abo Pass Trail
State
Scenic Byway
Quarai Unit of the
Salinas Pueblo
Missions National
Monument
Willard
Torrance CountyCounty
Western Spirit
Area of Low
SIO
Mountainair
Coyote Draw
Historic
Marker
New Mexico
El Camino Real
National Scenic Byway
Abo Unit of the
Salinas Pueblo
Missions National
Monument
West Mesa
Mesa de los Jumanos
Socorro CountyCounty
Los Pinos Mountains
Sevilleta National Wildlife Refuge
Rio Salado
7337 ft
Salinas Pueblo Missions National Monument
8631 ft
Lincoln CountyCounty
NEW MEXICO
Project Area
Albuquerque
Las Cruces
El Paso
Project Components
Project Substation
Study Area
Route Alternatives
115kV Rebuild
Western Spirit Transmission 2
Rio Sol + Hidden Mountain Extension
Visual Resources
Historic Locations
Historic Marker
Tome Hill Site
Scenic Byways
Abo Pass Trail State Scenic Byway
El Camino Real National Scenic Byway
Historic Route 66 National Scenic Byway
Salt Mission State Scenic Byway
Historic Trails
Route 66
El Camino Real de Tierra Adentro NHT
National Monument
USFS Scenic Integrity Objectives (SIO)
High SIO
Moderate SIO
Low SIO
BLM Visual Resource Management (VRM) Class
VRM Class IV
Reference Features
Existing Substation
115kV Transmission Line
138kV Transmission Line
230kV Transmission Line
345kV Transmission Line
Natural Gas Pipeline
MID-STATE TRANSMISSION PROJECT
Figure A-2
Visual Resources
0 5 10 15 20
Miles





Project Components
- Project Substation
- Study Area

Route Alternatives
- 115kV Rebuild
- Western Spirit Transmission 2
- Rio Sol + Hidden Mountain Extension

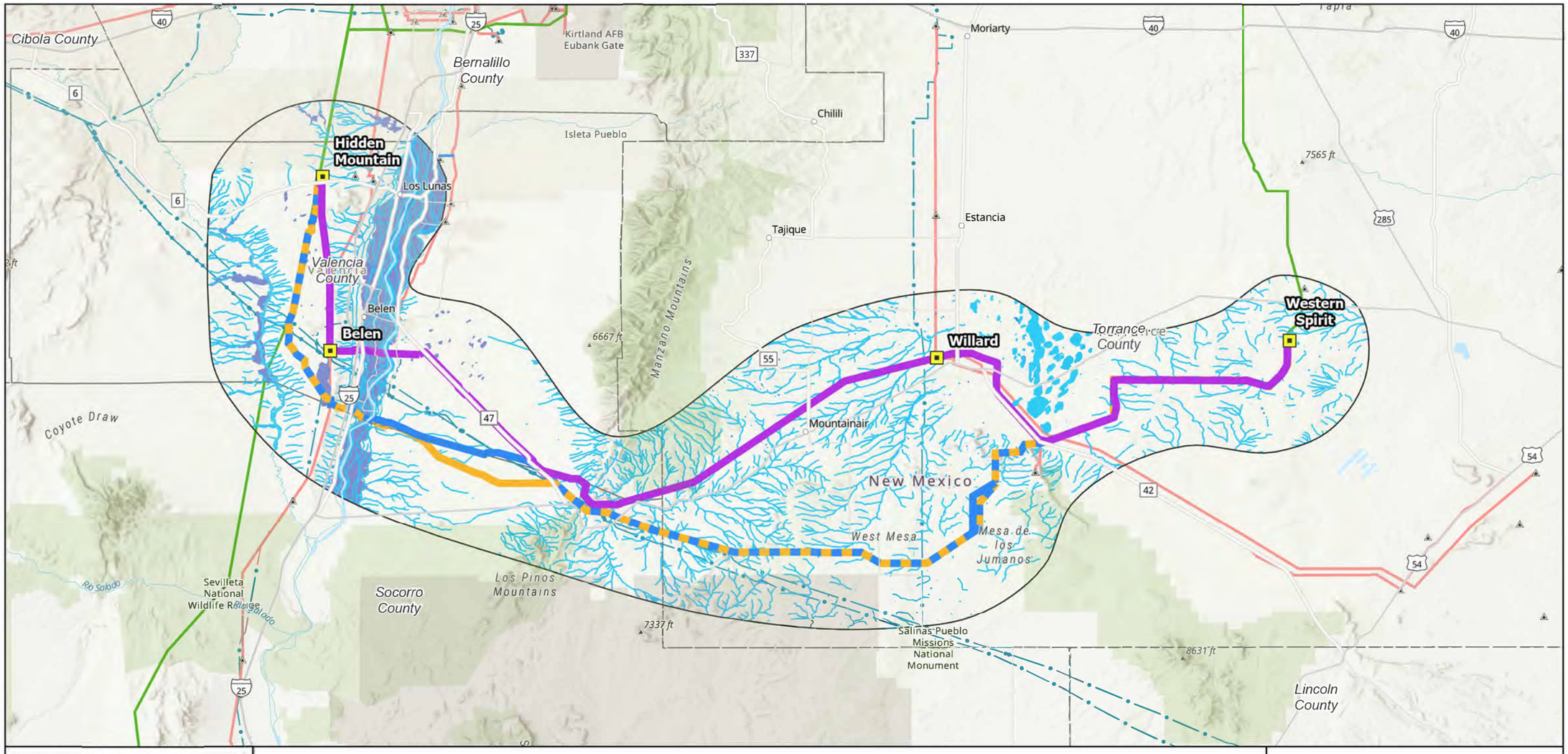
Cultural Resources
- Cemeteries
- Historic Landmark
- NRHP Historic Building
- Route 66 Historic Trail
- El Camino Real de Tierra Adentro National Historic Trail
- NRHP Properties
- Salinas Pueblo Mission National Monument

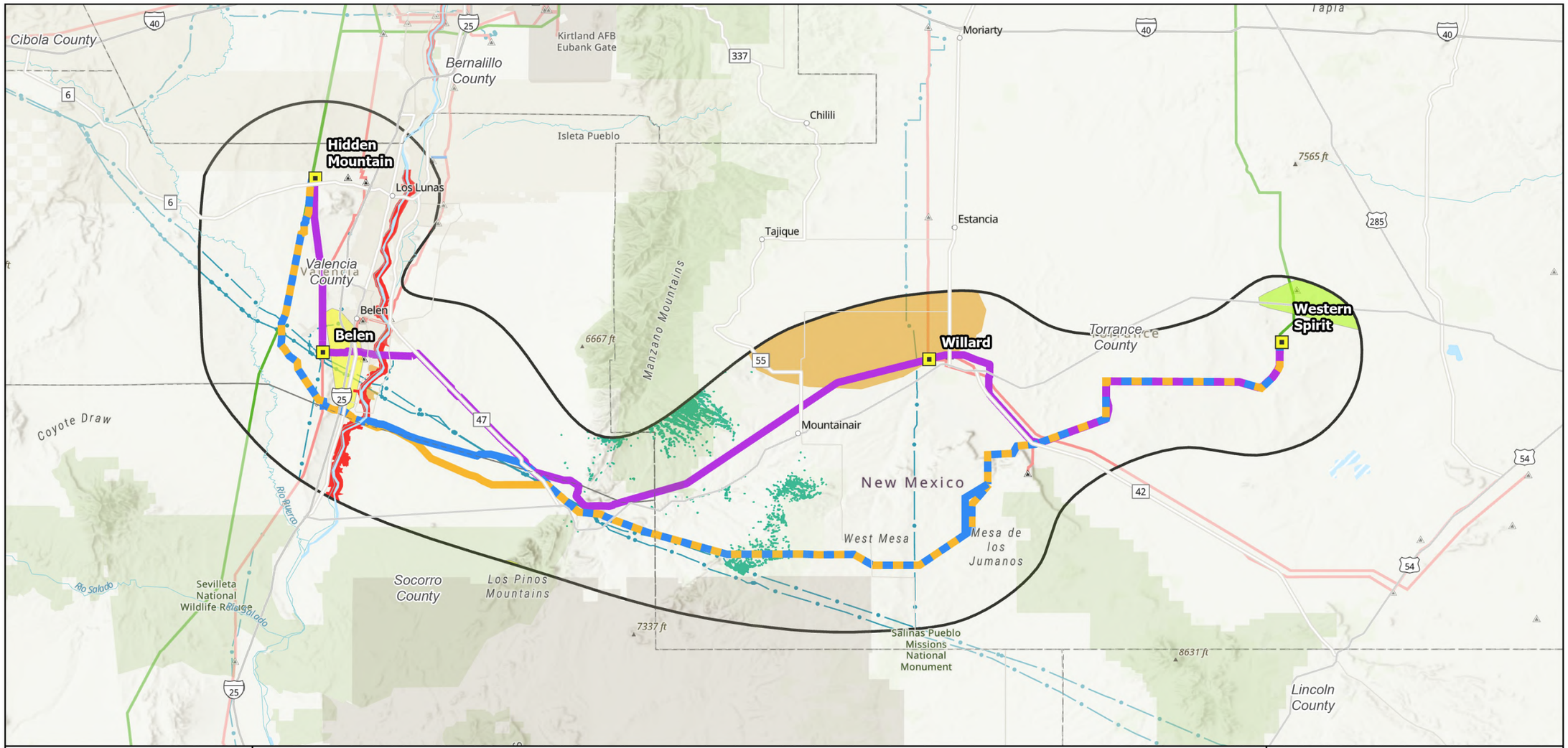
Reference Features
- Existing Substation
- 115kV Transmission Line
- 138kV Transmission Line
- 230kV Transmission Line
- 345kV Transmission Line
- Natural Gas Pipeline

MID-STATE TRANSMISSION PROJECT

Figure A-3
Cultural Resources

0 5 10 15 20 Miles


Cibola County
Bernalillo County
Kirtland AFB
Eubank Gate
Moriarty
Chilili
Isleta Pueblo
Hidden Mountain
Los Lunas
Tajique
Estancia
7565 ft
Valencia County
Belen
Belen
6667 ft
Manzano Mountains
Willard
Torrance County
Western Spirit
Coyote Draw
Mountainair
New Mexico
West Mesa
Mesa de los Jumanos
Rio Salado
Sevilleta National Wildlife Refuge
Socorro County
Los Pinos Mountains
7337 ft
Salinas Pueblo Missions National Monument
8631 ft
Lincoln County
Project Area
NEW MEXICO
Albuquerque
Las Cruces
El Paso
Project Components
Project Substation
Study Area
Route Alternatives
115kV Rebuild
Western Spirit Transmission 2
Rio Sol + Hidden Mountain Extension
Water Resources
Stream (NHD)
Wetland (NWI)
Lake (NHD)
FEMA 100-year Floodplain
Reference Features
Existing Substation
115kV Transmission Line
230kV Transmission Line
345kV Transmission Line
Natural Gas Pipeline
MID-STATE TRANSMISSION PROJECT
Figure A-4
Water Resources
0 5 10 15 20
Miles
wsp





Project Components

- Project Substation
- Study Area

Route Alternatives

- 115kV Rebuild
- Western Spirit Transmission 2
- Rio Sol + Hidden Mountain Extension

Biological Resources

- Threatened and Endangered Species Critical Habitat
- NM Audubon Important Bird Area
- Mexican Spotted Owl Habitat

NM Important Plant Area

- B2 - Very High
- B4 - Moderate

Reference Features

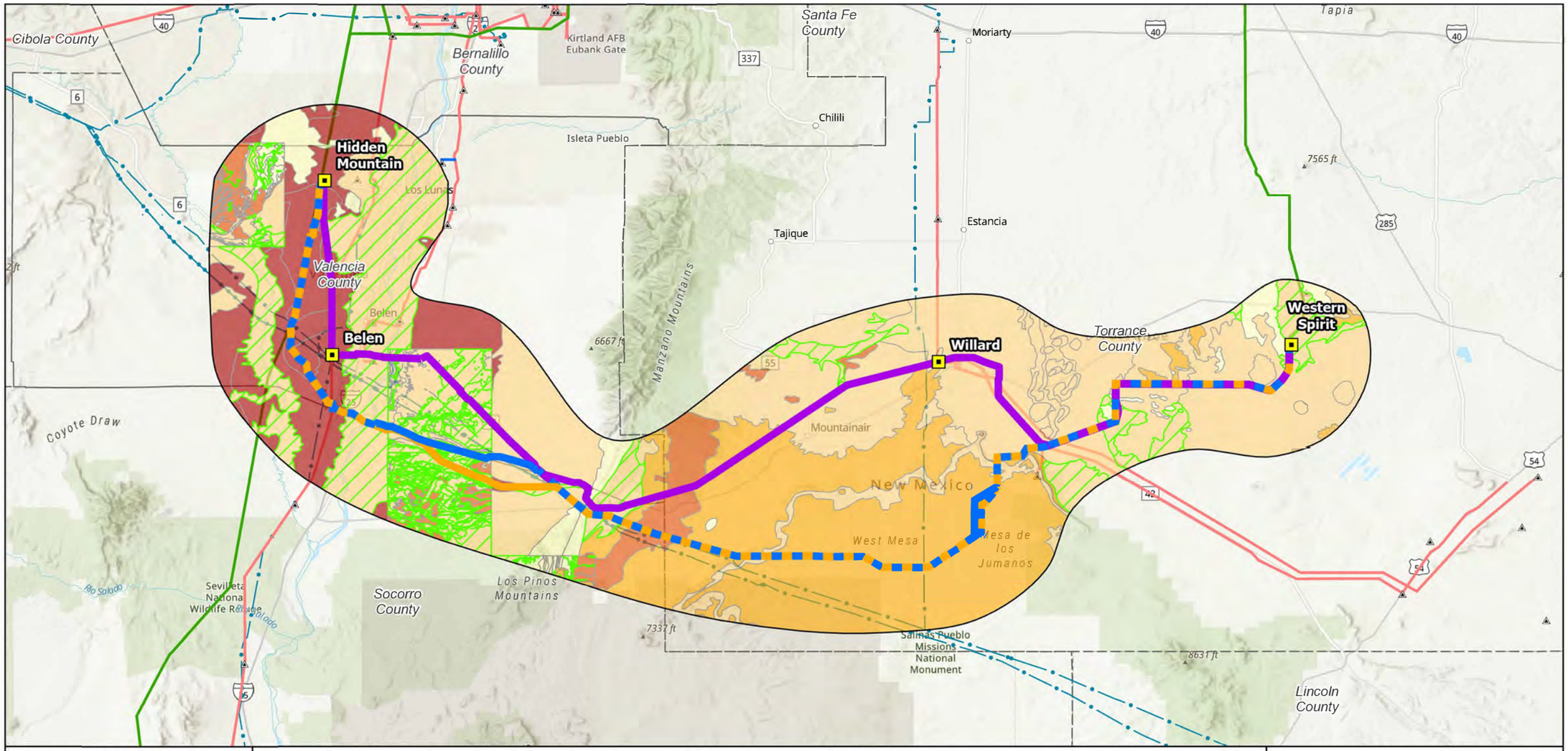
- Existing Substation
- 115kV Transmission Line
- 138kV Transmission Line
- 230kV Transmission Line
- 345kV Transmission Line
- Natural Gas Pipeline

MID-STATE TRANSMISSION PROJECT

Figure A-5
Biological Resources

0 5 10 15 20 Miles

wsp





Project Substation
Study Area

Route Alternatives
- 115kV Rebuild
- Western Spirit Transmission 2
- Rio Sol + Hidden Mountain Extension

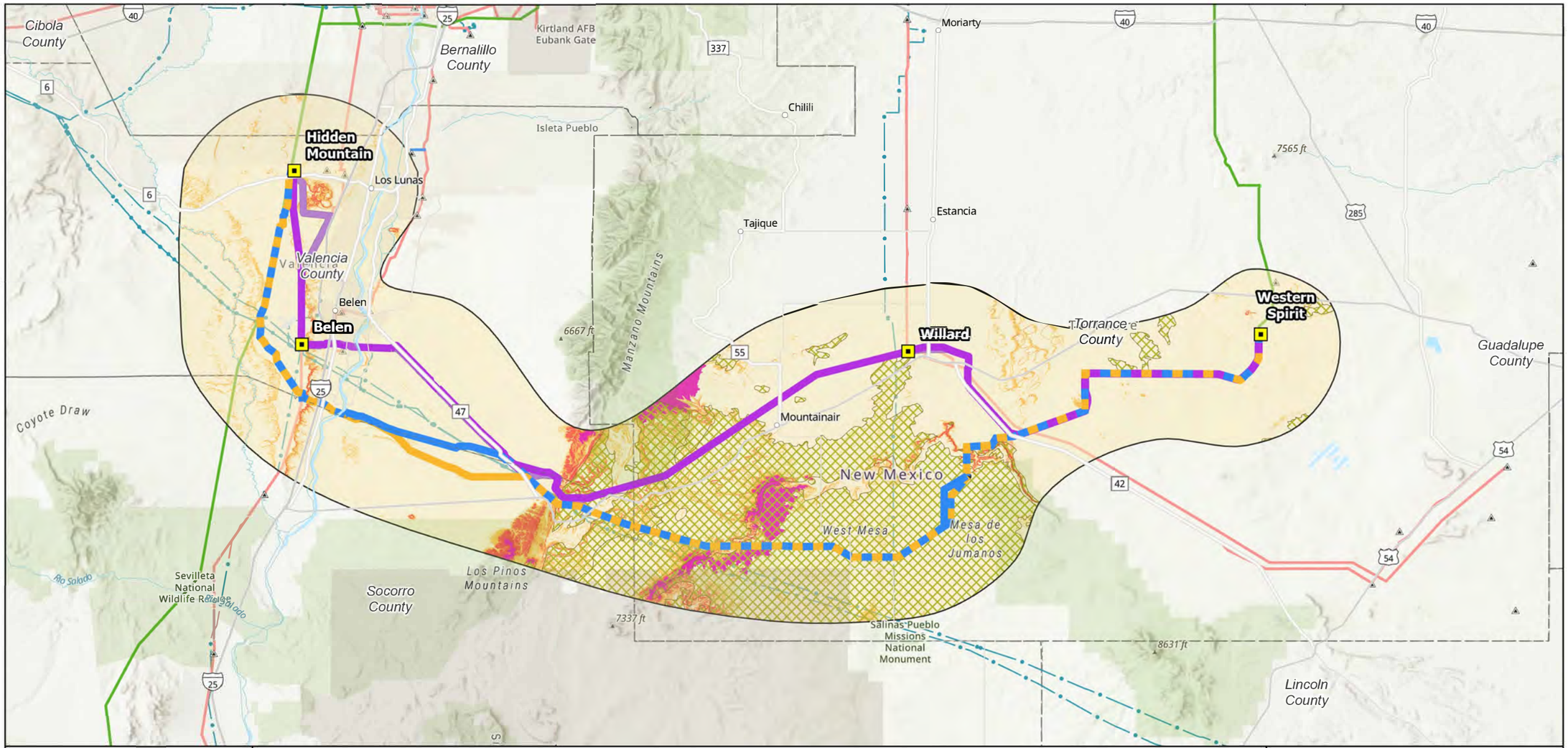
Paleontological Resources
- Class 1 - Very Low
- Class 2
- Class 3 - Moderate
- Class 4 - High
- Class 5 - Very High
- Provisional Class

Reference Features
- Existing Substation
- 115kV Transmission Line
- 230kV Transmission Line
- 345kV Transmission Line
- Natural Gas Pipeline

MID-STATE TRANSMISSION PROJECT

Figure A-6
Paleontological Resources

0 5 10 15 20 Miles


Cibola County
Bernalillo County
Kirtland AFB Eubank Gate
Moriarty
Chilili
Isleta Pueblo
Hidden Mountain
Los Lunas
Tajique
Estancia
7565 ft
Valencia County
Belen
Belen
Manzano Mountains
6667 ft
Willard
Torrance County
Western Spirit
Guadalupe County
Coyote Draw
Mountainair
New Mexico
West Mesa
Mesa de los Jumanos
Sevilleta National Wildlife Refuge
Rio Salado
Socorro County
Los Pinos Mountains
7337 ft
Salinas Pueblo Missions National Monument
8631 ft
Lincoln County
Project Area
NEW MEXICO
Albuquerque
Las Cruces
El Paso
Project Components
Project Substation
Study Area
Route Alternatives
115kV Rebuild
Western Spirit Transmission 2
Rio Sol + Hidden Mountain Extension
Geologic Hazards/Engineering Constraints
Area of Karst Terrain
Elevation Greater than 7000'
Slope Greater Than 35%
Slope 10-35%
Slope Less Than 10%
Reference Features
Existing Substation
115kV Transmission Line
138kV Transmission Line
230kV Transmission Line
345kV Transmission Line
Natural Gas Pipeline
MID-STATE TRANSMISSION PROJECT
Figure A-7
Geologic Hazards/
Engineering Constraints
0 5 10 15 20
Miles
wsp

Appendix B - BLM and USFS Special Status Species Habitat

Table B-1: USFS Cibola National Forest Special Status Species Habitat

Common Name	Scientific Name	USFS Status*	IUCN Status**	Likelihood of Occurrence
Amphibians				
Northern leopard frog	*Lithobates pipiens*	SEN	LC	**None;** USFS lands within the ROW do not include permanent ponds or streams.
Birds				
Northern goshawk	*Accipiter gentilis*	SEN	LC	**Possible;** USFS lands within the ROW include suitable forested habitat.
Western burrowing owl	*Athene cunicularia hypugaea*	SEN	LC	**Possible;** prairie dog colonies, which are utilized by burrowing owls for nesting, were observed during field surveys. However, no colonies were observed on USFS lands, and no burrowing owls were observed anywhere within the ROW.
Mountain plover	*Charadrius montanus*	SEN	NT	**Possible;** the ROW contains suitable shortgrass prairie habitat.
Yellow-billed Cuckoo	*Coccyzus americanus*	SEN	LC	**Not likely;** USFS lands within the ROW do not support riparian woodlands dominated by cottonwood, willows, and dense mesquite.
American peregrine falcon	*Falco peregrinus anatum*	SEN	LC	**Possible;** USFS lands within the ROW supports suitable forested habitat for foraging, but no cliff habitat required for nesting.
Lesser prairie chicken	*Tympanuchus pallidicinctus*	SEN	VU	**None;** the ROW is outside of the species' known range.
Gray vireo	*Vireo vicinior*	SEN	LC	**Likely;** USFS lands within the ROW supports shrubland and mid-elevation pinyon-juniper woodlands.
Crustaceans				
Dumont's fairy shrimp	*Streptocephalus henridumontis*	SEN	N/A	**None;** the ROW is outside the species' known range.

Common Name	Scientific Name	USFS Status*	IUCN Status**	Likelihood of Occurrence
Fish				
Zuni bluehead sucker	*Catostomus discobolus jarrovii*	SEN	LC	**None;** USFS lands within the ROW do not support permanent ponds or streams; ROW is outside the species' known range.
Rio Grande sucker	*Catostomus plebeius*	SEN	DD	**None;** USFS lands within the ROW do not support permanent ponds or streams.
Rio Grande chub	*Gila pandora*	SEN	LC	**None;** USFS lands within the ROW do not support permanent ponds or streams.
Suckermouth minnow	*Phenacobius mirabilis*	SEN	LC	**None;** the ROW does not cross the Canadian River, Cimarron, or Vermejo tributaries.
Mammals				
Pale Townsend's big-eared bat	*Corynorhinus townsendii pallescens*	SEN	LC	**Not likely;** potentially suitable foraging habitat occurs within shrubland and mixed woodlands on USFS lands within the ROW, however caves suitable for roosting are not present.
Gunnison's prairie dog	*Cynomys gunnisoni*	SEN	LC	**Possible;** active prairie dog colonies were observed on private lands in the eastern portion of the ROW, however habitat on USFS lands for the species is marginal, and no active nor inactive colonies were observed during field surveys.
Black-tailed prairie dog	*Cynomys ludovicianus*	SEN	LC	**Possible;** active prairie dog colonies were observed on private lands in the eastern portion of the ROW, however habitat on USFS lands for the species is marginal, and no active nor inactive colonies were observed.
Spotted bat	*Euderma maculatum*	SEN	LC	**Not likely;** potentially suitable foraging habitat occurs within pinyon-juniper woodland on USFS lands within the ROW, however

Common Name	Scientific Name	USFS Status*	IUCN Status**	Likelihood of Occurrence
				steep cliffs suitable for roosting are not present.
Allen's lappet-browned bat	*Idionycteris phyllotis*	SEN	LC	**None;** the ROW is outside of the species' known range.
Cebolleta southern pocket gopher	*Thomomys bottae paguatae*	SEN	LC	**None;** the ROW is outside of the species' known range.
Swift fox	*Vulpes velox*	SEN	LC	**Not likely;** USFS lands within the ROW do not support open shortgrass prairie habitat.
Plants				
Greene milkweed	*Asclepias uncialis ssp. uncialis*	SEN	N/A	**None;** the ROW is outside of the species' known range.
Zuni milkvetch	*Astragalus accumbens*	SEN	N/A	**None;** the ROW is outside of the species' known range.
Villous groundcover milkvetch	*Astragalus humistratus var. crispulus*	SEN	N/A	**None;** the ROW is outside of the species' known range.
Chaco milkvetch	*Astragalus micromerius*	SEN	N/A	**None;** the ROW is outside of the species' known range.
One-flowered milkvetch	*Astragalus wittmannii*	SEN	N/A	**None;** the ROW is outside of the species' known range.
Sivinski's fleabane	*Erigeron sivinskii*	SEN	N/A	**None;** the ROW is outside of the species' known range.
Sandia alum root	*Heuchera pulchella*	SEN	N/A	**None;** the ROW does not contain limestone cliffs at 8,000 – 10,000 ft elevation.
Tall bitterweed	*Hymenoxys brachyactis*	SEN	N/A	**Likely;** USFS lands within the ROW supports suitable pinyon-juniper woodlands in the southern Manzano Mountains.
Spellenberg's groundsel	*Packera spellenbergii*	SEN	N/A	**None;** the ROW is outside of the species' known range.
San Mateo penstemon	*Penstemon pseudoparvus*	SEN	N/A	**None;** the ROW is outside of the species' known range.
Reptiles				
Arid land ribbon snake	*Thamnophis proximus diabolicus*	SEN	LC	**None;** USFS lands within the ROW do not contain riparian habitat or suitable bodies of water.

*SEN = Sensitive

**LC = Least Concern; NT = Near Threatened; VU = Vulnerable; EN = Endangered; CR = Critically Endangered; DD = Data Deficient

Table B-2: BLM Rio Puerco Field Office Special Status Species Habitat

Common Name	Scientific Name	BLM Status*	IUCN Status**	Likelihood of Occurrence
Amphibians				
Northern leopard frog	*Lithobates pipiens*	SEN	LC	**None;** BLM lands within the ROW do not include permanent ponds or streams.
Birds				
Mexican whip-poor-will	*Antrostomus arizonae*	SEN	LC	**Likely;** the ROW contains suitable mid-elevational pine-oak woodland habitat.
Mountain plover	*Charadrius montanus*	SEN	NT	**Possible;** the ROW contains suitable shortgrass prairie habitat, however, the species is most common in the northeastern part of the state.
Pinyon jay	*Gymnorhinus cyanocephalus*	SEN	VU	**Likely;** the ROW contains suitable pinyon-juniper woodland habitat.
Loggerhead shrike	*Lanius ludovicianus*	SEN	NT	**Possible;** the ROW contains suitable open woodland habitat, however, it is outside of the species' usual distribution.
Virginia's warbler	*Leiothylpis virginiae*	SEN	LC	**Not likely;** the ROW does not contain the ravines and steep, rocky slopes the species prefers.
Black-chinned sparrow	*Spizella atrogularis evura*	SEN	LC	**Possible;** the ROW contains suitable areas of sparse shrubs and trees with a grassland component, however, there are not recorded observations of the species in Torrance County.

Common Name	Scientific Name	BLM Status*	IUCN Status**	Likelihood of Occurrence
Bendire's thrasher	*Toxostoma bendirei*	SEN	VU	**Not likely;** the ROW does not contain yucca grassland or Sonoran desert habitat; the species is most common in the southeastern portion of New Mexico.
Fish				
Rio Grande sucker	*Catostomus plebeius*	SEN	DD	**None;** BLM lands within the ROW do not support permanent ponds or streams.
Rio Grande chub	*Gila pandora*	SEN	LC	**None;** BLM lands within the ROW do not support permanent ponds or streams.
Roundtail chub	*Gila robusta*	SEN	VU	**None;** BLM lands within the ROW do not support permanent ponds or streams.
Insects				
Western bumble bee	*Bombus occidentalis*	SEN	VU	**Not likely;** the ROW does not intersect high elevation, montane meadows.
American bumble bee	*Bombus pensylvanicus*	SEN	VU	**Possible;** the ROW supports flowering plants utilized by the species.
Monarch butterfly	*Danaus plexippus*	SEN	VU	**Possible;** milkweed (*Asclepias* sp.) individuals, the host plant for monarch butterflies, were observed throughout the ROW during field surveys.

Common Name	Scientific Name	BLM Status*	IUCN Status**	Likelihood of Occurrence
Mammals				
Townsend's big-eared bat	*Corynorhinus townsendii*	SEN	LC	**Not likely;** marginal foraging habitat occurs on BLM lands within the ROW, however there are no caves necessary for roosting.
Gunnison's prairie dog	*Cynomys gunnisoni*	SEN	LC	**Possible;** active prairie dog colonies were observed on private lands in the eastern portion of the ROW, however habitat on USFS lands for the species is marginal, and no active nor inactive colonies were observed.
Black-tailed prairie dog	*Cynomys ludovicianus*	SEN	LC	**Possible;** active prairie dog colonies were observed on private lands in the eastern portion of the ROW, however habitat on USFS lands for the species is marginal, and no active nor inactive colonies were observed.
Spotted bat	*Euderma maculatum*	SEN	LC	**Not likely;** marginal foraging habitat occurs on BLM lands within the ROW, however there are no caves necessary for roosting.
Hoary bat	*Lasiurus cinereus*	SEN	LC	**Not likely;** BLM lands within the ROW do not support open water or riparian corridors necessary for foraging, nor large conifer species for roosting.

Common Name	Scientific Name	BLM Status*	IUCN Status**	Likelihood of Occurrence
Plants				
Galisteo sand verbena	*Abronia bigelovii*	SEN	N/A	**None;** no gypsum outcrops are present on BLM land within the ROW.
Knight's milkvetch	*Astragalus knightii*	SEN	N/A	**None;** the ROW is outside of the species' known range.
Acoma fleabane	*Erigeron acomanus*	SEN	N/A	**None;** the ROW is outside of the species' known range.
Todilto stickleaf	*Mentzelia todiltoensis*	SEN	N/A	**None;** the ROW is outside of the species' known range.
Cinder scorpionweed	*Phacelia serrata*	SEN	N/A	**None;** the ROW is outside of the species' known range.
Yeso twinpod	*Physaria newberryi var. yesicola*	SEN	N/A	**None;** the ROW is outside of the species' known range.
Mancos saltbush	*Proatriplex pleiantha*	SEN	N/A	**None;** the ROW is outside of the species' known range.
Parish's alkaligrass	*Puccinellia parishii*	SEN	N/A	**None;** the ROW is outside of the species' known range.
Gypsum townsend's daisy	*Townsendia gypsophila*	SEN	N/A	**None;** the ROW is outside of the species' known range.

*SEN = Sensitive **LC = Least Concern; NT = Near Threatened; VU = Vulnerable; EN = Endangered; CR = Critically Endangered; DD = Data Deficient

Appendix C - Route Comparison Table

Criteria	Route Alternatives			
	Unit	115kV Rebuild	RioSol + Hidden Mountain Extension	Western Spirit Transmission 2
Length of route	Miles	102.7	104.2	103.6
Jurisdiction				
Length of ROW through Bureau of Land Management lands	Miles	0.02	0.3	-
Length of ROW through Department of Defense lands	Miles	-	-	-
Length of ROW through National Park Service lands	Miles	-	-	-
Length of ROW through United States Forest Service lands	Miles	2.1	-	-
Length of ROW through US Fish and Wildlife Service lands	Miles	-	-	-
Length of ROW through Tribal Lands	Miles	-	-	-
Length of ROW through New Mexico State Land Office lands	Miles	16.5	24.3	22.2
Length of ROW through New Mexico State Game & Fish lands	Miles	0.3	-	-
Length of ROW through Torrance County	Miles	58.1	57.5	57.4
Length of ROW through Socorro County	Miles	4.8	20.1	9.9
Length of ROW through Valencia County	Miles	39.8	26.6	36.2
Length of ROW through Private Lands	Miles	83.7	79.6	81.4
Siting Opportunities				
Length of ROW parallel to existing transmission lines (within 400 feet) 115kV and above	Miles	32.9	27	14.6
Length of ROW parallel to existing pipelines (within 200 feet)	Miles	-	-	-
Length of ROW parallel to existing railroads (within 200 feet)	Miles	-	-	0.6
Length of ROW parallel to existing highways (within 200 feet)	Miles	-	-	0.6
Number of Railroad crossings	Count	7	2	2
Number of ExistingTline crossings (115 kV and above)	Count	9	5	6
Number of Highway crossings	Count	8	9	9
Land Use				
Number of Parcels Crossed	Count	612	319	435
Number of Private Parcels Crossed	Count	601	290	404
Number of FAA-registered airports (within 1 mile buffer)	Count	1	-	1
Number of private airstrips (within 1 mile buffer)	Count	-	1	2
Number of heliports (within 1 mile buffer)	Count	-	-	-
Number of FAA very high frequency omni-directional range (VOR) antenna (within 1 mile buffer)	Count	-	-	-
Number of FCC-Regulated Communication towers (within 1 mile buffer)	Count	16	4	4
Length of ROW through Superfund Sites (United States Environmental Protection Agency)	Miles	-	-	-
Length of ROW Military Training Route	Miles	85.8	93.9	99.9
Length of ROW through National Monument	Miles	-	-	-
Length of ROW through Agricultural Areas - Pivot Agriculture	Miles		-	-
Length of ROW through Agricultural Areas - Irrigated (Flood/Drip) Agriculture	Miles	1.9	1.4	1.6
Length of ROW through Areas of Critical Environmental Concern (ACEC)	Miles	-	-	-
Length of ROW through Wilderness Areas	Miles	-	-	-
Length of ROW through Wilderness Study Areas	Miles	-	-	-
Length of ROW through Lands with Wilderness Characteristics (LWC)	Miles	-	-	-
Length of ROW through Conservation Easements	Miles	-	-	-
Length of ROW through National Conservation Areas (NCAs)	Miles	-	-	-
Length of ROW through National Parks	Miles	-	-	-
Length of ROW through Natural Resources Conservation Service (NRCS) Prime Farmland	Miles	9.5	15.8	16.3
Length of ROW through State Parks	Miles	-	-	-
Length of ROW through Local Parks and Open Space (existing and proposed)	Miles	-	-	0.2
Length of ROW through NM State Forestry Priority Landscapes	Miles	2.7	2	2
Length of ROW through National Wildlife Refuge Lands	Miles	-	-	-
Length of ROW through State Wildlife Management Area	Miles	0.3	-	-
Number of habitable structures within 500 feet	Count	110	27	13
Number of Oil and Gas Wells (within 1 mile buffer)	Count	-	4	4
Number of Water Wells (within 1 mile buffer)	Count	496	334	283
Number of Churches (within 1 mile buffer)	Count	2	-	-
Number of Schools and Childcare Facilities (within 1 mile buffer)	Count	1	-	-
Number of Active Mines (within 1 mile buffer)	Count	2	-	-
Number of Inactive Mines (within 1 mile buffer)	Count	1	1	-
Number of Gravel/Sand Extraction sites (within 1 mile buffer)	Count	2	1	-
Number of BLM/USFWS/State/Tribal Livestock Grazing Allottments (within 1 mile buffer)	Count	6	6	5

Criteria	Route Alternatives			
	Unit	115kV Rebuild	RioSol + Hidden Mountain Extension	Western Spirit Transmission 2
Water Resources				
Length of ROW through NWI Resources (Wetland, Riverine, Lake, Pond)	Miles	0.5	0.6	0.6
Number of Perennial, Ephemeral, Intermittent Stream Crossings	Count	46	39	37
Length of ROW through FEMA 100-year Flood Zones (A, AE, AH, and AO)	Miles	2.5	4.1	4
Length of ROW through FEMA Flood Zone X (moderate to low risk areas)	Miles	37.6	22	32.2
Biological Resources				
Length of ROW through ESA T&E Species Federally Designated Critical Habitat	Miles	0.5	0.4	0.4
Length of ROW through BLM Special Status Species Habitat	Miles	-	-	-
Length of ROW through NM Important Plant Areas	Miles	2.3	-	-
Length of ROW through NM Audubon Important Bird Areas	Miles	8.9	-	-
Length of ROW through Mexican Spotted Owl Habitat	Miles	-	1	0.3
Cultural Resources (within 1 mile buffer)				
Number of cemeteries	Count	-	-	-
Total number of cultural resources	Count	330	333	337
Number of Resources Determined Eligible for Listing on the National Register of Historic Places	Count	55	45	46
Number of Resources Determined Not Eligible for Listing on the National Register of Historic Places	Count	54	82	80
Number of Resources Determined Unevaluated or Unknown for Listing on the National Register of Historic Places	Count	221	206	211
Number of New Mexico State Register (SR) of Cultural Properties	Count	1	-	-
Number of National Register of Historic Places (NRHP) Properties	Count	1	-	-
Number of National Historic Landmarks (NHL)/Monuments	Count	1	-	-
Number of National Historic Trails (NHT) crossings	Count	2	2	2
Visual Resources (miles crossed)				
Number of National and State Designated Scenic Roads or Byway crossings	Count	7	4	2
Number of National Historic Trails (NHT) crossings	Count	2	2	2
Length of ROW through National Monument	Miles	-	-	-
Length of ROW through USFS SIO Very High	Miles	-	-	-
Length of ROW through USFS SIO High	Miles	-	-	-
Length of ROW through USFS SIO Moderate	Miles	-	-	-
Length of ROW through USFS SIO Low	Miles	2.1	-	-
Length of ROW through BLM VRM Class I	Miles	-	-	-
Length of ROW through BLM VRM Class II	Miles	-	-	-
Length of ROW through BLM VRM Class III	Miles	-	-	-
Length of ROW through BLM VRM Class IV	Miles	0.1	0.3	-
Paleontological Resources (miles crossed)				
Length of ROW through Potential Fossil Yield Classification - Class 1 Very Low	Miles	2.3	2.2	1.9
Length of ROW through Potential Fossil Yield Classification - Class 2 Low	Miles	71.2	28.5	32.7
Length of ROW through Potential Fossil Yield Classification - Class 3 Moderate	Miles	9.8	30.2	29.4
Length of ROW through Potential Fossil Yield Classification - Class 4 High	Miles	3.1	3.3	3.7
Length of ROW through Potential Fossil Yield Classification - Class 5 Very High	Miles	16.2	21.4	21.2
Geologic Hazards/Engineering Constraints (miles crossed)				
Length of ROW through terrain above 7,000 feet mean sea level in elevation	Miles	0.03	1.5	1.2
Length of ROW through areas of slope greater than 35 percent	Miles	0.8	2	1.7
Length of ROW through areas of slope between 10 and 35 percent	Miles	6.5	7.4	7.4
Length of ROW through areas of slope less than 10 percent	Miles	95.2	94.7	94.5
Length of ROW through areas of Karst Terrain	Miles	15.2	35.7	34.9
Composite Sensitivity Level Comparison (miles crossed)				
Exclusion Sensitivity	Miles	1	-	-
High Sensitivity	Miles	33.4	30.4	31.8
Moderate Sensitivity	Miles	55.9	54	53.2
Low Sensitivity	Miles	16.5	19.9	18.7

Appendix D - Data Sources

CRITERIA LAYERS	SOURCE	SOURCE LINK
Surface Land Ownership	U.S. Department of Interior - BLM	GIS Data | Bureau of Land Management
Transmission Lines	Rextag	WSP Data Subscription
Gas Pipelines	Rextag	WSP Data Subscription
Railroads	RGIS Transportation	https://rgis.unm.edu/rgis6/
Highways	Rextag	WSP Data Subscription
Parcels	REGRID	WSP Enverus Prism Data Subscription
FAA-registered airports	Federal Avaition Administration (FAA)	Esri StreetMap 2024
Private airstrips	Federal Avaition Administration (FAA)	Esri StreetMap 2024
Heliports	AirNav	AirNav: NM23 - S&J Heliport
FM/AM radio transmitters, microwave towers, and other electronic installations	FCC	https://www.fcc.gov/general/download-fcc-datasets
FAA very high frequency omni-directional range (VOR) antenna	Federal Avaition Administration (FAA)	Federal Aviation Administration - AIS
FCC Communication towers	FAA	https://www.fcc.gov/general/download-fcc-datasets
Superfund Sites (United States Environmental Protection Agency)	EPA	https://www.epa.gov/frs/geospatial-data-download-service
Military Training Routes	USACE	https://services7.arcgis.com/n1YM8pTrFmm7L4hs/ArcGIS/rest/services/mirta/FeatureServer/1
Agricultural Areas - Pivot Agriculture	WSP	Aerial Interpretation Google Imagery, Esri
Agricultural Areas - Irrigated (Flood/Drip) Agriculture	USGS	https://www.sciencebase.gov/catalog/item/5db08e84e4b0b0c58b56e04f
Lands with Wilderness Characteristics (LWC)	U.S. Department of Interior - BLM	NewMexico | BLM GBP Hub
Conservation Easements	National Conservation Easement Database	https://www.conservationeasement.us/
National Conservation Areas (NCAs)	Protected Areas Database (PAD-US)	https://www.usgs.gov/programs/gap-analysis-project/science/pad-us-data-download
National Parks/Monuments	Protected Areas Database (PAD-US)	https://www.usgs.gov/programs/gap-analysis-project/science/pad-us-data-download
NRCS Prime Farmland	Protected Areas Database (PAD-US)	SSURGO Downloader - https://esri.maps.arcgis.com/apps/instant/basic/index.html?appid=806c857d504c476ba6477ac475e45bf5
State Parks	Protected Areas Database (PAD-US)	https://www.usgs.gov/programs/gap-analysis-project/science/pad-us-data-download
Local Parks and Open Space	Protected Areas Database (PAD-US)	https://www.usgs.gov/programs/gap-analysis-project/science/pad-us-data-download
NMDGF Fish Management Plan Waters	NM Dept of Game and Fish	NM Dept of Game and Fish
NM State Forestry Priority Landscapes	NM Dept of Game and Fish	NM Dept of Game and Fish
NMDGF Wildlife Conservation Act (WCA) T&E Species Habitat	NM Dept of Game and Fish	NM Dept of Game and Fish
State Wildlife Areas	NM Dept of Game and Fish	NM Dept of Game and Fish
National Wildlife Refuge Lands	Protected Areas Database (PAD-US)	https://www.usgs.gov/programs/gap-analysis-project/science/pad-us-data-download
State Wildlife Management Area	Protected Areas Database (PAD-US)	https://www.usgs.gov/programs/gap-analysis-project/science/pad-us-data-download
State Resource Management Area	Protected Areas Database (PAD-US)	https://www.usgs.gov/programs/gap-analysis-project/science/pad-us-data-download
Habitable structures	FEMA Structures, Microsoft Buildings, Aerial Interuptation	https://services2.arcgis.com/FiaPA4ga0iQKduv3/arcgis/rest/services/USA_Structures_View/FeatureServer
Oil and Gas Wells	Oil Conservation Division OCD	https://ocd-hub-nm-emnrd.hub.arcgis.com/
Water Wells	New Mexico Office of the State Engineer	New Mexico Office of the State Engineer
Churches	USGS/GNIS	https://www.usgs.gov/us-board-on-geographic-names
Schools	American Community Survey (ACS)	https://www.arcgis.com/home/item.html?id=1577f4b9b594482684952d448aa613c7
Active Mines	NM Mining and Minerals Division	Registered Mines
Inactive Mines	NM Mining and Minerals Division	Registered Mines
Gravel/Sand Extraction sites	NM Mining and Minerals Division	Registered Mines
BLM/USFWS/State/Tribal Livestock Grazing Allottments	DOI	BLM NM Grazing Allotments | BLM GBP Hub
NWI Resources (Wetland, Riverine, Lake, Pond)	National Wetland Inventory (NWI)	https://www.fws.gov/program/national-wetlands-inventory/data-download

CRITERIA LAYERS	SOURCE	SOURCE LINK
NMERT Freshwater Integrity	NM Dept of Game and Fish	NM Dept of Game and Fish
Acequias and Community Ditches	EDAC - New Mexico Water Data	New Mexico Water Data
USACE Civil Works Projects	USACE	USACE Open Data; https://www.arcgis.com/home/item.html?id=9ee59220302340e282bb4c7558f7a2bf
Perennial Stream	National Hydrography Dataset (NHD)	https://www.usgs.gov/national-hydrography/access-national-hydrography-products
Ephemeral Stream	National Hydrography Dataset (NHD)	https://www.usgs.gov/national-hydrography/access-national-hydrography-products
Intermittent Stream	National Hydrography Dataset (NHD)	https://www.usgs.gov/national-hydrography/access-national-hydrography-products
FEMA 100-year Flood Zones (A, AE, AH, and AO)	Rextag	WSP Data Subscription
FEMA Flood Zone X (moderate to low risk areas)	Rextag	WSP Data Subscription
T&E Species Federally Designated Critical Habitat	USFWS	https://ecos.fws.gov/ecp/report/table/critical-habitat.html
NM Important Plant Areas	Environmental Resource Database of New Mexico	Environmental Resource Database of New Mexico
NM Audobon Important Bird Areas	Environmental Resource Database of New Mexico	Environmental Resource Database of New Mexico
Inactive Lesser Prairie Chicken Leks (2020-2025)	Western Association of Fish and Wildlife Agencies (WAFWA)	https://www.arcgis.com/home/item.html?id=486c71ba09b547f58019cbdf7331a158
Lesser Prairie Chicken Core Habitat	Western Association of Fish and Wildlife Agencies (WAFWA)	https://www.arcgis.com/home/item.html?id=486c71ba09b547f58019cbdf7331a158
Mexican Spotted Owl PACs	USGS	USGS ScienceBase
Cemeteries	USGS	National Map/USGS
Traditional Cultural Properties (TCPs)	NMCRIS New Mexico Historic Preservation Division	New Mexico Historic Preservation Division | Archaeological Records Management Section
National Register Listed or Determined Eligible Sites	NMCRIS New Mexico Historic Preservation Division	New Mexico Historic Preservation Division | Archaeological Records Management Section
Determined Eligible for Listing on the National Register of Historic Places	NMCRIS New Mexico Historic Preservation Division	New Mexico Historic Preservation Division | Archaeological Records Management Section
Determined Not Eligible for Listing on the National Register of Historic Places	NMCRIS New Mexico Historic Preservation Division	New Mexico Historic Preservation Division | Archaeological Records Management Section
National Historic Landmarks (NHL)/Monuments	National Park Service (NPS)	National Parks Service
National Register of Historic Places (NRHP) Properties	National Park Service (NPS)	https://www.nps.gov/subjects/nationalregister/data-downloads.htm
National Historic Trails (NHT)	National Park Service (NPS)	https://www.arcgis.com/apps/webappviewer/index.html?id=24fc463363f54929833580280cc1a751
National and State Designated Scenic Roads or Byways	New Mexico DOT	New Mexico DOT
National Scenic Trails	National Park Service (NPS)	Maps - National Trails System (U.S. National Park Service)
BLM Visual Resource Management (VRM) Areas	U.S. Department of Interior - BLM	GIS Data BLM
Above 7,000 feet mean sea level in elevation	USGS 30m DEM	GIS Data Download | U.S. Geological Survey
Areas of slope greater than 35 percent	USGS 30m DEM	GIS Data Download | U.S. Geological Survey
Areas of slope between 10 and 35 percent	USGS 30m DEM	GIS Data Download | U.S. Geological Survey
Areas of slope less than 10 percent	USGS 30m DEM	GIS Data Download | U.S. Geological Survey
Areas of Karst Terrain	USGS Geological Survey Open-file Report 2014-1156	USGS Open-File Report 2014–1156: Karst in the United States: A Digital Map Compilation and Database





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Mid-State Transmission Virtual Open House Comment Capture

PNM Exhibit AKM-3

Is contained in the following 8 pages.

Mid-State Transmission Virtual Open House

Siting & Routing Public Comment Capture Form – August 24, 2026 5:30PM – 7:00PM

Capture one unique substantive comment per row. Use the segment dropdown from the project parcel/ROW information, then record the specific location, concern, and requested routing consideration. Do not enter mailing addresses or other unnecessary personal information in the public-comment log.

Segment dropdown values are based on the supplied landowner/parcel routing data: Segment 1 (WS to Willard), Segment 1 co-located, Segment 2 (Willard to the Rio Grande), Segment 2 standalone, Segment 3, Segment 3Base, and Segment 3Alt (Rio Grande to Hidden Mountain).

	Stakeholder Name	Concern / local knowledge	Expert / follow-up	Status
1.	Alan	Why this route through many small 40 acre lots that are already encumbered? There is an alternate route that sun Zia used south of town going through very large ranches	Adam Renz (Pattern)	Answered during open house
2.	Linda Filippi	Several Loma Parda Residents are on this connection – more than one attendee on the meeting from the area; Assume we'll get the card deck after the mtg?	Russell Brito	Answered during open house
3.	Todd Brogowski	Has PNM filed a Public Regulatory Commission (PRC) wildfire mitigation plan, and has this specific route been risk-assessed against high-wind ignition scenarios — not just general reliability — as part of that plan?	Adam McClellan	Answered during open house
4.	Melissa T	**NMSA 1978, § 62-9-3.2(A) provides that, unless otherwise agreed by the parties, no person may begin constructing a transmission line requiring a right-of-way wider than 100 feet without first obtaining an NMPRC determination of the necessary width. Has PNM filed that application for Mid-State? If so, what is the docket number; if not, what legal basis does PNM rely upon for proposing a 200-foot easement?**	Adam McClellan	Answered during open house
5.	Todd Brogowski	Which tribal entities has PNM formally consulted under Section 106/SHPD tribal consultation, and has the Isleta Pueblo specifically responded, given the route runs along the pueblo boundary near Los Lunas? (SHPD = State Historic Preservation Division	Adam Renz (Pattern)and Adam McClellan	Answered during open house

Mid-State Transmission Virtual Open House

6.	Melissa T	Who will apply for the NMPRC determination and acquire or condemn the easements—PNM, Mid-State Transmission, LLC or another entity—and will PNM commit to notifying every affected owner of the NMPRC docket and intervention deadline?	Adam McClellan	Answered during open house
7.	Todd Brogowski	What is the compensation structure for landowners granting new easements, and does it differ for agricultural/grazing land versus other land uses? In those instances where landowners do not grant easements, does PNM intend to seek to take land through eminent domain?	Adam Renz (Pattern)& Tyler Shepard, Adam McClellan	Answered during open house
8.	Linda Filippi	A formal Health Impact Assessment submitted to the Torrance County Commission on the proposed Kinder Morgan CO2 Lobos pipeline. It was suggested that a north-south and east west corridor be allocated for all industrial pipelines and transmission lines. Why is this project not being routed along the east-west Sun Zia corridor.	Adam Renz (Pattern)	Follow-up needed
9.	Melissa T	Why, if the route has not been determined, is Percheron, LLC, Connor Bankston, actively soliciting landowners to try and purchase easements.	Adam Renz (Pattern)& Tyler Shepard, Adam McClellan	Answered during open house
10.	Theresa	How can we learn the exact impact of this line on our property? Are there residential homes on this route?	Tyler Shepard (Pattern) and Adam McClellan	Answered during open house
11.	Melissa T	No it is a legal basis. It is statutory.		Closed / resolved
12.	Gregory	For those of us with the metal brown towers that carry 3 lines, are you using the existing towers and adding additional lines or are you removing the metal brown towers and replacing them with the double steel towers?	Adam Renz (Pattern)	Answered during open house
13.	Melissa T	Will the new 345-kV line replace the existing line through Loma Parda, or will the existing line	Adam Renz (Pattern)	Answered during open house

Mid-State Transmission Virtual Open House

		remain alongside it? When will PNM provide parcel-level maps showing the proposed centerline, towers, permanent easement, temporary work areas and access roads?		
14.	Latham	If we did not receive a postcard about this meeting, does this mean our land is not included in this project?	Adam Renz (Pattern)	Answered during open house
15.	Linda Filippi	are you going to try to muzzle us with NDAs (speaking of easements and eminent domain)	Adam McClellan	Answered during open house
16.	Todd Brogowski	Is any segment of this route inside a designated High Fire Risk Area under PNM's own wildfire mitigation program?	Adam McClellan	Follow up needed
17.	Ann McCloud	The only feasible path for this line if you have to build it at all, is to put it next to the existing high tension power lines up where el paso gas line is, and not ruin anymore of the skyline and views for the rest of us.	Adam Renz (Pattern)	Answered during open house
18.	Joe	As present landowners, how do we submit refusal or rejection of this currently proposed route of transmission lines?	Adam Renz (Pattern)& Adam McClellan - process for PRC list for Joe – follow up	Answered during open house
19.	Ann McCloud	Potential Impact, the only feasible path for this line if you have to build it at all, is to put it next to the existing high tension power lines up where el paso gas line is, and not ruin anymore of the skyline and views for the rest of us	Adam McClellan and Adam Renz (Pattern)	Follow up needed
20.	Steve Coleman	Is part of this project to feed any data centers?	Adam McClellan & Adam Renz Adam Renz (Pattern)	Follow up needed
21.	Melissa T.	How do you propose to distribute that information? re: my question regarding maps etc... Mailers? website	Adam McClellan	Follow up needed
22.	Todd Brogowski	Contact info for the land team: Todd Brogowski, Mountainair Dispatch, 719-496-1660, todd@mountainairdispatch.com		Follow up needed

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23.	Melissa T	What route alternatives has PNM evaluated to avoid cutting through the Loma Parda residential subdivision and diagonally severing individual residential parcels?	Adam Renz (Pattern)	Follow-up needed
24.	Todd Brogowski	Would this line be subject to Public Safety Power Shutoff protocols during Red Flag Warnings, and if so, has PNM modeled how many hours per year that might affect Torrance County customers?	Adam McClellan & Carlos Lucero	Follow-up needed
25.	Latham	How can I find out if our property is included in this project?	Susie Sollien	Follow-up needed
26.	Stephen Beveridge	At the far west end, west of railroad, could an owner use the construction/maintenance road to access their property?	Tyler	Answered during open house
27.	Joe	Can you further elaborate on the PRC process?	Adam McClellan	Answered during open house
28.	Don Grate	we're not even your customers		Answered during open house
29.	Ann McClound	You could just as easily follow the sunwest line where you turn north at progresso. We don't want any more lines through Loma Parda	Adam McClellan & Adam Renz (Pattern)	Answered during open house
30.	Jessica Chavez	505-209-7525 I would like to know if my land will be impacted.		Follow up needed
31.	Todd Brogowski	Are you expecting to go through CCN and NEPA review, or just CCN? (Just given Sevellita NWR)	Ian Evans	Answered during open house
32.	Melissa T	Where are the substations going to be located between Mountainair and Hidden Mountain within Torrance County? Adam – answered in meeting	Adam McClellan	Answered during open house
33.	Melissa T	Will Mid-State interconnect with, share facilities with or provide transmission service for Palomas Wind, Bolo Transmission, Western Spirit, SunZia, RioSol, Hidden Mountain or Pajarito?	Adam Renz (Pattern)	Answered during open house
34.	Estevan	for property owners whose land fall within the 200 foot right of way will we still be allowed to graze livestock such as sheep cattle	Adam McClellan	Answered during open house

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		within that right of way after construction?		
35.	D. Grate	you know the entire state is in extreme drought		New / captured
36	Joe	What's the follow up process? For things that didn't get answered on this meeting, for example do we contact or do we wait for more communication?	Adam McClellan	Answered during open house
37.	Melissa T	Why did Mid-State Transmission ,LLC withdraw its application for an MOU with NM RETA on or about May 26, 2026, and why did RETA subsequently rescind its conditional approval through Resolution 2026-007? Isn't it because RETA required a non-compete agreement?	Adam Renz (Pattern)	Answered during open house
38.	John Chavez	Who do we contact to see a map of where it is crossing the rio grande valley?	Adam McClellan	Answered during open house
39.	Estevan	can this whole project still come to complete stop and not move forward?	Adam McClellan	Answered during open house
40.	A.	Ultimately, this is about electric company profit, isn't it?	Adam McClellan	Answered during open house
41.	Joe	Id love to know the steps to get in touch with PRC in how to enter our proposed rejection or suggestion for a different route. Jrg9152@gmail.com	Adam MClellan	Answered during open house
42.	Melissa T	Who will use and pay for Mid-State, how much of its capacity will serve PNM's New Mexico customers, and how much is intended to deliver privately developed generation to regional or out-of-state markets?	Adam McClellan & Adam Renz (Pattern)	Answered during open house
43.	D. Grate	condensing station		Closed / resolved
44.	Linda Filippi	The Health Impact Assessment referenced earlier was deeply researched. We suggest you read it. Thank you.		New / captured

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45.	Melissa T	If Mid-State is being constructed in whole or in part to transmit power from a privately developed wind project, what portion of this project is actually for PNM's public utility needs, and what portion is being constructed for the benefit of private generation developers?	Adam McClellan & Adam Renz (Pattern)	Answered during open house
46.	Mark Hutchings	Effects of EMF's, would like a virtual meeting with lands to discuss if it crosses his property, he is out of town.	Adam McClellan & Adam Renz (Pattern)	Follow-up needed
47.	Lenora Romero	Today you want 200. Tomorrow you will be requesting another 200.	Adam McClellan	Answered during open house
48.	Melissa T	Pattern is a private for profit company		New / captured
49.	Melissa T	The line slashes diagonally through residential properties.	Adam Renz (Pattern)	Answered during open house
50.	Don Grate	current easement is only 50 foot; loma parda residents would like to meet your emissaries as a group	Adam Renz (Pattern)	Follow-up needed
51.	Stephen Barba	What's with your low ball offers for easements	Tyler Shepard (Pattern)	Answered during open house
52.	Ann McCloud	Land team, please contact me, Ann McCloud bstreetmarket@gmail.com	Tyler Shepard (Pattern)	Follow-up needed
53.	D. Grate	light pollution from that?	Adam McClellan & Ian Evans (Pattern)	Answered during open house
54	Ann McCloud	Are the proposed towers tall enough that they require lights on top at night?	Adam McClellan & Ian Evans (Pattern)	Answered during open house
55.	Lenora Romero	My name is Lenora Lovato Romero, President of Manzano Land Grant. I say NO to the PNM Project.		New / captured
56.	Joe	Who decided or stated "least impactful"?	Ian Evans (Pattern)	Answered during open house
57.	Estevan	what if most land owners are opposed to this project than in favor? what is alternative then – follow up with engineer	Adam McClellan	Answered during open house

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Follow-up / Commitment Log

#	Segment	Question / commitment	Specific location / parcel ref.	Assigned expert	Status	Disposition / date
1	Select segment	Follow up on whether the project is intended to serve any data centers.		Adam McClellan; Adam Renz (Pattern)	Follow-up needed	
2	Select segment	Explain how project/map information will be distributed to the public (mailers, website, etc.).		Adam McClellan	Follow-up needed	
3	Select segment	Explain route alternatives evaluated to avoid crossing the Loma Parda residential subdivision and diagonally affecting individual parcels	Loma Parda	Adam Renz (Pattern); Tyler Shepard	Follow-up needed	
4	Select segment	Determine whether the stakeholder's property is included in the project Determine whether a specific landowner's property would be impacted	Sevilleta NWR area	Tyler Shepard	Follow-up needed	
5	Select segment	Follow up on whether the project will undergo CCN and NEPA review, particularly given proximity to Sevilleta NWR	Property-specific; parcel not provided	Ian Evans (Pattern)	Follow-up needed	
6	Select segment	Follow up regarding the SunZia/existing utility corridor as a potential route alternative	SunZia corridor / Loma Parda area	Adam Renz (Pattern)	Follow-up needed	
7	Select segment	Follow up on additional landowner/community communication requested regarding the proposed route.	Loma Parda	Adam McClellan; Adam Renz (Pattern)	Follow-up needed	
8	Select segment	Respond regarding whether the line would be subject to Public Safety Power Shutoff protocols during Red Flag Warnings and whether impacts to Torrance County customers have been modeled.	Torrance County	Carlos Lucero	Follow-up needed	
9	Select segment	Request for virtual meeting with lands to discuss if it crosses his property.	Mark Hutchings - 1344 Highway 116, Belen. (505) 918-5573	Tyler Shepard	Follow-up needed	
10	Select segment	Discussion with Lands Team regarding property impact	Ann McCloud bstreetmarket@gmail.com	Tyler Shepard	Follow-up needed	
11	Select segment	Id love to know the steps to get in touch with PRC in how to enter our proposed rejection or suggestion for a different route. Jrg9152@gmail.com	Joe @ Jrg9152@gmail.com	Tyler Shepard	Follow-up needed	
12	Select segment	I would like to know if my land will be impacted	Jessica Chavez 505-209-7525.	Tyler Shepard	Follow-up needed	

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Theme Summary for Closing Recap

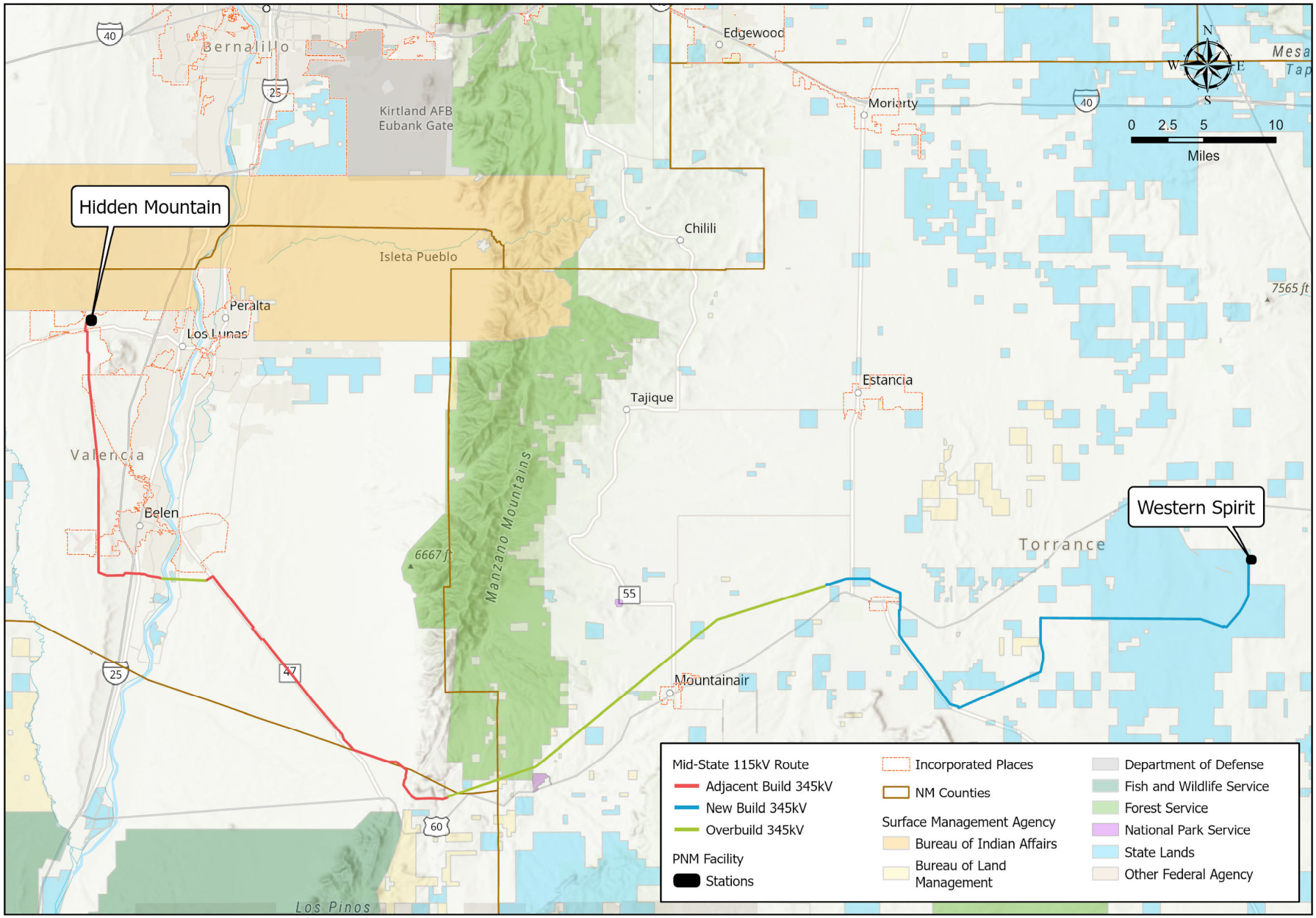
Theme	Number needing follow-up	Closing recap note
Route alternatives / requested shifts	2	Requests focused on evaluating alternate alignments, including use of the SunZia/existing utility corridor and avoiding diagonal crossings of residential parcels in Loma Parda.
Property / ROW	5	Questions focused on easement acquisition, the proposed 200-foot ROW, compensation, landowner contact, property access, and determining whether individual properties are affected.
Visual / cumulative impacts	0	Concerns included tower visibility, lighting, and the combined effect of new transmission infrastructure alongside existing facilities
Engineering / undergrounding	0	Questions focused on structure design, whether existing lines/towers would remain, substations, access roads, and project configuration
Agriculture / ranching		Questions included whether grazing can continue within the ROW and how the project may affect agricultural or ranching uses.
Environmental / wildlife / water	2	Concerns included environmental review, wildfire risk, wildlife/water considerations, and potential impacts associated with route selection
Cultural / Tribal	0	Questions focused on Tribal consultation and consideration of cultural resources.
Residence / community	2	Concerns centered on impacts to homes and residential parcels, particularly in Loma Parda, along with requests for additional community/landowner engagement.
Construction / access		
Purpose / need		
Process / timeline		
Scam / authenticity		
Other		

Mid-State Transmission Project Overview Map

PNM Exhibit AKM-4

Is contained in the following 1 page.

Date: 9/18/2026
SCTASK0030588



Mid-State Transmission - Proposed Route

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BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF PUBLIC SERVICE COMPANY OF NEW MEXICO'S APPLICATION FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY TO CONSTRUCT, OWN, AND OPERATE, LOCATION APPROVAL, AND RIGHT-OF-WAY DETERMINATION FOR THE MID-STATE 345 KV TRANSMISSION PROJECT	)	**Docket No. 26-0000XXX**
PUBLIC SERVICE COMPANY OF NEW MEXICO,	)	
Applicant.	)	

AFFIDAVIT

STATE OF NEW MEXICO)
) ss
COUNTY OF BERNALILLO)

ADAM K. McCLELLAN, Senior Manager of Land Services for PNMR Services Company, upon being duly sworn according to law, under oath, deposes and states: I have read the foregoing **Direct Testimony of Adam K. McClellan,** and it is true and accurate based on my own personal knowledge and belief.

Dated this 30th day of October, 2026.

/s/ Adam K. McClellan
ADAM K. MCCLELLAN

GCG # 535974