

# Vollmer-Vollmer Tap 115-kV Transmission Line and Substation Project

## 1041 Application, El Paso County, Colorado

October 11, 2019

Submitted to: **El Paso County Planning and Zoning**  
2880 International Circle, Suite 110  
Colorado Springs, CO 80910

Submitted by:



A Touchstone Energy® Cooperative 

1100 W 116th Ave.  
Westminster, CO 80234

&



11140 E Woodmen Rd.  
Falcon, CO 80831

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## **LIST OF ACRONYMS AND ABBREVIATIONS**

APLIC	Avian Power Line Interaction Committee
APP	Avian Protection Plan
CFR	Code of Federal Regulations
CPW	Colorado Parks and Wildlife
EPM	Environmental Protection Measures
FAA	Federal Aviation Administration
kV	Kilovolt
MVA	Megavolt Ampere
MVEA	Mountain View Electric Association
NESC	National Electrical Safety Code
Power PT	Power Potential Transformer
PPACG	Pikes Peak Area Council of Governments
Project	Vollmer-Vollmer Tap Transmission Line and Substation Project
PUC	Public Utilities Commission
RUS	Rural Utilities Service
SCADA	Supervisory Control and Data Acquisition
Tri-State	Tri-State Generation and Transmission Association, Inc.
U.S.C.	United States Code
USFWS	U.S. Fish and Wildlife Service

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## PROJECT DESCRIPTION (SATISFIES Section 2.303(5b))

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### INTRODUCTION

Mountain View Electric Association, Inc. (MVEA) and Tri-State Generation and Transmission Association Inc. (Tri-State) request review of the proposed Vollmer-Vollmer Tap Transmission Line and Substation Project (Project) pursuant to provisions of the El Paso County 1041 process. This submittal includes responses to Chapter 2, Article 3 and Chapter 5, Article 2 of El Paso County's *Guidelines and Regulations on Areas and Activities of State Interest of El Paso County* (1041 Guidelines).

#### Who are Tri-State and MVEA?

Tri-State is a wholesale electric power supplier owned by the 43 electric cooperatives that it serves. Tri-State generates and transports electricity to its member systems throughout a 200,000-square-mile service territory across Colorado, Nebraska, New Mexico, and

Wyoming. Tri-State was founded in 1952 and today supplies power for approximately 1.5 million consumers in the four states. Tri-State serves its member systems through a combination of owned base load, intermediate, and peaking power plants that use coal and natural gas as their primary fuels, supplemented by purchased power, federal hydroelectricity allocations, and renewable energy.

#### The Cooperative Difference

Electric cooperatives are private, not-for-profit utilities owned and governed by the members they serve. Electric cooperatives bridge the vast expanse of rural America to energize residences, farms, ranches, businesses, and communities that have organized cooperatively and accept the responsibility for delivering safe, affordable, and reliable power.

MVEA, incorporated in 1941, is an electric cooperative owned and run by the members it serves. MVEA provides power to over 56,000 meters across a 5,000-square-mile territory and is a main electric service provider within unincorporated El Paso County.

### PROJECT DESCRIPTION

Tri-State is proposing to construct a new 115-kilovolt (kV) transmission line near Falcon, Colorado in El Paso County. This new transmission line (Vollmer-Vollmer Tap Transmission Line) will establish a delivery point for MVEA and the proposed Vollmer 115/12.5-kV Substation (Vollmer Substation). Collectively, the proposed transmission line and substation make up the proposed Vollmer Substation and Transmission Line Project (Project).

The Project is required in order to provide reliable electric service and meet the increasing demand for electricity in the area. Namely, the Project will support the planned Sterling Ranch subdivision, The Ranch subdivision, and surrounding areas. Tri-State and MVEA are currently working on Project permitting activities and final design of the proposed facilities.

Construction is scheduled to begin approximately 12-15 months after an approval is received through El Paso County's 1041 review process. Project completion and substation energization is expected approximately 16-21 months after receipt of an El Paso County 1041 approval. An overview map of the Project is provided in Figure 1.

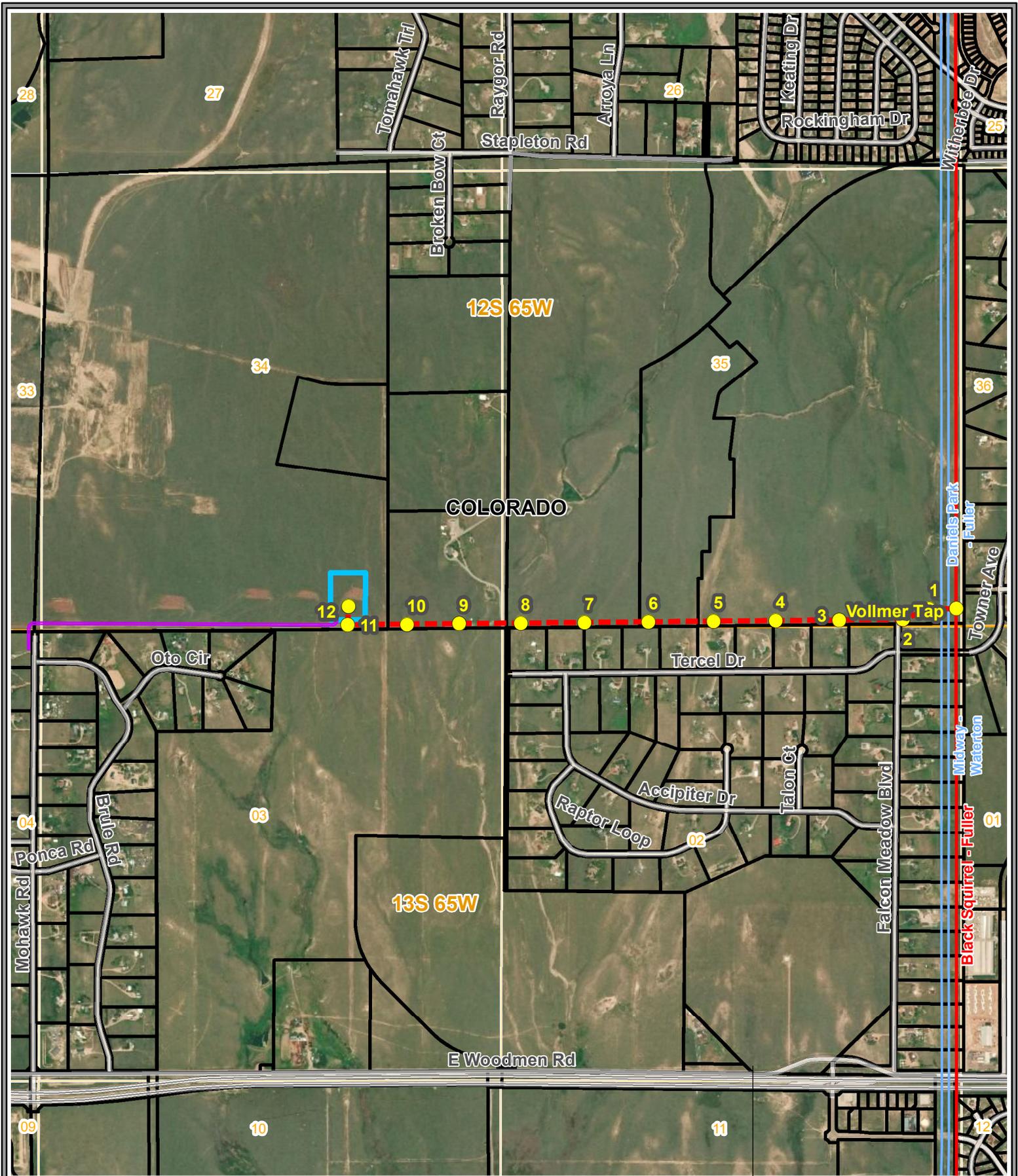
The proposed substation will be approximately 1.18 acres in size and located within a 5-acre parcel of land to be owned by MVEA. The 5-acre parcel will provide space for staging of equipment during substation construction, future maintenance, grading and drainage, and landscaping for the substation. A new 0.7-mile-long temporary access road will be constructed from the northern terminus of Mohawk Road and travel east to the Vollmer Substation. A 50-foot wide access easement will be obtained for this access road. The substation will contain two 115-kV/12.5-kV transformers and associated electric equipment.

The Vollmer-Vollmer Tap 115-kV Transmission Line will tap Tri-State's existing Black Squirrel-Fuller 115-kV Transmission Line and travel approximately 1.35 miles west within a 100-foot-wide right-of-way corridor before terminating at the Vollmer Substation. The new transmission line will consist of 1 three-way switch structure, 1 steel single pole structure, 1 wood single pole structure, 2 steel H-frame configuration structures, and 8 wood H-frame structures. The majority of the structures are between 600 and 800 feet apart from one another, except for those near the end points of the transmission line. Structure locations are provided in Figure 1.

One temporary construction staging area easement will be required for transmission line construction. The temporary staging easement will be 3-5 acres in size and adjacent to the substation and/or near the transmission tap structure near Falcon Meadows Boulevard. One, possibly two equipment storage conex enclosures will be placed in the staging area to house valuable equipment during construction. The staging area will be utilized for 4-6 months. Upon construction completion, any disturbed areas will be reclaimed using native seed.

## **PURPOSE AND NEED**

The Project is required so that MVEA can continue to provide reliable service while meeting the increasing demand for electricity in the area. The proposed substation will be located within the Sterling Ranch subdivision and is necessary in order to provide electrical service to an estimated addition of more than 7,400 residential lots, 50 acres of commercial space, 6 water wells, and 3 schools within the Sterling Ranch subdivision, The Ranch subdivision, and surrounding areas. Tri-State is the wholesale provider of electrical energy to its Member System, MVEA, which provides retail electrical service to their customers. MVEA received a formal request from the developers of the Sterling Ranch and The Ranch subdivisions to serve planned subdivisions in their service territory, which MVEA is obligated to provide.

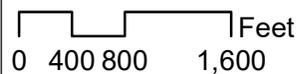


**Tri-State Generation and Transmission**

**Figure 1: Project Overview**



- Transmission Structures
- - - Proposed Transmission Line
- Temporary Access Easement
- Existing Tri-State Transmission Line
- Transmission Line - Other Utility
- Other Major Road
- Street
- Vollmer Substation Property
- Parcel
- Section
- Township/Range
- State



Updated By: curtmi  
Updated: 4/9/2019



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## 1041 GUIDELINES AND REGULATIONS FOR AREAS AND ACTIVITIES OF STATE INTEREST—APPLICATION REQUIREMENTS

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### CHAPTER 2, ARTICLE 3—APPLICATION SUBMITTAL REQUIREMENTS

#### 2.303—SUBMISSIONS REQUIREMENTS FOR ALL APPLICATIONS; WAIVERS

***2.303 (1): Completed application form in the format attached as Appendix B and approved by the Development Services Director.***

The completed application form is provided as Appendix A.

***2.303 (2): The Director may require submission of any plan, study, survey or other information, in addition to the information required by this Section, at the applicant's expense, as in the Director's judgment is necessary to enable it to review and act upon the application.***

El Paso County Staff requested a Traffic Impact Study and Pavement Condition Assessment for the Project. These documents are provided in Appendix B.

Though not required, MVEA and Tri-State held a public open house for the Project on September 17, 2019. Postcard invitations were mailed to the neighbors and community groups in proximity to the Project. Representatives from MVEA and Tri-State were present at the open house to answer questions and discuss Project details. Kari Parsons of the El Paso County Planning and Community Development Department was also in attendance. A series of informational boards and maps were displayed that provided details of the Project. Copies of these meeting materials are provided in Appendix C. In response to the open house, two written comments were received. Below is a summary of the comments and subsequent responses.

*Comment 1: Residents will be concerned significantly about construction traffic, construction noise, and wear and tear on haul roads.*

Construction will be limited to daylight hours and working hours limited to 7:00 AM to 7:00 PM. Vehicles and equipment will be maintained in proper operating condition and will be equipped with manufacturers' standard noise-control devices or better (e.g., mufflers, engine enclosures). A condition assessment of haul routes will provide a baseline for conditions of the road before Project activities. While damage to the haul roads is not anticipated, MVEA and Tri-State will work with El Paso County to repair any road damages caused by Project activities.

*Comment 2: After the open house, an attendee asked if the transmission line would cause interference with cell phone or television reception.*

A detailed response (see Appendix C) was provided to emailer. In summary, no impacts to cell phone, television, or radio reception are expected.

**2.303 (3): Any application which requires compliance with § 24-65.5-101, et seq., C.R.S., (Notification to Mineral Owners of Surface Development) shall not be considered to have been submitted as complete until the applicant has provided a certification signed by the applicant confirming that the applicant or its agent has examined the records of the El Paso County Clerk and Recorder for the existence of any mineral estate owners or lessees that own less than full fee title in the property which is the subject of the application, and stating whether or not any such mineral estate owners or lessees exist. In addition, for purposes of the County convening its initial public hearing on any application involving property which mineral estate owners or lessees owning less than full fee title in the property have been certified by the applicant to exist, the application shall not be considered to have been submitted as complete until the applicant has provided an additional signed certification confirming that the applicant has, at least 30 days prior to the initial public hearing, transmitted to the County and to the affected mineral estate owners and lessees the notices required by C.R.S. §24-65.5-101, et seq.**

The Mineral Interests requirement is not applicable to electric transmission line projects per Section 24 65.5-103, Colorado Revised Statutes. For the substation property, mineral owners will be notified. The Mineral Owners Notice letter template is provided in Appendix D.

**2.303 (4): Information describing the applicant.**

Mountain View Electric Association, Inc. (MVEA), incorporated in 1941, is an electric cooperative owned and run by the members it serves. MVEA provides power to over 56,000 meters across a 5,000-square-mile territory.

Tri-State Generation and Transmission Association Inc. (Tri-State) is a wholesale electric power supplier owned by the 43 electric cooperatives and public power districts (the "Member Systems") that it serves. Tri-State generates and transports electricity to its Member Systems throughout a 200,000-square-mile service territory across Colorado, Nebraska, New Mexico, and Wyoming. Tri-State, founded in 1952, today supplies power for approximately 1.5 million consumers in the four states. Tri-State serves its Member Systems through a combination of owned base load, intermediate, and peaking power plants that use coal and natural gas as their primary fuels, supplemented by purchased power, federal hydroelectricity allocations, and renewable energy.

**2.303 (4)(a): The names, addresses, including email address and fax number, organizational form, and business of the applicant and, if different, the owner of the Project.**

The Owner/Applicants for the Project are both Tri-State and MVEA. MVEA is a Colorado cooperative corporation and is a major retail provider of electricity in El Paso County. Tri-State is a Colorado cooperative corporation and is the primary provider of wholesale electricity to MVEA.

**Owners/Applicants**

David Waldner, Manager of Engineering  
Mountain View Electric Association, Inc.  
Falcon Operations Center  
11140 E. Woodman Road, Falcon, CO 80831  
719-494-2675  
Fax: 719-495-9130  
Waldner-d@mvea.org

Curtis Miller, Transmission Siting and Environmental Planner  
Tri-State Generation and Transmission Association, Inc.  
1100 W. 116th Avenue  
Westminster, CO 80234  
720-872-7046  
Fax: 303-254-6048  
[Miller.curtis@tristategt.org](mailto:Miller.curtis@tristategt.org)

**Landowners within the Project footprint include:**

PRI #4

Attn: Douglas Stimple  
6385 Corporate Drive, Suite 200  
Colorado Springs, CO 80919  
Approximate acres included in Project: 12.54  
Portions of parcel numbers: 5200000324 and 5200000323 and 5200000321

Morley-Bentley Investments, LLC  
Trader Vics Investments, LP  
20 Boulder Crescent Street, Suite 100  
Colorado Springs, CO 80903  
Approximate acres included in Project: 6.56  
Portions of parcel: 5200000362

Sam Thomas and Joann George  
9750 Tercel Drive  
Peyton, CO 80831

**Approximate acres included in Project: 3.1541**

**Portions of Parcel Number: 5200000251**

**2.303 (4)(b): The names, addresses and qualifications, including those areas at expertise and experience with projects directly related or similar to that proposed in the application package, at individuals who are or will be responsible for constructing and operating the Project.**

Tri-State and MVEA employ many qualified and specialized staff and consultants that will take part in the planning, design, and construction. Key contacts for the Project are as follows:

**MVEA:**

David Waldner, Manager of Engineering  
11140 E. Woodman Road  
Falcon, CO 80831

David Waldner has been the Engineering Manager of MVEA for 25 years. In this position, he is responsible for both distribution and transmission planning and design. He is also responsible for substation, transmission line design, permitting, and construction. Prior to his role as Engineering Manager, David worked as a System Engineer for MVEA for 4 years. David holds a Bachelor of Science in Electrical Engineering from South Dakota State University.

**Tri-State:**

Joel K. Bladow, Senior Vice President, Transmission  
Tri-State Generation and Transmission Association, Inc.  
1100 W. 116th Avenue  
Westminster, CO 80234

Joel Bladow has 35 years of experience in the electric utility industry in a variety of technical, managerial, and executive positions. In his current role as the Senior Vice President for Transmission at Tri-State, he is responsible for all Transmission-related functional areas including Policy, Rates, Planning, Maintenance, Operations, Engineering, and Construction.

Prior to joining Tri-State in 2006, Joel worked for the Western Area Power Administration, the last 14 years as a member of the agency's executive management team. His executive assignments include managing Western's Rocky Mountain and Upper Great Plains regional offices and the Washington, DC, office. Before moving into management, he worked in a number of departments including Transmission Engineering, Planning, Technical Studies, and System Protection.

Joel earned Bachelor of Science in Electrical Engineering and Master of Science Electrical Engineering with emphasis in power systems from North Dakota State University. He has authored a number of papers for various publications including the Institute of Electrical and Electronic Engineer's Power Apparatus and Systems, the Edison Electric Institute, and CIGRE. A registered Professional Engineer in Colorado, Joel also serves on the EPRI and

Western Electricity Coordinating Council committees, and he serves as a Board Member on the North American Transmission Forum.

**2.303 (4)(c): *Written authorization of the application package by the Project owner, it different than the applicant.***

The application package is being prepared and submitted by the Project owners. Land easement and purchase option agreements have been reached with underlying landowners for all portions for the Project. Signed option agreements with each landowner are provided in Appendix E.

**2.303 (4)(d): *Documentation at the applicant's financial and technical capability to develop and operate the Project, including a description at the applicant's experience developing and operating similar projects.***

Tri-State is a wholesale electric power supplier owned by the 43 electric cooperatives that it serves. Tri-State generates and transmits electricity to its member systems throughout a 200,000 square-mile service territory across Colorado, Nebraska, New Mexico, and Wyoming. Serving approximately 1.5 million customers and founded in 1952 by its member systems headquartered in Westminster, Colorado, Tri-State employs nearly 1,500 people in its four-state service area. Tri-State owns (wholly or jointly) or has maintenance responsibilities for more than 5,665 miles of transmission line across Colorado, Nebraska, New Mexico, and Wyoming. In 2018, Tri-State's operating revenue was \$1.3 billion with assets totaling \$5 billion. Tri-State annual financial report is provided in Appendix F.

MVEA, incorporated in 1941, is an electric cooperative owned and run by the members it serves. MVEA provides power to over 56,000 meters across a 5,000-square-mile territory. In 2018, MVEA's operating revenue was over \$115 million, and its assets total \$323 million. MVEA has permitted and constructed and is operating numerous electric substations in El Paso County. MVEA's annual financial report is provided in Appendix F.

**2.303 (4)(e): *Written qualifications of report preparers.***

**MVEA:**

David Waldner, Manager of Engineering  
11140 E. Woodman Road  
Falcon, CO 80831

David Waldner has been the Engineering Manager of MVEA for 25 years. In this position, he is responsible for both distribution and transmission planning and design. He is also responsible for substation, transmission line design, permitting, and construction. Prior to his role as Engineering Manager, David worked as a System Engineer for MVEA for 4 years. David holds a Bachelor of Science in Electrical Engineering from South Dakota State University.

**Tri-State:**

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Joel earned Bachelor of Science in Electrical Engineering and Master of Science Electrical Engineering with emphasis in power systems from North Dakota State University. He has authored a number of papers for various publications including the Institute of Electrical and Electronic Engineer's Power Apparatus and Systems, the Edison Electric Institute, and CIGRE. A registered Professional Engineer in Colorado, Joel also serves on the EPRI and Western Electricity Coordinating Council committees, and he serves as a Board Member on the North American Transmission Forum.

**Terra Nova Engineering, Inc.—Drainage Report and Stormwater Management Plan**

***Luanne Ducett, PE***

Ms. Ducett has 29 years of experience and a civil engineer, including 6 years in Colorado. She has extensive experience in design and project management of civil engineering systems within school, residential, commercial, roadway, and light industrial developments. Her technical expertise includes cost estimation, all aspects of water resource design (including sanitary sewer, storm sewer, water main, grading, stormwater, erosion control, and hydrology), permit applications (e.g., for the Colorado Department of Public Health and Environment and the Federal Emergency Management Agency), project specifications, and plan preparation. Her computer knowledge includes HEC-RAS, TR-20, SCS TR55, Pond-2, Microsoft Word and Excel, Lotus 123, Flowmaster, Paydirt, and AutoCAD. Her Management experience includes intergovernmental coordination and plan processing in the areas of El Paso County, the City of Colorado Springs, the Town of Monument, the City of Pueblo, the City of Fountain, and the Town of Palmer Lake.

## **HDR Engineering—Biological Resources Report and Cultural Report**

### ***Jonathan Chandler, Senior Project Manager***

Mr. Jonathan Chandler is a Sr. Project Manager/Client Manager/Biologist with more than 20 years of experience in various regions of the United States (primarily Rocky Mountain Regions) managing and or supporting natural resource services for power delivery generation-, oil and gas-, industrial-, and mining-related projects. These services include U.S. Army Corps of Engineers Clean Water Act Section 404 wetland delineations and permitting; U.S. Fish and Wildlife Service federal listed species consultation, Biological Assessments, and Species Protocol Surveys; Federal Land Management Sensitive Species Evaluations and vegetation community and association analysis (native, non-native, and invasive species); and as an approved federal agency third-party consultant. Currently, Mr. Chandler is the Client Manager for Intermountain Rural Electric Association and two other smaller rural electric cooperatives in Colorado and marketing various HDR engineering and environmental services. Specifically, Mr. Chandler manages/provides/markets these natural resource services in support of transmission and distribution line rebuild, reroute, upgrade, and or new build projects, hydroelectric penstock and dam replacement projects, oil and gas pipeline replacement projects, industrial compliance, and/or mine exploration and expansion projects.

### ***Dr. Kevin Gilmore, PhD, RPA***

Dr. Gilmore is the Archaeology Program Manager in HDR's Englewood office and has over his 40-year career has supervised, managed, and participated in numerous projects to ensure client compliance with the National Environmental Policy Act and Section 106 of the National Historic Preservation Act related to federal undertakings in the Rocky Mountains, Great Plains, Great Basin, and Northwest Coast areas of the United States, including projects in Colorado, New Mexico, Utah, Arizona, South Dakota, North Dakota, Minnesota, Oklahoma, Nebraska, Wyoming, California, Washington, and Alaska. He has also participated in cultural resource projects in British Columbia, Canada, and the Commonwealth of the Northern Mariana Islands. He has served as principal investigator, project archaeologist, and field supervisor for projects such as fuels reduction and timber sales, grazing allotments, power transmission lines, water resources, oil and gas pipelines and well pads, and transportation.

## **Tetra Tech Inc.—Traffic Analysis Report and Pavement Condition Assessment**

### ***Perry Patton, P.E.***

Perry is a licensed professional engineer with over 25 years of experience in civil and environmental engineering and 4 years of engineering and construction supervision experience in roadway and infrastructure systems. He holds a Bachelor of Science in both physics and civil engineering. Mr. Patton's experience includes engineering analysis, design, layout and sampling for hazardous waste remediation projects; general geotechnical, concrete; and steel design; and design of hazardous waste landfill covers in compliance with the Resource Conservation and Recovery Act. His role on the Project has

included providing technical support and senior review of the traffic analysis and corresponding Traffic Impact Memorandum.

***Andrew Lintz, P.E.***

Andrew is a licensed professional engineer with 18 years of experience. He holds a Bachelor of Science in Chemical Engineering. Mr. Lintz's experience ranges from civil and road designs for renewable energy projects, development of traffic analyses reports, and land development. His role on the Project has included conducting the traffic analysis and drafting sections of the Traffic Impact Memorandum.

***Eric Mathers, E.I.T.***

Mr. Mathers is a civil engineer in training with 2 years of professional experience. He holds a Bachelor of Science in Civil Engineering. Mr. Mathers' experience ranges from road and drainage design for renewable energy projects, conducting traffic condition analyses, land development, and hydraulic modeling. His role on the Project has included conducting the traffic analysis and drafting narrative for sections of the Traffic Impact Memorandum.

**Terracon Consultants, Inc.—Geotechnical Report**

Terracon is a 100 percent employee-owned consulting engineering firm providing quality services to clients. Since 1965, Terracon has evolved into a successful multidisciplinary firm specializing in environmental, facilities, geotechnical, and materials services. Terracon currently has more than 4,000 employees in more than 140 offices serving all 50 states. For the Project, Terracon's Colorado Springs office has provided geotechnical analysis, report creation, and recommendations, all services primarily supported by Robert M. Hernandez, P.E., Geotechnical Services Manager.

**Tetra Tech, Inc.—Analysis of Audible Noise and Magnetic Fields**

***Robert L. Pearson, Ph.D., PE***

Dr. Pearson is Registered Professional Engineer in Colorado and a Senior Project Manager in Tetra Tech's Denver office. Previously he was a Vice President and Principal Technologist with CH2M HILL in the Denver office. He has 46 years of experience in environmental and technical engineering, regulatory review and assessment, preparation of industrial compliance policy, and environmental consulting. He has particular expertise in the areas of electric and magnetic fields, air pollution control and assessment, water quality control, environmental permitting, and environmental research and development.

***2.303 (5): Information Describing the Project.***

***2.303 (5)(a): Vicinity map showing the proposed site and the surrounding area.***

A Project overview and vicinity map is provided in Figure 1.

**2.303 (5)(b): Executive summary of the proposal indicating the scope and need for the Project.**

Tri-State Generation and Transmission Association, Inc. (Tri-State) is proposing to construct a new 115-kilovolt (kV) overhead transmission line near Falcon, Colorado in El Paso County. This new transmission line (Vollmer-Vollmer Tap Transmission Line) will establish a delivery point for Mountain View Electric Association Inc. (MVEA) and the proposed Vollmer 115/12.5-kV Substation (Vollmer Substation). Collectively, the transmission line and substation make up the proposed Vollmer Substation and Transmission Line Project (Project).

The Project is required to provide reliable electric service and meet the increasing demand for electricity in the area. Namely, the Project will support the planned Sterling Ranch subdivision, The Ranch subdivision, and surrounding areas.

The proposed substation will be approximately 1.18 acres in size and located within a 5-acre parcel for which MVEA currently holds an option to purchase agreement. The 5-acre parcel will provide space for staging of equipment during substation construction, future maintenance, grading and drainage, and landscaping for the substation. A new 0.7-mile-long temporary access road will be constructed from the northern terminus of Mohawk Road and travel east to the Vollmer Substation. A 50-foot-wide access easement will be obtained for this access road. The substation will contain two 115-kV/12.5-kV transformers and associated electric equipment.

The Vollmer-Vollmer Tap 115-kV Transmission Line will tap Tri-State's existing Black Squirrel-Fuller 115-kV Transmission Line and travel approximately 1.35 miles west within a 100-foot-wide right-of-way corridor before terminating at the Vollmer Substation. The new transmission line will consist of 1 three-way switch structure, 1 steel single pole structure, 1 wood single pole structure, 2 steel H-frame configuration structures, and 8 wood H-frame structures. The majority of the structures are between 600 and 800 feet apart from one another, except for those near the end points of the transmission line.

One temporary construction staging area easement will be required for transmission line construction. The temporary staging easement will be 3-5 acres in size and adjacent to the substation and/or near the transmission tap structure near Falcon Meadows Boulevard. One or two equipment storage conex enclosures will be placed in the staging area to house valuable equipment during construction. The staging area will be utilized for equipment storage and vehicle parking for 4-6 months. Upon construction completion, any disturbed areas will be reclaimed using native seed.

**2.303 (5)(c): Plans and specifications of the Project in sufficient detail to evaluate the application against the applicable Review Criteria.**

Detailed plans and specifications developed for the Project include the following:

Appendix A: Application Form  
Appendix B: Traffic Study, Haul Route Map, and Pavement Condition Assessment  
Appendix C: September 17, 2019 Public Open House Summary Report  
Appendix D: Mineral Owners Notice Letter  
Appendix E: Land Option Agreements  
Appendix F: Tri-State and MVEA Annual Financial Reports  
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Appendix Y: Transmission Structure Exhibits  
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***2.303 (5)(d): Descriptions of alternatives to the Project considered by the applicant. If the Director determines that the nature or extent at the proposal involves the potential for significant damage and warrants examination at other specific, less damaging alternatives, the Director may require the applicant to evaluate and present information on such additional alternatives as part at the application.***

**Alternatives to the Proposed Project:**

**Transmission System Alternatives**

Three electrical system alternatives were evaluated to address the need for the Project as follows:

- **Alternative 1: No Action**—MVEA and Tri-State have evaluated the No Action Alternative and have concluded that this is not a feasible alternative. Not building this Project will result in less reliable power for existing and future members of MVEA in this area. MVEA has limited substation and distribution capacity in this area to serve any substantial new loads. Building the substation will increase reliability for existing and new members. Taking no action would result in no power delivery from MVEA to the new

Sterling Ranch and The Ranch subdivisions and surrounding area developments. The No Action Alternative does not meet the need of the Project.

- **Alternative 2 (Preferred): New 115-kV Substation and Transmission line with Tap**— This alternative involves the construction of a 115/12.5-kV substation delivery point for MVEA in proximity to the proposed Sterling Ranch subdivision. To provide a power source for a new 115/12.5-kV substation in this alternative Tri-State would construct a new 115-kV transmission line to the substation. Alternative 2 would provide the necessary power for MVEA to provide electric service to proposed developments in the area. The preferred system alternative is Alternative 2. Alternative 2 meets the Project's purpose and need and provides a cost-effective, secure, and reliable source of power for Tri-State, MVEA, and their member customers.
- **Alternative 3: New 230-kV Substation and Transmission Line**—This alternative would involve constructing a new 230-kV substation delivery point for MVEA and over 8 miles of 230-kV transmission line from Colorado Springs Utility's Cottonwood Substation located west of the intersection of Briargate Boulevard and N. Union Boulevard. This alternative was studied but dismissed as building 230-kV would be more expensive, require a larger substation footprint, and would cross miles of existing residential and commercial developments within the city of Colorado Springs and El Paso County. Further, it was determined that a 115-kV delivery point would meet the needs of the Project while being much more cost-effective.

### **Siting Alternatives**

The general location for the Project was initially identified based on the location of the proposed developments requiring electric service and through discussions with developers. After discussions with developer Morley-Bentley, it was agreed that the Vollmer Substation would be located within the Sterling Ranch development area as this development is the primary driver for the Project. MVEA worked closely with Morley-Bentley to identify a location for the Vollmer Substation that would be suitable for MVEA, Tri-State, Morley-Bentley, and surrounding developments.

Tri-State evaluated four main transmission route alternatives to reach the Vollmer Substation located within the Sterling Ranch subdivision; transmission route alternatives A, B, C, and D (the Preferred Route Alternative). In each alternative, a desktop analysis was used to evaluate routing criteria and determine the best option. A summary of each route alternative is provided below and a map of route alternatives is provided in Figure 2.

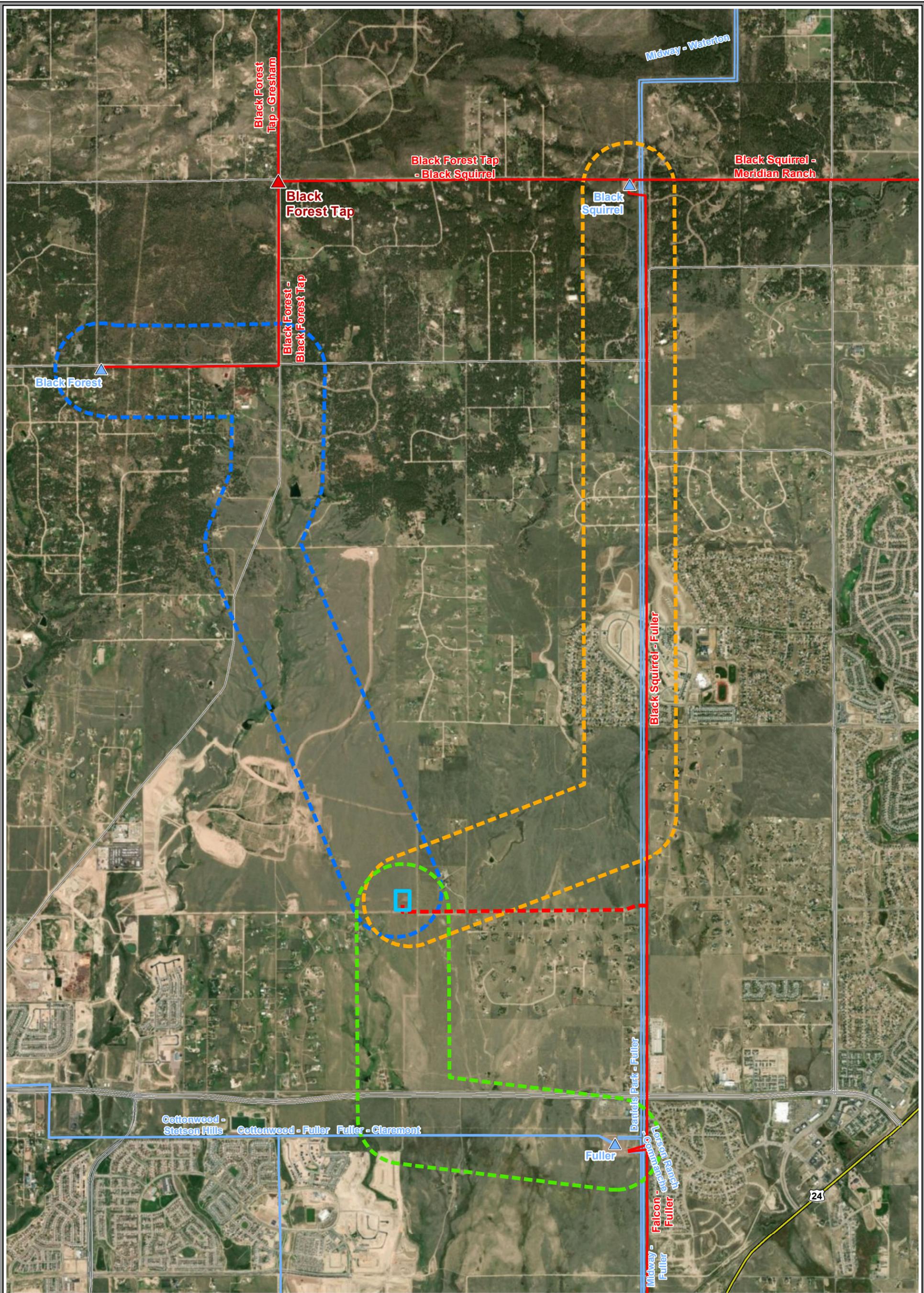
- **Route Alternative A**—This alternative includes building a new transmission line from the existing Black Squirrel Substation (located just north of the intersection of Goodson Road and Ayer Road) to the proposed Vollmer Substation. This alternative would require expanding the Black Squirrel Substation and building 5-6 miles of transmission line through areas already containing residential development. An approximate 40- to 60-acre residential parcel would need to be crossed in order to reach the Sterling Ranch subdivision. Further, a number of trees would need to be removed from residential property. Given the number of potential residences affected, length of transmission

required, access difficulty, and substation improvements required this alternative was not selected.

- **Route Alternative B**—This alternative Includes building a new transmission line from the existing Black Forest Substation (located at the intersection of Vollmer Road and Shoup Road) to the proposed Vollmer Substation. This alternative would require expanding the Black Squirrel Substation and building approximately 3 miles of new transmission line. Similar to Route Alterative A, this would require crossing a large number of residential parcels and removal of trees from properties under the transmission line. An estimated 15-25 residential parcels would be crossed by Alternative B to reach the Vollmer Substation. Given the number of potential residences affected, length of transmission required, access difficulty, and substation improvements required this alternative was not selected.
- **Route Alternative C**—This alternative includes building a new transmission line from the existing Fuller Substation (located just South of the intersection of Golden Sage Road and Rolling Thunder Way) to the proposed Vollmer Substation. This alternative would require expanding the Fuller Substation and building approximately 3 miles of new transmission line. An estimated 6-8 parcels would be crossed and by Route Alternative C. While this alternative would have less direct conflict with existing residences, this alternative was not selected due to the number of parcels effected, length of transmission required, and substation improvements required.
- **Route Alternative D (The Preferred Route Alternative)**—The Preferred Route Alternative includes installing a Transmission Tap structure along Tri-State’s existing Black Squirrel-Fuller 115-kV Transmission Line and constructing approximately 1.35 miles of 115-kV transmission line to the west before terminating at the proposed Vollmer Substation. An overview of the Preferred Route Alternative is provided in Figure 1. The Preferred Route Alternative crosses just three landowner parcels, the Morley-Bentley parcel, the Classic Homes’ parcels, and the Thomas parcel (existing Rural Residential). Easement options have been negotiated and agreed upon for all three landowners along this transmission route. The Preferred Route Alternative requires the least amount of transmission line to be constructed and is the only alternative that does not require expanding an existing substation. Further, the Preferred Route Alternative parallels a utility easement corridor almost entirely from the tap location to the proposed Vollmer Substation. Given these factors, Tri-State and MVEA have selected to move forward with the Preferred Route Alternative.

***2.303 (5)(e): Schedules for designing, permitting, constructing and operating the Project, including the estimated life of the Project.***

Design of the facilities are in their final stages and drawings are provided in Appendix G. The permitting stage of the Project is currently underway. Below is an outline of the construction schedule timelines for the substation and transmission line. In case of delays, it is requested that the permit allow construction to begin within 5 years of being issued.



Tri-State Generation and Transmission Association  
**Figure 2**  
**Transmission Alternatives**

- |                                     |                               |
|-------------------------------------|-------------------------------|
| ▲ Station - Tri-State               | <b>Alternatives</b>           |
| ▲ Station - Other Utility           | Alternative A Study Area      |
| — Transmission Line - Tri-State     | Alternative B Study Area      |
| — Transmission Line - Other Utility | Alternative C Study Area      |
| □ Vollmer Substation Property       | — Preferred Transmission Line |

0 0.1250.25 0.5 Miles  
 Updated By: curtni  
 Updated: 7/11/2019



*This map includes confidential information of Tri-State and third parties. The GIS data and maps may not be disclosed to any third party. The user agrees to keep this information confidential and not disclose it to third parties. If you have any questions regarding this, please contact the Tri-State legal department. GIS data and maps available to Tri-State Generation and Transmission Association employees are provided as general information to aid Tri-State transmission maintenance. No user of Tri-State's GIS data and maps may sell any portion of the information provided therein. Tri-State makes no warranty regarding accuracy or*

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**Vollmer Substation:**

1. Substation construction duration is approximately 4-6 months, from contractor mobilization to energization.
2. Construction to begin approximately 12-15 months after receipt of county permit.
3. Land option agreements will be exercised upon receipt of county permit.
4. Substation is energized approximately 16-21 months after receipt of county permit.
5. Substation construction drives the Project energization schedule, primarily due to the long procurement lead time on the power transformer.
6. The Vollmer substation is expected to be in operation indefinitely and 100 years has been requested for the life of the County permit.

**Vollmer-Vollmer Tap 115-kV Transmission Line:**

1. Construction duration is approximately 3-4 months.
2. Construction is required to begin in time to meet the energization schedule for the substation.
3. Land option agreements will be exercised upon receipt of county permit.
4. Transmission line construction could begin before the substation, or the two could be built at the same time, depending on system load, staffing, etc.
5. The Vollmer-Vollmer Tap 115-kV Transmission Line is expected to be in operation indefinitely and 100 years has been requested for the life of the County permit.

***2.303 (5)(f): The need for the Project, including a discussion of alternatives to the Project that were considered and rejected; existing/proposed facilities that perform the same or related function; and population projections or growth trends that form the basis of demand projections justifying the Project.***

The Project is required so that MVEA can continue to provide reliable service while meeting the increasing demand for electricity in the area. The proposed substation will be located within the Sterling Ranch subdivision and is necessary in order to provide electrical service to an estimated addition of more than 7,400 residential lots, 50 acres of commercial space, 6 water wells, and 3 schools within the Sterling Ranch subdivision, The Ranch subdivision, and surrounding areas. Tri-State is the wholesale provider of electrical energy to its Member System, MVEA, which provides retail electrical service to their customers. MVEA received a formal request from the developers of the Sterling Ranch and The Ranch subdivisions to serve planned subdivisions in their service territory, which MVEA is obligated to provide.

In addition to alternatives discussed in section 2.303 (5)(d), MVEA performed an initial feasibility analysis of serving proposed developments through distribution from existing transmission and substation facilities. It was quickly determined that the current distribution system cannot support the projected load increase posed by Morley-Bentley's Sterling Ranch and Classic Homes' The Ranch subdivisions. Under current service conditions, MVEA could only support an additional of 250 homes, and 7,400 are projected.

As no additional generation is related to the Project, the State's Renewable Energy Portfolio Standard neither adds nor subtracts from the need for the Project.

**2.303 (5)(g): Description of all conservation techniques to be used in the construction and operation at the Project.**

Tri-State, MVEA, and their contractors will follow numerous Environmental Protection Measures (EPMs) during construction to minimize the Project’s impacts. Table 1 below outlines the Project-specific EPMs.

**Table 1: Environmental Protection Measures**

Topic No.	Project-Specific Environmental Protection Measures
<b>General</b>	
G-1	Contractors shall comply with all federal, state, and local environmental laws, orders, and regulations. Prior to construction, all supervisory construction personnel will be instructed on the protection of cultural and ecological resources.
G-2	Prior to construction, Tri-State and MVEA shall discuss with the contractor areas of environmental sensitivity within the Project area and, in particular, those areas where a monitor may be required during construction.
<b>Access Routes</b>	
AR-1	No construction activities will be performed during periods when the soil is too wet to adequately support equipment and vehicles. If equipment or vehicles create ruts in excess of 4-6 inches deep for a distance of 10 feet on native surface roads, the soil shall be deemed too wet to adequately support construction equipment. If equipment or vehicles create ruts in excess of 1 inch deep on graveled roads, the roads shall be deemed too wet to support construction equipment.
AR-2	Only the minimum amount of soils and vegetation necessary for the maintenance of access routes and the safe and reliable operation of the transmission line will be disturbed. If excavation is necessary, topsoil will be conserved and reused as cover on disturbed areas to facilitate re-growth of vegetation. Vegetation will be cleared from those areas necessary to obtain adequate working width and turning radius space for maintenance equipment and allow for the safe operation of the transmission line.
AR-3	The substation is located adjacent to the planned extension of Banning Lewis Parkway. The substation and transmission line shall be designed so that no fences and/or structures will be erected within 105 feet of the future Banning Lewis Parkway road centerline.
<b>Visual/Aesthetics</b>	
A-1	The contractor shall exercise care to preserve the natural landscape and shall conduct construction operations so as to prevent any unnecessary destruction, scarring, or defacing of the natural surroundings in the vicinity of the work. Except where clearing is required for permanent works, approved temporary or permanent construction roads, staging areas, or excavation operations, vegetation shall be preserved and protected from damage by the contractor’s construction operations and equipment.
A-2	The contractor shall minimize scarring, defacing, damage, or destruction of the natural landscape resulting from construction operations. Any unnecessary or unauthorized damage shall be repaired by the contractor to the satisfaction of Tri-State and MVEA.
A-3	All construction materials, waste, and debris shall be removed from the Project area in a timely manner. Burning or burying of waste materials on the right-of-way or at the construction site will not be allowed. All materials resulting from the contractor’s clearing operations shall be removed from the right-of-way.

Topic No.	Project-Specific Environmental Protection Measures
A-4	Structures will be located and designed to conform with the terrain and with minimal visual impacts whenever possible. Leveling and benching of the structure sites will be done to the minimum necessary to allow structure assembly and erection.
A-5	A landscaping plan for the Vollmer Substation is provided as Appendix H to this application. The landscaping plan is intended to aid in screening the site from surrounding areas.
<b>Air Quality</b>	
AQ-1	The contractor shall utilize practicable methods and devices as are reasonably available to control, prevent, and otherwise minimize atmospheric emissions or discharges of air contaminants.
AQ-2	Possible construction-related dust disturbance shall be controlled by the periodic application of water to all disturbed areas along the right-of-way and access roads.
AQ-3	Vehicles and equipment showing excessive emission of exhaust gases due to poor engine adjustments or other inefficient operating conditions shall not be operated until corrective adjustments or repairs are made.
AQ-4	Post seeding mulch will be utilized during reclamation activities to help reduce wind erosion and blowing dust. The mulch/stabilization will be performed as soon as possible after completion of Project activities to minimize potential fugitive dust generation as revegetation occurs.
<b>Biological Resources</b>	
BR-1	Vegetation shall be preserved and protected from damage by construction operations to the maximum extent practicable. Removal of brush and trees will be limited to those necessary for access and construction. There will be no clear cutting within the right-of-way.
BR-2	Disturbed areas where vegetation has been removed by construction activities to the extent that the potential for soil erosion is increased to a detrimental level will be subject to seedbed preparation techniques, reseeded with an approved seed mixture, and mulched (if necessary) during a recognized planting season. Mulching shall be applied only to those areas where potential erosion would prohibit vegetation establishment and growth.
BR-3	The contractor shall not cross any wetland and riparian areas (of or relating to, or located on, the banks of a river or stream), except at designated locations.
BR-4	On completion of the work, all work areas, except any permanent access roads/trails, shall be regraded, as required, so that all surfaces drain naturally, blend with the natural terrain, and are left in a condition that will facilitate natural revegetation, provide for proper drainage, and prevent erosion.
BR-5	All disturbed areas, except the access route running surfaces, will be reseeded with seed mixes approved by the County.
BR-6	All construction materials and debris shall be removed from the Project area.
BR-7	To preclude avian electrocutions and minimize collision risk, Tri-State will incorporate Avian Protection Plan (APP) standards developed by the Avian Power Line Interaction Committee (APLIC 2006) and the APP guidelines (APLIC and USFWS 2005) to protect birds on power lines, and National Electrical Safety Code (NESC)-specified electric conductor clearances.

Topic No.	Project-Specific Environmental Protection Measures
<b>Cultural Resources</b>	
CR-1	Prior to construction, all supervisory construction personnel will be instructed on protection of cultural resources with reference to relevant laws and penalties, and the need to cease work in the location if cultural resource items are discovered.
CR-2	Should any previously unknown historic/prehistoric sites or artifacts be encountered during construction, all land-altering activities at that location will be immediately suspended and the discovery left intact until such time that MVEA or Tri-State is notified and appropriate measures taken to assure compliance the National Historic Preservation Act and enabling legislation.
<b>Fire Prevention/Control</b>	
FP-1	Construction vehicles shall be equipped with government-approved spark arresters.
FP-2	The contractor shall maintain in all construction vehicles a current list of local emergency response providers and methods of contact/communication.
<b>Hazardous Materials</b>	
HM-1	Tri-State and MVEA shall comply with all applicable federal laws and regulations existing or hereafter enacted or promulgated regarding toxic substances or hazardous materials. In any event, Tri-State shall comply with the Toxic Substances Control Act of 1976, as amended (15 U.S.C. 2601, et seq.) with regard to any toxic substances that are used, generated by, or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act of 1980, section 102b. A copy of any report required or requested by any federal agency or state government as a result of a reportable release or spill of any toxic substance shall be furnished to the authorized officer concurrent with the filing of the reports to the involved federal agency or state government.
HM-2	All fuel and fluid spills will be handled in accordance with appropriate state and federal spill reporting and response requirements. The contractor shall notify Tri-State and/or MVEA of any spills so appropriate notifications can be made to regulatory authorities.
HM-3	Any waste generated as a result of the proposed action will be properly disposed of in a permitted facility. Solid waste generated during construction and periodic maintenance periods will be minimal. All hazardous materials will be handled in accordance with applicable local, state, and federal hazardous material statues and regulations.
<b>Land Use</b>	
LU-1	All activities associated with the construction, operation, and maintenance of the transmission line will take place within the authorized limits of the transmission line right-of-way and access routes. Additional access routes or cross-country travel will not be allowed outside of the authorized routes prior to review and approval by MVEA and Tri-State.
LU-2	The contractor shall maintain all fences, brace panels, and gates during the construction period. Any fence, brace panel, or gate damaged during construction will be repaired immediately by the contractor to appropriate landowner or agency standards as determined by the authorized officer.

Topic No.	Project-Specific Environmental Protection Measures
LU-3	The contractor shall eliminate, at the earliest opportunity, all construction ruts that are detrimental to agricultural operations and/or hazardous to movement of vehicles and equipment. Such ruts shall be leveled, filled, and graded, or otherwise eliminated in an approved manner. Damage to ditches, tile drains, culverts, terraces, local roads, and other similar land use features shall be corrected as necessary by the contractor. The land and facilities shall be restored as nearly as practicable to their original condition.
LU-4	Structure foundation holes will not be left open overnight and will be covered. Covers will be secured in place and will be strong enough to prevent livestock, wildlife, or the public from falling.
<b>Noise</b>	
N-1	Construction vehicles and equipment shall be maintained in proper operating condition and shall be equipped with manufacturers' standard noise-control devices or better (e.g. mufflers, engine enclosures).
<b>Noxious Weeds</b>	
NW-1	To minimize introduction of noxious weed seed sources to the Project area, the following measures will be performed. All heavy equipment utilized during construction will be washed prior to departure from the equipment storage facility. Washing of equipment prior to transport from one work site to another is not recommended, as on-site washing of equipment increases the chance of weed seed dispersal by drainage of water off of the site, across an area greater than the size of the work site. Equipment will have accumulations of mud "knocked off" instead. This method promotes containment of weed seeds on the work site. All seed mixes and mulch used for reclamation activities will be certified weed-free.
<b>Soils and Geology</b>	
S-1	The contractor shall mitigate soils compacted by movement of construction vehicles and equipment by (1) loosened and leveled harrowing or disking to approximate pre-construction contours and (2) reseeding with certified weed-free grasses and mulched (except in cultivated fields). The specific seed mix(s) and rate(s) of application will be determined by MVEA and Tri-State.
S-2	Movement of construction vehicles and equipment shall be limited to the right-of-way and approved access routes.
S-3	Excavated material not used in the backfilling of poles shall be spread around each pole, evenly spread on the access routes in the immediate vicinity of the pole structure or transported off site to an approved disposal location. Disturbed areas shall then be regraded to approximate pre-construction contours and reseeded as specified in S-1.
S-4	Topsoil will be removed, stockpiled, and re-spread at temporarily disturbed areas not needed for maintenance access.
<b>Traffic</b>	
T-1	The contractor shall make all necessary provisions for conformance with federal, state, and local traffic safety standards and shall conduct construction operations so as to offer the least possible obstruction and inconvenience to public traffic.
<b>Water Quality and Erosion</b>	
WQ-1	Construction activities shall be performed by methods that prevent entrance or accidental spillage of solid matter, contaminants debris, and other objectionable pollutants and wastes into flowing streams or dry water courses, lakes, and underground water sources. Such pollutants and wastes include, but are not restricted

Topic No.	Project-Specific Environmental Protection Measures
	to, refuse, garbage, cement, concrete, sanitary waste, industrial waste, radioactive substances, oil and other petroleum products, aggregate processing tailings, mineral salts, and thermal pollution.
WQ-2	Dewatering work for structure foundations or earthwork operations adjacent to, or encroaching on, streams or water courses shall not be performed without prior approval by Tri-State and appropriate state agencies. Water and eroded materials will be prevented from entering the streams or watercourses by constructing intercepting ditches, bypass channels, barriers, settling ponds, or other approved methods.
WQ-3	Borrow pits shall be so excavated that water will not collect and stand therein. Before being abandoned, the sides of borrow pits shall be brought to stable slopes, with slope intersections shaped to carry the natural contour of adjacent, undisturbed terrain into the pit or borrow area, giving a natural appearance. Waste piles shall be shaped to provide a natural appearance.
WQ-4	Excavated material or other construction materials shall not be stockpiled or deposited near or on stream banks, lake shorelines, or other water course perimeters where they can be washed away by high water or storm runoff or can in any way encroach upon the water source itself.
WQ-5	Waste waters from construction operations shall not enter streams, water courses, or other surface waters without use of such turbidity control methods as settling ponds, gravel-filter entrapment dikes, approved flocculating processes that are not harmful to fish, recirculation systems for washing of aggregates, or other approved methods. Any such waste waters discharged into surface waters shall be essentially free of settleable material. Settleable material is defined as that material that will settle from the water by gravity during a 1-hour quiescent period.
WQ-6	A Stormwater Management Plan has been developed for the Project and is provided in Appendix I. The plan shall conform with all U.S. Environmental Protection Agency and Colorado Department of Public Health and Environment Best Management Practices requirements.

**2.303 (5)(h): Description to demands that this Project expects to meet and basis for projections of that demand.**

The Project is required so that MVEA can continue to provide reliable service while meeting the increasing demand for electricity in the area. The proposed substation will be located within the Sterling Ranch subdivision and will provide electrical service to an estimated addition of more than 7,400 residential lots, 50 acres of commercial space, 6 water wells, and 3 schools within the Sterling Ranch subdivision, The Ranch subdivision, and surrounding areas. Tri-State is the wholesale provider of electrical energy to MVEA, its Member System, which provides retail electrical service to their customers. MVEA received a formal request from the developers of the Sterling Ranch and The Ranch subdivisions to serve planned subdivisions in their service territory, which MVEA is obligated to provide.

In addition to alternatives discussed in section 2.303 (5)(d), MVEA preformed an initial feasibility analysis of serving proposed developments though distribution from existing transmission and substation facilities. It was quickly determined that the current distribution

system cannot support the projected load increase posed by Morley-Bentley's Sterling Ranch and Classic Homes' The Ranch developments. Under current conditions, MVEA could only support an additional of 250 homes, and 7,400 are projected

**2.303 (5)(i): List of adjacent property owners and their mailing addresses.**

A list of adjacent property owners and mailing address is provided in Appendix J.

**2.303 (6): Property Rights, Other Permits and Approvals**

**2.303 (6)(a): Description of property rights that are necessary or that will be affected by the Project, including easements and property rights proposed to be acquired through negotiation or condemnation.**

Rights to acquire transmission line and access easements for the Project have been acquired from all property owners. Additionally, MVEA has a signed contract for purchase of the 5-acre substation site and an easement for the access road from the west, contingent upon approval of permitting by El Paso County. Copies of the Project easements and entitlements are provided in Appendix K.

**2.303 (6)(b): A list of all other federal, state and local permits and approvals that will be required for the Project, together with any proposal for coordinating these approvals with the County permitting process. Copies of any permits or approvals related to the Project that have been granted.**

Based on early assistance meeting discussions with El Paso County, the following permits and approvals will be required:

**El Paso County:**

- El Paso County 1041 Permit Process
  - Application for a new substation would normally follow the Approval of Location process outlined in Section 5.3.3 of the El Paso County Land Development Code. However, due to the involvement of a new 115-kV transmission line, and in consultation with El Paso County Planning Staff, it was determined that both the transmission line and substation would follow 1041 requirements outlined in Sections 2.303, 2.304, and 5.201 of El Paso County Land Development Code for consistency and clarity.
- Site Development Plan
- Exemption from Subdivision
- ESCQUP Stormwater Permit
- PPRPB Building Permit
- Erosion Control Plan

**State:**

CPDHE Construction General Stormwater Permit

**Federal:**

Rural Utilities Service (RUS) Environmental Report and Finding of No Significant Impact (FONSI) for the Vollmer Substation. The RUS Environmental Report is provided in Appendix L.

**2.303 (6)(c): Copies of all official federal and state consultation correspondence prepared for the Project; a description of all mitigation required by federal, state and local authorities; and copies of any draft for final environmental assessments or impact statements required for the Project.**

Project official correspondence is provided in Appendix M. Consultation letters were sent to Colorado Parks and Wildlife (CPW), The U.S. Fish and Wildlife Service (USFWS), and the RUS. A *No Concerns* stamped response was received from the USFWS and a response letter was received from CPW.

A biological resources report was completed for the Project by HDR Engineering in 2018 (Appendix N). The report documents one red-tailed hawk nest in proximity to the Project as well as drainages in the Project area. A cultural resource survey and report was completed for the Project (Appendix O). No cultural sites were identified in the Project area. Lastly, an Environmental Report was prepared for the RUS (Appendix L).

A geotechnical investigation was completed by Terrecon in 2018. A copy of the report is provided in Appendix P. This report was prepared to gather soil and groundwater information necessary for foundation and grading, and drainage design.

Tri-State submitted structure information to the Federal Aviation Administration (FAA) for aeronautical study. In October 2019, the FAA issued a "Determination of No Hazard to Air Navigation" for all structures. Copies of the FAA determinations are provided in Appendix Q.

**2.303 (7): Land Use**

**2.333 (7)(a): Provide a map at a scale relevant to the Project and acceptable to the Department describing existing land uses and existing zoning of the proposed Project area and the Project service area, including peripheral lands which may be impacted. The land use map shall include but need not necessarily be limited to the following categories: residential, commercial, industrial, extractive, transportation, communication and utility, institutional, open space, outdoor recreation, agricultural, forest land and water bodies. Show all special districts (school, fire, water, sanitation, etc.) within the Project area.**

Maps detailing the existing zoning, land uses, and special districts in the Project area are provided in Appendix R. No change in zoning is being requested in support of the Project.

The existing zoning surrounding the Project area is RR-5 and RR-2.5. The Sterling Ranch and The Ranch proposed subdivisions are proposing a density ranging from 1 to 20 dwelling units per acre (DU/AC). The development surrounding the substation is proposed to be from 3 to 5 DU/AC. The transmission line easement is partially incorporated in The Ranch

development sketch plan as a buffer/electric easement. In addition, the transmission line crosses areas proposed as 3-5 DU/AC, OS/drainage.

**2.303 (7)(b) All immediately affected public land boundaries should be indicated on the map. Potential impacts of the proposed development upon public lands will be visually illustrated on the map as well as described in the text.**

No public lands are associated with the Project.

**2.303 (7)(c) Specify whether and how the proposed Project conforms to the El Paso County Master Plan.**

The proposed Project will provide a vital electric utility service to residents of the County. The Project does not conflict with nor negatively impact the goals and policies of the El Paso County Master Plan and Policy Plan which guides land use in El Paso County. This section addresses specific responses to applicable El Paso County Master Plan sections, goals, and policies as determined relevant to the proposed Project.

## **2.0—Natural Systems**

**Air Quality:** The Project will not result in permanent adverse impacts to air quality. Some particulate emissions from dust generation during construction activities will occur; however, these emissions will be temporary and limited to active areas of construction. Once constructed, the operation of the Project will not emit pollutants or impact air quality. EPM's outlined in Table 1 will be used to ensure minimization of dust during construction

**Noise Control:** The Project will not result in permanent adverse noise impacts. Please see the Analysis of Audible Noise and Magnetic Fields Report provided in Appendix S. As outlined in the report, noise resulting from the Project are well within allowable limits set by the Public Utilities Commission (PUC). During construction, vehicles and equipment shall be maintained in proper operating condition and shall be equipped with manufacturers' standard noise-control devices or better (e.g. mufflers, engine enclosures).

**Wildlife and Vegetation Impacts:** Impacts to wildlife and vegetation will be minimal and temporary if present. Impacts to wildlife may include temporary disturbances from construction activities that may cause temporary avoidance of the area by some species. No long-term impacts are expected. Undeveloped areas impacted by construction will be revegetated and restored with native seed mixes approved by the County. Please see section 2.303 (6)(c) for more information on environmental consultations completed for the Project.

**Noxious Weed Control and Revegetation:** Temporarily disturbed areas during construction will be revegetated as soon as practicable with a seed mix approved by the County and as per the Stormwater Management Plan. Noxious weeds identified will be treated around the substation and along the transmission line right-of-way.

**Wetlands:** There are no wetlands within the construction footprint of the Project and therefore wetland impacts are not anticipated.

**Hazardous Materials:** Construction, operation, and maintenance activities will comply with applicable local, state, and federal laws and regulations regarding the use of hazardous substances. All hazardous waste, including solid wastes, petroleum products, or other potentially hazardous materials will be disposed of at a licensed recycling or disposal facility authorized to accept such materials.

### **3.0—Water Resources**

The Project is not expected to impact water resources in the County. EPMs for minimizing impacts to surface and groundwater are provided in Table 1.

### **4.0—Historic Resources**

Historical and archaeological clearance surveys were completed for the Project and no resources were identified within the survey area. If any previously unknown historic/prehistoric sites or artifacts be encountered during construction, all land-altering activities at that location will be immediately suspended and the discovery left intact until such time that Tri-State is notified and appropriate measures taken to ensure compliance the National Historic Preservation Act and enabling legislation.

### **5.0—Economic Development**

The Project will result in increased tax revenue for the County. Further, the Project is necessary in order to provide electric service to planned housing developments with the Falcon/Peyton Small Area Master Plan . Short-term economic impacts associated with construction would be minor.

### **6.0—Growth and Land Use**

The Project is the result of residential development and growth within the County. It is essential to continue to develop electric utility infrastructure in order to provide safe and reliable electric service both now and in the future. Easement options have been acquired for the transmission line right-of-way and access road. MVEA has a signed contract for purchase of the 5-acre substation site and an easement for the access road from the west, contingent upon approval of permitting by El Paso County. An application for exemption from a subdivision is being submitted to the County for the 5-acre substation parcel. In general, a transmission line easement restricts a property owner from erecting structures, planting trees, or other activities that would impede access necessary for safely operating and maintaining the facilities. The right-of-way follows property boundaries almost entirely and overlaps with an existing sewer line utility easement. Growth within the area is the driver for this Project and implementation of the Project is critical to avoid negatively effecting or prohibiting growth.

### **7.0—Special and Unique Land Uses**

Goal 7.5 of this section is to “allow for those towers, transmission lines and related facilities which provide a benefit to County residents in a manner which balances considerations of economics, equity, and environmental sensitivity and provide for the equitable compensation to private land owners for impacts caused by these facilities.” Tri-State and MVEA have worked with developers to select an alternative that provided the need benefit to the County, which doing so in economics, equity, and environmental sensitivity in mind.

Policy 7.5.1 states: “Encourage the multiple use of utility sites and corridors where feasible and appropriate.” The projected transmission line easement overlaps a sewer line easement and will also be used for trail/recreation purposes. By combining multiple utility uses in the corridor, the Project achieves this policy goal.

### **8.0—Parks, Trails, and Open Space**

The Project will promote the existence of a planned trail system and open space along the transmission line easement. The Project does not cross nor is it expected to impact existing open space, parks, or trails.

### **9.0—Transportation**

Impacts to the public and traffic on county roads from construction vehicles and equipment will be temporary and are not expected to negatively impact traffic patterns in the County. A completed traffic analysis and haul route map are provided in Appendix B. Existing El Paso County roads will provide access for parts of the construction process. A new temporary access road will be constructed from the northern terminus of Mohawk Road to the Vollmer Substation Property as outlined on the Site Plan in Appendix G. This access road will be used to access the substation until such time that newly developed roads within the Sterling Ranch subdivision provide more immediate access to the facility. Access for the transmission line will occur overland along the easement corridor from the substation and from the northern terminus of Falcon Meadows Boulevard.

The substation is located adjacent to the planned extension of Banning Lewis Parkway. The substation and transmission line are designed so that no fences and/or structures will be erected within 105 feet of the future road centerline.

### **10.0—Water and Wastewater Facilities and Services**

The Project will not have a direct impact to water or sewer demands and will not require additional water or wastewater facilities. Construction personnel will use portable sanitary units while construction is in process and they will supply their own drinking water. Water will be used for dust suppression, soil compaction, and revegetation of areas disturbed during construction. This water will be purchased from a local utility provider.

### **11.0—Drainage and Flood Protection**

Existing surface water drainage patterns will be preserved. Project EPMs provided in Table 1 will reduce or eliminate potential impacts to existing drainage. The Stormwater Management Plan and Erosion and Stormwater Quality Control Permit will be developed and submitted to the County in conjunction with the Site Development Plan required for the Project. Please see section 2.303 (8) for more information on drainage.

### **12.0—Other Services and Utilities**

The Project will not increase the burden on existing nor create the need for additional fire protection services, medical services, schools, public facilities services, or utilities. Specific goals and policies outlined in this section for energy are addressed below.

#### **Goal 12.4**

***Reduce the adverse impacts and maximize the efficiency of energy generation, transmission, and distribution systems.***

Impacts associated with the Project have been reduced to the greatest extent feasible though alternatives analysis provided in section 2.303 (5)(d) of this application and by incorporating Project-specific EPMs provided in Table 1. The Project utilizes the most direct and efficient transmission route required to meet the purpose and need for the facilities.

#### **Policy 12.4.1**

***Ensure that electric, natural gas, petroleum and other facilities (generation, distribution, pipelines and storage) are located in a manner which is safe, environmentally sensitive and which does not unreasonably burden particular property owners with adverse impacts.***

See response to Goal 12.4 above.

#### **Policy 12.4.2**

***Encourage burial of electric transmission and distribution lines where the cost of this activity will provide the maximum visual benefit to the most people.***

All distribution lines leaving the Vollmer substation will be buried. Burial of electric transmission lines is not cost-effective and would not provide the maximum visual benefit for the most people.

#### **Policy 12.4.3**

***Promote energy efficiency through careful siting, design and landscaping, especially the use of passive solar.***

Not applicable.

#### **Policy 12.4.4**

***Coordinate the location of gas and electric lines with El Paso County and State Departments of Transportation to ensure their proper location with respect to existing and future rights-of-way.***

Feedback to this application will meet the needs of this section. The proposed Banning Lewis Parkway Expansion has already been taken into account.

**Policy 12.4.5**

**Encourage the use of existing easements for utility installation in order to reduce negative impacts in other areas.**

The transmission line easement will overlap an existing 30-foot sewer line easement and follows property lines to the great extent possible. Future MVEA distribution feeder lines will be installed within the transmission line easement to maximize utility usage of the proposed utility corridor.

**Policy 12.4.6**

**Support the reasonable expansion of natural gas service areas to accommodate developing rural residential areas.**

Not applicable.

**Policy 12.4.7**

**Allow for the effective use of renewable energy resources especially where it minimizes the local impacts on neighboring properties and non-renewable energy use.**

Generation resources are not part of the Project, but in general, collective improvements to the transmission and distribution system in the County are vital in supporting the use of existing and future renewable energy.

**Policy 12.4.8**

**Encourage fair and legal compensation to private property owners when there is conclusive proof that a taking has occurred or that their property is devalued due to locations of facilities and services.**

Compensation agreements for fee property and easements for the Project have been reached with all landowners.

**13.0—Housing**

The Project will enable MVEA to provide the required electric service for proposed housing and development in the area. The Project is not expected to negatively impact housing as outlined in this section. A community meeting with neighboring residence will be held prior to holding public hearings on this application.

**Small Area Plans:**

The Project is needed in order to provide electric service to developments approved and/or under review by El Paso County within the Falcon/Peyton Small Area Master Plan and within the Black Forest Cooperative Planning Area. The proposed Project conforms to goals and policies of both local area plans.

Goal 3.4.1 (Facility and Service Concurrency) in the Falcon/Peyton Small Area Master Plan encourages “development in urban areas where adequate public facilities or services exist or can be provided in an efficient manner.” The proposed Project will achieve this goal by providing an essential public service with the most efficient transmission alternative possible.

Further, General Policy 4.5.4.1 is to “Assure that adequate facilities and services including but not limited to schools, fire protection infrastructure, parks, roads, trails, water and sewer service and utilities are available to serve planned development when these facilities and services are needed.”

The Project will achieve this Facility and Service Concurrency Policy by providing adequate utility service to planned developments in the local planning area.

The Black Forest Policy Plan echoes the values of the Falcon/Peyton Small Area Master Plan. Both plans have the goal of preserving visual and historical resources. In Goal 10.2 of the Black Forest Policy Plan, screening is recommended to reduce visual resource impacts from utility projects. A landscaping plan has been developed to aid in screening of the substation for the Project and is provided in Appendix H.

***2.303 (7)(d) Specify whether and how the proposed Project conforms to applicable regional and state planning policies.***

With respect to energy generation development, no new electric generation is planned for the Project site. The electricity serving this Project will be generated by Tri-State as part of its system-wide electric generation resources. Tri-State is in compliance with all Colorado laws and regulations pertaining to pollution controls and renewable energy standards. Attached as Appendix T is a copy of Tri-State’s most recent filing with the Colorado PUC. The filing confirms Tri-State’s compliance with Colorado Renewable Energy standards and summarizes its plans for complying with increased renewable energy standards in the future. Tri-State is also making plans to comply with the newly enacted Colorado House Bill 19-1261, which sets statewide goals to reduce greenhouse gas emissions at least 26% by 2025, 50% by 2030, and 90% by 2050 over levels that existed in 2005.

Tri-State does not currently have any electric generation facilities within the Pikes Peak Area Council of Governments (PPACG) region. Tri-State’s continuing efforts to reduce fossil fuel generation and increase renewable generation in accordance with state laws, however, are generally consistent with the PPACG’s long-term goal of working towards sustainable energy usage.

***2.303 (7)(e) Specify whether and how the proposed Project conforms to applicable federal land management policies.***

The Project is located entirely within private lands. Federal land management policies do not apply. No public roads would be crossed by the Project currently, but the County’s planned extension of Banning Lewis Parkway would be crossed by the transmission line right-of-way. The substation and transmission line are designed so that no fences and/or structures will be erected within 105 feet of the future road centerline.

**2.303 (7)(f) If relevant to the Project design, describe the agricultural productivity capability of the land in the Project area, using Soils Conservation Service soils classification data.**

Not applicable.

**2.303 (7)(g) Describe the probability that the Project may be significantly affected by earthquakes, floods, fires, snow, slides, avalanches, rockslides or landslides and any measures that will be taken to reduce the impact of such events upon the Project.**

The Project facilities may be susceptible to natural disasters occurring in El Paso County, however, the potential risk for damages is low. The substation and transmission line should be reasonably protected from fires. There are no faults with known seismic potential within the Project vicinity. Potential for avalanches and land and rock slides are low in the vicinity. MVEA and Tri-State implement a number of industry design standards to reduce the risk of natural disaster or weather events from affecting its facilities.

**2.303 (7)(h) Specify if excess service capabilities created by the proposed Project will prove likely to generate sprawl or strip development.**

The Project will parallel property lines and follow an existing sewer line/utility easement corridor as much as possible. The Project is not expected to contribute to sprawl or strip development in the County. As a public utility, MVEA has a legal obligation to respond to growth and provide service within its certificated territory whenever it is requested, so the substation does not contribute to development of surrounding areas. If the substation is not constructed, development of surrounding areas would not be limited, and MVEA could be held in violation of its obligation

**2.303 (7)(i) Specify whether the demand for the Project is associated with development within or contiguous to existing service areas.**

The Project will provide service to proposed residential developments in the area as well as enhance service to existing customers in the County. As a public utility, MVEA has a legal obligation to respond to growth and provide service within its certificated territory whenever it is requested, so the substation does not contribute to development of surrounding areas. If the substation is not constructed, development of surrounding areas would not be limited, and MVEA could be held in violation of its obligation.

**2.303 (8): The applicant shall supply a surface and subsurface drainage analysis.**

Please see the Project Final Drainage Report completed by Terra Nova Engineering in Appendix U. The purpose of the Final Drainage Report is to identify and analyze the proposed drainage patterns, determine proposed runoff quantities, size drainage structures for conveyance of developed runoff, and present solutions to drainage impacts on site and off site resulting from this development. In an effort to protect receiving water and as part of the “four step process to minimize adverse impacts of urbanization” this site was analyzed in the following manner:

1. Reduce Runoff—The new improvements to the site, which consist of adding a gravel yard and access road will be routed to a proposed private sand filter. By capturing these flows in the sand filter the developed runoff will be detained and reduce the quantity of downstream runoff. Additionally, existing native grass areas are being retained that will act as natural grass buffers.
2. Treat Slowly Release Water Quality Capture Volume—The sand filter will detain the developed flows, allow a portion to infiltrate, and slowly release the remaining volume, thereby allowing solids and contaminants to settle out and stopping downstream transport.
3. Stabilize Stream Channel—By reducing the rate of runoff the site is helping to stabilize the downstream waterways.
4. Source Controls—As the Project will not include outdoor storage or the potential for the introduction of contaminants to the County's MS4, since it is not an industrial or commercial site, no source controls are proposed or necessary.

**2.303 (9): Technical, managerial and financial feasibility of the Project.**

**2.303 (9)(a) Relevant bond issue, loan and other financing approvals or certifications (ex: approved bond issues; bond counsel opinion).**

Because of MVEA's utility obligation, the financial feasibility of the Project is not an issue. Any other alternative financial sources would present engineering constraints and higher costs, ultimately resulting in higher costs to MVEA's member-consumers.

**2.303 (9)(b) Business plan that generally describes the financial feasibility of the Project.**

The Project budget has been evaluated and approved by the Boards of both MVEA and Tri-State and the funds are available for expenditure.

Tri-State and MVEA's annual financial reports are provided in Appendix F.

Tri-State is a wholesale electric power supplier owned by the 43 electric cooperatives that it serves. Tri-State generates and transmits electricity to its member systems throughout a 200,000-square-mile service territory across Colorado, Nebraska, New Mexico, and Wyoming. Serving approximately 1.5 million customers and founded in 1952 by its member systems headquartered in Westminster, Colorado, Tri-State employs nearly 1,500 people in its four-state service area. Tri-State owns (wholly or jointly) or has maintenance responsibilities for more than 5,665 miles of transmission line across Colorado, Nebraska, New Mexico, and Wyoming. In 2018, Tri-State's operating revenue was \$1.3 billion with assets totaling \$5 billion.

MVEA, incorporated in 1941, is an electric cooperative owned and run by the members it serves. MVEA provides power to over 56,000 meters across a 5,000-square-mile territory. In 2018, MVEA's operating revenue was over \$115 million, and its assets total \$323 million. MVEA has permitted and constructed and is operating numerous electric substations in El Paso County.

**2.303 (10): Local infrastructure and services impacts. An impact analysis that addresses the manner in which the applicant will comply with the relevant Permit Application Review Criteria. The impact analysis shall include the following information: description of existing capacity of and demand for local government services including but not limited to roads, schools, water and wastewater treatment, water supply, emergency services, transportation, infrastructure, and other services necessary to accommodate the Project within El Paso County.**

Impacts to local infrastructure and services are not anticipated to occur as a result of the Project. The Project itself will supply the local utility infrastructure needed to provide electric service to developments within the County. Impacts to the public and traffic on county roads from construction vehicles and equipment will be temporary and are not expected to negatively impact traffic patterns in the County. A haul route map, Traffic Impact Memorandum, and pavement assessment are provided in Appendix B. Existing El Paso County roads will provide access for parts of the construction phase. A new access road will be constructed from the northern terminus of Mohawk Road to the Vollmer Substation Property as outlined on the Site Plan in Appendix G. This access road will be used to access the substation until such time that newly developed roads within the Sterling Ranch subdivision provide more immediate access to the facility. Access for the transmission line will occur overland and along the easement corridor.

Impacts to schools, water, emergency services, or other services are not anticipated.

**2.303 (11): Recreational Opportunities. Description of the impacts and net effect of the Project on present and potential recreational opportunities.**

Through communications with developers in the area, Tri-State and MVEA understand that the utility easement corridor will be designated as a trail/open space corridor. Tri-State and MVEA support the use of the right-of-way as a trail/open space corridor as long as trail features do not impede access as needed to the transmission line for maintenance activities. Impacts to existing recreational activities are not anticipated. The Ranch Sketch Plan contains a proposed trail and is depicted in the land use maps (Appendix R). Based on the Sketch Plan, the trail would extend from the tap structure on the eastern end of the transmission line west before turning north between transmission structures 7 and 8.

**2.303 (12): Areas of Paleontological, Historic or Archaeological Importance.**

HDR Engineering was retained to perform a Class III cultural resource survey of the Project area. A copy of the survey report is provided in Appendix O. After conducting the background records research and survey fieldwork for the transmission line, substation, and access road, there are no archeological/cultural resources or National Register of Historic Places-eligible properties within the area of potential effect. Accordingly, HDR recommends that both projects would have no effect on cultural resources.

**2.303 (13): Nuisance. Descriptions of noise, glare, dust, fumes, vibration, and odor levels anticipated to be caused by the Project.**

Odors from the proposed Project will be limited to exhaust from construction vehicles that will dissipate quickly. These odors will occur only during the construction period in the immediate vicinity of active construction. The proposed Project will not produce odor during the operation phase.

Glare from construction or maintenance vehicles may be visible from nearby roads, but the operation of these vehicles will be limited to the construction period and occasional inspections and maintenance work. The substation will normally not be lighted. Outdoor lights will only be used as necessary for emergency and routine maintenance critical for worker safety. All lights will be face downward towards the interior of the substation yard. The location of these lights is depicted on the Site Plan in Appendix G.

The Project is not expected to result in permanent adverse noise impacts. The results of the Analysis of Audible Noise and Magnetic Fields Report provided in Appendix S demonstrate that the noise levels resulting from the Project are within allowable residential limits set by the Colorado PUC. During construction, vehicles and equipment shall be maintained in proper operating condition and shall be equipped with manufacturers' standard noise-control devices or better (e.g., mufflers, engine enclosures).

Additional information on noise, dust, etc. is provided in Table 1 and in section 2.303 (7)(c).

**2.303 (14): Air Quality.**

Construction activities associated with the Project would generate less than significant amounts of particulate matter from soil disturbances and diesel-powered equipment, and less than significant amounts of carbon monoxide and the precursor pollutants to ozone formation from tailpipe emissions. Any air pollutants generated would be widely dispersed across the Project area, short term in duration, and minimized by the small scale of construction operations for the substation. Air pollutants also would be minimized through implementation of dust suppression and proper vehicle maintenance. Upon completion of earth-disturbing activities, all disturbed areas will be revegetated or otherwise stabilized. Therefore, Project construction is not expected to contribute negatively to the air quality status in the area. There would be no long-term air quality effects associated with routine operation and maintenance of the substation.

**2.303 (15): Visual Quality.**

Tri-Sate and MVEA are committed to implementing EPMS, design features, and operational and maintenance procedures to reduce visual impacts of the Project. Visual-specific EPMS are included in Table 1 of this application.

Three transmission lines currently run north and south within the viewshed of the Project. The proposed transmission will not significantly alter the character or viewshed of the region. A detailed landscaping plan with simulation images has been prepared for the

substation and is attached as Appendix H. A visual simulation analysis from a number of directions and adjacent residential areas looking towards the transmission line and substation is provided in Appendix V.

Elevation drawings for the substation and transmission line structures are provided in Appendix W.

**2.303 (16): Surface Water Quality.**

There would be no significant impacts to water quality associated with regular operation or maintenance of the substation and transmission line. The Project would not create runoff in excess of historic levels and would not adversely affect drainage. The Vollmer Substation grading and drainage design (Appendix X) incorporates the use of a stormwater detention pond to trap sediment on site before discharging stormwater from the property at its historical rate.

**2.303 (17): Groundwater Quality.**

No direct impacts to groundwater quality are expected to result from the Project. There are three (3) pieces of oil filled equipment at the proposed Vollmer substation, two (2) large power transformers, and a small Power Potential Transformer (Power PT). The large power transformers will be constructed with secondary oil containment. This secondary containment will consist of a reinforced concrete slab with reinforced concrete walls. The containment is designed to contain both all the oil in the transformers in the event of a transformer leak or failure as well as all the water that would be present from a 25-year precipitation event . There would be no impacts should the transformer oil be spilled as it would all be contained until Tri-State could perform the necessary cleanup.

The Power PT contains 80 gallons of oil. This quantity of oil is small enough that should all the oil leak out, it would remain contained within the substation area by the gravel surface. This small quantity of oil would be trapped by the first few feet of soil below the gravel and would never reach groundwater. In the event of a Power PT failure or leak, Tri-State would remove the oil saturated gravel and underlying soil, dispose of it in an approved disposal facility, and replace the missing material with clean gravel and fill to restore grade.

There are no other chemicals of significant quantity in the substation or along the transmission line.

**2.303 (18): Water Quantity.**

There would be no direct impacts to water quality associated with regular operation or maintenance of the substation. The Project would not create runoff in excess of historic levels and would not adversely affect drainage.

**2.303 (19): Floodplains, Wetlands and Riparian Areas; Terrestrial and Aquatic Animals and Habitat.**

No direct impacts to floodplains, wetlands, riparian areas, terrestrial and aquatic animals and habitat are expected to result from the Project. As outlined in the biological resources report in Appendix N, the only drainage or aquatic feature in the Project area. No grading or surface impacts to the drainage feature are proposed and therefore no impacts are expected to result from the Project. All impacts possible from the Project are covered by Nationwide Permit 12 of Section 404 of the Clean Water Act.

**2.303 (20): Soils, Geologic Conditions and Natural Hazards.**

As outlined the Geotechnical Engineering Report in Appendix P, surficial geologic conditions at the site, as mapped by the U.S. Geological Survey (Moore, 2002), consist of alluvial sand, silt, clay, and gravel of the post-Piney Creek, Piney Creek, pre-Piney Creek, and Broadway Alluvium. Bedrock mapped in the site vicinity includes the upper part of the Dawson Formation and consists of arkosic sandstone, conglomerate, and shale.

From borings, sandy soils were detected from the surface through 21 feet in depth. Beginning at 22 feet below ground claystone was detected. At 29.5 feet below ground, clayey sandstone was detected. No groundwater was detected in soil borings 30 feet deep. On-site sand soils are suitable for re-use as structural fill, and as general fill outside of structural areas.

Geotechnical and geologic considerations such as avalanches, landslides, rock falls, mudflows, unstable or potentially unstable slopes, seismic effects, ground subsidence, sinkholes, faults, accelerated erosion areas, and shallow groundwater can be of major concern when evaluating a site. Based on review of geologic and topographic maps, a site visit, and the geographical location of the site, Terrecon notes in their report that it is their opinion that the previously listed geologic hazards are not of concern at this site.

**2.303 (21): Hazardous Materials.**

There no direct impacts to groundwater quality are expected to result from the Project. There are three (3) pieces of oil filled equipment at the proposed Vollmer substation, two (2) large power transformers, and a Power PT. The large power transformers will be constructed with secondary oil containment. This secondary containment will consist of a reinforced concrete slab with reinforced concrete walls. The containment is designed to contain both all the oil in the transformers in the event of a transformer leak or failure as well as all the water that would be present from a 25-year precipitation event . There would be no impacts should the transformer oil be spilled as it would all be contained until Tri-State could perform the necessary cleanup.

The Power PT contains 80 gallons of oil. This quantity of oil is small enough that should it all leak out, it would remain contained within the substation area by the gravel surface. This small quantity of oil would be trapped by the first few feet of soil below the gravel and would never reach groundwater. In the event of a Power PT failure or leak, Tri-State would remove

the oil-saturated gravel and underlying soil, dispose of it in an approved disposal facility, and replace the missing material with clean gravel and fill to restore grade.

There are no other chemicals of significant quantity in the substation or along the transmission line.

**2.303 (22): Monitoring and Mitigation Plan.**

Project-specific EPMs provided in Table 1 will be implemented to reduce impacts associated with the Project. Applicable EPMs include A-5, AQ-4, and N-1 below:

A-5	A landscaping plan for the Vollmer Substation is provided as Appendix H to this application. The landscaping plan is intended to aid in screening the site from surrounding areas.
AQ-4	Post seeding mulch will be utilized during reclamation activities to help reduce wind erosion and blowing dust. The mulch/stabilization will be performed as soon as possible after completion of Project activities to minimize potential fugitive dust generation as revegetation occurs.
N-1	Construction vehicles and equipment shall be maintained in proper operating condition and shall be equipped with manufacturers' standard noise-control devices or better (e.g., mufflers, engine enclosures).

As shown on the landscape plan(Appendix H), MVEA proposed to install a 6-foot-tall opaque wall/fence around the substation. In addition, 96 evergreen trees (Ponderosa Pine and Colorado Blue Spruce) will be planted around the perimeter of the 5-acre property to screen the substation. Native seed revegetation will occur on disturbed areas that are not graveled or otherwise stabilized.

As outlined in the Analysis of Audible Noise and Magnetic Fields Report provided in Appendix S, noise generated by the Project will be minimal and fall within PUC allowable residential area limits. As such, design mitigation for noise is not warranted; however, as part of the landscaping plan, a 6-foot-high wall/fence will be installed around the site. This will aid in further reducing the already limited noise emitted from the Project. Construction noise will be mitigated by ensuring equipment is in proper condition.

**2.303 (23): Additional Information.**

Not applicable.

**2.304—SIMULTANEOUS PROCESSING OF OTHER COUNTY PERMITS**

The following are also submitted for processing:

1. 1041 Permit
2. Site Development Plan

3. Exemption from Subdivision
4. County Air Permit
5. County ESCQUP Stormwater Permit
6. Building Permit
7. Erosion Control Plan

## **CHAPTER 5, ARTICLE 2—PERMIT APPLICATION AND PROCEDURE**

### **5.201—APPLICATION SUBMISSION REQUIREMENTS**

***5.201 (1) Vicinity map showing the proposed site and the surrounding area. The Project area to be shown shall be defined as follows:***

Please see Figure 3.

***5.201 (1)(a) If a power plant is proposed, the area within fifty (50) miles radius from the site.***

Not applicable.

***5.201 (1)(b) If new transmission lines or pipelines are proposed, provide a map showing all existing transmission lines and pipelines for a distance of two (2) miles radius beyond any reasonable alternative studied.***

Figure 3 depicts the electric transmission lines that exist within 2 miles of the Project area.

***5.201 (1)(c) For upgrades of existing transmission lines or gas pipelines, a map showing all existing transmission lines and pipelines within one (1) mile on either side of the proposed alignment.***

Not applicable.

***5.201 (1)(d) For all other major facilities of a public utility, the area within ten (10) miles radius of the site if another major facility is proposed.***

Not applicable.

***5.201 (2) Type of facility - specify where applicable:***

***5.201 (2)(a) The voltages and lengths of transmission lines.***

The proposed Vollmer-Vollmer Tap Transmission Line is 115-kV and 1.35 miles in length.

***5.201 (2)(b) Type of poles used, with graphic depictions.***

The Vollmer-Vollmer Tap Transmission Line will consist of 1 three-way switch steel structure, 1 steel single pole structure, 1 wood single pole structure, 2 steel H-frame configuration structures, and 8 wood H-frame structures. Structure exhibits depicting the structures and average dimensions are provided in Appendix Y.

***5.201 (2)(c) Power source and generating capacity.***

No new or additional generation sources are associated with the Project.