POD Appendices:

Tri-State Montrose-Nucla-Cahone Transmission Line Improvement Project

Plan of Development

Montrose, Ouray, San Miguel, and Dolores Counties, Colorado

Appendix A

Access Road Siting and Management Plan

Appendix A

Access Road Siting and Management Plan

The objective of this Access Road Siting and Management Plan is to detail practices designed to address potential impacts from construction of the Tri-State Montrose-Nucla-Cahone Transmission Improvement Project (Project). Tri-State Generation and Transmission Association (Tri-State) has developed this plan as part of the Plan of Development (POD) that accompanies their application to the Bureau of Land Management (BLM) for a Right of Way (ROW) grant. If the ROW grant is approved, the final POD and all appendices will be attached to the Decision Record.

This plan provides guidance to construction and field personnel on measures identified by Tri-State, BLM and US Forest Service (USFS) to minimize effects during construction activities associated with the Project. It will be the responsibility of Tri-State and its project contractors, working with designated environmental inspectors, to comply with measures identified in this plan.

The ROW grant will include legal descriptions (Appendix V) for all roads depicted in the map atlas (Appendix W) including both administrative roads and public roads. Public roads would be maintained commensurate with use.

Roads approved for administrative use will be improved and maintained as needed for safe construction, operation and maintenance of the transmission line. Tri-State's goal is to maintain access roads at a Level I condition as defined below. Tri-State will review roads in 2015-2018 to identify improvement levels needed for construction. As requested by the BLM UFO office, Level III improvements will be identified in GIS data files and provided in detailed maps. Road data requests, specific to each agency will be provided 45 days before the Notice to Proceed is issued. Road work is scheduled to be completed first for the Montrose to Nucla (Maverick Substation) segment and then the Maverick to Cahone segment in 2017.

The timetable for finalizing the Access Road Siting and Management Plan is as follows:

Table A-1.Timetable for Final Access Road Siting and Management Plan

Timetable	Deliverable/Task
By Preliminary Final EA (internal review step) (complete)	Existing and new road segments on 1:24,000 scale maps (Appendix W) and legal descriptions for roads and ROW (Appendix V)
By Fall 2016	Field review with agency road specialists for new roads and Level III improvements
45 Days Prior to Notice to Proceed	Final maps with improvement levels for construction, GIS shapefiles and table of Level III designations (if requested by agency field offices), detailed design for FS Road Permit if required.

*Access roads will be maintained throughout the life of the ROW Grant and Special Use Permit at a Level I.

Road Siting Plan

Tri-State engineers and road staff began reviewing structure locations and required improvement on the existing road system (authorized in the existing ROW Grant-COC-66840) and additions of new access

roads in 2015, and review continues in 2016. The total number of structures on the project will be reduced because of the greater span lengths of the new 230-kV line. Tri-State will use the existing 115-kV road system for construction of the new 230-kV line to the greatest extent possible, however some new roads are needed as shown in the POD atlas, and some of the existing roads can be decommissioned after the 115-kv line is wrecked out. The proposed and existing road system is shown in *Appendix W Map Atlas*. Final detail on road improvement levels will be provided prior to the Notice to Procced for lands administered by the BLM. Access improvement review is completed for the Uncompahgre National Forest and will be scheduled with the San Juan National Forest to be completed in the fall of 2016, or as agreed up by agency staff. Upcoming site reviews are being scheduled with the BLM district road engineer and UFO construction compliance specialist and will be completed in the fall of 2016 pending agency staff availability. Table A-2 provides an outline of what this information will include for the BLM UFO and Tres Rios Field Offices if requested after agency access reviews are complete. Table A-3 lists Environmental Protection Measures (EPMs) that apply to road siting and construction.

Road Improvement Levels

Tri-State utilizes the following classifications for identifying road improvements. Tri-State will incorporate and match their road design categories with those used on BLM and FS administered lands as part of the final POD atlas.

Existing Roads*:* The existing road category includes public and private paved, gravel-surfaced, well-defined two-track, or natural surface access roads that require no improvement (grading, widening, fill, drainage etc.) to facilitate construction of a transmission line and/or substation facilities. Post-construction, the only reclamation required is expected to be fixing any damage that might have occurred during construction.

Improvement Level I (Overland Access): Roads in this improvement category are overland access only or roads that require minor removal of tall woody vegetation. No soil disturbance or grading is permitted in this category. Vegetation must be removed by hand and cut at the ground level. Post construction or future maintenance activity, reclamation may require re-seeding and restoration of the access road right-of-way to natural pre-construction conditions. Re-vegetation will require the planting of low-growing plant species that would continue to facilitate vehicle access in the future.

Improvement Level II (Minor Grading): Level II includes new or existing access roads that require minor grading (one foot or less) and removal of tall woody vegetation with the use of hand tools and/or mechanical equipment. Post construction, reclamation will depend on whether the road will be a permanent or temporary access road. Re-vegetation will require the planting of low-growing plant species that would continue to facilitate vehicle access in the future.

Improvement Level III (Moderate to Heavy Grading): Improvement Level III includes new or existing access roads that require more than one foot of cut and fill. For existing roads, a Level III improvement may be required in order to improve and address drainage and erosion issues, install water bars, and/or to restore existing access roads for construction or maintenance activities. The Level III improvement level also applies to new road construction where grading above one foot is required to facilitate safe construction or maintenance access. For construction contracting purposes this category has been broken into two sub-categories. Post construction, reclamation specifications will depend on whether the road will be a permanent or temporary access road.

For construction contracting purposes this category has been broken into two sub-categories. Post construction, reclamation will depend on whether the road will be a permanent or temporary access road.

Level III (A): Existing or new access roads requiring 1-3 feet of grading

Level III (B): Existing or new access roads requiring greater than 3 feet of grading.

Tri-State would comply with all seasonal restrictions and environmental protection measures for threatened, endangered, special status species or wildlife described in permit conditions pertaining to routine construction and maintenance activities on the new 230-kV (See Chapter 5, Environmental Protection Measures and related *Appendices* to this POD).

Stream crossings*:* Within access roads, there could be a surface water crossing such as ephemeral, intermittent, or perennial drainage, arroyos, and wetlands. Those areas requiring improvement to facilitate construction such as a culvert, armored rock crossing, or pulled back banks would fall under this category and would be identified as such on the associated construction drawings.

Stream crossings requiring any fill, culverts or other alteration would be subject to Section 404 permits under the Clean Water Act. Permits are administered by the USACE lines have a special nationwide permit (NWP), NWP 12 and NWP 3 (access roads), which outlines conditions and criteria regarding what is allowable for activity in Waters of the United States. An individual permit may be required if impacts exceed the 0.5 acre threshold. Tri-State will begin identifying stream crossings and any improvements in 2015 and 2016 and work with the USACE on any permits *(see Appendix U, Permits and Authorizations).*

Tri-State's permit requirements for water crossings are detailed in *Appendix F, Water Resources Protection Plan.*

Table A-2: Road Location and Construction Improvement Levels on BLM Land

ID	Agency	Office	T-line Segment	Maintained by:	Category (public or admini use)	Road Name	In ROW?	Archaeo-logical Survey	Feet	Miles	Shape Length	Construction Only Improvement Comments

Table A-3: Road Siting Environmental Protection Measures

Topic - No.	Applicant Committed EPMs And Design Features For Construction (C), Operation, And Maintenance (O&M)	Applicable to C and/or O&M*
AR-1	No construction or heavy maintenance 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 to 6 inches deep for a distance of 10 feet on native surface roads, the soil will be deemed too wet to adequately support construction equipment. If equipment or vehicles create ruts in excess of 2 inches deep on graveled roads, the roads will be deemed too wet to support construction equipment.	C and O&M
AR-2	Only the minimum amount of soils and vegetation necessary for the construction and maintenance of the access routes and the safe and reliable operation of transmission line will be disturbed. If excavation is necessary, topsoil (if present) 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.	C and O&M
AR-3	Tri-State's construction contractor and maintenance crews will be required to remain within authorized access ROWs. Access outside of permitted access ROWs will need to be approved by the affected land management agency/owner prior to use. Future maintenance work will also occur entirely within the transmission and access ROWs unless otherwise authorized by the affected agency/landowner.	C and O&M
AR-4	Tri-State and its contractor(s) will work with the BLM and USFS regarding travel restrictions as well as the need, location and type of closure devices that will be utilized and installed to protect key areas along access roads and to clarify which roads are being used for administrative purposes only. Tri-State will provide funding for closure devices and informational signage. All rights-of-way will be maintained to allow BLM and USFS personnel access at any time, especially in the event of emergencies (e.g. fires).	C and O&M
AR-5	Tri-State will design, construct and maintain access roads to BLM/USFS road standards through coordination with the authorized agencies road engineer and obtain design approval from the relevant agency road engineer prior to construction. In areas where more than 3 feet of grading is required (Tri-State improvement Level 3b), Tri-State will coordinate with the BLM and USFS engineers prior to the initial work on the ground to strategize on how the work can be accomplished with the minimum amount of surface disturbance. Tri-State will use the USFS/USID's (United States Agency for International Development) Low-Volume Road Engineering: Best Management Practices Field Guide and the BLM Gold Book to minimize soil losses, erosion and unstable slope conditions. These measures include: maintenance of soil erosion features such as dips and cross drains, repair of ditches, clearing of culverts and avoiding maintenance during wet periods.	C and O&M
AR-6	Tri-State will work with the USFS to maintain locked gates to restrict access south of the Big Water Springs Road and on both sides of Forest Road 509 in the San Juan National Forest (east of Dolores Canyon).	C and O&M

Topic - No.	Applicant Committed EPMs And Design Features For Construction (C), Operation, And Maintenance (O&M)	Applicable to C and/or O&M*
AR-7	*Emergency Maintenance Access:* Emergency access will be allowed during any time of the year. In the event of an emergency, Tri-State and its contractor(s) will notify the BLM and/or USFS/landowner as soon as possible. Tri-State will meet with BLM and/or USFS/landowner onsite after an emergency to determine the required rehabilitation work and to establish a rehabilitation schedule. If emergency access to the transmission line is required during wet weather, or if other maintenance activities result in the removal of vegetation, or substantial vehicle impacts to existing native vegetation, revegetation of disturbed areas will be completed as directed by the BLM/USFS or affected landowner. Reclamation and revegetation will be implemented, as required, as soon as practical after any emergency road access or maintenance work needed to repair the transmission line. If emergency line maintenance is required during the winter or spring months, care will be taken to minimize erosion and sedimentation to the extent practicable and effects will be mitigated after the emergency has been resolved in coordination with the affect land management agency or landowner.	O&M

References

Keller, G., & Sherar, J. (2003). *Low-Volume Roads Engineering, Best Management Practices Field Guide.* USDA, Forest Service; U.S. Agency for International Development (USAID).

Tri-State Montrose-Nucla-Cahone Transmission Line Improvement Project

Plan of Development

Montrose, Ouray, San Miguel, and Dolores Counties, Colorado

Appendix B

Biological Resource Protection Plan

Appendix B

Biological Resource Protection Plan

The objective of this Biological Resource Protection Plan is to detail practices designed to address potential impacts to biological resources, particularly Gunnison sage-grouse (GuSG), during construction of the Tri-State Montrose-Nucla-Cahone Transmission Improvement Project (Project). Tri-State Generation and Transmission Association, Inc. (Tri-State) has developed this plan as part of the Plan of Development (POD) that accompanies their application to the Bureau of Land Management (BLM) for a Right of Way (ROW) grant. If the ROW grant is approved, the final POD and all appendices will be attached to the Decision Record. This plan provides guidance to construction and field personnel on measures identified by Tri-State, BLM and US Forest Service (USFS) to minimize effects during construction activities associated with the Project. It will be the responsibility of Tri-State and its project contractors, working with designated environmental inspectors, to comply with measures identified in this plan.

The timetable for conservation strategy implementation is as follows:

Table B-1.Timetable for Final Biological Resource Protection Plan

Timeframe	Deliverable/Task
By Preliminary Final Environmental Assessment (internal review step)	Progress on Lek/Land acquisition in GuSG habitat • Parcel boundaries defined by June 15 • Option to purchase signed by Summer 2016 with a term of 12 months. Biological Resources Protection Measures Constraints Atlas (see Appendix G)
By Finding of No Significant Impact/Decision Record (FONSI/DR) and Issuance of County Permits- January 2017	GuSG Mitigation: Tri-State will buy on behalf of, or transfer the Miramonte Parcel to Colorado Parks and Wildlife (CPW). Habitat improvement funds will be transferred to BLM within the same time frame.
Avian Collision Risk Assessment	Complete
45 Days Prior to Notice to Proceed	Final Detailed Biological Resource Plan
2017 (Nucla-Cahone Pre-construction phase)	Avian perch activity monitored on existing 115 kV line in Dry Creek Basin
2018 (Nucla-Cahone Construction phase)	EPMs implemented; Avian perch activity monitored on new 230 kV line to verify effectiveness of perch discouragers
2017 through life of transmission line	EPMs implemented.

Avian Protection Measures

Tri-State has a comprehensive Avian Protection Plan/Program (APP) that addresses avian management on the entire transmission system. Tri-State's APP is not a project-specific document but instead outlines how avian interactions with Tri-State facilities are managed and reduced on a system wide level. The purpose of the APP is to proactively work toward protecting avian (i.e., bird) species by minimizing

collision and electrocution hazards for birds on its existing electrical facilities and outlines the process for proactively minimizing avian impacts during the routing, construction, and maintenance of new facilities. The program also was created to ensure compliance with federal and state regulatory requirements that protect birds, nests, and related parts.

The program dictates that Tri-State will conduct an avian collision risk assessment once final alignment and engineering is complete for new projects to identify areas with moderate to high collision risk. The collision risk assessment will be completed by late fall 2016. Moderate to high risk areas will be marked with flight diverters during project construction. Tri-State's avian program coordinator reviews engineering designs and ensures transmission line clearances are sufficient to minimize electrocution risk raptors.

For pre-construction survey requirements and specific construction buffers and seasonal restrictions for raptors known to occur in the project area, please see Environmental Protection Measures (EPMs) listed in Table B-2.

Table B-2. Biological Resources Environmental Protection Measures (EPMs)

Topic - No.	Applicant Committed EPMs And Design Features For Construction (C), Operation, And Maintenance (O&M)	Applicable to C and/or O&M*
Biological Resources and Federally Listed Species		
BR-1	Tri-State and its contractor(s) will also restrict construction activities and future major routine maintenance activities in elk production areas on lands administered by the USFS and BLM administered lands in lands in accordance with the respective Resource Management Plans and Land Management Plans. These timing restrictions on federal lands will be adhered to whenever feasible and a waiver will be required from the land management agency in coordination with Colorado Parks and Wildlife (CPW) if construction needs to occur in sensitive big game habitats during sensitive time periods. Prior to the Notice to Proceed, Tri-State will update the POD atlas to identify seasonal restrictions for big game per direct guidance from the USFS, BLM, and CPW.	C and O&M
BR-2	To ensure compliance with the Migratory Bird Treaty Act, Tri-State and its contractor(s) will incorporate BLM, USFS, CPW, and US Fish and Wildlife Service (USFWS) guidelines for raptor protection if construction occurs during the breeding season. Raptor nest surveys will be conducted prior to construction. If an active raptor nest is found within the project area, seasonal buffers and timing restrictions will be determined through coordination with the affected agency and will utilize guidance as outlined in CPW's Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors (CPW 2008) on BLM UFO, private, State, and USFS administered lands. Separate guidance will be followed on lands in the BLM Tres-Rios Field office (TRFO). Buffers will be determined according to species, existing disturbance in the area, and line of sight. If complete avoidance of a buffer is not feasible, a qualified biological monitor could be used to observe the nest during construction activities to ensure the activity does not disturb nesting activities. The biological monitor will have the authority to halt or modify construction if an activity is likely to result in nest abandonment.	C and O&M

Topic - No.	Applicant Committed EPMs And Design Features For Construction (C), Operation, And Maintenance (O&M)	Applicable to C and/or O&M*
BR-3	No bald or golden eagle nests are known to occur within 0.5 mile of any portion of the project. Surveys will be conducted prior to construction to identify any active nest or roost location within 0.5 miles of the transmission ROW and associated access roads. If an active eagle nest is found prior to construction, no work will be permitted within 0.5 mile of the active nest from December 15 through July 15 unless otherwise authorized by the USFWS. Historically, bald eagle communal roosting site and winter concentration areas have been documented along the San Miguel and Dolores Rivers, Wrights Mesa, Dry Creek Basin, and Disappointment Valley. Activity will be restricted from November 15 through March 15 if an active communal roost is found within 0.5 miles the proposed project activities during pre-construction surveys unless otherwise authorized by the USFWS. If complete avoidance of a nest or roost buffer is not feasible, the USFWS will be contacted to approve a modified buffer or approve use of a qualified biological monitor to observe the nest during construction activities to ensure the activity does not disturb nesting activities. The biological monitor will have the authority to halt or modify construction if an activity is likely to result in nest abandonment. If USFWS determines take may occur, Tri-State will obtain an eagle take permit from the USFWS prior to construction. The same process will apply to future major maintenance activities.	C and O&M
BR-4	Once pre-construction surveys have been completed, the Final Construction Constraints Atlas will be updated to reflect appropriate seasonal restrictions and buffers to ensure construction activities are in compliance with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. Seasonal avian restrictions will also apply to heavy maintenance activities as defined in the POD.	C and O&M
BR-5	On State owned lands, USFS, and private property, if a prairie dog colony is found within the project area prior to construction, and construction is scheduled to occur during the breeding season for burrowing owls (April 1 through September 1), surveys will be conducted using CPW's approved protocol. If prairie dog colonies occur on BLM lands, burrowing owl surveys will be conducted using protocol from the TRFO BLM. If an active nesting burrow is found, it will be avoided by a buffer of 0.25 miles from March 15 through August 15 or until the young have fledged and left the nest.	C and O&M
BR-6	In order to preclude avian electrocutions and minimize collision risk, Tri-State has incorporated guidelines developed by the Avian Power Line Interaction Committee (APLIC) and USFWS (APLIC 2012) to protect birds on power lines.	C
BR-7	The construction contractor will be required to avoid active burrows whenever feasible within the ROW during project construction to minimize impacts to ground dwelling species.	C
BR-8	Structure holes will be covered when work is completed each day to prevent entrapment of wildlife.	C
BR-9	Impacts to wildlife and special status species habitats will be minimized through incorporation of EPMs included under Vegetation and Water Resources.	C and O&M

Topic - No.	Applicant Committed EPMs And Design Features For Construction (C), Operation, And Maintenance (O&M)	Applicable to C and/or O&M*
BR-10	If vegetation removal occurs during the spring and summer months, Tri-State will conduct pre-construction surveys to ensure compliance with the Migratory Bird Treaty Act. Tri-State will map active nests and flag and avoid any active nests identified.	C and O&M
BR-11	Tri-State and its contractors will site transmission structures and access roads to avoid BLM/USFS sensitive plant species to the greatest extent feasible. Where sensitive plants are located adjacent to the transmission structures or access roads, fencing/ropes/signs will be installed to prevent construction crews from impacting BLM/USFS sensitive plants. Management of fugitive construction dust as discussed under water resources and quality will also minimize indirect effects to sensitive plant species.	C
BR-12	Emergency maintenance activities will be permitted any time of year to ensure electric reliability and to protect the public health and safety. Examples of emergency maintenance activities include wires on the ground, structure repairs required as a result of severe weather incidents and vandalism activities. The affected agencies will be notified as soon as possible, but within 48 hours of the activities occurring and any required reclamation will be completed as soon as possible.	O&M

Gunnison Sage-Grouse Conservation Strategy for the Preferred Alternative

Tri-State recognizes the importance of conserving GuSG populations in the Dry Creek Basin and has prepared a draft GuSG conservation strategy to accompany the standard EPM's for the Project. This conservation strategy was designed by Tri-State through consultation with CPW and Tom Remington, a biologist with knowledge and experience with GuSG in the Dry Creek Basin and former Director of the then Colorado Division of Wildlife. This conservation strategy was approved by the BLM via email on April 21, 2016. The purpose of this Conservation Strategy is to minimize impacts to the GuSG and its occupied and critical habitat from construction related and long-term operational impacts of the transmission line and to provide a net conservation benefit to GuSG. This document summarizes the project design and conservation strategy for the BLM's preferred action in the Environmental Assessment. This plan was prepared through coordination with CPW and Tri-State's and Mr. Remington's review of publicly available scientific data, literature review, professional knowledge and experience of sage-grouse and the Dry Creek Basin population of GuSG.

Table B-3 outlines the Tri-State's voluntary, committed EPMs to be implemented for areas of occupied GuSG habitat (which includes critical habitat) during project construction, operation, and maintenance activities.

Table B-3. GuSG EPMs Associated with the Proposed Project

Topic - No.	Applicant Committed EPMs And Design Features For Construction (C), Operation, And Maintenance (O&M)	Applicable to C and/or O&M*
Gunnison Sage-Grouse		
GUSG-1	Tri-State will utilize single-pole structures to reduce perching surfaces for GuSG avian predators through Dry Creek Basin.	C
GUSG-2	Tri-State and its contractor(s) will install perch discouragers on the horizontal portions of the steel structure including the pole tops in Dry Creek Basin.	C
GUSG-3	Tri-State will utilize self-supporting steel structures in GuSG occupied habitat to reduce GuSG and other avian and wildlife collisions with guy wires.	C
GUSG-4	The project will comply with the 0.6-mile No Surface Occupancy Buffer for lek sites and there are no access roads proposed within 0.6-mile of an active lek. In addition, the project does not occur within 0.6 miles of riparian habitat or documented GuSG concentration areas.	C
GUSG-5	Tri-State's transmission line and access road construction along the existing alignment will not occur within occupied habitat from March 1 through June 30th.	C
GUSG-6	Planned heavy maintenance activities by Tri-State's and its contractor(s) including structure replacement, cross arm replacement, and replacement/re-pair of the conductor/fiber optic cable (OPGW) will not occur March 1 through June 30 in GuSG occupied habitat. Light maintenance activities such as annual inspections, hardware tightening, pole testing, and insulator replacement will be permitted year-round. However, during the lekking season, these activities will occur after 10:00 a.m.	O&M
GUSG-7	Emergency maintenance activities will be permitted any time of year to ensure electric reliability and to protect the public health and safety. Examples of emergency maintenance activities include wires on the ground and structure repairs required as a result of severe weather incidents and vandalism activities. The affected agencies will be notified within 48 hours of the activities occurring and any required reclamation will be completed as soon as possible.	O&M
GUSG-8	Maintenance and construction crews will be required to drive 35 miles per hour (mph) or less on all roads associated with GuSG occupied habitat in Dry Creek Basin (with the exception of SH 141) to minimize vehicle collisions with GuSG.	C and O&M
GUSG-9	An agency approved environmental monitor will be present at all times during construction in GuSG occupied habitat to ensure compliance with any and all environmental protection and mitigation measures identified in the Environmental Assessment (EA) and Biological Assessment (BA). The environmental monitor is given full authority to stop or modify construction activities that may be affecting GuSG and other sensitive resources.	C
GUSG-10	Construction and maintenance crews will be required to go through formal environmental training prior to the initiation of construction and maintenance activities in GuSG habitat to ensure compliance with all approved EPMs and mitigation measures for the project.	C and O&M

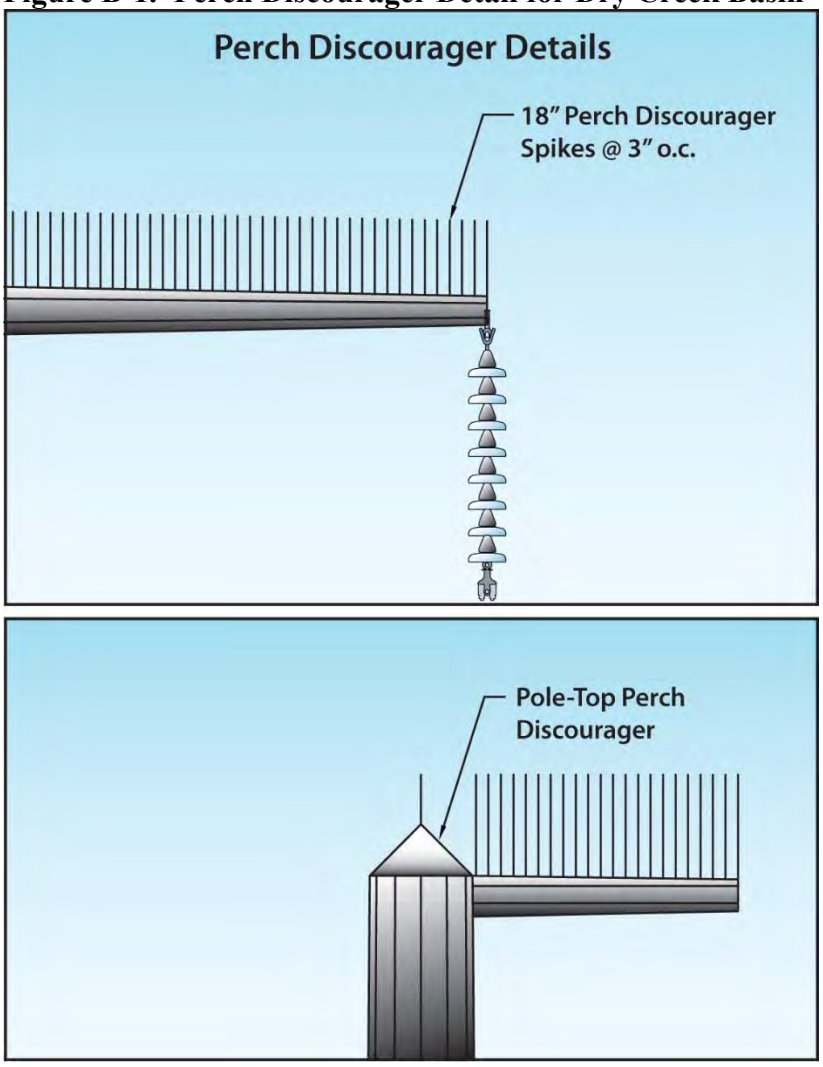
Topic - No.	Applicant Committed EPMs And Design Features For Construction (C), Operation, And Maintenance (O&M)	Applicable to C and/or O&M*
GUSG-11	Any areas disturbed during project construction and future maintenance activities will be reclaimed using an approved weed-free native seed mix beneficial to GuSG, as provided by the affected land management agency/landowner.	C and O&M
GUSG-12	Tri-State and its contractor(s) will treat noxious weeds infestations per NW-1 through NW-8 to minimize habitat effects impacts to GuSG.	C and O&M
GUSG-13	Tri-State will monitor and maintain the condition of the perch discouragers for the life of the transmission line. Tri-State in coordination with BLM and CPW will monitor the efficacy of the perch discouragers installed in occupied habitat for GuSG for two years. This will include one year of pre-construction monitoring to evaluate current perching activity on the existing 115-kV line.	O&M
GUSG-14	A draft GuSG design minimization and conservation strategy has been prepared by Tri-State for the existing alignment through Dry Creek Basin. This draft minimization strategy can be found in the *Biological Resource Plan, Appendix B*.	C and O&M
GUSG-15	Establish and implement a fire prevention and suppression plan for construction and future heavy maintenance activities. Adhere to seasonal fire restrictions and stipulations which may include: • Educate crews how to enforce and practice appropriate fire prevention and suppression actions and behavior. • Minimize idling during construction and routine maintenance activities. • Park vehicles in designated parking or construction areas. Avoid parking over tall, dry vegetation. • Implement use of spark arrestors.	C and O&M
GUSG-16	Any areas disturbed during project construction and future maintenance activities will be reclaimed using an approved weed-free, native seed mix as provided by the affected land management agency/owner.	C and O&M
GUSG-17	Tri-State will design access and pad sites for structures locations in a manner that minimizes effects to the greatest extent feasible while also allowing for the safe operation of construction of maintenance and construction equipment.	C

Tri-State's Committed Engineering/Design Specific Conservation Measures:

Tri-State has proposed and committed to multiple engineering and design modifications to their proposed action in order to minimize project related effects to GuSG and critical habitat. Tri-State has agreed to utilize single-pole steel structure configurations to minimize avian predator nesting and perching on structures in GUSG critical habitat. Utilizing steel structures relative to the originally proposed H-frame wood structures will reduce the frequency of routine maintenance needed on the line (excluding cases of vandalism), the frequency with which crews will need to access the ROW for major corrective actions, thereby reducing temporary disturbance to GuSG. Replacing H-Frame structures within the existing alignment with steel monopoles with perch discouragers will reduce the number of structures across GuSG critical habitat. Replacing H-frames with monopole structures along with the installation of perch

discouragers (see Figure B-1) on the pole top and davit arms will result in a beneficial effect to GuSG by reducing the amount of time ravens or other avian predators are perching on the transmission line.

Figure B-1. Perch Discourager Detail for Dry Creek Basin



Replacing H-Frame structures within the existing alignment with steel monopoles with perch discouragers will reduce the number of structures across GuSG critical habitat from 72 to approximately 50. Replacing H-frames with fewer and single monopole structure along with the installation of perch discouragers on the pole top and davit arms will result in a beneficial effect to GuSG relative to the environmental baseline.

The proposed action will be approximately 7.6 miles in length. Tri-State has committed to changing the standard wood H-frame design to a single, self-supporting steel structure. The cost of wood pole construction on the existing alignment alternative is approximately $3,864,600.00 ($508,500.00/mile). The cost to change to single pole steel structures on the existing alignment is $5,959,920.00 ($784,200.00/mile). This results in commitment of approximately $2,095,320 in design features to mitigate grouse impacts. Tri-State has also committed an additional $120,000.00 ($40,000.00 /structure)

to eliminate guy wires on turning structures (also known as P.I.s) to make the poles "self-supporting". Removing guy wires may reduce collision risk of GuSG and the overall footprint of the structure itself. The horizontal surfaces on the davit arm configuration and the pole top will be fitted with perch discouragers as shown in the attached figure. The perch discouragers will be inspected annually, and damaged or missing discouragers will be replaced as soon as maintenance can obtain a clearance on the line (required to safely conduct maintenance on an energized line). Tri-State has committed approximately $150,000.00 towards perch discourager design, requisition, and installation.

The proposed action is expected to result in approximately 31 acres of direct disturbance to GuSG occupied habitat. This direct disturbance will occur in an existing authorized utility corridor and associated access roads, and therefore the temporary impacts will be minimized through incorporation of EPMs listed in Table B-3.

Tri-State has proposed these design elements as incorporated into the Proposed Action to minimize potential avoidance and predation effects, and result in a beneficial impact to GuSG in Dry Creek Basin. This project will replace the existing 115-kV line with a 230-kV line which will provide a direct and indirect beneficial effect to the grouse relative to existing conditions (the environmental baseline) by: reducing the number of structures currently on the landscape from 73 to 50 (reduces avoidance related effects as well as perching surfaces for corvids); installation of a structure type that minimizes perching surfaces to the greatest extent practical while maintaining safety clearances (minimizes potential corvid predation); installing perch discouragers to reduce the duration of corvids perching on structures; utilizing an existing electric ROW and an existing access road network (keeps impacts confined to an existing corridor). Tri-State believes these committed design elements mitigate the potential existing effects associated with rebuilding the transmission line in place.

Conservation Strategy for the Proposed Action

Given the extensive design elements and the total cost (approximately $2,365,320) of Tri-State's proposed engineering/design features, as well as committed environmental protection measures to minimize project related effects to GuSG, Tri-State is not proposing additional compensatory mitigation for the Proposed Action. However, Tri-State is volunteering the following conservation strategy to improve habitat for GuSG and to protect crucial habitat for the GuSG San Miguel Basin Population.

Tri-State's conservation strategy will result in long-term beneficial effects to the San Miguel GuSG population and habitat improvements within Dry Creek Basin. The agency biologists have been clear that the transmission line is not the primary source of direct and indirect effects to the GuSG in Dry Creek Basin. The problem is described as one of "death by many cuts" both man-made and environmental factors. In order to address long-term recovery goals, a collaborative effort between federal, state, county, and local entities and local industry is required. This proposed voluntary conservation strategy will encourage a collaborative effort to address GuSG survival in Dry Creek Basin and target those measures in a way that provides the greatest benefit to the GuSG.

Tri-State has committed to purchasing an approximately 500 acre parcel of property near Miramonte Reservoir (Dan Noble) State Wildlife Area. This 500 acre parcel will be incorporated into the State Wildlife Area and will be under the ownership and management of CPW. This parcel has been a conservation priority for CPW and San Miguel County because it contains the last remaining documented

GuSG lek that is unprotected. CPW has collected extensive telemetry data on the GuSG use of this parcel and has documented the use of both lek and brood-rearing on the property. The habitat quality of this parcel is substantially greater than that found in the portion of Dry Creek Basin where the existing Montrose-Nucla-Cahone 115-kV transmission line occurs. This investment will provide a long-term net conservation benefit to the San Miguel Basin GuSG population.

In addition to purchase of the parcel, Tri-State has voluntarily committed $100,000.00 for habitat improvement projects in the Dry Creek Basin both on and off BLM administered lands. The BLM will plan, implement, manage, and monitor the habitat improvement projects, and provide annual status and expenditure updates to Tri-State on the implemented projects and efficacy of these funded habitat improvement projects.

Habitat improvement projects that may be implemented by the BLM may include but are not limited to:

- Pinyon-Juniper Removal within critical habitat in areas with early stage (Phase I) pinyon-juniper communities.
- Water development/enhancement projects within Dry Creek Basin. These projects may include funding towards the installation of Zeedyk check dams, Zuni bowls, plug and spread methods, and channel shaping.
- Inter-seeding, mowing, or other habitat efforts within Dry Creek Basin designed to enhance understories where needed (recognizing these efforts have had limited success in the past and likely will need refinement to enhance success).
- Fence Removal or fence marking.

Table B-4 below addresses the primary threats to GuSG and the voluntary conservation measures that are being proposed to counterbalance these threats.

Table B-4. Tri-State MNC 230kV Improvement Project - Voluntary Conservation Measure Alternatives Summary for Tri-State's Proposed Alternative (Re-build in Place) within GuSG Occupied Habitat in Dry Creek Basin

	Potential Effect	Conservation Alternative	Conservation Benefit	Description
1	Fragmentation, drought, poor habitat quality	Habitat Enhancement	Increased survival and habitat availability in Dry Creek Basin	Tri-State will contribute $100,000.00 towards habitat improvement projects in Dry Creek Basin to be planned, implemented, managed, and monitored by the BLM. Tri-State will purchase an approximately 500 acre parcel near Miramonte Reservoir that contains a lek and brood-rearing habitat.
2	Limited Population Size and Survivability	Habitat Enhancement/Habitat Conservation	Increased Survival and Genetic Variability	Habitat improvement in Dry Creek Basin should improve population size and survivability in Dry Creek Basin. Habitat

	Potential Effect	Conservation Alternative	Conservation Benefit	Description
				acquisition near Miramonte will preserve the last unprotected lek and associated brood-rearing habitat for the San Miguel GuSG population which will have a direct benefit to GuSG survivability.
3	Fragmentation; Direct and indirect impacts to Critical Habitat (CH)	Habitat enhancement: Weed Management	Weed monitoring and management to improve overall habitat for GuSG (above location options apply)	Tri-State will treat noxious weeds in the treatment area to prevent spread and propagation of noxious weeds which will affect the success of grass and forb restoration post- construction. Tri-State will treat noxious weeds associated with the transmission ROW for the life of the facility.
4	Human Disturbance	Re-Build the Transmission Line in an existing corridor	Reduces new habitat fragmentation	Utilize the existing transmission ROW and associated existing access road for construction and future maintenance activities. Temporary disturbance will be re-seeded using the approved BLM mix included in the Final Reclamation Plan, Appendix P.
5	Fragmentation; Direct and indirect impacts to CH	Expand State Wildlife Area-Purchase of Approximately 500 acres of land near Miramonte Reservoir with a GuSG lek that borders an existing State Wildlife Area.	Increase critical habitat protected in perpetuity	Tri-State will fund the purchase of a parcel near Miramonte Reservoir for CPW.
6	Fragmentation; Direct and indirect impacts to CH	Land Acquisition at Miramonte Reservoir Habitat Enhancement Funding	Protection of habitat	Tri-State will fund the purchase of a parcel near Miramonte Reservoir for CPW. Reclamation of temporarily disturbed areas will occur post-construction. Perch discouragers will be installed to minimize perch duration and nesting opportunities on the new transmission line structures.
7	Fragmentation; Direct and indirect impacts to CH	Habitat Enhancement Funding	Improve forage and habitat sustainability and extent	Habitat enhancement project funding may include seeding, pinyon-juniper removal, water enhancement projects, etc. as determined by the BLM in coordination with the State and USFWS.
8	Fragmentation; Direct and indirect	Habitat enhancement: Water sources	Increased brood-rearing habitat which	Habitat enhancement funding may be used for water enhancements in

	Potential Effect	Conservation Alternative	Conservation Benefit	Description
	impacts to CH		will have a direct benefit to production and chick survival	Dry Creek Basin.

Monitoring of Perch Discourager Efficacy

Tri-State has contracted EDM, International in Fort Collins to prepare a perch discourager monitoring study for the Dry Creek Basin. Tri-State will contract BIO-Logic and EDM, International to monitor current raven use of the existing structures in 2017 and conduct two years of monitoring the effectiveness of the perch discouragers on the modified davit arm structure in Dry Creek Basin. The USFWS, BLM, and CPW will be provided the proposed study design for review and comment prior to any monitoring activities being initiated. Annual reports will be provided to the BLM, CPW, USFWS, and San Miguel County on monitoring results. The draft monitoring proposal will be submitted to CPW, USFWS, and BLM by December of 2016. It is assumed that the final plan is not needed prior to the FONSI as Tri-State has been told research does not apply towards conservation efforts. This study is being voluntarily offered to collect further information on the efficacy of perch discouragers on a modified davit arm structure type. The monitoring results will only be used to document raven response to the discouragers, not to quantify raven populations in Dry Creek Basin or to make assumptions regarding the potential effects of raven predation on GuSG in Dry Creek Basin.

References

Avian Power Line Protection Committee. (2012). Reducing Avian Collisions with Power Lines, The State of the Art in 2102. *Edison Electric Institute and Avian Power Line Protection Committee.*

Colorado Parks and Wildlife. (2008). *Recommended buffer zones and seasonal restrictions for Colorado Raptors.* Denver: Colorado Parks and Wildlife.

Federal Register. (2001, January 10). Migratory Bird Executive Order 13186.

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Appendix C

Cultural Resources Protection and Management Plan

Appendix C

Cultural Resources Protection and Management Plan

The objective of this Cultural Resources Protection and Management Plan is to detail practices designed to address potential impacts from construction of the Tri-State Montrose-Nucla-Cahone Transmission Line Improvement Project (Project). Tri-State Generation and Transmission Association, Inc. (Tri-State) has developed this plan as part of the Plan of Development (POD) that accompanies their application to the Bureau of Land Management (BLM) for a Right of Way (ROW) grant. If the ROW grant is approved, the final POD and all appendices will be attached to the Decision Record. This plan provides guidance to construction and field personnel on measures identified by Tri-State, BLM, and US Forest Service (USFS) to minimize effects during construction activities associated with the Project. It will be the responsibility of Tri-State and its project contractors, working with designated environmental inspectors, to comply with measures identified in this plan.

Cultural Resources

As part of the POD for the Project, Tri-State has retained a qualified cultural resource consultant (Alpine Archeological Consultants, Inc.) to perform cultural resource surveys of the right-of-way, access roads, and Temporary Use Areas (TUAs) (e.g., staging areas, stringing and pulling sites, and other work areas that will be used during construction). Cultural surveys were completed in 2004 on the 100-foot ROW and 50 feet were surveyed for access roads, except on the San Juan National Forest where 100 feet were surveyed on roads. In 2013, the additional ROW needed for the 230-kV transmission line and a small buffer (50 feet either side of existing 100-foot ROW) was surveyed along with a 100 foot ROW for roads across the Tres Rios BLM managed lands.

Supplemental cultural resource inventory will be completed prior to construction for additional TUAs, access roads, and any new ROW along alternatives. The BLM and USFS have reviewed Alpine's 2013 cultural resource inventory report, and the Colorado State Historic Preservation Office (SHPO) has concurred with the federal agencies that 54 known cultural sites are eligible for inclusion in the National Register of Historic Places (NRHP). These cultural sites are identified as "Sensitive Environmental Resources" and will be flagged for exclusion using 3-inch exclusionary ribbon for the duration of construction. A cultural resource specialist will monitor ground-disturbing activities within the boundaries of NRHP-eligible cultural sites. See Table C-1 below for additional mitigation measures.

This Cultural Resources Protection Plan includes:

- A Memorandum of Agreement (MOA) regarding mitigation of adverse effects to NRHP-eligible cultural sites. This document memorializes compliance with Section 106 of the National Historic Properties Act and must be executed by concurring parties (Tri-State, BLM, and USFS) prior to issuance of any notice to proceed from the agencies.
- The Cultural Resource Treatment Plan (CRTP) will detail site-specific treatment measures for known sites outlined in the project MOA. The CRTP will be completed prior to construction.
- The Cultural Resource Monitoring and Discovery Plan (CRMDP) will describe the procedures for archaeological monitoring at NRHP-eligible sites and for unanticipated cultural resource discoveries made by construction personnel, Environmental Monitors, or archaeological monitors.

If a cultural resource is found during construction, the procedures outlined in the MOA and CRTP will be followed. The MOA and CRTP provide a reporting and communication protocol for notifying the

appropriate agencies about such cultural resource discoveries. The MOA will be included in the final POD, but the confidential CRTP will not be publicly available. A confidential Eligible Site Table lists cultural sites that must be avoided during construction and shows which sites will require archaeological monitoring during access road construction or pole removal. In the event that a cultural resource is encountered by construction personnel or by the Environmental Monitor during construction, the following actions will be taken:

The construction activity that resulted in the exposure of the discovery will be immediately halted, followed as soon as possible by the cessation of all other ground-disturbing activity within 300 feet of the discovery. After all construction activity within 300 feet of the discovery was been halted, the following steps will be taken to ensure that no further disturbance occurs to the discovery:

- Secure an area at least 30 feet in diameter around the discovery using orange safety fencing or a similar material (e.g., T-posts and flagging), as necessary;
- Redirect vehicle traffic around the area immediately surrounding the discovery;
- Remove vehicles and equipment already present in the area;
- Notify the appropriate land management agency and contact the Environmental Monitor, who will contact the Archaeological Monitor; and
- Take appropriate measures to protect the discovery from further disturbance until an Archaeological Monitor has fully documented, evaluated, and completed treatment of the discovery.

In the event of the discovery of human remains, a similar procedure will be followed to ensure that the discovery was protected. The notification procedure for human remains will be different, however, than that required for other cultural resources. The procedure for treatment of human remains will be described in detail in the CRMDP.

Environmental Protection Measures

All project personnel working on the ROW will receive environmental training, including a briefing on the importance and identification of cultural resources. The following Environmental Protection Measures (EPMs) apply to cultural resources:

Table C-1: Cultural Resource Environmental Protection Measures

Topic - No.	Applicant Committed EPMs And Design Features For Construction (C), Operation, And Maintenance (O&M)	Applicable to C and/or O&M*
	Cultural Resources	
CR-1	Prior to construction and future heavy maintenance activities, all construction personnel will be instructed on the protection of cultural and paleontological resources with reference to relevant laws and penalties, and the need to cease work in the location if cultural resource items are discovered.	C and O&M
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 the appropriate land management agency is notified and appropriate measures taken to assure compliance with the National Historic Preservation Act and enabling legislation.	C and O&M
CR-3	Cultural Resources—Inadvertent Discovery: Pursuant to 43 Code of Federal Regulations (CFR) 10.4 (g); Tri-State will notify the authorized officer, by telephone with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony or possible vertebrate fossils. Further, pursuant to 43 CFR 10.4 (c) and (d), Tri-State will stop activities in the vicinity of the discovery and protect it until notified to proceed by the authorized officer.	C and O&M
CR-4	Sensitive cultural resource locations (historic properties) in proximity to the area of potential effect will be flagged prior to construction and major maintenance activities to ensure avoidance. A qualified and agency approved cultural resource monitor will be on site when construction activities are planned in proximity to cultural resources to ensure historic properties are not disturbed.	C and O&M
CR-5	Cultural resource inventories will be completed for areas that were not previously surveyed and the existing treatment plan will be appended to include newly documented areas of unavoidable disturbance to historic resources. The Memorandum of Agreement (MOA) and agency approved appended treatment plan will be updated and implemented prior to the start of any construction activities.	C
CR-6	Tri-State and its contractors will comply with the historic properties treatment plan approved by the BLM, USFS, and the State Historic Preservation Office (SHPO) to ensure unavoidable effects to historic properties are properly mitigated.	C and O&M
CR-7	Construction activities within the boundaries of historic properties will be limited to permitted access roads or noncontributing areas of sites, or mitigated or monitored as specified in the Treatment Plan for any off-road travel necessary."See also AR-1 which addresses rutting in wet road conditions.	C
CR-8	To the extent feasible, as allowed by transmission line design requirements, Section 106 implementing procedures (36 CFR 800) will be followed for the portions of the area of potential effect not yet surveyed.	C

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Appendix D

Paleontological Resources Plan

Appendix D

Paleontological Resources Plan

The objective of this Paleontological Resources Plan (Plan) is to detail practices designed to address potential paleontological resource impacts from construction of the Tri-State Montrose-Nucla-Cahone Transmission Line Improvement Project (Project). Tri-State Generation and Transmission Association, Inc. (Tri-State) has developed this plan as part of the Plan of Development (POD) that accompanies its application to the Bureau of Land Management (BLM) for a Right of Way (ROW) grant. If the ROW grant is approved, the final POD and all appendices will be attached to the Decision Record.

The timetable for development of the detailed plan is as follows:

Table D-1. Timetable for Final Paleontological Resources Management Plan

Timeframe	Deliverables/Task
By Preliminary Final EA (internal review step)	Prepare outline for monitoring and mitigation plan: (Attached)
45 Days prior to Notice to Proceed	Final Detailed Plan Provided to BLM. The plan will: • Outline monitoring areas where construction intersects PFYC 4 and 5 formations. • Include detailed protocol for monitoring and mitigation, including procedures to follow in the event resources are encountered. • Outline training steps that will be taken by Tri-State and consultants to ensure environmental monitors can identify and report unanticipated fossil discoveries in PFYC 2 and 3.

This Plan focuses on the implementation of Best Management Practices (BMPs), Applicant Committed Design Features, State and BLM Stipulations, United States Forest Service (USFS) Standards and Guidelines designed to reduce paleontological impacts of the Project, as applicable. These measures are collectively referred to as Environmental Protection Measures (EPMs).

The focus of this Plan is to protect paleontological resources during project construction, operation, and maintenance, and to provide an implementation strategy for EPMs. This Plan is applicable Project-wide and will be updated based on the selected Agency Preferred Alternative and final engineering and design of the Project. Tri-State and its Construction Contractor(s) will be responsible for carrying out the methods described in this Plan. This Plan is based on the existing conditions and mitigation measures identified in the Environmental Assessment (EA). EPMs including all project design features, BMPs, and required stipulations are applicable to the design, construction and operation of the Project.

The goals of this Plan are to avoid impacts to paleontological resources in compliance or conformance with agency or landowner paleontological management requirements by:

1. Summarizing areas of paleontological concern in Project affected areas;

2. Providing guidance during the design, construction and operation of the Project to applicable parties that address Paleontological impacts and impact-reducing measures identified during the National Environmental Policy Act of 1969 (NEPA) process; and
3. Providing a framework methodology for the implementation of impact-reducing EPMs. The methodology includes communicating EPMs that minimize paleontological impacts both internally within Tri-State and to all subcontractors during the contracting process, incorporating EPMs into environmental trainings and briefings, compliance and monitoring for EPMs that address protection of paleontological resources (see Appendix G, Environmental Monitoring and Compliance Plan) and incorporating EPMs into operations and maintenance (see Appendix I, Dust Control and Air Quality Plan).

This plan provides guidance to construction and field personnel on measures identified by Tri-State, BLM and USFS to minimize effects during construction activities associated with the Project. It will be the responsibility of Tri-State and its project contractors, working with designated environmental inspectors, to comply with measures identified in this plan.

Paleontological Resources

Tri-State contracted with a qualified paleontologist (with federal and state permits) who conducted an analysis of existing paleontological data in the vicinity of the Project area. No previously recorded fossil localities are present within the Townships encompassing the Project area on BLM lands, and 11 previously recorded fossil localities are present within the Townships encompassing the Project area on USFS lands. The paleontologist also conducted a pedestrian field survey that focused on areas of BLM and USFS lands with bedrock exposures of Potential Fossil Yield Classification (PFYC) 4 (high potential) and 5 (very high potential) geologic units, along with an examination of approximately 5 percent of exposures of PFYC 3 (unknown or moderate potential) geologic units.

Nine areas of Morrison Formation outcrop were identified on BLM or USFS lands within the Project area, but only five were safely accessible for pedestrian survey due to steep terrain. No fossil localities were discovered in PFYC 5 Morrison Formation exposures that were accessible. Eleven fossil localities were discovered on BLM lands in other formations. These localities produced plants identified as Family Palmaceae, *Glyptostrobus* sp. (conifer), and *Equisetum* sp. (horsetail) from the Dakota Formation; brachiopods from the orders Spiriferida, Strophomenida, Rynchonelida and Terebratulida; and bryozoans, crinoids and a single unidentifiable fragment of a possible shark's tooth (Class Chondrichthyes) from the Pinkerton Trail Limestone; and fragmentary valves of inoceramid clams (Family Inoceramidae) and oysters (Order Ostreoida) including some better preserved valves of the oyster *Pycnodonte* sp. from the Mancos Shale. One fossil locality was discovered on State land in the Mancos Shale, and it produced fragmentary valves of inoceramid clams. No fossils were collected during the field surveys.

None of the fossil localities documented are considered to be scientifically significant because they consist of a single vertebrate fossil (a fragmentary and unidentifiable possible shark's tooth), and invertebrate and plant fossils that, in the opinion of the Project paleontologist, are not scientifically noteworthy.

While no scientifically significant paleontological resources as defined by the BLM (BLM 2008) were identified on the surface of the Project area, unanticipated surface and subsurface paleontological resources could still exist within it, and could be adversely impacted during construction. Tri-State will contract with a qualified and BLM permitted paleontologist who will monitor construction activities at locations where ground disturbance will occur in PFYC 4 or 5 geologic units. These areas will be determined and presented in a paleontological resources monitoring and mitigation plan prepared prior to construction. The Project paleontologist will also train Tri-State's environmental inspectors to be able to identify and report unanticipated fossil discoveries in PFYC 2 and 3 areas which are not monitored by a

permitted paleontologist. This training will include (1) what a fossil represents, (2) how to recognize a fossil, (3) the procedures to be followed when fossils are discovered, and (4) instructions not to collect fossils or other natural resources from the Project area while working on the Project except as part of an emergency recovery procedure and in consultation and coordination with the Project paleontologist.

In accordance with BLM guidelines (IM 2009-011), if potentially significant fossils are discovered, construction activity will cease in the immediate area of the discovery, and the discovery will be immediately reported to the Tri-State lead construction inspector and the environmental monitor for the Project. See Table D-2 below. The environmental monitor will fence off the site upon discovery and report the discovery to the appropriate BLM or USFS authorized representative and the Project paleontologist. The monitor will record the paleontological resource, and the Project paleontologist, in consultation with the agency paleontologist, will evaluate its significance to determine if additional mitigation (collection and curation) is required. Ground-disturbing construction activities will not resume in the immediate area of the paleontological resource until the BLM/USFS determines that construction may resume. Agencies may inform the environmental construction monitor of any required mitigation measures by telephone, with follow-up documentation by mail or email. The list of agency paleontological/archaeological contacts will be provided prior to construction. For any subsequent mitigation needs, Tri-State may need to contract with a qualified paleontologist. A list of qualified consulting paleontological permittees will be provided upon request to the pertaining agency.

Environmental Protection Measures

All project personnel working on the ROW will receive environmental training, including a briefing on the importance and identification of cultural resources. The following Environmental Protections Measures (EPMs) apply to paleontological resources:

Table D- 2: Paleontological Mitigation Measures

Topic - No.	Applicant Committed EPMs And Design Features For Construction (C), Operation, And Maintenance (O&M)	Applicable to C and/or O&M*
Paleontological Resources		
PA-1	In consultation with applicable agencies, a paleontological resource monitoring and mitigation plan will be prepared for locations (if any), where construction will disturb geologic units with high Potential Fossil Yield Classification (PFYC) of high (PFYC) 4) or very high (PFYC 5) resource potential. The plan will include specific monitoring locations, monitoring and fossil salvage and data collection procedures, notification procedures in the event of a scientifically significant discovery, and notification procedures in the event of a fossil discovery by construction personnel in areas that are not monitored.	C

References

Bureau of Land Management. (2008). *IM2009-011 Guidelines for Assessment and Mitigation of Potential Impacts to Paleontological Resources. BLM Instruction Memorandum, Attachment 1 Survey and Mitigation Protocols.*

Paleontological Resource Monitoring and Mitigation Plan: Tri-State Montrose-Nucla-Cahone Transmission Line Improvement Project, Montrose, Dolores, Ouray and San Miguel Counties, Colorado

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Appendix E

Visual Resources Plan

Appendix E

Visual Resources Plan

The objective of this Visual Resources Plan is to detail practices designed to address potential visual impacts from construction of the Tri-State Montrose-Nucla-Cahone Transmission Line Improvement Project (Project). Tri-State Generation and Transmission Association, Inc. (Tri-State) has developed this plan as part of the Plan of Development (POD) that accompanies its application to the Bureau of Land Management (BLM) for a Right of Way (ROW) grant. If the ROW grant is approved, the final POD and all appendices will be attached to the Decision Record.

This Visual Resources Management (Plan) describes the framework for implementing protection measures for visual resources. The timetable for detailing Tri-State's practices for protecting visual resources is as follows:

Table E-1. Timetable for Final Visual Resources Plan

Timetable	Deliverables/Task
By Preliminary Final EA (internal review step)	Final Visual Resources Protection Plan (complete), including: • General concepts for structure treatment to protect visual resources (weathered steel to imitate wood, acid-etched non-reflective steel, and wood) • Final EPMs for proposed visual impact reduction
45 Days prior to Notice to Proceed	Construction Atlas Provided to BLM authorizing officer, including specific locations of: • Transmission line structure treatment(s) to blend with natural environment • Access roads and any necessary measures to minimize visual impacts for road alignments/realignments; • Staging area treatments or screening.

This plan focuses on the implementation of Best Management Practices (BMPs), Applicant Committed Design Features, State and BLM Guidelines, United States Forest Service (USFS) Standards and Guidelines designed to reduce visual impacts of the Project, as applicable. These measures are collectively referred to as Environmental Protection Measures (EPMs).

The focus of this plan is to minimize visual contrasts created by project construction, operation, and maintenance, and to provide an implementation strategy for EPMs. This plan is applicable project-wide and will be updated based on the selected Agency Preferred Alternative and final engineering and design of the Project. Tri-State and its Construction Contractor(s) will be responsible for carrying out the methods described in this plan. This plan is based on the existing conditions, visual impacts, and mitigation measures identified in the EA. EPMs including all project design features and BMPs, are applicable to the design, construction, and operation of the Project. In addition to the measures and

practices detailed in this Plan, implementation of several other Plans and EPMs will serve to reduce visual contrasts and impacts. Those Appendices and applicable implementation measures include:

1. Appendix I: Dust Control and Air Quality Plan. Control of dust will minimize visual impacts of dust plumes caused by construction traffic driving on dirt or gravel surfaces.

2. Appendix P: Reclamation Plan. Implementation of reclamation activities will guide rapid revegetation of areas with direct soil disturbance, and reduce the geographic extent and time frame of resulting visual contrasts.

3. Appendix T: Operations, Maintenance and Vegetation Management Plan. Tri-State must manage their ROW to comply with federal regulations to reduce vegetation induced outages. Vegetation management generally involves removing non-compatible (tall-growing) vegetation in the ROW. Smaller, slow growing vegetation may be left but at an appropriate density to reduce fuel loading the ROW.

The goals of this plan are to minimize visual contrasts created by the Project in compliance or conformance with agency or landowner visual management requirements by:

1. Summarizing areas of visual concern in Project affected areas;

2. Providing guidance during the design, construction, and operation of the Project to applicable parties that address visual impacts and impact-reducing measures identified during the National Environmental Policy Act of 1969 (NEPA) process; and

3. Providing a framework methodology for the implementation of impact-reducing EPMs. The methodology includes communicating EPMs that minimize visual impacts both internally within Tri-State and to all subcontractors during the contracting process, incorporating EPMs into environmental trainings and briefings, and compliance and monitoring for EPMs that minimize visual contrasts (see *Appendix G*, *Environmental Monitoring and Compliance Plan*).

All project personnel working on the ROW will receive environmental training, including a briefing on the EPMs that apply to visual resources. The following EPMs apply specifically to visual resources:

Table E-2: Visual Resources Environmental Protection Measures

Topic - No.	Applicant Committed EPMs And Design Features For Construction (C), Operation, And Maintenance (O&M)	Applicable to C and/or O&M*
Aesthetics/Visual Resources		
A-1	Tri-State and its contractors will exercise care to preserve the natural landscape, and will 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 work, approved temporary or permanent construction roads, staging areas or excavation operations, vegetation will be preserved and will be protected from damage by the contractor's construction operations and equipment.	C
A-2	Tri-State and its contractor(s) will minimize scarring, defacing, damage, or destruction of the natural landscape resulting from construction operations; any unnecessary or unauthorized disturbance will be repaired by the contractor to the satisfaction of the agency authorized officer.	C

Topic - No.	Applicant Committed EPMs And Design Features For Construction (C), Operation, And Maintenance (O&M)	Applicable to C and/or O&M*
A-3	All construction and future maintenance materials, waste, and debris will be removed from the project area in a timely manner. Burning or burying of waste materials on the ROW or construction sites will not be allowed. All materials resulting from the contractor's clearing operations will be removed from the ROW.	C and O&M
A-4	Structures and access roads will be located and designed to conform to the terrain and to minimize visual effects whenever possible. Specifically, visibility from Key Observation Points (KOPs) will be considered at the Dolores River crossing. (See A-6). Leveling and benching of the structure sites will be done to the minimum extent necessary to allow for construction and future maintenance operations. Existing cleared or disturbed areas will be used to the extent practicable for staging areas and other temporary use areas.	C
A-5	Tri-State and its contractor(s) will attempt to manage vegetation within the ROW in a manner that reduces the visual effect by only removing non-compatible vegetation that could pose a threat to the transmission line in the next 10 years and leaving compatible vegetation in the ROW. The first priority is to allow Tri-State to meet their federal reliability standards for vegetation management within and adjacent to the transmission ROW.	C and O&M
A-6	In order to minimize visual effects from the transmission line from a design perspective, Tri-State has committed to utilizing non-specular conductor, applying acid-etched galvanized finish or weathering finish to all steel structures including steel fence, and using gray porcelain insulators.	C
A-7	EPM VG-2 through VG-9 will minimize visual effects from project construction and operation by reclaiming areas of temporary disturbance and minimizing vegetation removal to tall woody vegetation required for the safe construction, operation, and maintenance of the transmission line.	C and O&M
A-8	The alignment of any new access roads will follow the designated area's landform contours where practical, provided that such alignment does not additionally affect resource values. This will minimize ground disturbance and reduce scarring (visual contrast).	C

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Appendix F

Water Resources Plan

Appendix F

Water Resources Plan

The objective of this Water Resources Plan is to detail practices designed to address potential impacts from construction of the Tri-State Montrose-Nucla-Cahone Transmission Line Improvement Project (Project). Tri-State Generation and Transmission Association, Inc. (Tri-State) has developed this plan as part of the Plan of Development (POD) that accompanies its application to the Bureau of Land Management (BLM) for a Right of Way (ROW) grant. If the ROW grant is approved, the final POD and all appendices will be attached to the Decision Record. This plan provides guidance to construction and field personnel on measures identified by Tri-State, BLM, and US Forest Service (USFS) to minimize effects during construction activities associated with the Project. It will be the responsibility of Tri-State and its project contractors, working with designated environmental inspectors, to comply with measures identified in this plan, while maintaining communication with BLM and USFS on potential water resource issues.

Based on the US Geological Survey (USGS) National Hydrography dataset (USGS 2013), there are no lakes or reservoirs within the project area ROW or footprints of existing or new substations. There are six perennial streams, listed from east to west: East Fork Dry Creek, which flows north into the Uncompahgre River; Sheep Creek, which flows into Horsefly Creek, then into the San Miguel River; the San Miguel River; Naturita and Hamilton creeks, both tributaries to the San Miguel River near Naturita; and the Dolores River. Flow in the San Miguel River near Nucla ranges from about 3 cubic feet per second (cfs) to 2,770 cfs, with a median flow of about 100 cfs (USGS 2014). Peak flows in the San Miguel River near Nucla (USGS 09174000) occur between mid-April and mid-June, and lowest flows occur from July to October. Peak flows generally range between 500 and 3,700 cfs, and lowest average daily low flows are approximately 60 cfs, depending on conditions. Flow in the Dolores River near Slick Rock (USGS 09168730) ranges from less than 1 cfs to 3,320 cfs, with a median flow of about 110 cfs (USGS 2014). Peak flows in the Dolores River near Slick Rock generally occur in April and May, and lowest flows occur in fall and winter. Peak flows range from approximately 100 to 3,800 cfs, and lowest average daily low flows are approximately 26 cfs, depending on conditions. The Dolores River near Slick Rock flows are affected by regulation and/or diversions. No construction activities will occur in these perennial rivers or streams; existing roads and bridges will be used to transport equipment for construction and maintenance of the transmission line.

There are numerous intermittent and ephemeral streams in the project area, some of which are unnamed. The named intermittent or ephemeral streams, from east to west, are Coal Creek, Bear Creek, Kelly Creek, Nelson Creek, Dry Creek, Dead Horse Creek, Big Gypsum Creek, Disappointment Creek, and Glade Creek. Construction will affect intermittent streams where existing bridge crossings are not present. Construction across these streams will occur in no-flow or low flow conditions. Per EMP 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 to 6 inches deep for a distance of 10 feet on native surface roads, the soil will 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 will be deemed too wet to support construction equipment. Roads and stream crossings will be designed and constructed to professionally acceptable engineering standards.

There are also water conveyance structures (ditches and canals) within the project area, including the West Canal and Shavano Valley Ditch, both located west of Montrose; the CC Ditch, located east of Naturita; and the Horseshoe Ditch, located near Disappointment Creek. The National Hydrography dataset shows several other canals or ditches in the project area, but did not name them. Construction and operation of the transmission line will not affect man-made conveyance structures.

Tri-State will submit a Pre-Construction Notice (PCN) to the U.S. Army Corps of Engineers (USACE) for stream crossings as required under Nationwide Permit 12 for utility lines. The PCN will identify streams requiring fill (rock armoring) or culverts. Tri-State will comply with conditions required by the USACE (see measure WQ-10 in Table F-1). The USACE routinely provides a copy of the PCN to land management agencies. Tri State will secure all necessary permits from the State of Colorado, local municipalities, and USACE, such as stormwater and 404 permits, respectively. Moreover, Tri State will comply with USACE "regional conditions" and coordinate with Colorado Department of Health and Environment, when necessary, to comply with regional conditions.

The following EPMs apply to water quality; also see vegetation and soils measures in Table 4 of the POD:

Table F-1: Water Quality and Erosion Environmental Protection Measures

Topic - No.	Applicant Committed EPMs And Design Features For Construction (C), Operation, And Maintenance (O&M)	Applicable to C and/or O&M*
Water Quality and Erosion		
WQ-1	A Storm Water Management Plan (SWMP) will be developed and implemented to address all construction/ reconstruction activities. The plan will conform to Colorado Department of Public Health and Environment (CDPHE) requirements including regular inspections to ensure proper and effective functioning of Best Management Practices (BMPs). The Final POD will also be updated with specific water quality design measures once final engineering is complete.	C
WQ-2	All Tri-State construction personnel, including contractors will be trained on stormwater management requirements for the project. The environmental monitor will be responsible for compliance with the stormwater management plan from construction and through post-construction/reclamation.	C
WQ-3	BMPs will be installed for project construction and future access road maintenance to protect water quality and surface waters. BMPs implemented will encompass a wide range of practices, both structural and non-structural in nature, such as road design requirements and construction techniques (installing cross drains, dips, and/or water bars) to minimize sediment discharge to surface water, as well as standards for maintaining road stability to control erosion. Site assessments will be conducted bi-weekly (as outlined in the SWMP) to assess the adequacy of BMPs at the site, and the necessity of changes to those BMPs to ensure continued effective performance. Where site assessment results in the determination that new or replacement BMPs are necessary, BMPs will be installed to ensure effective erosion control. Where BMPs have failed, resulting in noncompliance, they will be addressed as soon as possible, immediately in most cases, to minimize the discharge of pollutants. In addition, there will be areas that will no longer require BMPs. These BMPs will be identified and removed when appropriate.	C

Topic - No.	Applicant Committed EPMs And Design Features For Construction (C), Operation, And Maintenance (O&M)	Applicable to C and/or O&M*
WQ-4	Construction activities will be performed using 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 to, refuse, garbage, cement, concrete, sanitary waste, industrial waste, radioactive substances, oil and other petroleum products, aggregate processing tailings, mineral salts, and thermal pollution. Excavated material or other construction materials will not be stockpiled or deposited near or within 100 feet of any surface water, wetlands, 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 actual water source itself. BMPs will be installed if it is likely materials could leave the site (silt fence, waddles, or other methods could be implemented).	C
WQ-5	With the exception of areas where access roads cross surface waters, buffers will be used when constructing new access roads and structure locations occur in proximity to water resources including wetlands. Tri-State will buffer surface waters, wetlands, riparian areas, and ditches 100 feet regardless of slope class whenever feasible. When 100 feet is not feasible, the following standard will be used: 30 feet for gentle slopes, 60 feet for moderate slopes, and 100 feet or more for severe slopes. If these buffers are not feasible in a particular area because of another resource, land use, or engineering constraint, BMPs will be utilized to ensure that sediment from construction does not enter surface waters and drainages.	C
WQ-6	Tri-State does not expect dewatering to be required for the project. However, if future geological testing indicates dewatering at structure locations is required, dewatering work for structure foundations or earthwork operations adjacent to, or encroaching on, streams or water courses will not be performed without prior approval by CDPHE and affected land management agency. 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. All fuel and fluid spills within this area will be handled in accordance with appropriate state and federal spill reporting and response requirements.	C
WQ-7	Wastewaters from concrete batching and other construction operations during project construction or future maintenance activity will not enter streams, watercourses, or other surface waters without the use of turbidity control methods such as settling ponds, gravel-filter entrapment dikes, and approved flocculating processes that are not harmful to fish, recirculating systems for washing of aggregates, or other approved methods. Any such wastewaters discharged into surface waters will be essentially free of settleable material. For the purpose of these specifications, settleable material is defined as that material which will settle from the water by gravity during a 1-hour quiescent detention period.	C
WQ-8	Access roads will be designed/improved to properly drain in order to prevent future erosion. Final access road design/improvement requiring substantial cut and fill (Level 3) will be reviewed and approved by the affected authorized agency road engineer prior to construction.	C
WQ-9	Erosion control measures including silt fences, straw bales, and other stormwater runoff and sediment controls will be implemented and regularly maintained on disturbed areas, including areas that must be used for maintenance operations (access ways and areas around structures).	C and O&M

Topic - No.	Applicant Committed EPMs And Design Features For Construction (C), Operation, And Maintenance (O&M)	Applicable to C and/or O&M*
WQ-10	Prior to construction, a wetland and surface waters wetland delineations will be completed within the area of proposed disturbance and fill within or proximity to potential waters of the U.S., and appropriate permits will be obtained from the USACE if the project exceeds Nationwide Permitting (NWP) thresholds. Construction activities will be limited to that approved in the NWP obtained from the USACE for the project. Tri-State will strictly adhere to all applicable conditions of the 404 permit (s). Tri-State will comply with San Miguel County regulations for wetland protection.	C
WQ-11	Delineated wetland boundaries within the project area will be identified clearly with wetland pin flags, fluorescent wetland tape, and/or orange plastic construction fencing. The markers will be installed prior to the initiation of construction and will be maintained throughout the construction process. Wetland boundaries not authorized for disturbance under a Corps of Engineers permit will be buffered (from construction activities) by 100 horizontal feet.	C
WQ-12	Disposal of excess water from dust control will be done on flat upland locations away from surface drainages to prevent runoff and to encourage infiltration into the soil.	C
WQ-13	Vegetation removal will be limited to the area necessary for construction activities, and disturbed areas will be scarified and revegetated after construction, using native vegetation (see Appendix P). Noxious weed management will occur, per EPMs NW-1 to NW-8 (see Appendix S).	C
WQ-14	Tri-State will hire an agency- approved environmental monitor to ensure the project complies with all conditions of Nationwide Permit 12 (Utility Line Activities) to prevent unplanned impacts to wetlands and other waters of the U.S. Prior to construction, all supervisory construction personnel will be trained in avoidance and minimization techniques to lessen impacts to wetlands and other waters of the U.S.	C
WQ-15	In areas where construction may occur near surface waters and wetlands but no permanent or temporary impacts are planned and permitted under a USACE permit, 100 horizontal foot buffers will be created to protect these resources from sedimentation and erosion impacts. Fueling will occur only at staging areas and commercial stations to avoid potential contamination of surface waters, wetlands, and riparian communities. All reportable fuel and chemical spills will be reported to the State of Colorado, per applicable statutes and regulations, contained and cleaned up promptly.	C
WQ-16	Culverts or armored low water crossings will be located as approved by the appropriate agencies and any changes to stream banks at crossings will be designed to sustain bank full dimensions of width, depth, and slope and keep streambeds and banks resilient to prevent effects to natural streamflow at stream crossings. New and existing culverts will be maintained in such a manner so as to allow continual flow of irrigation water, return water, waste water and on-and-off site run-off, and allow fish passage if fish were historically present.	C
WQ-17	Low water crossings will be used instead of culverts to the extent possible, particularly in drainages with floodplains. Armored low water crossings will be designed to prevent scouring along the downstream edge, and maintain the channel pattern, profile and dimension. These will be designed and constructed per United States Department of Agriculture (USDA) USFS Tech Reference – Low-Water Crossings: geomorphic, biological, and engineering design considerations. See reference (http://www.USFS.fed.us/eng/pubs/pdf/LowWaterCrossings/LoWholeDoc.pdf).	C
WQ-18	Intermittent or ephemeral streams will be crossed at right angles to the main channel.	C and O&M

Topic - No.	Applicant Committed EPMs And Design Features For Construction (C), Operation, And Maintenance (O&M)	Applicable to C and/or O&M*
WQ-19	No construction equipment will be operated within the stream channel, unless for the purpose of installing armored crossing and culverts or moving construction equipment across the channel for use on either bank.	C
WQ-20	Implementation of EPMs outlined above under Vegetation and Soils will also minimize impacts to water quality and surface waters. Reclamation will occur as soon as the season permits, including implementation of post-construction measures to stabilize areas of permanent and temporary disturbance.	C
WQ-21	Excavated topsoil and/or hydric soils from temporarily or permanently impacted wetlands will be selectively stockpiled for appropriate use in the project area following disturbance. Stockpiled soil will be stabilized using mulch or covering the material, to minimize erosion and sediment delivery to streams and wetlands. Further information can be found in Appendix P.	C

References

U.S. Forest Service (USFS) (2006): Low-Water Crossings: geomorphic, biological, and engineering design considerations. Available at: http://www.USFS.fed.us/eng/pubs/pdf/LowWaterCrossings/LoWholeDoc.pdf.

U.S Geological Survey. (2013). National Hydrography Dataset.

U.S. Geological Survey. (2014). National Hydrography Dataset.

Tri-State Montrose-Nucla-Cahone Transmission Line Improvement Project

Plan of Development

Montrose, Ouray, San Miguel, and Dolores Counties, Colorado

Appendix G

Environmental Monitoring and Compliance Plan

Appendix G

Environmental Monitoring and Compliance Plan

Tri-State Generation and Transmission Association, Inc. (Tri-State) has developed this Environmental Monitoring and Compliance Plan as part of the Plan of Development (POD) that accompanies their application to the Bureau of Land Management (BLM) for a right- of-way (ROW) grant and to the US Forest Service (USFS) for a special use permit, collectively referred to as a ROW. If the authorizations are approved, the final POD and all appendices will be attached to the Decision Record. This plan provides guidance to Tri-State and its contractors to ensure compliance with environmental protection and mitigation measures approved in the final Environmental Assessment (EA) and agreed to under private easements to minimize environmental and land use effects during construction activities associated with Tri-State's Montrose-Nucla-Cahone Transmission Line Improvement Project (Project). It will be the responsibility of Tri-State and its contractors, working with designated compliance monitors (monitor), to comply with environmental protection and mitigation measures as well as local, state, and federal rules and regulations and permitting requirements. The goal of this plan is to describe the monitoring of impacts from the development along with monitoring to ensure mitigation measures are implemented and are meeting the required resource goals.

The timetable for development of the final detailed Environmental Monitoring and Compliance Plan is as follows:

Table G-1: Timetable of Final Detailed Environmental Monitoring and Compliance Plan

Timetable	Deliverable/Task
By Preliminary Final EA (internal review step)	Monitoring and compliance strategy, and information necessary for the final detailed plan including locations, education requirements according to area/phase and impact/compliance reporting steps (complete). A comprehensive list of all state, federal, and local permits required for construction (complete; Appendix U)
45 Days prior to Notice to Proceed	Final, Detailed Environmental Monitoring and Compliance Plan Provided to BLM for each project phase prior to the NTP.

Proposed Construction Phasing

The construction schedule is dependent on obtaining all necessary federal, state, and local approvals, but is expected to be conducted in three phases. Phase 1 will begin in 2016 with ROW and construction preparation. These activities will include pre-construction noxious weed management, access road improvement and construction, pad site creation (where needed to safely set up construction equipment), and vegetation removal to facilitate construction and ensure the reliability and safe operation of the power line once in operation. Site grading and construction at the Montrose Substation is also expected to be ongoing in 2016. Phase 2 will begin in 2017 with construction of the Montrose to Nucla segment of the transmission line. Phase 3 will begin in 2018 when Tri-State will complete the remainder of the transmission line construction from Nucla to Cahone.

Objective of the Compliance and Monitoring Plan

This plan outlines the steps required to ensure compliance with the conditions of approval during the three phases of project construction, including environmental training and orientation, roles and responsibilities of agency and Tri-State representatives and the monitor, the communication process for reporting compliance violations, and the process for specifically addressing variances to the POD.

The plan will cover the following conditions of approval: environmental protection measures (EPMs), approved mitigation measures, and federal, state, and local rules and regulations*:

- Compliance with all applicable federal environmental laws including but not be limited to:
    - Endangered Species Act, Section 401 and 404 of the Clean Water Act, Section 106 of the Historic Preservation Act, the Migratory Bird Treaty Act, the Bald and Golden Eagle Protection Act, etc.
- Compliance with Tri-State's committed EPMs, outlined in both the POD and EA;
- Compliance with federal, state, and local laws, regulations, and permits;
- Compliance with Conditions of Approval in the ROW and POD; and
- Compliance with implementation of conservation actions and required reclamation and mitigation measures, including monitoring of such actions.

*A detailed list of federal, state, and local permits required for project construction is included in *Appendix U (Permits and Authorization Plan).*

Roles and Responsibilities

Tri-State has committed to contracting a third party compliance monitor (monitor) for construction activities occurring on lands administered by the BLM. The same monitor will be used to ensure compliance on lands administered by the USFS, state lands, and areas of environmental concern on private lands. The monitor will be contracted by Tri-State, but work for the BLM and USFS. The monitor's role will be to monitor and advise the construction contractors on compliance issues and terms and conditions of the permits to ensure compliance with the POD, ROW Grant, Special Use Permit, as well as all other federal, state, and local permits. Compliance with the permits will ultimately be the responsibility of Tri-State and its contractors.

The monitor's role will be to enforce the terms and conditions of federal, state, and local authorizations (See *Appendix U*, *Permits and Authorizations Plan*) and ensure all required EPMs for the project were implemented. Compliance with all Project authorizations is the responsibility of Tri-State and its contractors. The monitor will seek to minimize all forms of non-compliance, resolve conflicts in the field through consultation with Tri-State and the agencies representative, provide guidance to field crews regarding environmental regulations and stipulations of the various permits and authorizations, plan ahead for areas where a construction variance may be needed prior to any violation occurring, and provide Tri-State information to support drafting of variance requests.

The monitor will be given full authority to solve problems and identify solutions to potential compliance concerns through coordination with the agencies representative. The monitor will be given full authority to cease construction without Tri-State or agency approval if the Project could or has resulted in reportable compliance violation as outlined below. The monitor will work with the affected agency to identify and ensure implementation of corrective actions required to address compliance concerns.

BLM and USFS staff will be funded by a cost recovery agreement with Tri-State. The BLM and USFS agency representatives will direct the work of the monitor. The BLM and USFS staff, through their agency representative, will work directly with Tri-State and the monitor to review non-compliance issues and process requested variances. Agency staff and the monitor will be funded for the life of the construction process.

Tri-State will designate an internal authorized representative (compliance coordinator) in the Transmission Environmental department to coordinate directly with the BLM and USFS agency representative and monitor to review compliance reports and concerns and to process variance requests. Because a variance request will result in a formal modification to Tri-State's permit(s), the variance request will need to come from Tri-State's compliance coordinator and will be signed by the Senior Vice President of Transmission at Tri-State. The monitor will serve as a conduit between Tri-State's compliance coordinator and the BLM and USFS agency representatives to provide information and support in processing of variance requests.

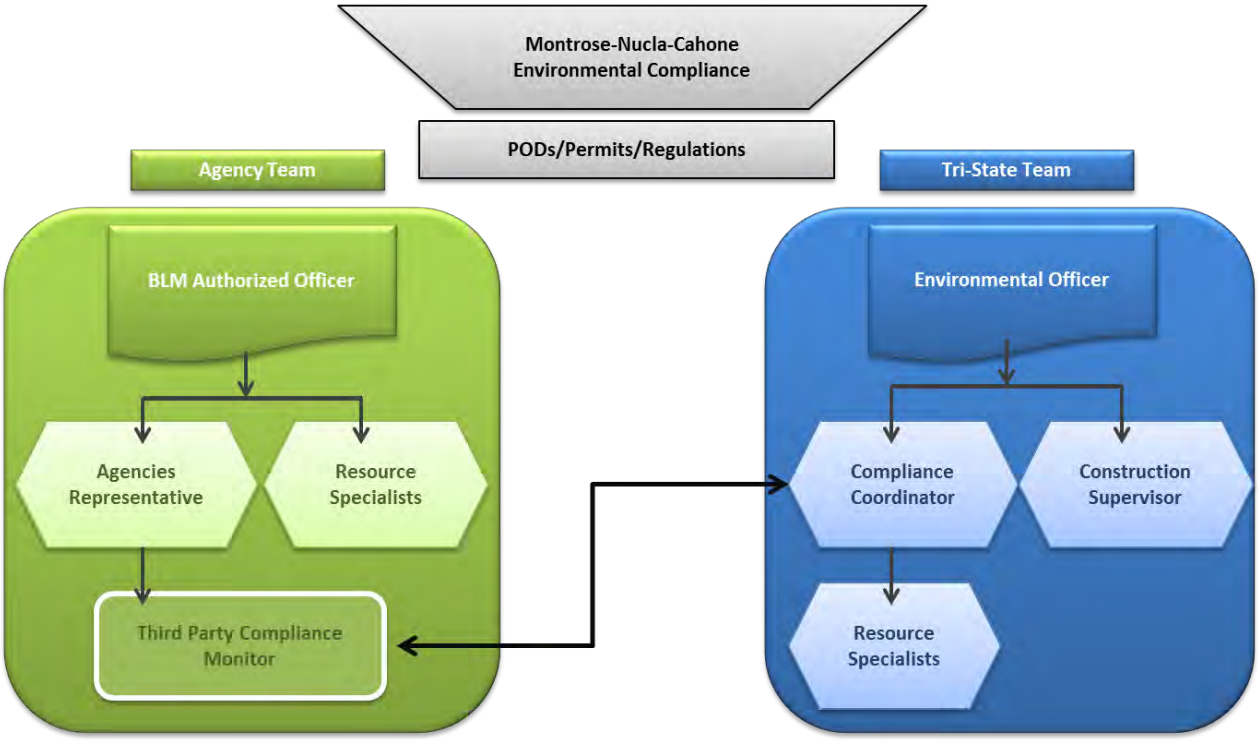
The number of appropriate compliance monitors will be determined once the construction contractor has provided Tri-State the proposed construction schedule and staffing requirements. The final compliance staffing will be reviewed by the affected agency 30 days prior to initiation of construction activities. For example, if more than one construction crew is working concurrently, two compliance monitors will be required. In addition to the general compliance monitor, Tri-State will require the construction contractor to provide a detailed schedule for activities that occur in sensitive areas, such as in proximity to eligible cultural resources, to ensure the specialized compliance monitor will be present during construction related activities.

See Table G-2 and Figure G-1 for information on compliance roles and responsibilities.

Table G-2. Roles and Responsibilities

Tri-State's Compliance Coordinator	Third-Party Compliance Monitor
Pre-Construction Training	Assist with/document trainings/tailgate briefings
Compliance with POD, ROW stipulations	Monitoring compliance/reporting non-compliance
Coordinate with Tri-State contractors and submitting documentation to support Notice to Proceed(s) (NTPs) and variances	Confirm documentation, track NTPs/variances, help agencies to determine adequacy of compliance
Provide documentation of compliance associated with stop work orders	Assist agencies with Draft Stop Work Orders, review of compliance documentation, and issuance of approval of NTPs and/or variances
Provide information on construction and compliance status and prepare final Compliance and Monitoring Report.	Compliance reporting including: • Daily reports, photos, communication on website; • Weekly summary reports; and • Final Compliance and Monitoring Report.

Figure G-1: Environmental Compliance Team



Stop Work Orders

Reasons for a stop work order include but are not limited to:

- A safety concern to people or harm to property;
- Potential harm to threatened or endangered species or protected cultural or other resources;
- A violation of project or permit specifications and requirements;
- A violation of federal or state regulations; or
- Repeated violations of non-compliance.

Before a stop work order is issued, steps will be taken to communicate and coordinate with all appropriate personnel, unless the Project could or has resulted in a reportable compliance violation as outlined herein, in which case the monitor will have full authority to cease construction activity. A stop work order will only apply to the area where there is an issue.

After a stop work order has been issued, Tri-State will work with all affected agency representatives to identify necessary corrective actions, including timeframe for implementation, to resolve the issue of non-compliance.

Documentation of resolution provided by Tri-State must be confirmed by the monitor and approved by the agency representatives. Work may not begin again until a written Notice to Proceed has been signed by the agency representative and has been provided to Tri-State. Stop work orders will be documented in daily (if necessary) and weekly compliance monitoring reports.

Enforcement

The agency representative, the monitor, and Tri-State's authorized compliance coordinator are authorized to stop work at any time if the Project is out of compliance with the POD and associated local, state, or federal permits/conditions of approval. The monitor does not need to contact Tri-State prior to stopping construction if there are compliance concerns. The monitor will report this cessation in work to the appropriate agency representative/landowner and Tri-State within 24 hours. Construction will not be permitted to continue until the time that the non-compliance issues have been rectified and the corrective measures have been documented, approved by the applicable federal, state, or local permitting representative and/or land use manager/owner.

The monitor will concurrently report any compliance concerns directly to Tri-State's compliance coordinator representative for the Project as well as the agencies representative verbally and/or in writing either via email or memo. This process ensures that both the agencies and Tri-State are aware of any compliance concerns that may arise during construction and will enable both Tri-State and the agency to identify and implement corrective actions whenever necessary.

Training for All Construction Personnel

Tri-State will coordinate environmental compliance training prior to any personnel starting work on the transmission line. Tri-State will work with the BLM and USFS agency representative and the monitor to prepare environmental compliance training. Tri-State's compliance coordinator will prepare a Power Point Presentation that all construction personnel are required to review with Tri-State's environmental department, monitor, and the agencies representative prior to the start of construction. This format works well in the field and once printed in hard copy serves as the on-site training for those that may join the job site at a later time. Tri-State personnel, transmission construction crew, vegetation management team, grading contractors, and surveyors will be required to sign a form stating they have completed environmental training for the Project that also specifically states that they have been educated on all compliance related issues for the Project, have reviewed the Environmental Compliance and Monitoring Plan, and are entirely liable for any and all environmental violations. These records

will be kept on file both at Tri-State and if desired at the BLM and USFS offices. As new personnel come on-site throughout various stages of the project, the training will be initiated and the records (signed forms) updated and submitted to the agencies.

Prior to construction, Tri-State will arrange a pre-construction meeting for each year of construction activities with the BLM and USFS agency representative and resource specialists, and the monitor, Tri-State construction inspectors, construction contractors, and Tri-State engineering and construction personnel. At this meeting, Tri-State environmental department will review all compliance requirements for the Project and give each agency time to discuss any additional specific concerns, requirements, and expectations.

Tri-State will create a master spreadsheet to be maintained by the Project's monitor. The spreadsheet will outline the primary contact information for Tri-State's environmental department, Tri-State's construction department and inspectors, the construction contractor's foreman and second in command, the agencies' representative, CPW, and local emergency services and medical facilities. This spreadsheet will be updated as required to account for changes in staff and resubmitted to the larger Project team.

Environmental Monitoring Strategy and Compliance Reporting

The monitor will work daily with the Tri-State's compliance coordinator to ensure the agency representative(s) are aware of where the contractors will be working from day to day, what potential challenges have arisen, and to determine if variances may be needed to the POD which will require agency approval prior to the work occurring. Environmental monitoring will be planned according to resources involved for each project phase, and coordinated with the sequence of construction (for example, for line construction the sequence will include vegetation clearing/road improvement, drilling/foundations, structure assembly, conductor stringing, clean-up and reclamation).

The overall strategy will be as follows: Monitor will meet daily or weekly as needed with the on-site supervisor(s) to determine monitoring needs and resource issues, and plan ahead for avoidance and minimization. Detailed maps 1 inch = 600 feet and drawings will be provided to the environmental monitor and the on-site coordinator, and used for field verification, resource issues, and clearance tracking. In addition to the maps, a detailed environmental line list will be updated daily by the environmental monitor and used for communication between the environmental monitor and construction on-site supervisor. An example of environmental line list is attached (see Attachment G-1).

It is Tri-State's standard safety practice to have tail gate meetings each morning to review schedules, staff, concerns, and environmental and safety concerns. The monitor will provide weekly inspection reports to both the affected agencies representative and Tri-State's authorized environmental compliance representative. If there is a possible compliance concern, the compliance concern will be documented the day of the occurrence and provided to Tri-State and the agencies representative on the day of the occurrence. All records of communication on the matter will be saved in the compliance record files to be managed by the monitor and submitted to both the affected agency and Tri-State's compliance coordinator. Some form of electronic system that has been agreed upon by the local BLM and USFS specialists will be used to provide timely information to agency specialists. This could include a google drive, SharePoint site, File Transfer Protocol, or other form of electronic file sharing system.

The weekly environmental monitoring reports will include the following:

- A summary of the work completed for the week including location, land owner/manager, and any schedule changes for work in environmentally sensitive areas;
- Summary of all reportable non-compliance observed by the monitor and agency representatives during the reporting period;

- Corrective actions implemented in response to all instances of non-compliance and the effectiveness of all corrective actions implemented;
- Tailgate briefings and updates on new personnel on site requiring compliance training;
- Summary of variance requests; and
- Status of stop work orders.

Reportable non-compliance concerns will be reported within 24 hours or less of recognition of a concern. Minor compliance violations will be included in the weekly report to the agencies. Compliance related issues will be categorized in the following manner:

- **Non-reportable violations:** A non-reportable violation will be a one-time occurrence of a compliance violation resulting from authorized construction activities that do not result in unauthorized ground disturbance or adverse impacts (as defined by the agencies representative and monitors) to natural or cultural resources or land uses. (Example: inadvertently and temporarily parking outside of an authorized ROW [one time only] outside of a sensitive resource area). These types of violations will not require a formal non-compliance report and corrective action beyond a follow-up with Tri-State and its contractors and notification that a second offense will require a report to the agencies and corrective action.
- **Reportable violations:** A reportable compliance violation will include; 1) any action that is in non-compliance with the POD resulting in unauthorized ground disturbance, use of unauthorized roads, and/or impacts or risk to sensitive biological, geological, or cultural resources and land uses; or 2) results in violation of a federal, state or local permit or condition of approval that will require corrective action or; 3) a second or subsequent violation of a non-reportable violation. These compliance concerns will require agency notification, coordination and corrective action and documentation. Examples of a reportable violation include, but are not limited to: construction crews grading outside of the authorized ROW; construction actions that result in impacts to wetlands beyond that which was authorized in federal, state, or local permits; initiation of construction during a seasonal constraint for a specific resource; and any action that threatens the health and safety of construction personnel, monitors, agency representatives and the public at large.

Construction Variance

While Tri-State proactively plans construction activities to address potential changes/challenges that may arise during construction, it is impossible to foresee all issues that may arise over the course of the three year construction period. The construction variance process may be required for unexpected events or changes in site conditions that may occur during Project construction that will result in changes to the approved POD. For example, environmental conditions might make the level of improvement originally proposed for access roads to increase or require re-alignment. In some cases extra temporary work space may be required to facilitate construction in challenging areas. Construction variances will be required anytime disturbance, construction, or access is required outside of authorized access ROW, the transmission ROW, staging areas, and approved temporary use areas.

The construction variance process will enable Tri-State to propose a variance to request a change to the POD and ensure the affected agencies review the proposed changes/activities, complete environmental and cultural resource surveys if required, and review potential impacts prior to determining if the variance can be approved. Construction variance requests will only be submitted to the affected agency/landowner where the variance is proposed. The agency/landowner will determine if the variance can be approved as proposed, revised as appropriate, or not accepted (see process for variance approvals below). No construction activity associated with the variance can proceed until the variance checklist has been reviewed and approved and the authorized agency representative has signed off on the variance request. Approved variance requests will be saved by the monitor and Tri-State's authorized construction coordinator.

If the construction contractor determines a variance is required, they will communicate this request to Tri-State's designated construction inspector who will directly contact the monitor. The monitor and Tri-State's compliance monitor will notify the affected agencies representative to discuss the request. If the agency representative determines that the proposed change/activity will require a formal variance, it will be the responsibility of Tri-State's compliance monitor in coordination with the monitor to prepare a variance request as outlined further below. Tri-State will be responsible for contracting any additional survey work (biological and cultural resources, wetlands, etc.) required to address a variance outside of authorized disturbance areas. Tri-State must obtain formal variance approval via a written letter or signed variance request form from the BLM and/or USFS prior to the change in proposed activity is permitted to occur.

The proposed variance request form to be used for the Montrose-Nucla-Cahone Project is included below as Attachment G-2. The following discusses the specific levels of variances that will be considered for the Project and the communication, review, and approval process for each of the three variance levels.

Variance Levels and Approval Process

When a variance is sought, Tri-State's Compliance Coordinator will coordinate with the monitor and the agencies representative to complete the variance request and supporting documentation. The monitor is responsible for transmitting the supporting documentation, including a summary of prior environmental analysis and their on-the-ground perspective of the requested variance to the agency representative and Tri-State for variances on BLM and USFS administered lands. Tri-State will be responsible for submitting the variance and obtaining approval of the construction variance. Tri-State will use an agency-approved Variance Request Form (see Attachment G-2) to track variances.

The variance process will allow Tri-State to submit variances for approval, depending on the scope of the proposed modification, to the monitor (Level 1 or 2 Variances) or the agency representative (Level 3 Variances). The agency representative (on federally-managed lands only) is responsible for approving, approving with revisions, or denying a Level 3 Variance request. The monitor is responsible for coordinating with Tri-State and its contractor(s) prior to implementing the variance modifications.

The monitor will participate in the variance review process and provide Tri-State and the agencies representative documentation to support the Variance Request Forms (see Attachment 1). The type of documentation and participation required will depend upon the type and level of variance requested. The monitor will also be responsible for documenting variance requests and approvals in their weekly compliance monitoring report. Agency representatives will be notified of any variance requests on lands or facilities under their jurisdiction and provided the opportunity to review and comment on such requests. The exception is Level 1 Variance requests, which will be noted in the weekly and if necessary, daily monitoring report.

The following outlines the proposed variance levels for the Project:

Level 1 Variance (Field Decisions) – A Level 1 Variance is a site-specific, minor change to Project specifications or mitigation measures that provides equal or better protection to environmental resources, does not alter performance-based requirements, does not violate agency requirements and does not impact new landowners. The affected area will be within the ROW and previously surveyed corridor for cultural and biological resources. These minor variance requests can be either approved or denied by the monitor in the field during normal construction operations. This will include a follow-up contact with the agency representative. Level 1 Variances may also be used to document and disseminate agency-directed changes to mitigation measures. Some examples of a Level 1 Variance include:

- Changing areas required for topsoil stripping;
- Shifting extra workspace along, but within, the ROW for a short distance and within the previously

surveyed corridor (without increasing land use disturbance in type or acreage or impacting cultural or sensitive resources); and
- Modifying setbacks at water bodies and wetlands where site-specific conditions during construction do not allow for proper placement of spoil without impacting cultural or other sensitive resources.

Level 1 Variance: To initiate a Level 1 Variance request, Tri-State will fill out a Variance Request Form in coordination with the monitor, who will obtain the appropriate signatures. The site-specific situation will be evaluated by the monitor, who will determine whether the variance level requested is appropriate.

The monitor may approve a Level 1 Variance request if the results of implementing the change will provide equal or better protection of the resource than the permitted environmental protection or mitigation measures, or if the measure is not applicable to that specific site. If a Level 1 Variance request is approved in the field, the monitor will sign the Variance Request Form. A Level 1 Variance request can be implemented in the field as soon as it is approved by the monitor. In some cases, the monitor may grant verbal approval and then complete the paperwork.

The monitor will document the variance approval in the weekly compliance monitoring report and send it to Tri-State and the agencies representative. If the variance exceeds the monitor's authority level, the monitor will inform Tri-State that a Level 2 or Level 3 Variance request is required.

Level 2 Variance: A Level 2 Variance request exceeds the field decision authority of the monitor and requires discussion with the agency prior to submittal of a variance request. The agencies representative must approve a Level 2 Variance. Level 2 variance requests generally involve project changes that will affect an area outside of the ROW, but within the corridor previously surveyed for cultural resources and sensitive resources.

Some examples of a Level 2 Variance request include:

- Using a workspace outside of the ROW, but within the corridor previously surveyed for cultural and sensitive resources;
- Modifying a previously approved access road in ways not previously identified;
- Modifying seed mixes approved in agency documents due to unavailability;
- Incorporating a minor route realignment where no new landowners will be affected and all work areas are within previously surveyed areas; and
- Requesting entry into a Limited Operating Period Area before or after the allowed time.

To initiate a Level 2 Variance request, Tri-State's compliance coordinator will fill out a Variance Request Form and prepare the appropriate supporting documentation. Tri-State will then obtain the appropriate signatures, and complete and submit the Variance Request Form and supporting documentation by e-mail (scanned copy) or facsimile to the agencies representative. The monitor, Tri-State's authorized representative, and the agencies representative will discuss either in the field or via conference call and determine what situations warrant additional discussions before Level 2 variances are approved.

If the Level 2 Variance request is approved, the agencies representative will sign the Variance Request Form and e-mail the approved form (scanned copy) to the Tri-State representative, and if necessary, other applicable federal and regulatory agency representatives. The variance may be implemented in the field as soon as the approved variance is received.

Level 3 Variance: A Level 3 Variance request generally involves project changes that will affect an area outside of the previously approved ROW and corridor previously surveyed for cultural and sensitive resources or has potential to impact cultural resources, sensitive species or other sensitive resources.

Some examples of a Level 3 Variance include:

- Requesting extra workspaces, access roads, route re-alignments, or facility relocations that affect new landowners or sensitive environmental areas, or for which landowner approval cannot be obtained;
- Requesting project-wide changes to mitigation measures or construction/restoration procedures;
- Requesting extra workspaces, access roads, or route realignments outside of the previously surveyed corridor that require additional surveys and agency approvals that affect resources of sufficient sensitivity to require a Level 3 Variance approval as determined by the agencies representative in consultation with the affected local agencies, as needed; and
- Modifying sites potentially eligible for the National Register of Historic Places not previously addressed through the 106 consultation process or involving new/unauthorized impacts to state or federally protected species or their habitat.

The monitor will assist in providing documentation to support the processing of the request and will post the approval form on the Project website. Tri-State and the monitor will consult with the affected agencies representative on a case-by-case basis via telephone call or email. The monitor, agencies representative, and Tri-State representative will meet with the affected local jurisdictions and determine what situations warrant additional discussions with the field offices before Level 3 variances are approved.

To initiate a Level 3 Variance request, Tri-State will first seek comments from the agencies representative before filing the variance request. Any potential unauthorized changes to impacts to eligible cultural resources or federally listed species/critical habitat will require additional consultation and assessment of effect. The Variance Request Form provided below in Attachment 1 includes a checklist that must be reviewed for all levels of variance. Landowner approval must be documented, as appropriate.

Level 3 variances will likely need additional environmental review. The level of review will be determined based on the location of the variance in relation to sensitive resources and land uses as well as the extent and duration of the variance request. In cases where a major variance is required (such as a re-route of the transmission line in a particular area or construction of a brand new access road in critical habitat) additional review under NEPA may be required. NEPA compliance could be a Categorical Exclusion, Determination of NEPA Adequacy or an EA, based on the anticipated level of effect. A Level 3 variance cannot be granted until a decision document and variance has been signed by the agency's Authorized Officer.

Final Construction Compliance Report

Within 30 days prior to the scheduled close of Project construction, the monitor will coordinate a construction closeout meeting with representatives of Tri-State, BLM, and USFS to review and document that all agency compliance requirements have been met or will be met by the end of construction, identify areas of improvement, and ensure that all compliance issues have been satisfactorily resolved or will be close to resolution by the end of construction.

All outstanding issues will include a detailed plan for closure by the end of construction. Following this field inspection, the monitor will prepare a draft Construction Compliance Report. The draft Construction Compliance Report will be submitted to the agencies representative within 30 days of completion of the field inspections. The draft report will be circulated to the agencies representative for a 30-day review period. The monitor will provide a Final Construction Compliance Report to the agencies representative within 20 days of the end of the review period. The Construction Compliance report will include the following:

- Summary of Variance Requests, including variance number; variance type, location and level; submittal date; supporting documentation; and approval date, if applicable;
- Summary of Reportable Violations, including violation date, type, and location as well as resolution and follow-up;
- Summary of additional documentation, including list of additional resource surveys and any additional

NEPA; and
- Summary of any Stop Work Orders, including issue, date, resolution, and supporting documentation.

Post-Construction Inspections

Once construction of the Project is complete and Tri-State's construction contractors have demobilized, the agencies representative, Tri-State authorized representative, and the monitor will participate in one or more post-construction inspections. The monitoring contracts will remain open until all construction-related activities, including restoration and initial permanent seeding, are complete. The environmental monitor will also ensure post-construction compliance with committed conservation measures and mitigation requirements. The contract will conclude at such time during restoration mutually agreeable to the agencies representative and Tri-State. The primary purpose of the post-construction inspections is to:

- Evaluate the status of restoration and re-vegetation of the ROW;
- Monitor the effectiveness of erosion controls; and
- Document ROW areas that may need follow-up work.

The monitor and Tri-State authorized representative will participate in the post-construction inspections along with the agencies representative. The monitor will be responsible for preparing a Post-Construction Inspection Report for each post-construction inspection completed, including recommendations for the ongoing restoration, revegetation, and erosion control efforts.

Emergencies

Emergencies include incidents (fires etc.) and accidents (hazardous material or fuel truck spill etc.) requiring immediate action. They will be communicated immediately to Tri-State's Dispatch and the appropriate authorities. Tri-State's construction field supervisor is in turn responsible for notifying construction personnel, the monitor, appropriate agencies representative and landowners (if the emergency event occurs on private land). When an emergency occurs, personnel will act appropriately to preserve life, protect resources and remove immediate hazards in a manner that minimizes environmental impacts. The agencies representative will determine if the emergency resulted in non-compliance with local, state, and federal permits and conditions of approval. The agencies representative will determine what, if any, additional corrective actions are required to mitigate the compliance issue. This determination will depend on the situation and site conditions and whether contractor negligence contributed. All emergency events will be documented in weekly monitoring reports and will include the affected agency's required corrective actions (if required).

Attachments

G-1 Environmental Line List for Daily Monitoring and Compliance Tracking During Construction

G-2 Tri-State Generation and Transmission Association, Inc.; Montrose-Nucla-Cahone Transmission Project Variance Request Form

Attachment G-1: Environmental Line List for Monitoring and Compliance

Environmental Line List for Monitoring and Compliance

	Construction Activity					Timeline	Status of Env. Clearance			
POLE Structure #	Vegetation Removal / Road Improvement/ Transmission Line Construction	Drilling/ Foundations	Structure Assembly	Conductor Stringing	Clean-up and Reclamation	Seasonal Constraint	Gunnison Sage-Grouse	Migratory Birds	Raptors	Rare Plants
1										
2										
3										
4										
5										
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Attachment G-2 Tri-State Variance Request Form

Tri-State Montrose-Nucla-Cahone Transmission Line Improvement Project

Plan of Development

Montrose, Ouray, San Miguel, and Dolores Counties, Colorado

Appendix H

Blasting Plan

Appendix H

Blasting Plan

The objective of this Blasting Plan is to detail practices designed to address potential impacts from construction of the Tri-State Montrose-Nucla-Cahone Transmission Line Improvement Project (Project). Tri-State Generation and Transmission Association, Inc. (Tri-State) has developed this plan as part of the Plan of Development (POD) that accompanies its application to the Bureau of Land Management (BLM) for a Right of Way (ROW) grant. If the ROW grant is approved, the final POD and all appendices will be attached to the Decision Record. This plan provides guidance to construction and field personnel on measures identified by Tri-State, BLM and US Forest Service (USFS) to minimize effects during construction activities associated with the Project. It will be the responsibility of Tri-State and its project contractors, working with designated environmental inspectors, to comply with measures identified in this plan.

After the geotechnical investigations are complete, Tri-State will prepare an atlas of specific locations where blasting may occur. This atlas will be submitted to the affected agency prior to completion of the final Blasting Plan. The Blasting Plan will be submitted for the affected agency review 45 days prior to the issuance of the Notice to Proceed, and will incorporate comments and concerns from the agencies authorized representative on the blasting plan and atlas. Approval of the blasting plan is subject to the Notice to Proceed.

The timetable for development of the detailed plan is as follows (Table H-1):

Table H-1. Timetable for Final Blasting Plan

Timetable	Deliverable/Task
Complete (see Appendix W)	Geotechnical locations identified for drilling
Summer 2016	Permitting for drilling complete (Temporary Use Permit)
Fall 2016 (Montrose-Nucla) Fall 2017 (Nucla-Cahone)	Geotechnical Investigations compete (drilling)
Winter 2016 (Montrose-Nucla) Winter 2017 (Nucla-Cahone)	Map atlas of specific blasting locations for agency review
45 Days prior to Notice to Proceed for each Phase	Final Detailed Plan Provided to BLM; coordination with agencies

Blasting may be needed in certain areas with rocky terrain to excavate pole embedments, pole foundations, and for construction of access roads. Blasting will be used only in areas where traditional excavation and earth moving equipment and practices are unable to accomplish the excavation. Areas where blasting will likely occur will be identified based on the geologic setting of the proposed

alignment, as identified in the geotechnical investigation for the Project. This document provides a template for the detailed Final Blasting Plan to be developed by the Construction Contractor.

The Blasting Plan will provide construction crews, the Inspector, and environmental monitors with project-specific information concerning blasting procedures, including the safe use and storage of explosives. The objective of the Blasting Plan is to prevent adverse impacts to human health and safety, property, and the environment that could potentially result from the use of explosives during project construction.

Regulatory Compliance and Procedures

The Blasting Contractor will be responsible for preparing and implementing the Blasting Plan and must comply with all applicable federal, state, and local laws and regulations which pertain to explosives. No blasting operations will be undertaken until approval and appropriate permits have been obtained from the applicable agencies. Failure to comply with such laws could result in substantial financial penalty and/or imprisonment.

The Construction Contractor will use a qualified, experienced, and licensed Blasting Contractor that will perform blasting using current and professionally accepted methods, products, and procedures to maximize safety during blasting operations. Blasting procedures will be carried out according to, and in compliance with, applicable laws, and will be closely monitored by the Inspector.

Transportation, handling, storage, and use of explosives will comply with OSHA 1926, Subpart U, “Blasting and the Use of Explosives”.

Blasting Plan Guidance

Prior to blasting, the Blasting Contractor will prepare a Blasting Plan for review and approval by the Federal Agency, Inspector, and any other relevant jurisdictional organization (i.e., county, city), as applicable. The plan will address safety as well as design for production and controlled blasting. The Blasting Plan also will contain the full details of the drilling and blasting patterns, as well as the controls the Blasting Contractor proposes to use for both controlled and production blasting. Review of the plan by the parties will not relieve the Blasting Contractor of the responsibility for the accuracy and adequacy of the Blasting Plan when implemented in the field. A minimum of 45 days should be allowed for review and approval of the Blasting Plan by the Federal Agency and appropriate agencies. If at any time changes are proposed to the Blasting Plan, the Blasting Contractor will submit them to the Federal Agency and the Inspector for review and approval.

Overview of Blasting Principles

Locations

The Construction Contractor’s Blasting Contractor will avoid blasting in potential rockslide/landslide areas to the maximum extent possible and will consult with a geologist before blasting in such areas.

Materials

The Blasting Contractor will determine the specific materials needed for blasting operations. These materials will be included on the hazardous materials list for the Project, and their use and storage will comply with applicable federal, state, and local laws and regulations.

Blasting Plan Contents

The Blasting Plan prepared by the Blasting Contractor will contain the following minimum information in the following format:

1. Purpose
2. Scope of the Blasting
3. Definitions
4. Responsibilities
    a. Management Organization
    b. Authority Responsibility
    c. Blaster in Charge (licensed in Colorado)
5. Location of Blasting Area (including Map Atlas of all Blasting Locations)
    a. Description of Blasting Area
    b. Description of Bedrock and Geological Problems
    c. Description of Adjacent Utility Facilities
6. Environmental Considerations
7. Safety Considerations
    a. General
    b. Warning Signs and Signals
    c. Procedures around Adjacent Utility Facilities
    d. Traffic Control
    e. Emergency Blast Initiation
    f. Safety Publications
    g. Fire Prevention
    h. Safety Hazards
    i. Emergency Services and Communication
    j. Minor or Non-Emergency Medical Care
    k. First Aid
8. Risk Management
    a. Protection of Adjacent Utility Facilities
    b. Lightning
    c. Flyrock (Note: Flyrock will be controlled with blasting mats.)
    d. Carbon Monoxide
    e. Ground Vibrations
    f. Seismically Sensitive Receptors
    g. Pre-blast Survey and Inspection
    h. Blast Damage Complaints
    i. Airblast
9. Blast Design Concept
    a. Pounds per explosive per square foot for pre-splitting and smooth blasting
    b. Plan and section views of proposed drill pattern, including free face, burden,

blasthole spacing, blasthole diameter, blasthole angles, lift height, and sub-drill depth
   c. Loading diagram showing type and amount of explosives, primers, initiators, and location and depth of stemming
   d. Initiation sequence of blastholes, including delay times and delay system
   e. Manufacturers' data sheets for all explosives, primers, and initiators to be employed
10. Procedures
   a. Delivery of Explosives
   b. Storage of Explosives and Blasting Agents
   c. Blast Hole Drilling
   d. General Handling of Explosives
   e. Blast Hole Loading
   f. Notification
   g. Initiation of Blast
   h. Misfire Management
   i. Test Blasting
11. Records
12. Attachments

Safety Procedures

Safe storage and use of explosive materials will be a top priority during construction. The safety measures discussed in this section are intended to prevent theft and/or vandalism of the explosive materials, protect against fire, and prevent personal injury and property damage. These measures are intended as general guidelines.

Storage

Explosives must be stored in an approved structure (magazine) and kept cool, dry, and well-ventilated. The Companies' Construction Contractor will provide the Bureau of Alcohol, Tobacco, Firearms and Explosives with a list of dates and locations for the explosives and blasting agent storage facilities to be used on the Project at least 14 days before the establishment of such storage facilities. At a minimum, the following storage requirements will be implemented:

- Explosives must be stored in an approved structure (magazine), and storage facilities will be bullet-resistant, weather-resistant, theft-resistant, and fire-resistant.
- Magazine sites will be located in remote (out-of-sight) areas with restricted access; kept cool, dry, and well ventilated; and will be properly labeled and signed.
- Detonators will be stored separately from other explosive materials.
- The most stringent spacing between individual magazines will be determined according to the guidelines contained in the Bureau of Alcohol, Tobacco, Firearms and Explosives publication or state or local explosive storage regulations.
- Both the quantity and duration of temporary on-site explosives storage will be minimized.

The Blasting Contractor will handle and dispose of dynamite storage boxes in accordance with relevant federal, state, and local laws.

Blasting Notification and Safety Procedures

The Construction Contractor will obtain a permit from the appropriate county as needed, for the period when blasting may occur and will comply with the following requirements developed by the Federal Agency.

- The holder will publish a proposed blasting schedule in the local newspaper one week prior to any blasting taking place. The schedule will identify the location, dates, and times blasting will occur. No blasting will occur outside of the published schedule, except in emergency situations.
- The holder will post warning signs at all entry points for the Project. Warning signs will include information on blasting, including the general hours blasting might take place, audible signals to be used warning of impending blasting and to indicate that the site is all clear.
- Access points to areas where blasting will take place will be blocked to prevent access by the public at least 30 minutes prior to blasting. The site will be 'swept' 5 minutes prior to blasting to ensure no unauthorized personnel have wandered onto the site. An audible warning signal, capable of carrying for one-half mile, will be used at least 2 minutes prior to blasting. An "all-clear" signal will be given once it has been determined the area is safe.
- Blasting in the vicinity of pipelines will be coordinated with the pipeline operator and will follow operator-specific procedures, as necessary.
- Damages that result solely from the blasting activity will be repaired or the owner fairly compensated.

A determination of all clear danger will be derived once the blasting area has been inspected for undetonated or misfired explosives. The blasting area will also be inspected for hazards such as falling rock and rock slides. Once the area has been inspected and these issues have been addressed, the all-clear signal as described above will sound and persons will be able to safely re-enter the blast zone.

Additional safety precautions will be developed to address site-specific conditions at the time of the blast. Special attention will be given to preventing potential hazards in the blasting area resulting from flying rock, destabilized walls, structures, presence of low flying aircraft, and dispersion of smoke and gases.

Fire Safety

The presence of explosive materials on the Project site could potentially increase the risk of fire during construction. Special precautions will be taken to minimize this risk but not limited to:

- Prohibiting ignition devices within 50 feet of explosives storage areas.
- Properly maintaining magazine sites so they are clear of fuels and combustible materials, well ventilated, and fire-resistant.
- Protecting magazines from wildfires that could occur in the immediate area.
- Posting fire suppression personnel at the blast site during high fire danger periods.
- Prohibiting blasting during extreme fire danger periods.

Transportation of Explosives

Transportation of explosives will comply with all applicable federal, state, and local laws, including Title 49 of the Code of Federal Regulations, Chapter III. These regulations are administered by the U.S. Department of Transportation (USDOT) and govern the packaging, labeling, materials compatibility, driver qualifications, and safety of transported explosives. In general, these regulations require vehicles

carrying explosive materials must be well-maintained, properly marked with placards, and have a non-sparking floor. Materials in contact with the explosives will be non-sparking, and the load will be covered with a fire- and water-resistant tarpaulin. Vehicles also must be equipped with fire extinguishers and a copy of the Emergency Response Guidebook (USDOT 2008). Every effort will be made to minimize transportation of explosives through congested or heavily populated areas.

Prior to loading an appropriate vehicle for carrying explosives, the vehicle will be fully fueled and inspected to ensure its safe operation. Refueling of vehicles carrying explosives will be avoided. Smoking will be prohibited during the loading, transporting, or unloading of explosives. In addition, the following specific restrictions apply to transport of other items in vehicles carrying explosives:

- Tools may be carried in the vehicle, but not in the cargo compartment.
- Detonation devices can, in some cases, be carried in the same vehicle as the explosives, but they must be stored in a specially constructed compartment(s).
- Batteries and firearms will never be carried in a vehicle with explosives.
- Vehicle drivers must comply with the specific laws related to the materials being transported.

Vehicles carrying explosives will not be parked or left unattended except in designated parking areas with approval of the State Fire Marshal. When traveling, vehicles carrying explosives will avoid congested areas to the maximum extent possible.

Other Specific Stipulations and Methods

Blasting has the potential to cause environmental impacts. Stipulations developed by Federal Agency will be followed for protection of sensitive species as well as the required notification discussed above. The Construction Contractor will notify the Inspector and environmental monitors 72 hours prior to scheduled blasting and comply with the permit requirements for notification by appropriate counties, including any requirements for dust abatement. Regular field meetings will be held with the Inspector and environmental monitors to review the process and its implementation. If changes are needed to the Apnotification process, changes will be made to facilitate protection of environmental resources.

References

Occupational Safety & Health Administration. (1998). *OSHA 1926, Subpart U, Blasting and the Use of Explosives.*

Bureau of Land Management. (2007 update). *Manual H-3150-1 - Onshore Oil and Gas Geophysical Exploration Surface Management.*

Department of Transportation. (USDOT 2008) Emergency Response Guidebook.

Tri-State Montrose-Nucla-Cahone Transmission Line Improvement Project

Plan of Development

Montrose, Ouray, San Miguel, and Dolores Counties, Colorado

Appendix I

Dust Control and Air Quality Plan

Appendix I

Dust Control and Air Quality Plan

The objective of this Dust Control and Air Quality Plan is to detail practices designed to address potential impacts from construction of the Tri-State Montrose-Nucla-Cahone Transmission Line Improvement Project (Project). Tri-State Generation and Transmission Association, Inc. (Tri-State) has developed this plan as part of the Plan of Development (POD) that accompanies its application to the Bureau of Land Management (BLM) for a Right of Way (ROW) grant. If the ROW grant is approved, the final POD and all appendices will be attached to the Decision Record. This plan provides guidance to construction and field personnel on measures identified by Tri-State, BLM, and US Forest Service (USFS) to minimize effects during construction activities associated with the Project. It will be the responsibility of Tri-State and its project contractors, working with designated environmental inspectors, to comply with measures identified in this plan.

Dust Control

The objective of this fugitive dust control plan is to identify potential dust emission sources and provide guidance to construction and field personnel on measures to control the generation of fugitive dust during construction activities. It will be the responsibility of project contractors, working with designated environmental inspectors, to identify all activities generating fugitive dust, implement feasible control measures, and ensure compliance with applicable fugitive dust regulations.

Fugitive dust could be generated directly from transmission line construction and associated traffic. The following construction related activities have been identified as having the potential for generating fugitive dust:

- Vehicle and motorized equipment movement on unpaved access roads;
- Vegetation removal;
- Clearing and grading;
- Topsoil removal;
- Cutting and filling;
- Use of helicopters;
- Backfilling;
- Blasting;
- Bulk material loading, hauling, and unloading;
- Use of material storage piles; and
- Use of parking, staging, and storage areas.

It is the responsibility of the project contractor(s) and the designated environmental monitor to ensure all sources of dust generation are identified and fugitive dust and other pollutant emissions are minimized.

Fugitive dust will be controlled during construction by reducing vehicle and equipment speeds on unpaved surfaces, minimizing the amount of new exposed soil /surface disturbance, and periodic

application of clean water as directed by the environmental monitors to exposed disturbed surface areas (application of water will be via water trucks). The environmental monitor and lead construction inspector will monitor construction to ensure that dust does not leave the work area and accumulate on adjacent crops, cultivated fields, dwellings, or roadways. If visible dust dispersion to off-site locations becomes apparent, the environmental monitor will establish a maximum speed limit in dust-prone areas, cover stockpiles, and/or apply additional water to access roads and work areas as necessary (see AQ-1-6).

The following Environmental Protection Measures (EPMs) apply:

Table I-1: Air Quality Environmental Protection Measures

Topic - No.	**Applicant Committed EPMs And Design Features For Construction (C), Operation, And Maintenance (O&M)**	**Applicable to C and/or O&M***
Air Quality		
AQ-1	Tri-State and its contractor(s) will utilize practicable methods and devices as are reasonably available to control, prevent, and otherwise minimize atmospheric emissions or discharges of air contaminants.	C and O&M
AQ-2	Possible construction related dust disturbance will be controlled by the periodic application of water to all disturbed areas along the ROW and access roads, thus preventing any visible dust plumes from project-related traffic or excavation activities.	C
AQ-3	Vehicles and equipment showing excessive emission of exhaust gases due to poor engine adjustments or other inefficient operating conditions will not be operated until corrective adjustments or repairs are made.	C and O&M
AQ-4	Post seeding mulch or other approved methods will be utilized during reclamation activities to help reduce wind erosion and blowing dust. Soil stabilization will be performed as soon as possible after completion of project activities to minimize potential fugitive dust generation as re-vegetation occurs.	C and O&M
AQ-5	The contractor will turn off equipment when it is not in use.	C and O&M
AQ-6	When wind speeds exceed 20 miles per hour (mph), Tri-State and contractors will minimize new disturbance to the extent possible and/or mobilize additional water trucks to minimize fugitive dust from exposed surfaces. Also see AQ-4.	C

Tri-State Montrose-Nucla-Cahone Transmission Line Improvement Project

Plan of Development

Montrose, Ouray, San Miguel, and Dolores Counties, Colorado

Appendix J

Emergency Preparedness Plan

Appendix J

Emergency Preparedness Plan

The objective of this Emergency Preparedness Plan is to detail practices designed to address potential impacts from construction of the Tri-State Montrose-Nucla-Cahone Transmission Line Improvement Project (Project). Tri-State Generation and Transmission Association, Inc. (Tri-State) has developed this plan as part of the Plan of Development (POD) that accompanies its application to the Bureau of Land Management (BLM) for a Right of Way (ROW) grant. If the ROW grant is approved, the final POD and all appendices will be attached to the Decision Record. This plan provides guidance to construction and field personnel on measures identified by Tri-State, BLM, and US Forest Service (USFS) to minimize effects during construction activities associated with the Project. It will be the responsibility of Tri-State and its project contractors, working with designated environmental inspectors, to comply with measures identified in this plan.

This plan provides an overview of the methods to be implemented will emergency management become necessary. Specific response plans to Blasting *(Appendix H, Blasting Plan),* Fire *(Appendix K, Fire Plan),* Hazardous Materials Management, and Oil Spill *(Appendix N, Hazard Materials Management Plan)* are included in other appendices of this POD. Health and Safety protocols for transmission line construction activity are included in *Appendix O, Health, Safety and Noise Plans*, and the construction contract.

The construction contract bidders will develop a written Emergency Action Plan (EAP) in accordance with Occupational Safety and Health Administration (OSHA) standard 29 C.F.R. §1910.38 and other applicable federal, state, and local occupational safety and health laws, regulations, and standards as part of their bids. Bidder will include the EAP in Bidder's Project Safety Plan. The winning Bidder (Contractor) will train all Contractor Representatives on the provisions of the EAP.

The Contractor will report to Owner any of the following incidents and complete an incident investigation and corrective action report: all OSHA recordable injuries and illnesses; all property damage; all fires; and all near misses which could have resulted in personal or property damage.

In the event of a medical emergency or injury requiring offsite treatment, oral notification must be made to Owner's Authorized Technical Representative (OATR) within twenty (20) minutes after attending to the affected employee. All other incidents require oral notification within one (1) working day. Written incident reports are due to OATR within one (1) working day of the incident. Completed investigations with corrective actions are due within seventy-two (72) hours. Corrective actions must be tracked to completion.

This response plan addresses the following potential emergency events:

- Natural disaster (tornado, flooding, mud/rock slide, lightening caused fire or blizzard);
- Serious personal injury; or
- Security threats.

To be prepared to respond to these types of emergencies, construction staff must be aware of chain of command responsibilities, communication protocol, and resources available for response.

Communication Protocol/Chain of Command Responsibilities

All personnel are responsible and expected to report emergencies. In an emergency, personnel identifying the threat will contact a supervisor equipped with radio and/or telephone communications who will contact the Contractor's and Tri-State's Construction Supervisors. The Tri-State Supervisor will contact dispatch. Emergency numbers/cards will be provided to all staff equipped with radios and telephones. The highest ranking supervisor at any location is considered the person in charge of the emergency. Emergency protocol will be communicated to staff during routine weekly safety meetings. Radio communication may be stopped/cleared to allow for emergency communication. Emergency incidents will be reported to federal agencies as soon as possible by phone and in detail in weekly reports.

Natural Disasters

Weather bulletins for severe storms will be monitored from the construction laydown and staging yard and emergency weather alerts will be relayed to construction staff on site. In the case of severe weather or lightning, the immediate supervisor will advise personnel of the need to take shelter or evacuate. Access routes will be kept clear and open at all times and road conditions monitored to ensure passage is possible in the event evacuation of personnel and/or access for first responders if needed.

Medical Emergency

Personnel identifying a life threatening injury will call 911 first and then the closest foreman or supervisor. In a serious medical emergency the site will be made safe and the victim not moved unless necessary to prevent further injury. The person in charge may position staff at the nearest access points to direct or lead outside responders.

Construction personnel trained in first aid, Cardio Pulmonary Resuscitation and Automated External Defibrillators use and vehicles and staff with basic first aid kits will be identified to personnel at safety meetings or otherwise identified such as with hardhat or vehicle stickers or signs. All crews will have access to a fully stocked first aid kit.

Security Threats

Gun shots, vandalism, presence of unknown vehicles or objects, or suspicious activity will be reported to the immediate supervisor. Risk will be evaluated and communicated to the appropriate authorities. Construction personnel will not pursue investigating situations that may constitute a potential threat.

The following list provides specific contacts for emergencies within the project area.

Table J-1: Emergency Contact Numbers

Contact	Address	Phone Number

Contact	Address	Phone Number
Montrose County		
Emergency	—	911
Contractor Construction Supervisor		TBD
Tri-State Authorized Technical Representative		TBD
Tri-State Construction Supervisor		TBD
Tri-State G&T Dispatch	1100 W 116th Avenue Westminster , CO 80234	303-332-9135
Montrose County Sheriff	1200 North Grand Avenue Montrose, Colorado 81401	970.252.4023
Nucla Fire Department	555 Main St. Nucla, Colorado 81424	970.864.7331
Naturita Fire Department	320 E Main St. Naturita, Colorado 81422	970.865.2320
San Miguel County		
Emergency	—	911
San Miguel County Sheriff	851 63L Road Telluride, Colorado 81435	970.728.1911
Norwood Fire Department	1605 Summit St. Norwood, Colorado 81423	970.327.4800
Telluride Fire Department	131 W. Columbia Telluride, Colorado 81435	970.728.3801
Dolores County		
Emergency	—	911
Dolores County Sheriff	490 N Main Street Dolores, Colorado 81324	970.677.2257
Dove Creek Fire Department	102 S Main Street Dove Creek, Colorado 81423	970.677.2570

Contact	Address	Phone Number
Cortez Fire Department	23 N Washington Street Cortez, Colorado 81435	970.564.0212
San Juan National Forest	15 Burnett Court Durango, CO	970.247.4874
GMUG National Forest	2250 Highway 50 Delta, Colorado 81416	970.874.6600
BLM SW District Office	2465 Townsend Avenue Montrose, CO 81401	970.240.5300

Tri-State Montrose-Nucla-Cahone Transmission Line Improvement Project

Plan of Development

Montrose, Ouray, San Miguel, and Dolores Counties, Colorado

Appendix K

Fire Plan

Appendix K

Fire Plan

The objective of this Fire Plan is to detail practices designed to address potential impacts from construction of the Tri-State Montrose-Nucla-Cahone Transmission Line Improvement Project (Project). Tri-State Generation and Transmission Association, Inc. (Tri-State) has developed this plan as part of the Plan of Development (POD) that accompanies its application to the Bureau of Land Management (BLM) for a Right of Way (ROW) grant. If the ROW grant is approved, the final POD and all appendices will be attached to the Decision Record. This plan provides guidance to construction and field personnel on measures identified by Tri-State, BLM, and US Forest Service (USFS) to minimize effects during construction activities associated with the Project. It will be the responsibility of Tri-State and its project contractors, working with designated environmental inspectors, to comply with measures identified in this plan.

This fire plan is generally accepted on all federal units within the State of Colorado. As the fire season progresses, each BLM or USFS office may impose closures for fire prevention reasons. Tri-State operations are subject to Stage I and Stage II fire restrictions on federal lands, as described in the items below. Under Colorado law the San Miguel County Sheriff's Office is responsible for responding to wildfires located on private property located outside a fire protection district, including portions of the proposed 230 kV line in Dry Creek Basin.

Tri-State and all contractors are advised to stay in touch with local fire dispatch offices to be of service and for personal safety. The attached map shows fire dispatch centers and phone numbers.

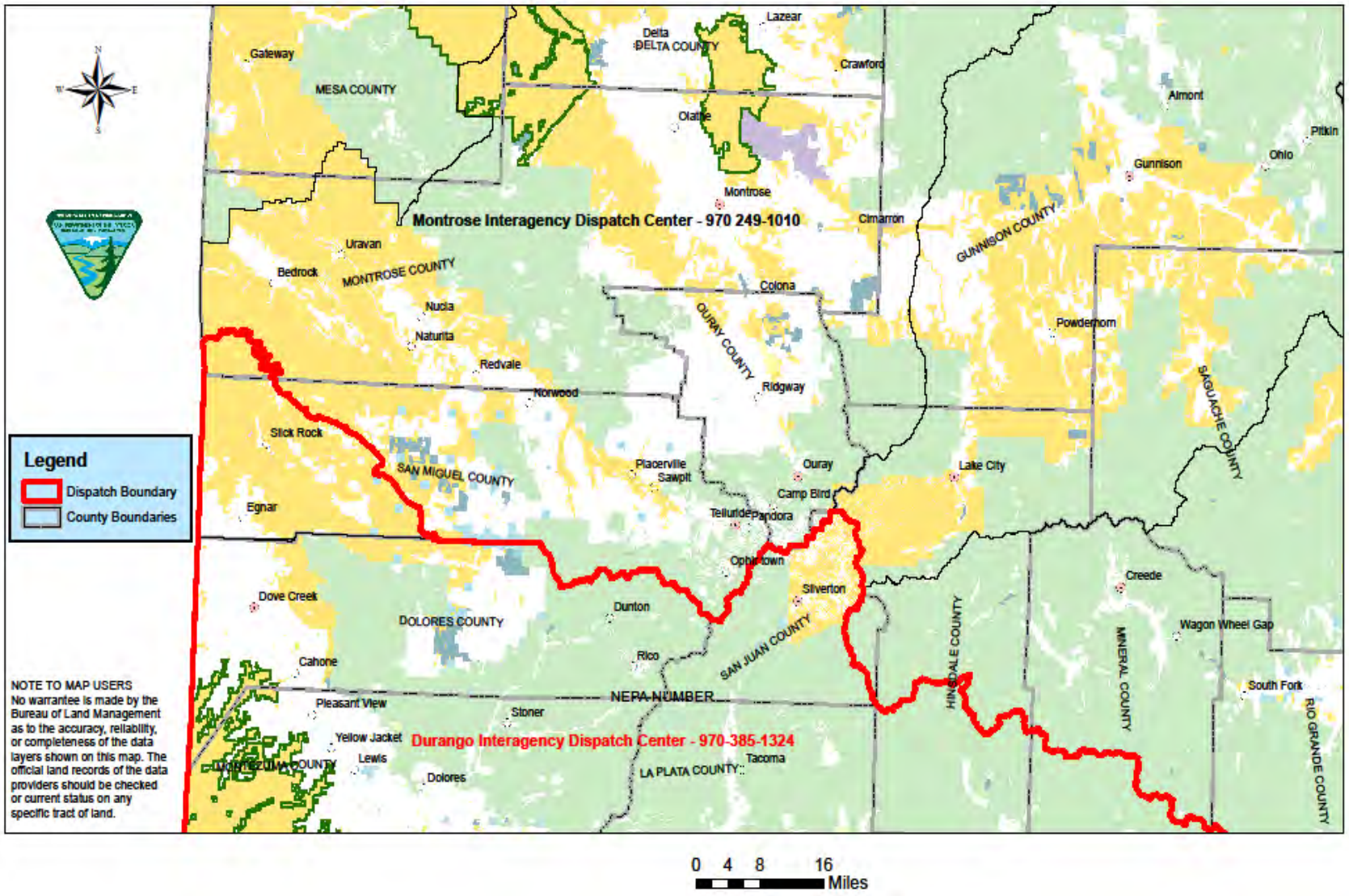
Fire Prevention and Suppression Requirements for Operations on Bureau of Land Management and National Forest Lands

1. Tri-State (hereafter referred to as the operator) will require its employees, contractors and employees of contractors to do everything reasonable within their power, expertise, and assessment of human safety both independently and upon request of the BLM and USFS to prevent and suppress fires resulting from transmission construction or maintenance activities on or near the lands to be occupied under this permit. In case of fire suppressed by the operator, the operator will report its occurrence to the appropriate Interagency Dispatch Center immediately (see attached map). The operator is responsible for all suppression costs and resource damage for any fire resulting from its operations and practices.
2. The operator is responsible to ensure that each employee, subcontractor, or any other individual or company working on the project site is aware of the provisions of this fire plan, is familiar with the location and proper use of firefighting equipment, and conducts themselves in a fire-safe manner.
3. No material will be disposed of by burning in open fires without a written permit from the BLM or USFS.
4. Exhaust systems of vehicles will have an acceptable muffler and will be in proper working condition. All motorized equipment and machinery will be equipped with spark arresters.

5. Vehicles will be parked only in cleared areas.
6. All smoking will be done only inside of vehicles or in areas cleared of flammable material and consistent with precautionary measures listed below in Item 9.
7. Fuels and flammable materials may not be stored on BLM or National Forest System lands. They may be located in approved containers in a truck. For example, an approved diesel tank in the back of a truck, or dolmar with chainsaw fuel. No fuel or flammable substance will be stored in any glass container.
8. A separate fire cache of tools will be required and maintained at the site of all operations. Tools must be kept sharp and handles smooth, ready for immediate use. Fire tools will not be used on the job for other purposes. When Stage I restrictions are implemented, a 300-gallon water package will be required at the site of all operations (see also item 14). When no restrictions are in place, the cache will contain at a minimum:
    - One shovel per person;
    - One water filled 4 or 5 gallon backpack pump ("Indian" or equivalent); and
    - One axe or Pulaski.
9. Type ABC rated fire extinguishers are required and will be available during all operations at the following capacities:
    - One 2 pound per pick up;
    - One 5 pound for trucks over 1 ton Gross Vehicle Weight; and
    - One 10 pound per dozer, motor patrol, scraper or other earthmoving equipment.
10. During the period of April 1st thru November 30th, a fire watch person (lookout) is required at the site of all welding, blasting, propane torch use, fueling, tractor or other mechanized equipment operation, etc. unless specifically excepted in item 15. This person will have no other duty than to watch for fire starts, have all required items of the fire cache immediately available, and be ready to take fire suppression actions. The fire watch person will remain on site observing for smoke or fire for a minimum of 30 minutes after cessation of the operations that required them. The fire watch person will be in good physical condition and able to fight fires.
11. Welding is herein used to mean electric arc welding; arc or gas cutting or heating; gas welding; grinding of metal; use of any flammable gas, carbon or hydrocarbon fuel for heating or forging metal.
12. Welding operations are subject to the following additional provisions:
    - There will be no welding when winds are over 15 miles per hour; and
    - Welding will occur only in areas cleared of all flammable vegetation and materials at a minimum radius of 30 feet from the welding operation.
13. Blasting: Use of explosives is authorized, but is subject to the following additional provisions:
    - Operator must have a valid, current Explosives Permit from the State of Colorado;
    - Overnight storage of explosives is not authorized on BLM or USFS land;
    - There will be no blasting when winds over 15 mph occur; and
    - Adequate safety lookouts and traffic control will be provided to insure public safety during all blasting operations.
14. In addition, when Stage I restrictions are implemented all fire caches including in areas of welding, blasting and torch use operations, the fire watch and crew must have immediately available to them a water tank of not less than 300 gallon capacity with a pump capable of

pumping 20 gallons per minute at 100 pound-force per square inch and not less than 100 feet of hose.

15. Additional Stage I and Stage II prohibited acts will also apply when enacted. Details and updates of restrictions, areas, and additional prohibited acts can be acquired by calling the respective Dispatch office (see attached map) or by going to the following websites:
    - Colorado Emergency Management: Fire Bans & Danger
    - Montrose Interagency Dispatch Center (MTC) - Fire Restrictions
    - Durango Interagency Dispatch Center (DRC)-Fire Restrictions
16. Operations may be suspended if inspection by a BLM or USFS representative reveals non-compliance with the provisions of these fire prevention and suppression requirements.


Montrose Interagency Dispatch Center - 970 249-1010
Durango Interagency Dispatch Center - 970-385-1324
NEPA NUMBER
Legend
Dispatch Boundary
County Boundaries
NOTE TO MAP USERS
No warrantee is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of the data layers shown on this map. The official land records of the data providers should be checked or current status on any specific tract of land.
MESA COUNTY
MONTROSE COUNTY
DELTA COUNTY
GUNNISON COUNTY
OURAY COUNTY
SAGUACHE COUNTY
SAN MIGUEL COUNTY
DOLORES COUNTY
SAN JUAN COUNTY
HINSDALE COUNTY
MINERAL COUNTY
RIO GRANDE COUNTY
MONTEZUMA COUNTY
LA PLATA COUNTY
Gateway
Delta
Lazear
Crawford
Olathe
Montrose
Cimarron
Uravan
Bedrock
Nucla
Naturita
Redvale
Norwood
Colona
Ridgway
Ouray
Placerville
Sawpit
Telluride
Pandora
Camp Bird
Ophir
Silverton
Lake City
Creede
Wagon Wheel Gap
South Fork
Almont
Pitkin
Ohio
Gunnison
Powderhorn
Stick Rock
Egnar
Dove Creek
Dunton
Rico
Cahone
Pleasant View
Stoner
Yellow Jacket
Lewis
Dolores
Tacoma
0 4 8 16
Miles

Tri-State Montrose-Nucla-Cahone Transmission Line Improvement Project

Plan of Development

Montrose, Ouray, San Miguel, and Dolores Counties, Colorado

Appendix L

Flagging, Fencing, and Signage Plan

Appendix L

Flagging, Fencing, and Signage Plan

The objective of this Flagging, Fencing, and Signage Plan is to detail practices designed to address potential impacts from construction of the Tri-State Montrose-Nucla-Cahone Transmission Line Improvement Project (Project). Tri-State Generation and Transmission Association, Inc. (Tri-State) has developed this plan as part of the Plan of Development (POD) that accompanies its application to the Bureau of Land Management (BLM) for a Right of Way (ROW) grant. If the ROW grant is approved, the final POD and all appendices will be attached to the Decision Record. This plan provides guidance to construction and field personnel on measures identified by Tri-State, BLM, and US Forest Service (USFS) to minimize effects during construction activities associated with the Project. It will be the responsibility of Tri-State and its project contractors, working with designated environmental inspectors, to comply with measures identified in this plan.

Project features such as the right-of-way limits, structure locations, work areas, safety warnings, and avoidance areas for sensitive environmental resources will be delineated in the field using flagging, fencing, gates, and signs, as appropriate. Staking will occur within line of sight. The purpose of the plan is to provide standard methods for flagging features so that project plans and mitigation measures can be clearly communicated to project personnel. Flagging and signage will ensure project personnel are aware of notifications such as appropriate access routes, speed limits, warnings for blasting activity, and truck traffic. Implementation of this plan is part of environmental compliance measures to protect sensitive resources and to contain ground disturbance to approved areas. The plan will also support efficient and safe construction and minimize effects to landowners and the public using public lands.

Prior to issuance of the Notice to Proceed, and throughout the construction process, Tri-State will review any required or additional changes to the flagging, fencing and signage plan to ensure compliance with each agency's requirements.

The timetable for flagging and fencing is as follows (Table L-1):

Table L-1: Timetable for Planning and Implementing Flagging, Fencing and Signage.

Timetable	Deliverable/Task
Complete; refreshed as needed	Staking (centerline, structures, ROW, access routes, etc)
Flagged ahead of construction; based on resource-specific requirements; see Appendix G	Environmentally sensitive areas (marked on Appendix W) as well as construction plans
45 days prior to NTP	Review flagging and fencing plan to determine if changes are needed
Immediately prior to construction	Safety/caution signs (also see Appendix R; Traffic and Transportation Management Plan

Tri-State's flagging color scheme will not utilize orange and blue because these are colors used on USFS lands. The following outlines the portions of the project that will require flagging and the proposed color scheme for the associated features:

- Centerline of transmission ROW: pink glow;
- Transmission line ROW: yellow;
- Centerline access roads: lime glow;
- Access ROW: red glow;
- Structure locations: green/black striped;
- Structure anchors: red/black striped;
- Structure offsets: pink glow/black striped;
- Environmentally Sensitive Areas: yellow/black striped; and
- Safety/Caution signs for trails and roads: red or orange.

Tri-State will review this flagging and fencing plan 45 days prior to construction and 45 days prior to the Notice to Proceed to determine if changes are required.

Tri-State survey staff and contractors will flag and stake project features within line of sight prior to construction and will maintain and replace field markings throughout construction. Survey flags and stakes will locate structure locations, guy pockets, and reference points. Access roads, spur roads, parking areas, and any temporary use areas will be marked to control travel and traffic to and from the ROW. The construction contractor and environmental compliance monitor will stake the boundaries of work areas such as storage yards, helicopter landing sites, or other temporary use areas needed for construction. If a work area needs to exceed approved dimensions, the contractor and environmental monitor will work with the authorized agency to secure approvals before the area is used.

A combination of signs, fencing and/or flags may be used to delineate and protect sensitive environmental resources. The environmental monitor will consult with appropriate agency authorized officers or resource staff to determine the boundaries and the appropriate material to delineate and protect resources. The environmental monitor will check these sensitive resource sites periodically to ensure protective measures are in place and maintained throughout construction.

Traffic signs will meet the Federal Manual on Uniform Traffic Control Devices (FHA 2009 ed and 2012 revisions 1 and 2) and the Colorado Supplement to the federal manual (CDOT 2009). The Environmental Monitor will brief the construction work force on the meaning of various flagging, fencing and signage. The environmental monitor will advise the contractor of any environmental resource issues and marking measures during routine weekly or daily safety briefings.

Construction activities will require some new access through existing fences. Permanent gates will be installed within the ROW limits or along designated access roads to provide for access during construction as well as for the long-term maintenance of the transmission line. To prevent the passage of livestock, all gates will be kept closed except to briefly allow the passage of equipment during construction. All gates will remain closed, unless the landowner or land management agency has given specified instructions to leave a gate open. Protocol for fencing, gates, access, and signage is detailed in

this plan. Tri-State will work with the BLM and USFS to close off access roads to the public that may result in travel management or resource concerns. Currently, Tri-State and USFS maintain locked gates to restrict access south of the Big Water Springs/Lone Dome Road (USFS Road 504) and on both sides of Glade Canyon Road (USFS Road 509), both in the San Juan National Forest (SJNF). This is an area east of Dolores Canyon.

Any gates or bollards installed by Tri-State on behalf of the BLM and USFS will be in compliance with existing BLM and USFS travel management plans and will accommodate all agency requirements. All ROWs can be accessed by BLM or USFS personnel at any time, especially in the event of emergencies, such as fires. Tri-State will provide funding for the BLM and USFS to install instructional signing in key areas along access roads, to clarify which roads are being used for administrative purposes only, or Tri-State may install signs with BLM and USFS approval.

Upon completion of construction activities, cleanup, and reclamation, all staking, flagging, gates, and signs will be removed by the construction contractor and monitored as necessary by the environmental monitor to ensure that sites are not affected.

References

Colorado Department of Transportation, Safety and Traffic Engineering Branch. (2009). *The Colorado Supplement to the Federal Manual of Uniform Traffic Control Devices.* Retrieved from https://www.codot.gov/library/traffic/traffic-manuals-guidelines/fed-state-co-traffic-manuals/mutcd/MUTCD_2003_Colorado_Supplement.pdf/view

Federal Highways Administration. (2009). *U.S. Department of Transportation Manual on Uniform Traffic Control Devices*, Revisions 1 and 2, 2012. Retrieved from https://www.codot.gov/library/traffic/traffic-manuals-guidelines/fed-state-co-traffic-manuals/mutcd/MUTCD09r1r2editionhl.pdf/view

Tri-State Montrose-Nucla-Cahone Transmission Line Improvement Project

Plan of Development

Montrose, Ouray, San Miguel, and Dolores Counties, Colorado

Appendix M

Geotechnical Plan

Appendix M

Geotechnical Plan

The objective of this Geotechnical Plan is to detail practices designed to address potential impacts from field geotechnical testing on the Nucla-Cahone segment of Tri-State's Montrose-Nucla-Cahone Transmission Line Improvement Project (Project). Applications for a short-term ROW Grant and temporary use permit have been submitted to the BLM and USFS to conduct geotechnical investigations in the fall of 2016 for the Montrose-Nucla-Maverick line segment. These separate applications detail similar information as provided below for the Nucla-Cahone. Tri-State Generation and Transmission Association, Inc. (Tri-State) has developed this plan as part of the Plan of Development (POD) that accompanies their application to the Bureau of Land Management (BLM) for a Right of Way (ROW) grant. If the ROW grant is approved, the final POD and all appendices will be attached to the Decision Record. This plan provides guidance to field personnel on measures identified by Tri-State, BLM, and US Forest Service (USFS) to minimize effects during field geotechnical testing activities associated with the Project. It will be the responsibility of Tri-State and its project contractors, working with designated environmental inspectors, to comply with measures identified in this plan.

Final geotechnical testing plans for the Nucla-Cahone line segment will be provided to BLM in the final POD. Locations of proposed boring locations are included maps in this Appendix titled "Montrose-Maverick-Cahone Geotech Maps" and summarized in the Table M-3 titled "Geotech Testing Location on BLM & USFS - Maverick-Cahone Segment of the MNC Project." Sensitive areas have been avoided, except in a few select locations where existing turning structures overlap with sensitive areas. As a result of the testing, a geotechnical report will be prepared by a geotechnical engineer registered in the State of Colorado. The geotechnical report will provide recommendations for design of transmission line foundations. After the geotechnical investigations are complete, Tri-State will prepare an atlas of specific locations where blasting or special geotechnical mitigation is needed for the entire Montrose-Nucla-Cahone transmission line (see Appendix H for Blasting Plan). This report and atlas will be submitted to the affected agency prior to completion of the final construction plans. The Geotechnical Report will be submitted to the affected agency for review 45 days prior to the issuance of the Notice to Proceed; final plans will incorporate comments and concerns from the agencies' authorized representative. The timetable for development of the detailed plan is as follows (Table M-1):

Table M-1. Timetable for Development of Detailed Geotechnical Plan.

Timetable	Deliverable/Task
Complete (see attached mapset and Appendix W)	Geotechnical locations identified for drilling
Fall 2016	Permitting for Montrose-Nucla drilling complete (Short-term ROW Grant/Temporary Use Permit)
Fall 2016 (Montrose-Nucla) Spring2017 (Nucla-Cahone)	Geotechnical Investigations compete (drilling)
Winter 2016 (Montrose-Nucla) Winter 2017 (Nucla-Cahone)	Atlas of specific locations for blasting or geotech mitigation is needed (see Appendix H:Blasting Plan)

Timetable	Deliverable/Task
Complete (see attached mapset and Appendix W)	Geotechnical locations identified for drilling
45 Days prior to Notice to Proceed for each Phase	Final Detailed Blasting Plan Provided to BLM; coordination with agencies (see Appendix H)

Field Testing

Geotechnical testing will occur in 2016 and 2017 after structure locations and surveying/staking is completed. Field testing will involve transporting a truck, or track-mounted drill rig, to various structure locations along the ROW and drilling test holes. Refer to Figures M-1 to M-6 for photos of typical drill rigs that could be used on a project of this scope.

Test holes will be required at each turning or "angle" structure on the project and at intervals of approximately 1 mile on the straight, "tangent" sections of the line. The soil borings at the highly loaded angle structures are critical to the safe design of the line and need to be made as close as possible to the angle structure locations; they cannot be moved more than a few feet. The boring locations on the tangent sections of the line are not as critical and can be moved significant distances to avoid environmentally sensitive areas. The borings on the tangent sections of the line will not be made in any cultural sites or areas of other significant environmental concern.

Existing roads will be used for all geotechnical testing access and activities. Borings will only be made within the existing ROW with the exception of the proposed re-route at the Dolores River Crossing, and in the immediate vicinity of the Montrose, Maverick, and Cahone Substations as well as the Nucla Station. Tri-State will obtain any necessary temporary use permits from the agencies.

The existing, energized 115-kV transmission line creates a potential hazard to field personnel as the extended drill rig must maintain a safe distance from the energized line at all times. On a new transmission line, borings at angle structures will typically be made at the exact center of the proposed structure location. In this case, that is impossible as there is an existing structure in that location. Also, on a new line, the borings on the tangent sections will be made on the centerline of the ROW. In this case the existing, energized overhead conductors are in the way. For both angle and tangent borings, the drill rig will need to be offset from the existing line a safe distance. This offset will vary depending on topography, but will not be outside the existing 100-foot ROW (unless otherwise authorized). The subsurface investigation program will consist of drilling borings, coring rock, obtaining soil/rock samples, and performing pressure meter testing. Current testing design includes 128 planned borings. Borings for the project will be completed in two mobilizations, winter and spring, due to anticipated weather conditions at high elevation borings.

Borings will be drilled with either a two-wheel drive, truck-mounted drill rig, or a track-mounted drill rig equipped with solid-stem augers and coring equipment to drill the borings. All borings will be drilled or cored to a depth of 30 feet. Borings drilled by auger methods will be approximately 8 inches in diameter while borings that are cored will be approximately 3 inches in diameter.

Soil and soft rock will be sampled at 2.5-foot intervals to a depth of 10 feet and then at 5-foot intervals thereafter to the proposed depths or practical auger refusal, whichever occurs first, with either a California

sampler or a Standard Penetration Test sampler. When hard bedrock is encountered, NQ size rock core will be collected. Upon completion of drilling, the borings will be backfilled with auger cuttings for augured holes or bentonite chips for cored holes, and excess drill cuttings will be spread out and graded or tamped flat on the ground in the immediate vicinity of the borings.

Figure M-1. Typical truck-mounted drill rig.

Figure M-2. Typical track-mounted drill rig.

Figure M-3. Pressuremeter test equipment.

Figure M-4. Drill sections being flown in by helicopter.

Figure M-5. Drill sections being flown in by helicopter.

Figure M-6. Drilling activities.

Geotechnical Report

The primary purpose of this report is to evaluate subsurface soil conditions and provide foundation recommendations and geotechnical design criteria for the project. The report also identifies potential geologic hazards and recommends general and specific forms of geologic hazard mitigation. The hazards assessed include avalanche, landslide, potentially unstable slopes, rock fall, slopes 30% to 50%, slopes over 50%, alluvial fans, talus slopes, Mancos shale, faults, weak soil, expansive soil and rock, and ground subsidence. Maps will be created to show the superposition of project components over the areas of identified potential geologic hazards. The project components shown on the maps may include some or all of the following: transmission structures, substations, marshalling yards, pulling sites, helicopter pads, and access roads. Identified hazards relevant to project components will be assessed and tabulated. Some geologic hazards only affect the design of project components rather than requiring mitigation during construction.

The geologic hazard assessment will allow the majority of project components to be designed or in some cases repositioned to avoid or minimize potential geologic hazards. Where hazards cannot be avoided, the Environmental Protection Measures (EPMs) are adequate for most low rated hazards: see Tri-State's "Standard and Committed Mitigation Measures" (Appendix X). These measures include minimizing disturbances, avoiding sensitive terrain and vegetation, controlling erosion, limiting cuts and fills, and restoration and revegetation of disturbed areas.

Some hazards may not be avoided or easily mitigated. These will be described and discussed in the "Specific Mitigation Recommendations" section of the geotechnical report and this Appendix in the final POD (See Table M-2). The recommended specific mitigation generally can be easily incorporated into construction procedures. Construction monitoring, if needed, will provide a means for assuring that the recommended site-specific mitigation is undertaken.

The following EPM applies (Table M-2):

Table M-2. Geotechnical environmental protection measures.

Topic - No.	Applicant Committed EPMs And Design Features For Construction (C), Operation, And Maintenance (O&M)	Applicable to C and/or O&M*
S-5	As part of pre-construction activities, Tri-State and/or Tri-State contractors will perform detailed geologic evaluation and investigations in certain locations to evaluate potential geological and geotechnical hazards, and design the project to avoid and minimize potential geotechnical risks such as slope failure, unstable soils, and landslide risks. In addition, soil will be sampled if potentially contaminated soils were observed during the pre-construction geotechnical investigation.	C

Table M-3. Geotech Testing Location on BLM & USFS - Maverick-Cahone Segment of the MNC Project.

Boring Locations: Montrose -Nucla					Boring Locations: Nucla-Cahone			
Boring Number	X Easting (ft)	Y Northing (ft)	Federal		Boring Number	X Easting (ft)	Y Northing (ft)	Federal
1-1	2136088.40	1583735.70			2-1	2136925.46	1585534.98	
1-2	2136727.71	1584130.48	BLM		2-2	2136583.51	1586148.35	
1-3	2137253.64	1585589.27			2-3	2136537.94	1585038.52	
1-4	2142015.62	1585768.99	BLM		2-4	2136088.22	1583735.83	
1-5	2147304.78	1585968.61	BLM		2-5	2135821.01	1582928.53	
1-6	2151718.65	1586135.19	BLM		2-6	2135744.81	1580422.78	
1-7	2157121.42	1586339.10			2-7	2135659.42	1577602.13	
1-8	2160624.43	1588693.80	BLM		2-8	2136019.30	1577120.26	
1-9	2163162.18	1590399.66	BLM		2-9	2135631.19	1576670.00	
1-10	2166600.33	1592710.77	BLM		2-10	2136368.29	1577504.91	
1-11	2169231.38	1594479.34	BLM		2-11	2135464.65	1571176.42	
1-12	2170472.59	1595313.68	BLM		2-12	2135288.85	1565373.45	
1-13	2174206.65	1595251.25	BLM		2-13	2124421.28	1542522.29	BLM
1-14	2177679.02	1595193.20	BLM		2-14	2135126.15	1559975.77	
1-15	2178149.50	1595218.01	BLM		2-15	2134964.11	1554999.45	
1-16	2182229.70	1593687.31	USFS		2-16	2129866.57	1546782.66	BLM
1-17	2187405.82	1591745.47	USFS		2-17	2134808.97	1550649.82	BLM
1-18	2191354.35	1590264.16	USFS		2-18	2113767.13	1527037.36	
1-19	2194662.36	1589023.15	USFS		2-19	2109879.05	1521336.77	
1-20	2198123.19	1587724.81	USFS		2-20	2106658.34	1516652.78	BLM
1-21	2200280.46	1589420.32	USFS		2-21	2113530.08	1524165.34	
1-22	2203200.12	1591715.03	USFS		2-22	2103715.58	1512372.70	
1-23	2206573.28	1594366.18			2-23	2100144.33	1507179.16	
1-24	2207487.96	1595085.08			2-24	2120864.34	1537352.01	BLM
1-25	2209891.60	1596971.99	USFS		2-25	2117325.30	1532208.81	BLM
1-26	2212673.80	1599156.09	USFS		2-26	2081781.35	1494041.21	
1-27	2215453.62	1601338.31	USFS		2-27	2095439.28	1503824.93	BLM
1-28	2218107.93	1603422.01	USFS		2-28	2086391.57	1497373.90	BLM
1-29	2220851.17	1605575.51	USFS		2-29	2091170.38	1500781.62	BLM
1-30	2223522.85	1608718.09	USFS		2-30	2077754.00	1491156.89	BLM
1-31	2226216.31	1611886.26	USFS		2-31	2073683.80	1488242.00	BLM
1-32	2229207.58	1615404.75	USFS		2-32	2069504.78	1485249.48	
1-33	2234205.97	1613648.53	USFS		2-33	2061942.25	1479833.41	BLM
1-34	2238800.21	1612034.32	USFS		2-34	2065092.21	1482089.52	BLM
1-35	2243146.34	1613831.65	USFS		2-35	2057589.44	1476782.38	BLM
1-36	2248276.74	1615953.32	USFS		2-36	2056214.03	1474621.97	BLM
1-37	2252615.45	1617747.59	USFS		2-37	2055379.72	1470251.02	BLM
1-38	2255581.37	1619358.85			2-38	2057967.57	1464095.23	

Boring Locations: Montrose -Nucla					Boring Locations: Nucla-Cahone			
Boring Number	X Easting (ft)	Y Northing (ft)	Federal		Boring Number	X Easting (ft)	Y Northing (ft)	Federal
1-39	2257848.87	1620590.70			2-39	2055369.85	1467436.31	BLM
1-40	2261264.32	1622446.18			2-40	2058904.28	1458328.77	USFS
1-41	2264687.04	1624305.61			2-41	2059848.97	1452512.90	USFS
1-42	2267998.88	1626104.80			2-42	2060769.94	1446925.45	USFS
1-43	2270068.21	1628499.07	BLM		2-43	2061602.88	1441872.85	USFS
1-44	2271743.36	1630437.26	BLM		2-44	2062615.69	1435818.27	USFS
1-45	2274293.38	1633387.69	BLM		2-45	2063089.83	1432984.40	USFS
1-46	2276639.91	1636102.68	BLM		2-46	2063998.68	1427550.60	USFS
1-47	2278190.13	1637966.27	BLM		2-47	2063197.40	1420933.22	USFS
1-48	2280652.38	1641235.20	BLM		2-48	2062950.92	1420462.08	USFS
1-49	2283330.71	1644791.01			2-49	2064913.09	1422083.87	USFS
1-50	2285897.20	1648198.33	BLM		2-50	2061481.02	1409101.72	BLM
1-51	2288178.75	1648733.83	BLM		2-51	2059869.32	1414569.27	BLM
1-52	2291812.71	1649398.97	BLM		2-52	2059534.55	1413929.35	BLM
1-53	2294950.35	1649973.26			2-53	2059214.54	1413317.21	BLM
1-54	2297805.77	1650495.90			2-54	2062794.17	1406658.56	BLM
1-55	2297860.92	1652230.84			2-55	2062885.72	1402010.74	
1-56	2297908.90	1654046.06			2-56	2062949.75	1398747.28	
1-57	2297756.06	1654122.04						

Tri-State Generation and Transmission

Montrose-Maverick-Cahone Geotech Maps

Map 1 of 20 - 1"=2000'

Montrose 230kV

Permanent Guy Pocket Easement

Existing Alignment

New Alignment

BLM Public Land

48N 10W

48N 11W

Temple Park

Beaver Hill

Steel Canyon

San Juan Trl

Sagebrush Trl

Old Paradox Trl

Spring Canyon

Popular Rd

Shavano Valley Rd

Lindsey Canyon

Remington Trl

Rattler Trl

Porcupine Trl

Paradox Trl

Rocky Road Trl

Puma Tr

Rimrock Trl

Serpentine Trl

Solitude Trl

- Substation
- Structures
- Geotechnical Testing Location
- Transmission Center Line (150' ROW)
- Access Roads
- Temporary Use Areas
- Hydrology
- Township/Range
- BLM District Field Office
- County Boundary
- Bureau of Land Management

*Disclaimer: Data on maps represents preliminary engineering and may be modified in final POD

0 0.125 0.25 0.5 Miles

Updated By: ydavmul
Updated: 8/24/2016

Regional Map

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Tri-State Generation and Transmission

Montrose-Maverick-Cahone Geotech Maps

Map 2 of 20 - 1"=2000'

- Structures
- Geotechnical Testing Location
- Transmission Center Line (150' ROW)
- Access Roads
- Temporary Use Areas
- Hydrology
- Township/Range
- BLM District Field Office
- County Boundary
- Bureau of Land Management

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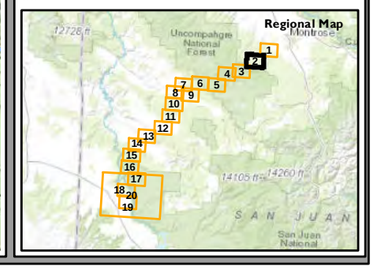
0 0.125 0.25 0.5 Miles

N

Updated By: ydavmul
Updated: 8/24/2016



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Tri-State Generation and Transmission

Montrose-Maverick-Cahone Geotech Maps

Map 3 of 20 - 1"=2000'

- Structures
- Geotechnical Testing Location
- Transmission Center Line (150' ROW)
- Access Roads
- Hydrology
- Township/Range
- BLM District Field Office
- USFS Ranger District
- County Boundary
- Forest Service (USFS)

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0 0.125 0.25 0.5 Miles

Updated By: ydavmul
Updated: 8/24/2016

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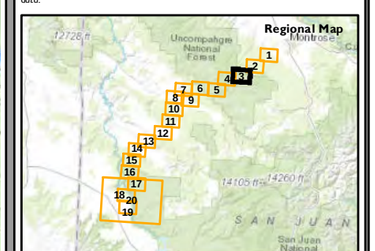

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Tri-State Generation and Transmission

Montrose-Maverick-Cahone Geotech Maps

Map 4 of 20 - 1"=2000'

- Structures
- Geotechnical Testing Location
- Transmission Center Line (150' ROW)
- Access Roads
- Hydrology
- Township/Range
- BLM District Field Office
- USFS Ranger District
- County Boundary
- Forest Service (USFS)

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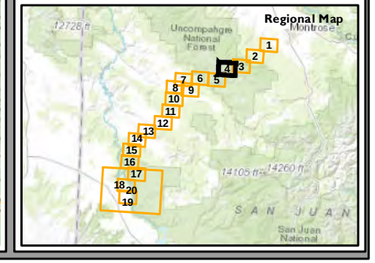
Miles

0 0.125 0.25 0.5

N

Updated By: ydavmul
Updated: 8/24/2016



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Tri-State Generation and Transmission

Montrose-Maverick-Cahone Geotech Maps

Map 5 of 20 - 1"=2000'

- Structures
- Geotechnical Testing Location
- Transmission Center Line (150' ROW)
- Access Roads
- Temporary Use Areas
- Hydrology
- Township/Range
- BLM District Field Office
- USFS Ranger District
- County Boundary
- Bureau of Land Management
- Forest Service (USFS)

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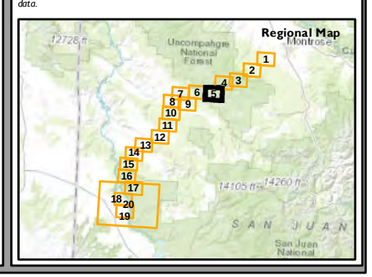
0 0.125 0.25 0.5 Miles

N

Updated By: ydavmul
Updated: 8/24/2016

Regional Map



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Tri-State Generation and Transmission

Montrose-Maverick-Cahone Geotech Maps

Map 6 of 20 - 1"=2000'

- Structures
- Geotechnical Testing Location
- Transmission Center Line (150' ROW)
- Access Roads
- Hydrology
- Township/Range
- BLM District Field Office
- USFS Ranger District
- County Boundary
- Bureau of Land Management
- Forest Service (USFS)

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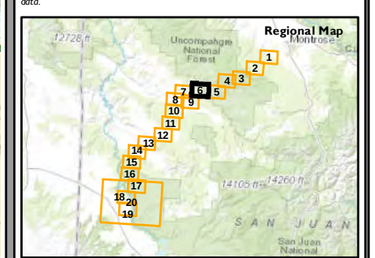
0 0.125 0.25 0.5 Miles

Updated By: ydavmul
Updated: 8/24/2016

Regional Map



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Tri-State Generation and Transmission

Montrose-Maverick-Cahone Geotech Maps

Map 7 of 20 - 1"=2000'

- Substation
- Structures
- Geotechnical Testing Location
- Transmission Center Line (150' ROW)
- Access Roads
- Hydrology
- Township/Range
- BLM District Field Office
- County Boundary
- Bureau of Land Management

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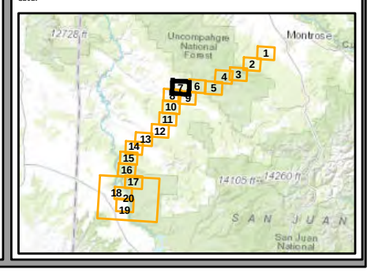
0 0.125 0.25 0.5 Miles

N

Updated By: ydavmul
Updated: 8/24/2016



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Tri-State Generation and Transmission

Montrose-Maverick-Cahone Geotech Maps

Map 8 of 20 - 1"=2000'

- Substation
- Structures
- Geotechnical Testing Location
- Transmission Center Line (150' ROW)
- Access Roads
- Temporary Use Areas
- Hydrology
- Township/Range
- BLM District Field Office
- County Boundary
- Bureau of Land Management

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0 0.125 0.25 0.5 Miles

Updated By: ydavmul
Updated: 8/24/2016

Regional Map

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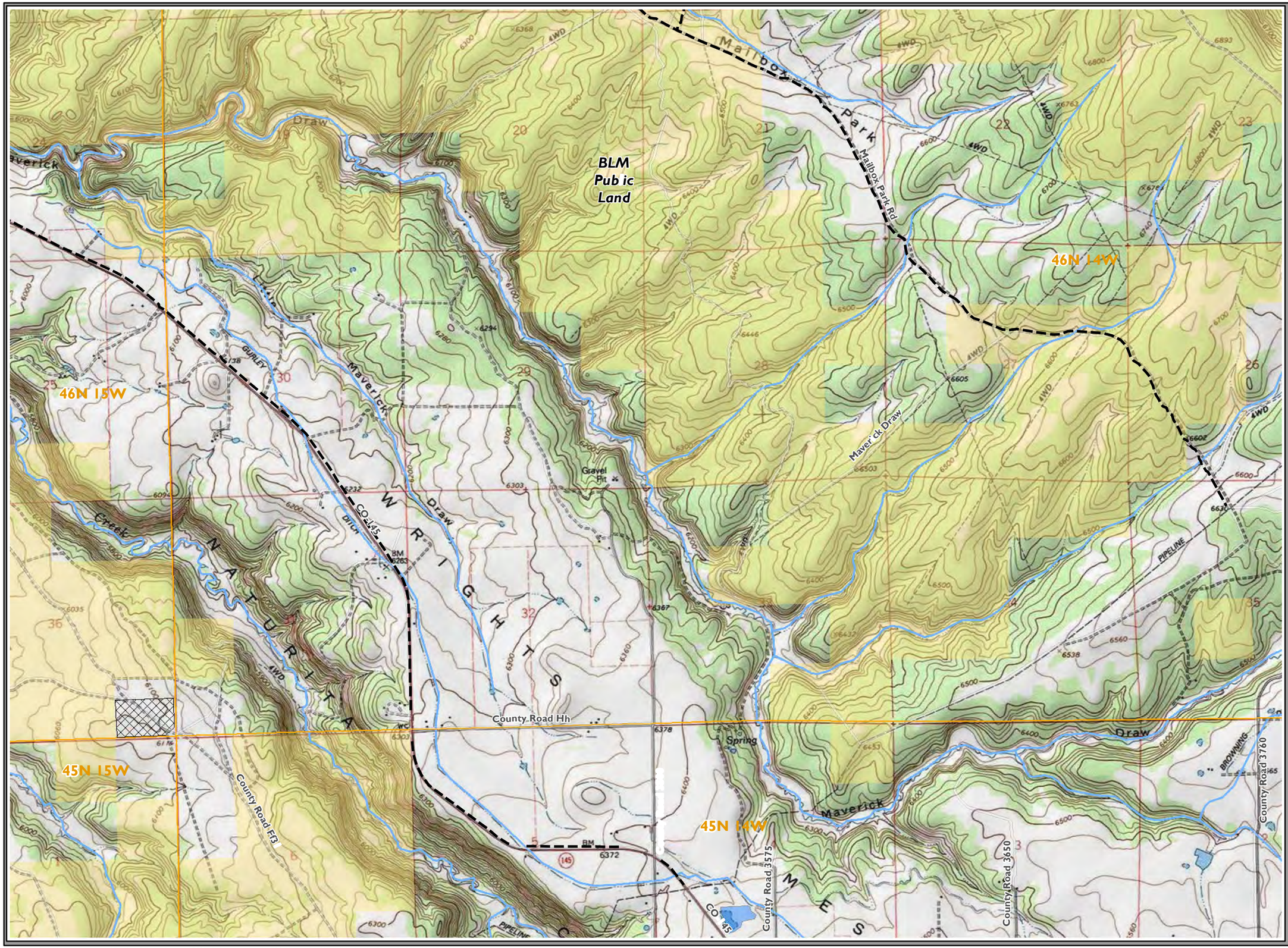


Tri-State Generation and Transmission

Montrose-Maverick-Cahone Geotech Maps

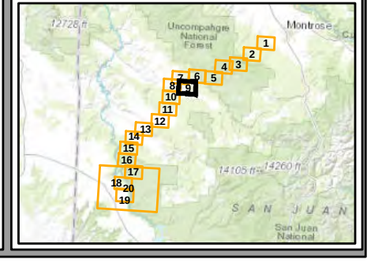
Map 9 of 20 - 1"=2000'

- Access Roads
- Temporary Use Areas
- Hydrology
- Township/Range
- BLM District Field Office
- County Boundary
- Bureau of Land Management

*Disclaimer: Data on maps represents preliminary engineering and may be modified in final POD

0 0.125 0.25 0.5 Miles

Updated By: ydavmul
Updated: 8/24/2016



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Tri-State Generation and Transmission

Montrose-Maverick-Cahone Geotech Maps

Map 10 of 20 - 1"=2000'

- Structures
- Geotechnical Testing Location
- Transmission Center Line (150' ROW)
- Access Roads
- Hydrology
- Township/Range
- BLM District Field Office
- County Boundary
- Bureau of Land Management
- State Land

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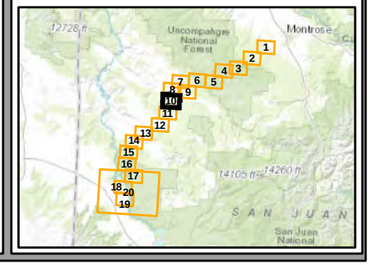
Miles

0 0.125 0.25 0.5

Updated By: ydavmul
Updated: 8/24/2016



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Tri-State Generation and Transmission

Montrose-Maverick-Cahone Geotech Maps

Map 11 of 20 - 1"=2000'

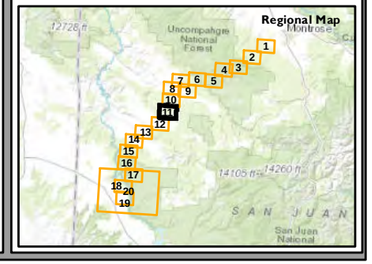
- Structures
- Geotechnical Testing Location
- Transmission Center Line (150' ROW)
- Access Roads
- Gunnison Sage Grouse- Critical Habitat
- Hydrology
- Township/Range
- BLM District Field Office
- County Boundary
- Bureau of Land Management
- State Land

*Disclaimer: Data on maps represents preliminary engineering and may be modified in final POD

0 0.125 0.25 0.5 Miles

N

Updated By: ydavmul
Updated: 8/24/2016



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Tri-State Generation and Transmission

Montrose-Maverick-Cahone Geotech Maps

Map 12 of 20 - 1"=2000'

- Structures
- Geotechnical Testing Location
- Transmission Center Line (150' ROW)
- Access Roads
- Gunnison Sage Grouse- Critical Habitat
- Hydrology
- Township/Range
- BLM District Field Office
- County Boundary
- Bureau of Land Management
- State Land

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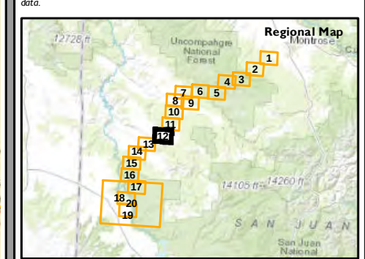
0 0.125 0.25 0.5 Miles

Updated By: ydavmul
Updated: 8/24/2016

Regional Map



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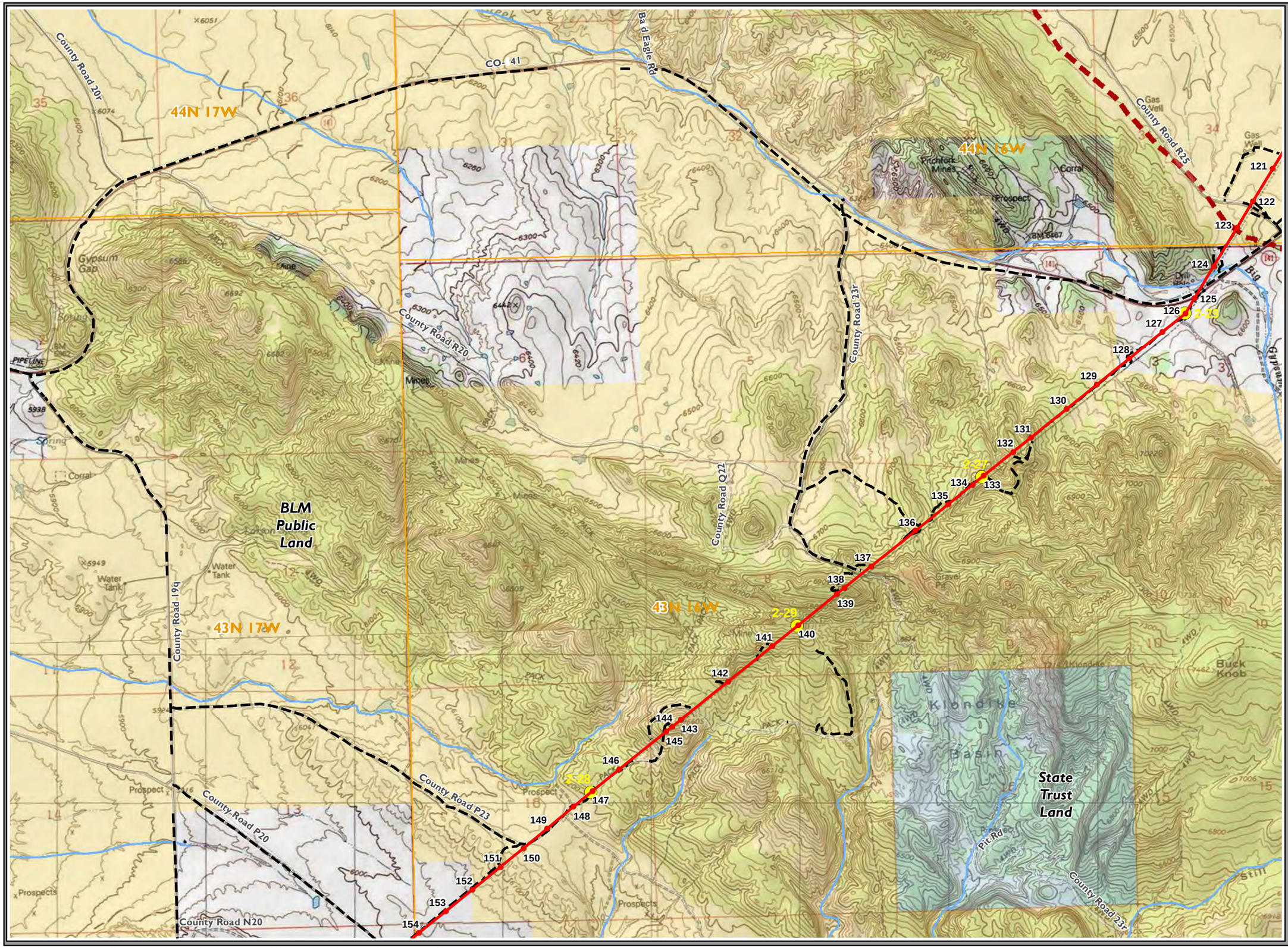

Tri-State Generation and Transmission

Montrose-Maverick-Cahone Geotech Maps

Map 13 of 20 - 1"=2000'

- Structures
- Geotechnical Testing Location
- Transmission Center Line (150' ROW)
- Access Roads
- Gunnison Sage Grouse- Critical Habitat
- Hydrology
- Township/Range
- BLM District Field Office
- County Boundary
- Bureau of Land Management
- State Land

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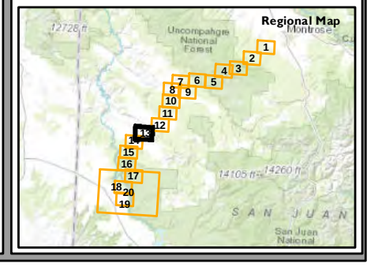
0 0.125 0.25 0.5 Miles

Updated By: ydavmul
Updated: 8/24/2016



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Tri-State Generation and Transmission

Montrose-Maverick-Cahone Geotech Maps

Map 14 of 20 - 1"=2000'

- Structures
- Geotechnical Testing Location
- Transmission Center Line (150' ROW)
- Access Roads
- Temporary Use Areas
- Hydrology
- Township/Range
- BLM District Field Office
- County Boundary
- Bureau of Land Management

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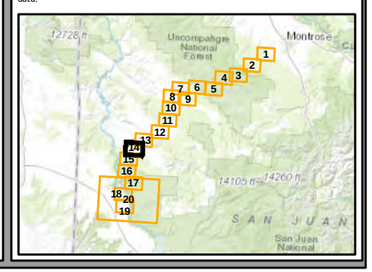
0 0.125 0.25 0.5 Miles

Updated By: ydavmul
Updated: 8/24/2016



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Tri-State Generation and Transmission

Montrose-Maverick-Cahone Geotech Maps

Map 15 of 20 - 1"=2000'

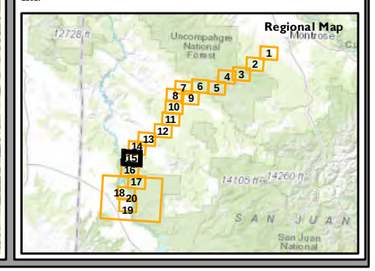
- Structures
- Geotechnical Testing Location
- Transmission Center Line (150' ROW)
- Access Roads
- Temporary Use Areas
- Hydrology
- Township/Range
- BLM District Field Office
- USFS Ranger District
- County Boundary
- Bureau of Land Management
- Forest Service (USFS)

*Disclaimer: Data on maps represents preliminary engineering and may be modified in final POD

0 0.125 0.25 0.5 Miles

Updated By: ydavmul
Updated: 8/24/2016

Regional Map



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Tri-State Generation and Transmission

Montrose-Maverick-Cahone Geotech Maps

Map 16 of 20 - 1"=2000'

- Structures
- Geotechnical Testing Location
- Transmission Center Line (150' ROW)
- Access Roads
- Hydrology
- Township/Range
- BLM District Field Office
- USFS Ranger District
- County Boundary
- Bureau of Land Management
- Forest Service (USFS)

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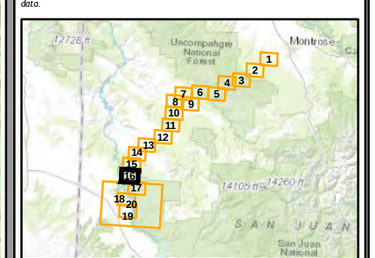
0 0.125 0.25 0.5 Miles

Updated By: ydavmul
Updated: 8/24/2016



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Tri-State Generation and Transmission

Montrose-Maverick-Cahone Geotech Maps

Map 17 of 20 - 1"=2000'

- Structures
- Geotechnical Testing Location
- Transmission Center Line (150' ROW)
- Access Roads
- Hydrology
- Township/Range
- BLM District Field Office
- USFS Ranger District
- County Boundary
- Bureau of Land Management
- Forest Service (USFS)

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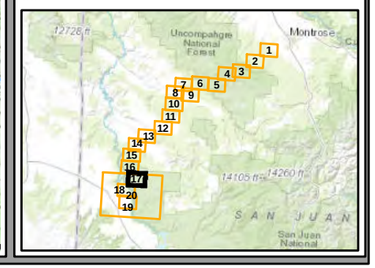
0 0.125 0.25 0.5 Miles

Updated By: ydavmul
Updated: 8/24/2016



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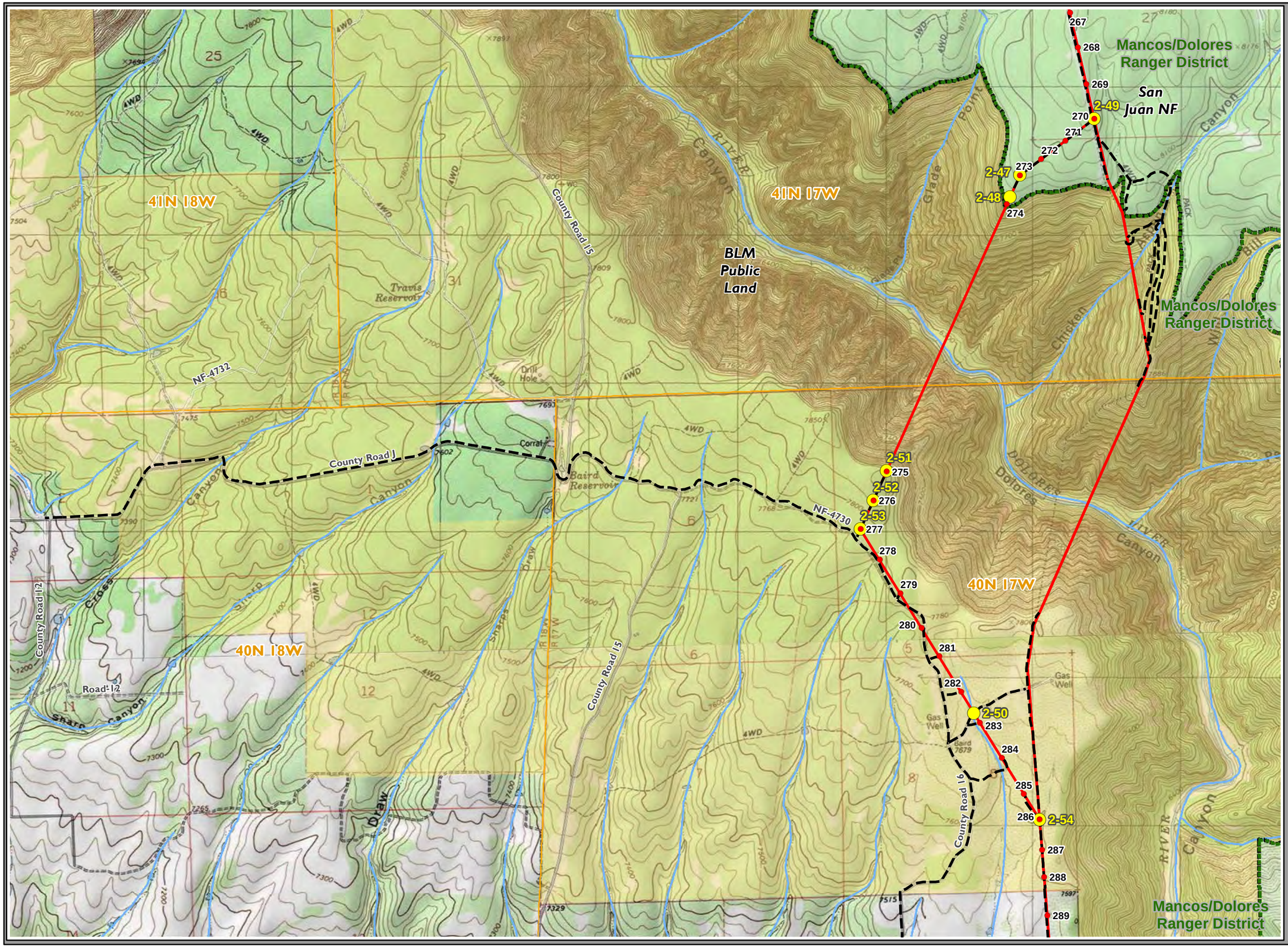

Tri-State Generation and Transmission

Montrose-Maverick-Cahone Geotech Maps

Map 18 of 20 - 1"=2000'

- Structures
- Geotechnical Testing Location
- Transmission Center Line (150' ROW)
- Access Roads
- Hydrology
- Township/Range
- BLM District Field Office
- USFS Ranger District
- County Boundary
- Bureau of Land Management
- Forest Service (USFS)

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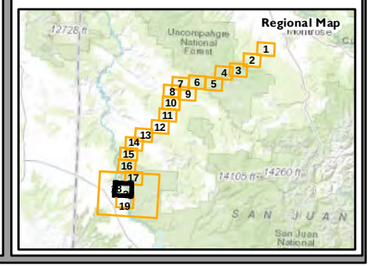
0 0.125 0.25 0.5 Miles

Updated By: ydavmul
Updated: 8/24/2016



Tri-State Generation and Transmission

Montrose-Maverick-Cahone Geotech Maps

Map 19 of 20 - 1"=2000'

- Substation
- Structures
- Geotechnical Testing Location
- Transmission Center Line (150' ROW)
- Access Roads
- Hydrology
- Township/Range
- BLM District Field Office
- USFS Ranger District
- County Boundary
- Bureau of Land Management
- Forest Service (USFS)

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0 0.125 0.25 0.5 Miles

N

Updated By: ydavmul
Updated: 8/24/2016

Regional Map

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Tri-State Generation and Transmission

Montrose-Maverick-Cahone Geotech Maps

Map 20 Lone Dome Road 1"=7000'

- Substation
- Structures
- Geotechnical Testing Location
- Transmission Center Line (150' ROW)
- Access Roads
- Gunnison Sage Grouse- Critical Habitat
- Hydrology
- Township/Range
- BLM District Field Office
- USFS Ranger District
- County Boundary
- Bureau of Land Management
- Forest Service (USFS)
- State Land

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0 0.5 1 2 Miles

N

Updated By: ydavmul
Updated: 8/24/2016

Regional Map

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Tri-State Montrose-Nucla-Cahone Transmission Line Improvement Project

Plan of Development

Montrose, Ouray, San Miguel, and Dolores Counties, Colorado

Appendix N

Hazardous Materials Management and Oil Spill Plan

Appendix N

Hazardous Materials Management and Oil Spill Plan

The objective of this Hazardous Materials Management and Oil Spill Plan is to detail practices designed to address potential impacts from construction of the Tri-State Montrose-Nucla-Cahone Transmission Line Improvement Project (Project). Tri-State Generation and Transmission Association, Inc. (Tri-State) has developed this plan as part of the Plan of Development (POD) that accompanies their application to the Bureau of Land Management (BLM) for a Right of Way (ROW) grant. If the ROW grant is approved, the final POD and all appendices will be attached to the Decision Record. This plan provides guidance to construction and field personnel on measures identified by Tri-State, BLM and US Forest Service (USFS) to minimize effects during construction activities associated with the Project. It will be the responsibility of Tri-State and its project contractors, working with designated environmental inspectors, to comply with measures identified in this plan. The contractor will supply, have on site, and follow their own fully certified Spill Prevention, Control and Countermeasure Plan (SPCC) if 1,320 gallon oil quantities are exceeded for individual vehicles or equipment on the construction site.

Hazard Assessment

The regulated materials expected to be onsite during construction and operation are those associated with vehicles and equipment and include diesel fuel, gasoline, jet fuel (helicopters), hydraulic fluid, brake fluid, antifreeze, Freon, and lubricants. Human waste and chemicals used in portable toilets and herbicides used for weed control may also be present. Finally, there is a small possibility that buried wastes could be encountered during construction.

Some vehicle fluids are hazardous to humans, wildlife, water resources, wetlands, and other sensitive environments. Toxicity can be transported as vapor or liquid and can affect skin, eyes, respiratory system, and internal organs. Some of these materials can be flammable and combustible and must be handled carefully when spills are cleaned up.

Sources of spills include mobile refueling trucks and construction vehicles and machinery. Spills can occur from ruptures in fuel tanks, overflow during fueling, seepage during storage, hose ruptures, equipment servicing and repairs, vehicle accidents, and natural disasters.

Proper location, cleaning, waste disposal, and maintenance of portable chemical toilets will minimize risk of spills of human wastes (possible pathogens) and chemicals used to treat wastes. Toilets will be routinely inspected and pumped to avoid overflowing.

Liquid concrete wastes (wash-outs) will be disposed of in identified disposal areas as specified in the Stormwater Management Plan (Appendix Q) and construction drawings.

Herbicides may be present, primarily at staging areas, and can be in concentrated liquid form. Spills can occur from handling errors, improper storage, and container ruptures. Herbicides will be stored in proper containers and handled by trained personnel.

Buried wastes or trash may be encountered during digging of poles, but this is highly unlikely given the remote nature and limited development along the transmission line route. Clean-up of

encountered buried wastes will depend on the material and will generally follow the guidelines outlined here for fuel or lubricant spills.

Tri-State will minimize the risk of spills during construction and operation by training personnel in best management practices for handling and transporting liquids, requiring spill clean-up equipment on-site, and monitoring and inspecting vehicles and liquids handling.

Training

Tri-State will require all personnel involved in transporting and handling liquid wastes to participate in spill training before commencing work on the project. Spill training will be attended by the contractor, Tri-State construction staff, and the environmental monitor. Training will include:

1. Review of pertinent laws, regulations and project authorization stipulations;
2. Inform personnel of proper handling and fueling;
3. Inform personnel of required spill clean-up equipment;
4. Inform personnel of clean-up and disposal techniques;
5. Inform personnel of location and machinery equipped with clean-up kits;
6. Assign roles and responsibility of personnel;
7. Inform staff of location of Safety Data Sheets (SDS) for regulated materials; and
8. Provide a copy of this plan to appropriate personnel.

Routine handling of regulated materials will be monitored by Tri-State construction inspectors and the environmental monitor. Updates on spill prevention and materials handling will be discussed at weekly safety meetings.

Spill Response Equipment and Material

The construction contractor will supply spill kits and materials that can be stored and readily deployed from staging areas. In addition, the contractor will be required to have a number of mobile spill kits for use in mobile fueling operations. Each construction crew will have sufficient supplies of absorbent and barrier materials on hand to allow the rapid containment and recovery of any spills.

The quantity and location of equipment will be submitted and approved by Tri-State during the contract process. Equipment and material will include but not be limited to:

- 55 gallon drums;
- Bags of absorbent;
- Absorbent pads;
- Plastic sheeting;
- Tyvek suit and booties;
- Nitrile gloves;
- Safely googles;
- 20 gallon portable preventive spill kit for each refueling truck, kits will include:
    - White, oil-only Sonic Bonded Pads,
    - White, oil-only socks (3”X48”),

  - White, oil-only pillows,
  - Nitrile gloves,
  - Disposal bags, and
  - 20 gallon overpack; and
- Shovels and pertinent soil removal equipment will be staged next to spill kits along with fire extinguishing equipment.

Material Storage and Handling

The contractor will not store fuel on the construction site. Fuel will be stored at staging areas, in a safe location with secondary containment. (Also see Appendix Q, Stormwater Management Plan). Secondary containment will be sufficiently impervious to contain spills until they could be cleaned up. Secondary containment could consist of double walled tanks or earthen berms lined with impervious material. Berms and double walled tanks will be large enough to contain the volume of the largest container plus precipitation from a 25 year, 24 hour precipitation event. Spill kits must be readily available for spill response.

Regulated materials will not be stored in areas subject to flooding or within 100 feet of a jurisdictional waterway. Staging yards, refueling areas, and chemical storage areas will be located in upland areas that do not slope to sensitive resources. Liquids will be stored in secured area (fenced or locked building). Accumulated rainwater could be removed if approved by the environmental inspector, after visual inspection, to confirm that no spill or sheen is present in the water. If sheen is present, it must be removed with absorbent pads and properly disposed.

Storage containers will be properly labeled to indicate the contents of the container. SDS for all materials will be available onsite and to construction personnel.

Construction and storage areas will be monitored for any leaks or spills, including hydraulic leaks from equipment. If any leaks or spills occur, the activity will be stopped immediately and containment and cleanup activities will begin immediately in accordance with local, state, and federal regulations. In addition, Tri-State's dispatch personnel will be immediately contacted.

Vehicle and Equipment Inspection, Fueling, and Maintenance

The contractor will inspect all equipment before leaving the staging area for the construction site to ensure vehicles and equipment are safe and are not leaking. The contractor will be responsible for promptly repairing or replacing faulty equipment and reporting and mitigating any leaks or spills from equipment.

Fuel trucks will be inspected for leaks and valves tightened, adjusted or replaced to prevent leakage during transit. All fuel nozzles will have functioning, automatic shut-off valves. Nozzles and hoses will be kept inside the containment basin when not in use.

To the greatest extent practical, routine fueling, oil transfers, and maintenance will be done at staging areas. Onsite vehicle repair or maintenance will not occur within 100 feet of a waterway, if possible. Drip trays and absorbent pads will be used during on-site fueling or oil changes. All drained oil and clean-up material will be removed from the site for recycling or proper disposal.

An appropriately trained person will be in attendance while filling petroleum product and hazardous chemical primary containers, fueling trucks, equipment, etc. during the course of all construction activities. Repairs and servicing of equipment on the ROW may be required from time to time if transporting to the marshalling yard is not practical. Servicing, including concrete washouts, will be performed in upland areas as described above.

Construction equipment, helicopters, and stationary pumps and generators could be refueled on the ROW in upland areas. Refueling will occur at least 100 feet from wetlands and water bodies and in a flat area to minimize the chances of a spilled substance reaching a water resource. If the 100-foot buffer could not be maintained (e.g., where a stationary pump is being used and moving it to refuel may increase the risk of a spill), approval will be obtained from the environmental monitor and precautionary measures, such as absorbent diapers or secondary containment, will be used during the refueling process. In most cases, rubber-tired vehicles will be refueled at local gas stations or at marshalling yards.

Spill Response

In the event of a spill, the following spill response measures will be conducted by the individual discovering the spill. First, personnel will assess the situation to determine potential safety concerns and hazards posed to personnel and the environment. If safe, personnel will stop the source of the spill by turning off machinery, clamping or disabling hoses, and removing any ignition sources. Material spilled and quantities will be identified to the degree possible. Tri-State's contractor will construct berms, excavate diversion ditches, or otherwise contain spill where it could move downhill to a waterway.

Depending on the volume of the spill, Tri-State's contractor will deploy onsite spill response materials and contact additional support resources. Tri-State has spill response contractors under contract and reserves the right to call them if needed. Personnel will soak up spilled fluids with absorbent pads or granules. Contaminated vegetation and soil may be excavated from the site, and along with soiled clean-up material, stored on plastic sheets until it can be removed for proper disposal. All contaminated materials will be removed and placed in a container designed to hold and transport the material. The container will be labeled and disposed of in accordance with the Contract Terms and Conditions.

Any areas affected by clean-up will be assessed for remediation. Rehab and revegetation plans will be developed in coordination with the environmental monitor.

Clean-up wastes including absorbent materials, clothing, or contaminated vegetation and soil will be stored in 55-gallon drums and moved to the designated storage area. All drums will be labeled with the contents and date the waste was placed in the drum. If the contaminant is unknown, a sample may be taken to determine the material and method of disposal. Proper disposal of all wastes will be in conjunction with relevant federal and state statues as well as by following Tri-State's policies and procedures for proper waste characterizations, handling, and disposal as outlined in the Contract Terms and Conditions.

Spill Notification and Spill Reporting

Notification of any spill or release of any substance will be made immediately to Tri-State's dispatch personnel at the following number: 1-800-230-6180. Tri-State's dispatch personnel will contact the Environmental Services emergency phone (303-349-7711) to determine environmental reporting requirements and notify appropriate environmental agencies.

The construction contractor will notify Tri-State's construction supervisor and environmental monitor of any spills and/or clean-ups immediately using the number listed above. The construction contractor will additionally notify the Tri-State's Environmental Services Department (303-349-7711). Tri-State's Environmental Services Department will notify federal, state, and local authorities, as appropriate. Tri-State is responsible for notifying the appropriate environmental agencies of a spill event, depending on the reportable quantity. However, all spills, regardless of size, will be reported to the environmental monitor.

A spill report form (see Stormwater Management Plan, Appendix Q) must be completed and submitted by the contractor to Tri-State's Construction Supervisor and Environmental Monitor within 24 hours of the spill.

If a spill is too large to control or threatens the public or worker health:

The Contractor will make appropriate notification(s) to emergency personnel.

- Emergency: 911
- Colorado State Patrol Dispatch: 970-249-4392

The following Environmental Protection Measures (EPMs) apply (Table N-1):

Table N-1: Environmental Protection Measures

Topic - No.	Applicant Committed EPMs And Design Features For Construction (C), Operation, And Maintenance (O&M)	Applicable to C and/or O&M*
HM-1	Tri-State and its contractors will comply with all applicable federal laws and regulations existing or hereafter enacted or promulgated regarding toxic substances or hazardous materials during both construction and future maintenance activities. In any event, Tri-State and its contractors will comply with the Toxic Substance Control Act of 1976, as amended (15 United States Code 2601, et seq.) with regard to any toxic substances that are used, generated by or stored on the ROW or on facilities authorized under this ROW 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 will 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 will be furnished to the authorized officer concurrent with the filing of the reports to the involved federal agency or state government.	C and O&M
HM-2	No bulk fuel storage will occur within the public lands portion of the ROW project. All fuel and fluid spills within this area will be handled in accordance with appropriate state and federal spill reporting and response requirements. Tri-State's contractor will notify Tri-State of any spills so appropriate notifications can be made to the appropriate regulatory authorities/landowners and managers.	C and O&M

Topic - No.	Applicant Committed EPMs And Design Features For Construction (C), Operation, And Maintenance (O&M)	Applicable to C and/or O&M*
HM-3	The following hazardous materials management procedures will be used during maintenance and operation activities: • Storage of hazardous materials, chemicals, fuels, and oils and fueling of construction equipment will not be performed within 100 feet of an ephemeral drainage. • An effort will be made to store only enough products required to do the job. • Materials will be stored in a neat, orderly manner, in appropriately closed containers, in secondary containment and, if possible, under a roof or other enclosure. • Products will be kept in their original containers with the original manufacturer's label. • Substances will not be mixed with one another unless recommended by the manufacturer. • Whenever possible, all of the product will be used up before disposing of the container. • Manufacturer's recommendations for proper use of a product will be followed. • If surplus product must be disposed of, local and state recommended methods for proper disposal will be followed.	C and O&M
HM-4	Any waste generated as a result of the project will be properly disposed 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 statutes and regulations.	C and O&M
Water Quality and Erosion		
WQ-1	A Storm Water Management Plan (SWMP) will be developed and implemented to address all construction/ reconstruction activities. The plan will conform to Colorado Department of Public Health and Environment (CDPHE) requirements including regular inspections to ensure proper and effective functioning of Best Management Practices (BMPs). The Final POD will also be updated with specific water quality design measures once final engineering is complete.	C
WQ-2	All Tri-State construction personnel, including contractors will be trained on stormwater management requirements for the project. The environmental monitor will be responsible for compliance with the stormwater management plan from construction and through post-construction/reclamation.	C
WQ-15	In areas where construction may occur near surface waters and wetlands but no permanent or temporary impacts are planned and permitted under a USACE permit, 100 horizontal foot buffers will be created to protect these resources from sedimentation and erosion impacts. Fueling will occur only at staging areas and commercial stations to avoid potential contamination of surface waters, wetlands, and riparian communities. All reportable fuel and chemical spills will be reported to the State of Colorado, per applicable statutes and regulations, contained and cleaned up promptly.	C