

COLORADO'S POWER PATHWAY

WETLAND IMPACT LETTER

2.16 SURFACE WATER QUALITY (ARTICLE 2.303.16)

A desktop analysis of the portion of Pathway within El Paso County was completed to identify potentially jurisdictional wetlands and other WOTUS that may be subject to regulation under Section 404 of the CWA. The following digital information was evaluated for the 150-foot ROW and an additional 50-foot buffer on either side of the ROW (Study Area):

- USFWS National Wetland Inventory (NWI) dataset (USFWS 2022a)
- U.S. Geological Survey (USGS) National Hydrography Dataset (NHD; USGS 2022a)
- Playa Lakes Joint Venture (PLJV) Probable Playa Dataset (PLJV 2019)

The Water Resources Map (Attachment K) illustrates the mapped NWI, NHD, and PLJV locations near Pathway in El Paso County. The notable NHD-mapped drainages associated with wetland and other WOTUS features near proposed Pathway facilities in El Paso County include Little Horse Creek, West Branch Steels Fork Horse Creek, West Branch, Pond Creek, North Fork Horse Creek, Steels Fork Horse Creek, Mustang Creek, Horse Creek, and associated unnamed tributaries (USGS 2022a). NWI-mapped wetland features associated with these drainages include riverine wetlands, a freshwater emergent wetland, and a freshwater pond. As outlined in Table 9, the transmission line ROW intersects 21 of these mapped wetland features, the longest crossing of which is approximately 839 feet (USFWS 2022a). One PLJV-mapped playa (0.2 acre) is located within the Pathway ROW; it is located southeast of Ramah, Colorado in the northeast portion of El Paso County (PLJV 2019).

Table 9: NWI Wetland Length Crossed by the Transmission Line in El Paso County

NWI Wetland Type	Approximate Length Crossed (Feet)
Freshwater Pond	40
Riverine	19
Riverine	27
Riverine	24
Riverine	20
Riverine	211
Riverine	41
Riverine	25
Riverine	20
Riverine	45
Riverine	20
Riverine	20

NWI Wetland Type	Approximate Length Crossed (Feet)
Riverine	21
Riverine	55
Riverine	20
Riverine	20
Riverine	97
Riverine	62
Riverine	278
Riverine	860
Riverine	65
Riverine	33

Pathway intends to avoid impacts to wetlands and WOTUS features (including the mapped playa) to the extent practicable. The potential wetlands and WOTUS identified through desktop analysis of NWI data that may be impacted by construction of Pathway will be verified in the field and inventoried and/or delineated to determine the actual locations and extent of wetlands prior to construction of Pathway. The span between transmission line poles can be up to 1,400 feet, and thus can be sited to avoid pole placement within and to span across wetlands and other WOTUS features to avoid permanent impacts. Based on the lengths provided in Table , it is not anticipated that Pathway will result in any permanent impacts to wetlands or other WOTUS features in El Paso County. Associated access roads, laydown yards, and other appurtenant features of Pathway will also be sited to avoid permanent impacts to wetlands and WOTUS features. In the event that a regulated water resource cannot be avoided, Pathway will comply with applicable federal and state regulations, including permit requirements under Section 404 of the CWA.

Temporary impacts to wetlands and WOTUS during construction of Pathway will be avoided to the extent practicable. If wetlands cannot be avoided, matting and other protective temporary measures will be used. Depending on the condition of the wetland soil and hydrology, matting may be used in some cases to protect wetlands from rutting. To avoid potential indirect impacts from construction-related erosion and sediment movement during construction, Pathway will adhere to erosion and sediment control BMPs outlined in the SWMP, which will include erosion control and revegetation measures.

Pathway will not generate pollutant loads. Construction of the transmission line will not create runoff in excess of previous site levels and will not change existing topography or adversely affect drainage. No alteration in the pattern or intensity of surface drainage as a result of construction or operation of the transmission line will occur.

Xcel Energy will coordinate with El Paso County as appropriate. Xcel Energy will comply with permit application requirements, County standards, and construction protocol to ensure that Pathway does not violate water quality standards. Prior to construction, a Construction Stormwater Discharge Permit for Construction Activities will be obtained from CDPHE.

The Water Resources Resource Map (Attachment K) also illustrates the mapped Federal Emergency Management Agency (FEMA) floodplain data available for El Paso County. Pathway will avoid regulated floodplains to the extent practicable. The transmission line will span floodplain areas with overhead conductors. Pathway will obtain a Floodplain Development Permit for each floodplain crossing from the Pikes Peak Regional Building Department Floodplain Management Office, if necessary. See Section 2.19 for additional information regarding floodplains.

2.16.a Map or Description of All Surface Waters (2.303.16.a)

A map showing water resources within the vicinity of Pathway is provided as Attachment K. The transmission line subject to this 1041 Application will cross Little Horse Creek, Steels Fork Horse Creek, North Fork Horse Creek, Mustang Creek, Horse Creek, West Branch Steels Fork Horse Creek, West Branch, Pond Creek, and unnamed tributaries in El Paso County.

2.16.b Existing Data Monitoring Sources (2.303.16.b)

Pathway does not anticipate impacts to surface waters; as such, there is no existing data monitoring sources.

2.16.c Immediate and Long-Term Effect and Net Effects on Quantity and Quality of Surface Water (2.303.16.c)

To avoid potential indirect impacts from construction-related erosion and sediment movement during construction, Pathway will adhere to best management practices outlined in the SWMP, which will include erosion and sediment control best management practices and revegetation measures.

3 REVIEW CRITERIA FOR ALL APPLICATIONS (2.405)

In accordance with Section 2.405 of the El Paso County §1041 Regulations, the information in Table 13 describes how Pathway routing and site selection, construction, maintenance, and operation comply with the approval criteria for the Permit Authority approval of the portion of the transmission line subject to this Application. Each criterion for all applications from Section 2.405 is listed, followed by a description of how Pathway will comply.

Table 13: Pathway Compliance with Review Criteria for All Applications (Section 2.405 of the El Paso County §1041 Regulations)

Review Criteria Code Citation	Review Criteria	Pathway Compliance with Review Criteria
2.405.9	<p>The project will not significantly degrade surface water quality. The determination of effects of the Project on surface water quality may include but is not limited to the following considerations:</p> <ul style="list-style-type: none"> a. Changes to existing water quality, including patterns of water circulation, temperature, conditions of the substrate, extent and persistence of suspended particulates and clarity, odor, color or taste of water. b. Applicable narrative and numeric water quality standards. c. Changes in point and nonpoint source pollution loads. d. Increase in erosion. e. Changes in sediment loading to waterbodies. f. Changes in stream channel or shoreline stability. 	<p>Construction of the transmission line will not create runoff beyond previous site levels, will not change existing topography, or adversely affect drainage. No alteration in the pattern or intensity of surface drainage will result from the construction or operation of the transmission line. Once construction has been completed, restoration will resume pre-project conditions. A Preliminary Drainage Analysis is provided in Attachment L.</p> <p>The transmission line will be sited to span floodplains, wetlands, and riparian areas to the extent practicable. Pathway will adhere to BMPs outlined in the SWMP, which will include erosion control and revegetation measures. The transmission line will span or avoid any wetlands, streams, lakes, and reservoirs as possible. Pathway will obtain a Floodplain Development Permit for each FEMA-designated floodplain crossing from the Pikes Peak Regional Building Department Floodplain Management Office, and conditions of approval will be followed during construction. No surface water quality impacts are anticipated.</p>

Review Criteria Code Citation	Review Criteria	Pathway Compliance with Review Criteria
	<ul style="list-style-type: none"> g. Changes in stormwater runoff flows. h. Changes in trophic status or in eutrophication rates in lakes and reservoirs. i. Changes in the capacity or functioning of streams, lakes or reservoirs. j. Changes to the topography, natural drainage patterns, soil morphology and productivity, soil erosion potential, and floodplains. k. Changes to stream sedimentation, geomorphology, and channel stability. <p>Changes to lake and reservoir bank stability and sedimentation, and safety of existing reservoirs.</p>	
2.405.10	<p>The Project will not significantly degrade groundwater quality. The determination of effects of the Project on groundwater quality may include but is not limited to the following considerations:</p> <ul style="list-style-type: none"> a. Changes in aquifer recharge 	<p>Pathway will not impact aquifers or wells. Pathway design and construction will mitigate impacts to groundwater contamination to the extent practicable. Pathway will not generate pollutant loads during construction or operation therefore no long-term impacts to groundwater will occur. Construction of the transmission line will not create runoff in excess of previous site levels and will not change existing topography</p>

Review Criteria Code Citation	Review Criteria	Pathway Compliance with Review Criteria
	<p>rates, groundwater levels and aquifer capacity including seepage losses through aquifer boundaries and at aquifer-stream interfaces.</p> <p>b. Changes in capacity and function of wells within the impact area.</p> <p>Changes in quality of well water within the impact area.</p>	<p>or adversely affect drainage. A Preliminary Drainage Analysis is provided in Attachment L.</p>
<p>2.405.11</p>	<p>The Project will not significantly degrade wetlands and riparian areas, terrestrial or aquatic plant or animal life. The determination of effects of the Project on these areas shall include the considerations raised in the applicable federal and/or state Permits.</p>	<p>Pathway design and construction will mitigate impacts to wetlands and other surface and groundwater contamination to the extent practicable. Potential WOTUS will be avoided to the extent practicable. The span between transmission line poles can be sited to avoid placement within sensitive areas and span across wetlands and other WOTUS features to avoid permanent impacts (see the Water Resources Map, Attachment K). Pathway is not anticipated to result in any permanent impacts to wetlands or other WOTUS features. Construction of the transmission line will not create runoff in excess of previous site levels and will not change existing topography or adversely affect drainage. There will be no alteration in the pattern or intensity of surface drainage or any impacts to lakes or reservoirs as a result of construction or operation of the transmission line. Sensitive natural resource areas, including wetlands and critical habitats for wildlife, were specifically considered as part of the routing and siting analysis when identifying the preferred location</p>

Review Criteria Code Citation	Review Criteria	Pathway Compliance with Review Criteria
		<p>for the transmission line to minimize potential interference from Pathway facilities (see the Routing and Siting Study for Segment 5, Attachment C in Application). Xcel Energy has communicated with CPW and USFWS representatives regarding Pathway and will continue to coordinate with them throughout design and construction of Pathway and comply with all applicable regulatory requirements. Pathway will obtain a Floodplain Development Permit for each FEMA-designated floodplain crossing from the Pikes Peak Regional Building Department Floodplain Management Office, if necessary. Pathway will adhere to BMPs outlined in the SWMP, which will include erosion control and revegetation measures.</p>

6 REFERENCES

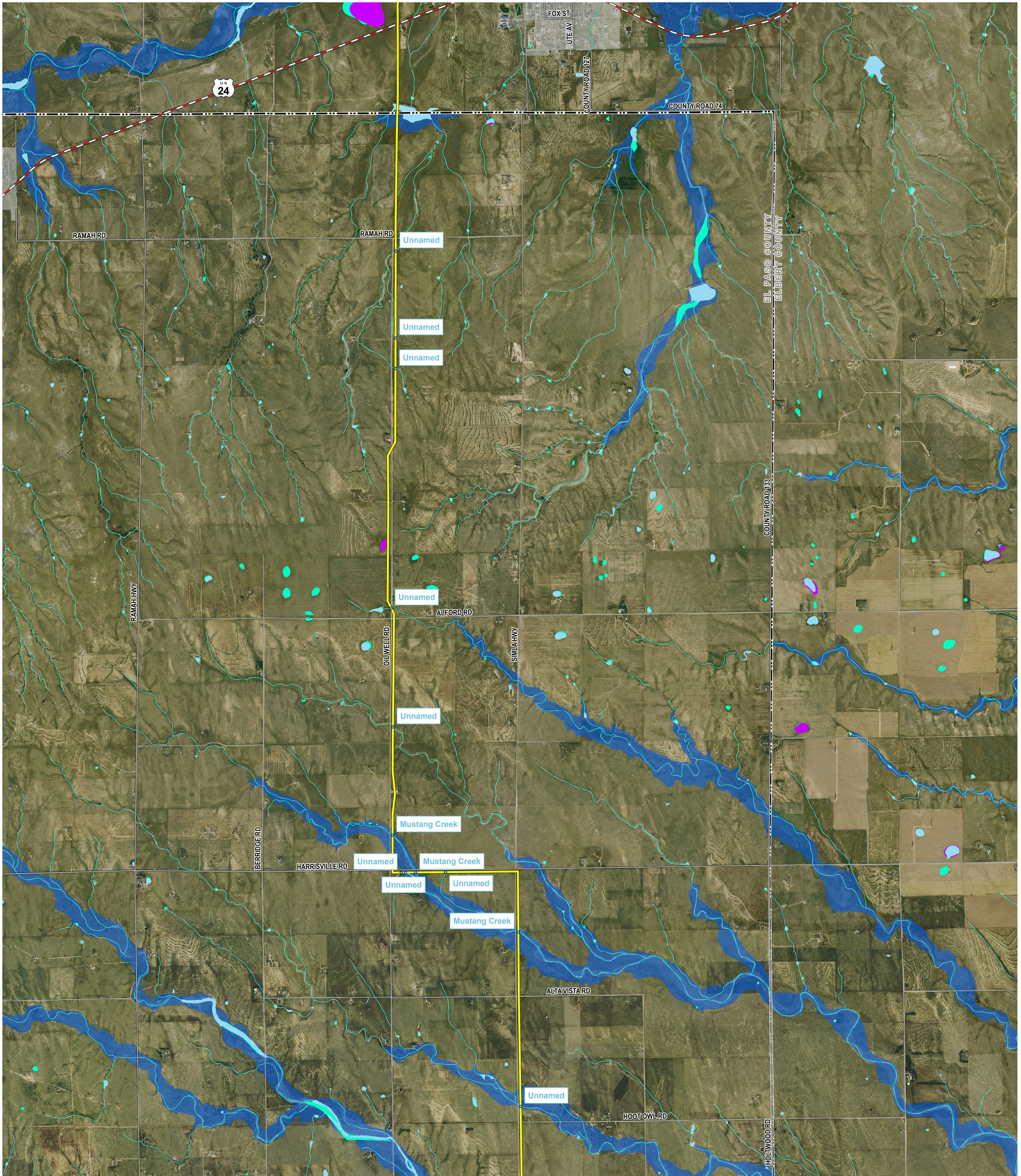
USFWS (U.S. Fish and Wildlife Service). 2022a. National Wetlands Inventory. Available online at: <https://www.fws.gov/program/national-wetlands-inventory>. Accessed December 2022.

USGS (U.S. Geologic Survey). 2022a. National Hydrography Dataset. Available online at: <https://www.usgs.gov/national-hydrography/national-hydrography-dataset>. Accessed December 2022.

PLJV (Playa Lakes Joint Venture). 2019. Playa Lakes Joint Venture Probable Playa Dataset. Available online at: <https://pljv.org/playas/playa-tools/>. Accessed December 2022.

ATTACHMENT K: WATER RESOURCES MAP

COLORADO'S POWER PATHWAY

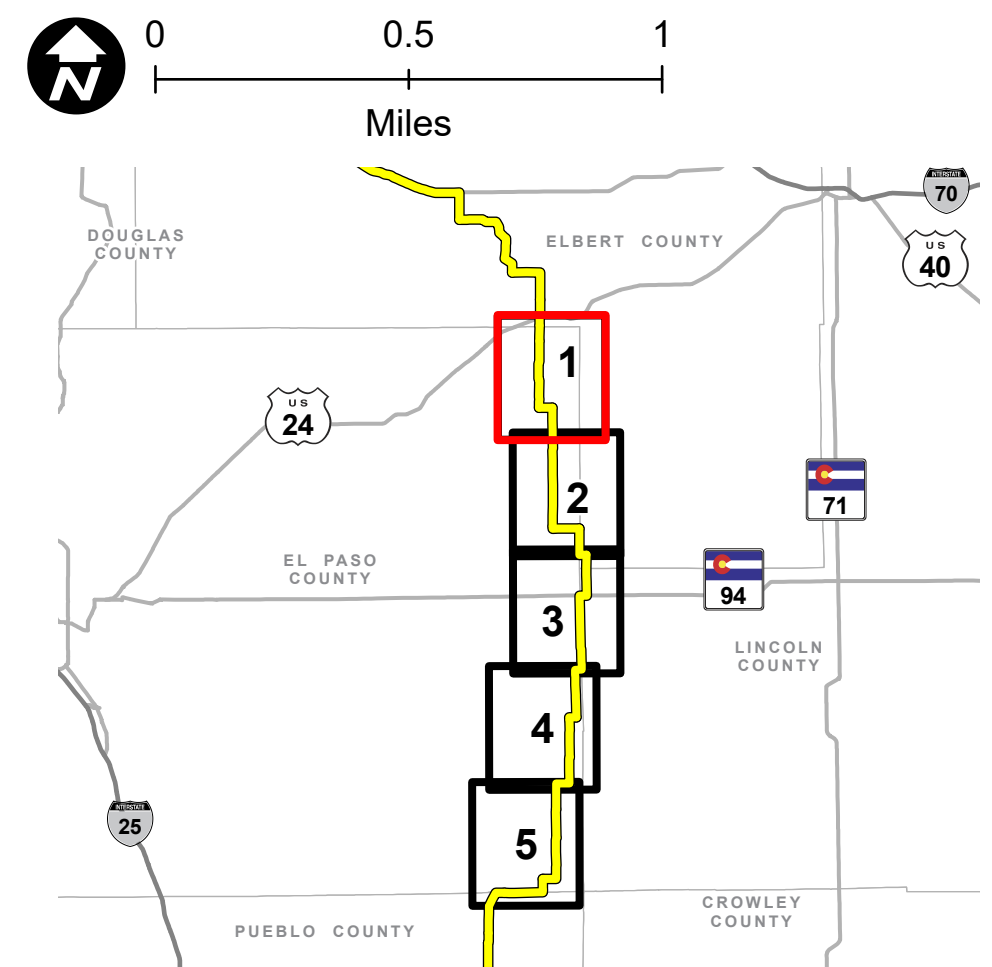


Legend

- Proposed Transmission Route
- Boundary**
(CDOT 2021, DOLA 2021)
- Municipal Boundary
- County
- Transportation**
(CDOT 2021, BTS 2020)
- U.S. Highway
- State Highway
- Local Road

Hydrology

- (NHD 2023, NWI 2023, FEMA 2023)
- Perennial Stream
 - Intermittent Stream
 - Waterbody
 - NWI Wetland
 - FEMA 100-year Floodplain
 - PLJV Playa

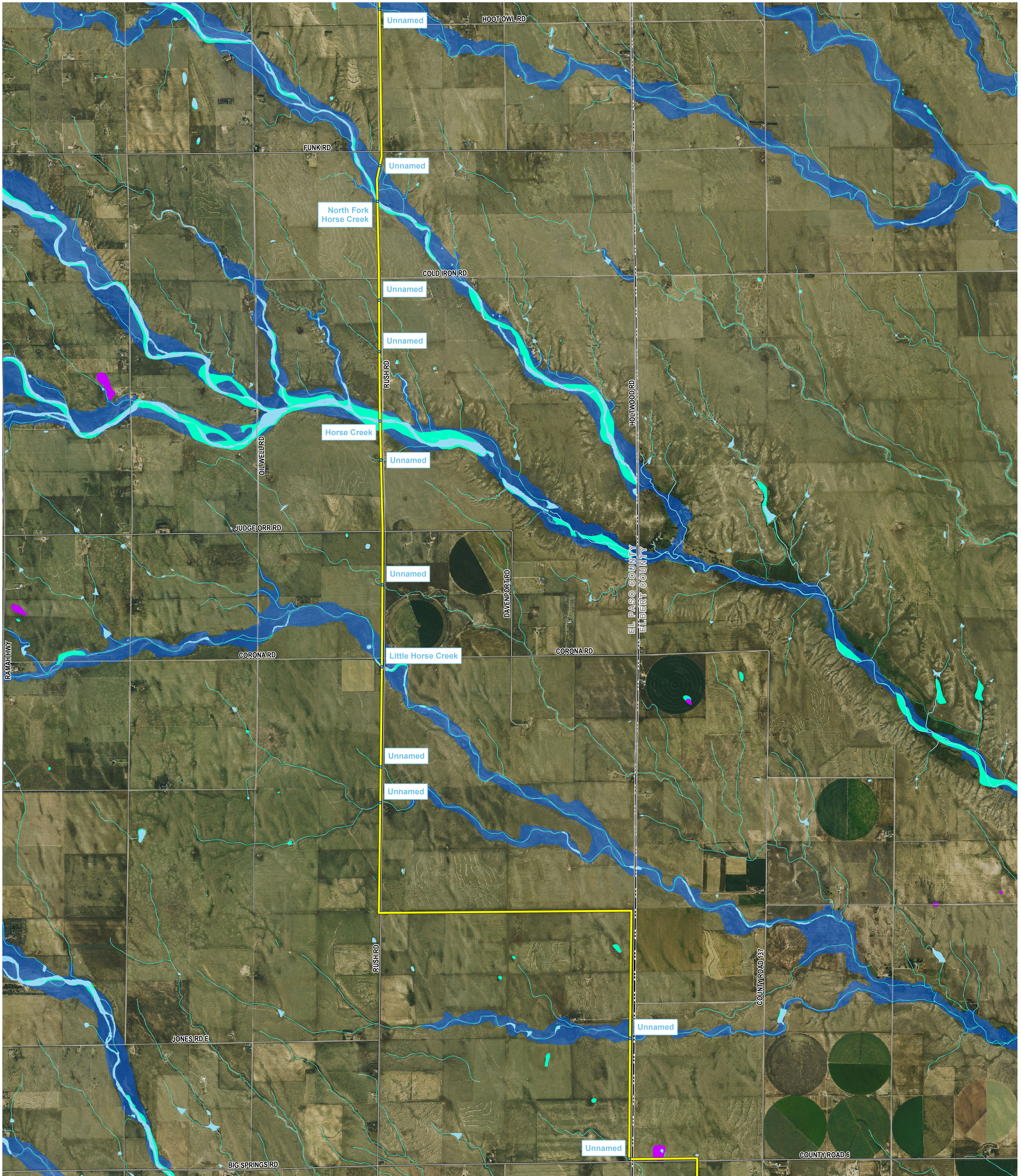


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COLORADO'S POWER PATHWAY

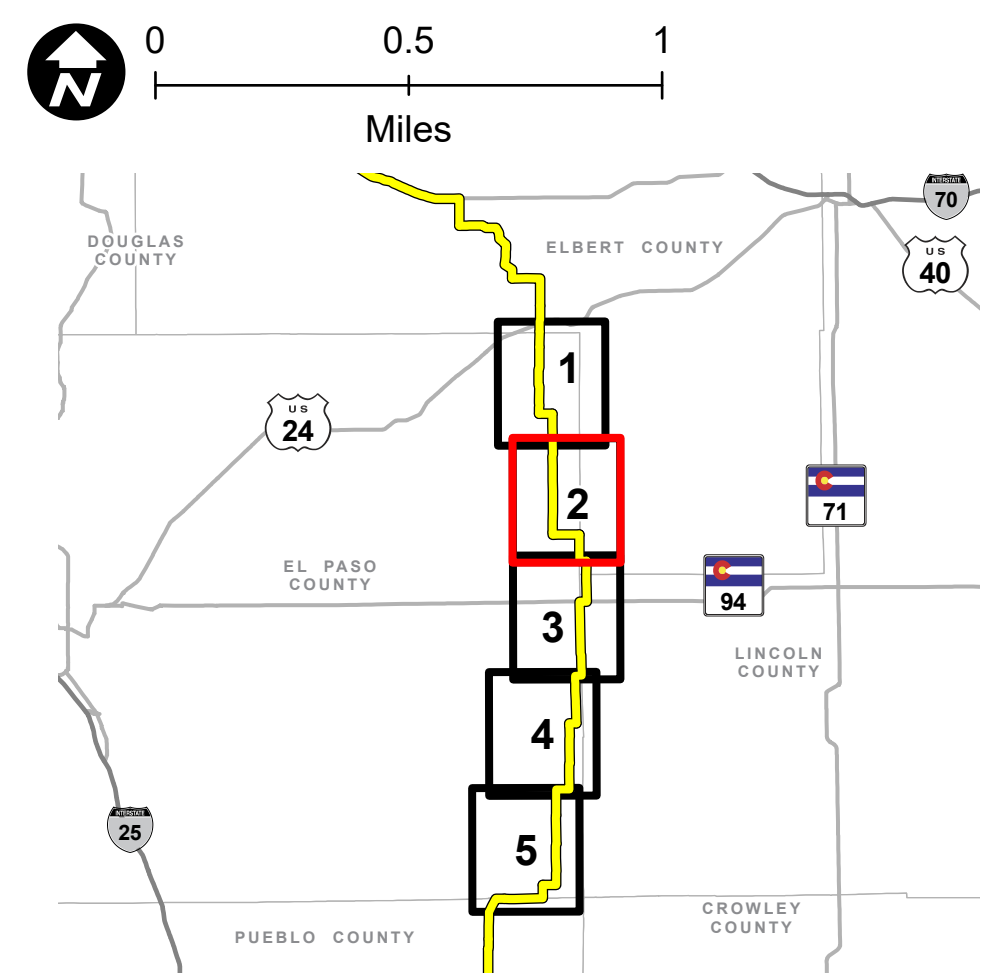


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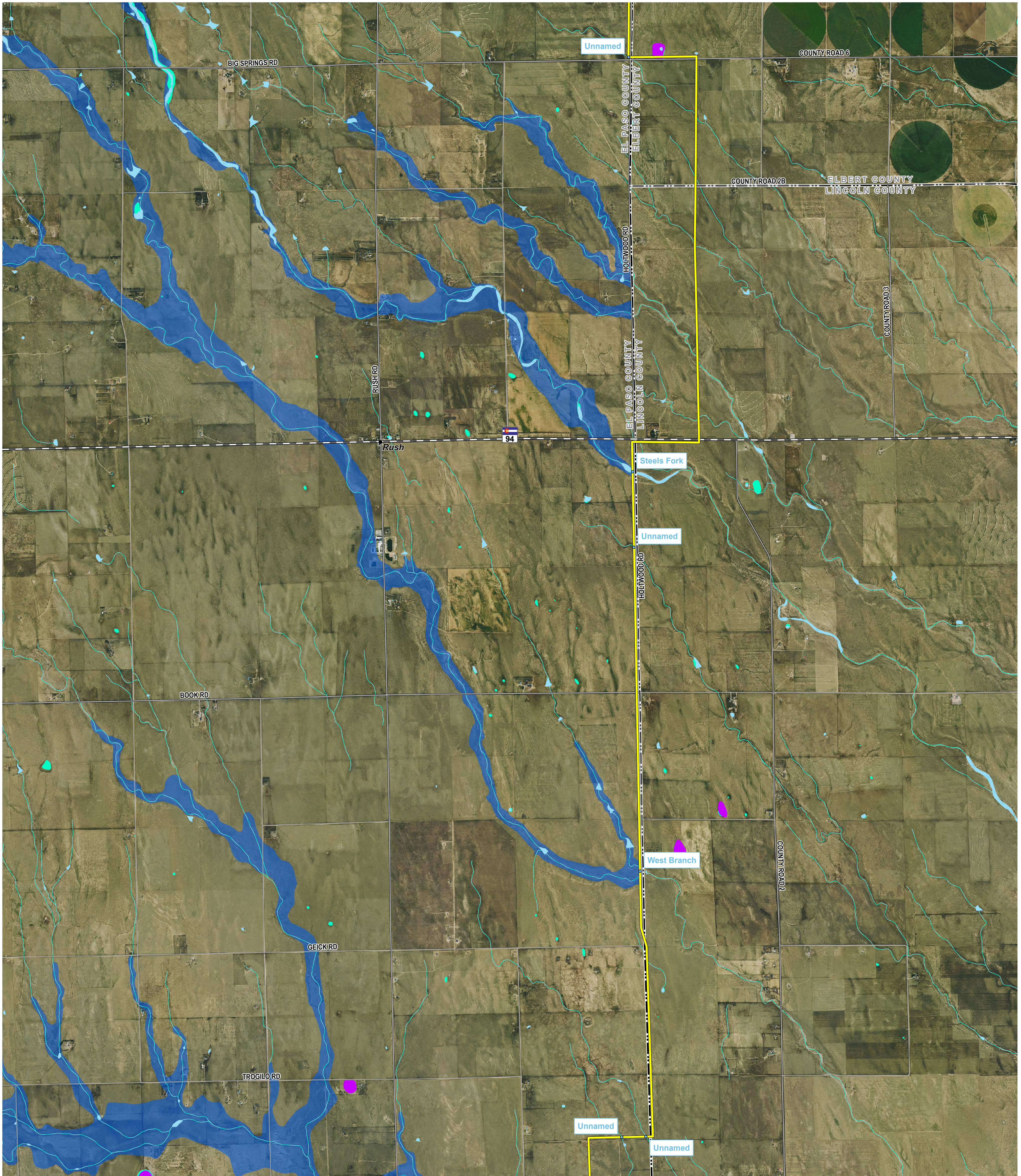


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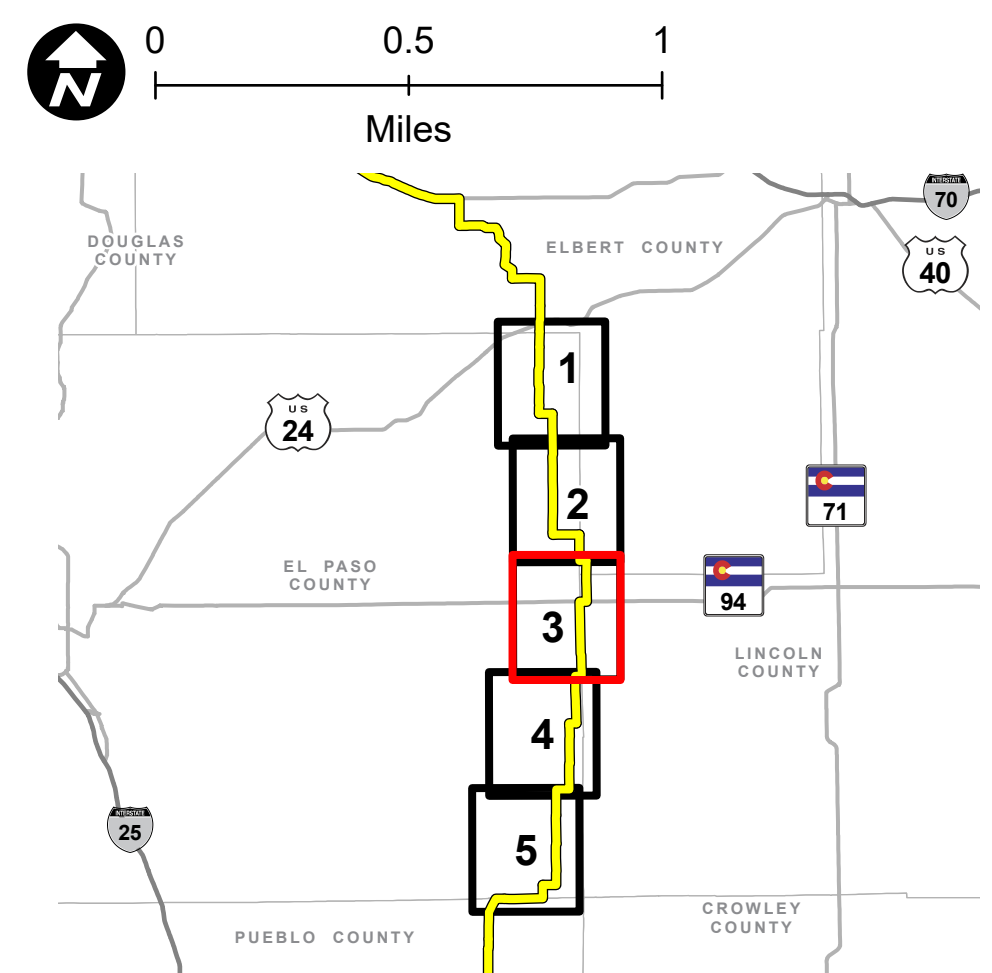


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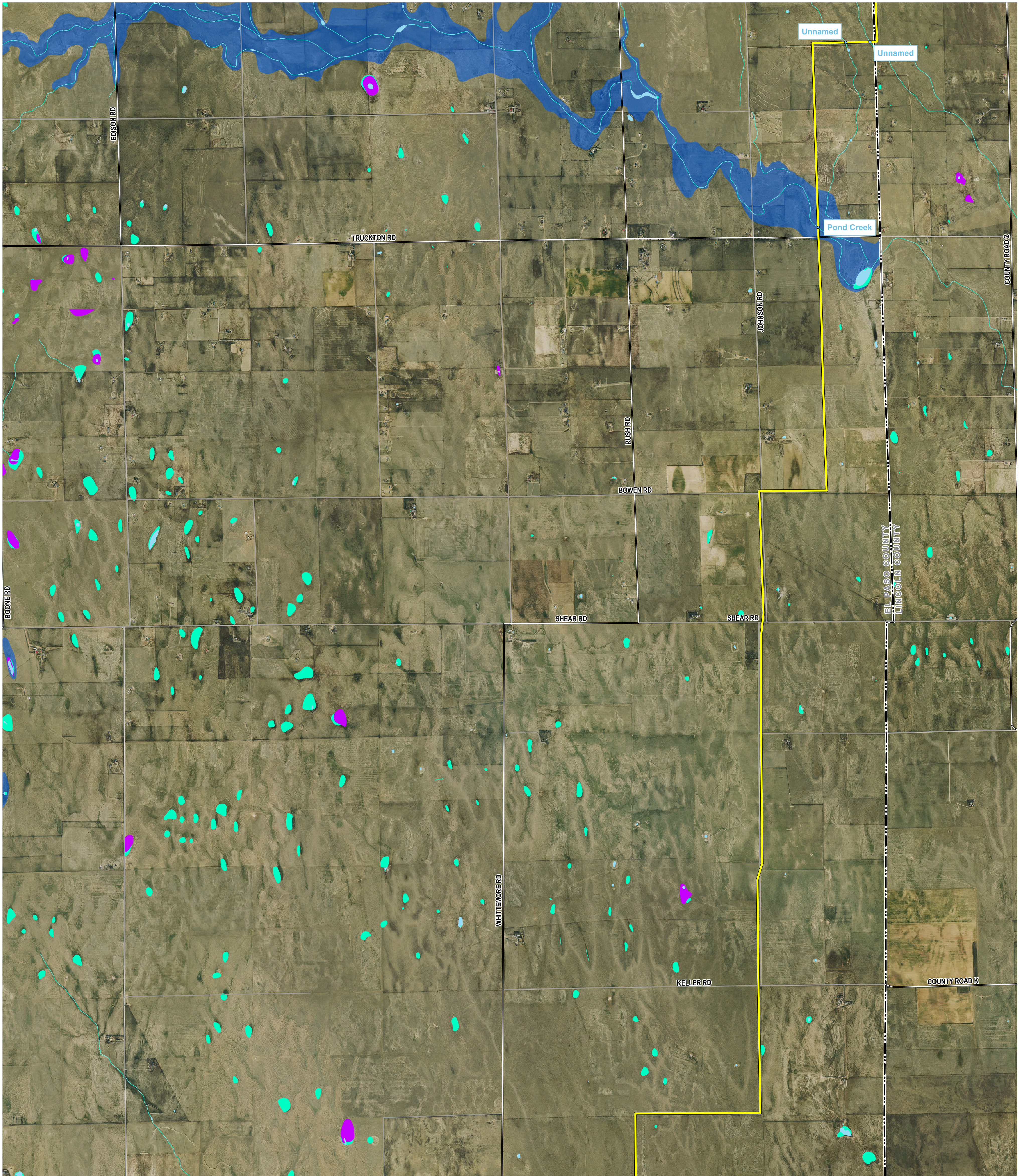


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Legend

Proposed Transmission Route

Boundary (CDOT 2021, DOLA 2021)

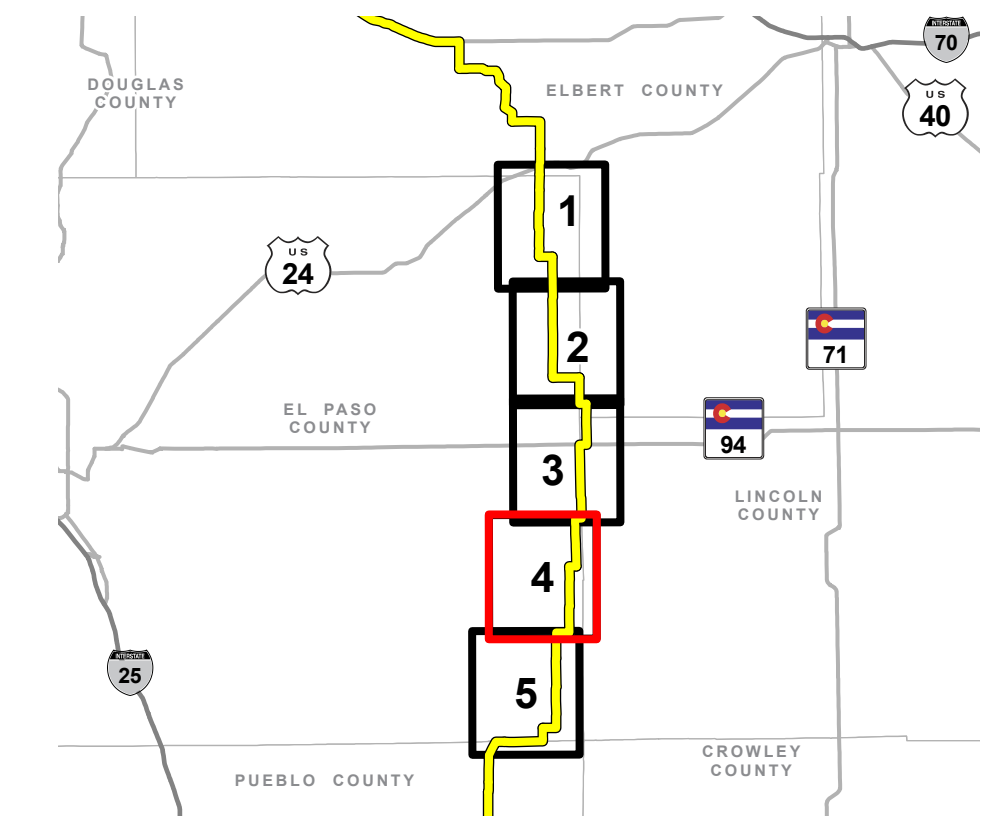
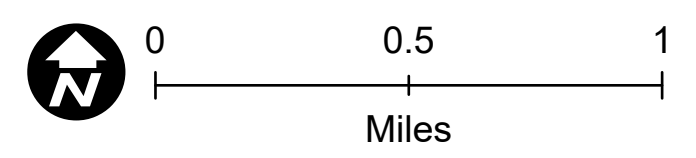
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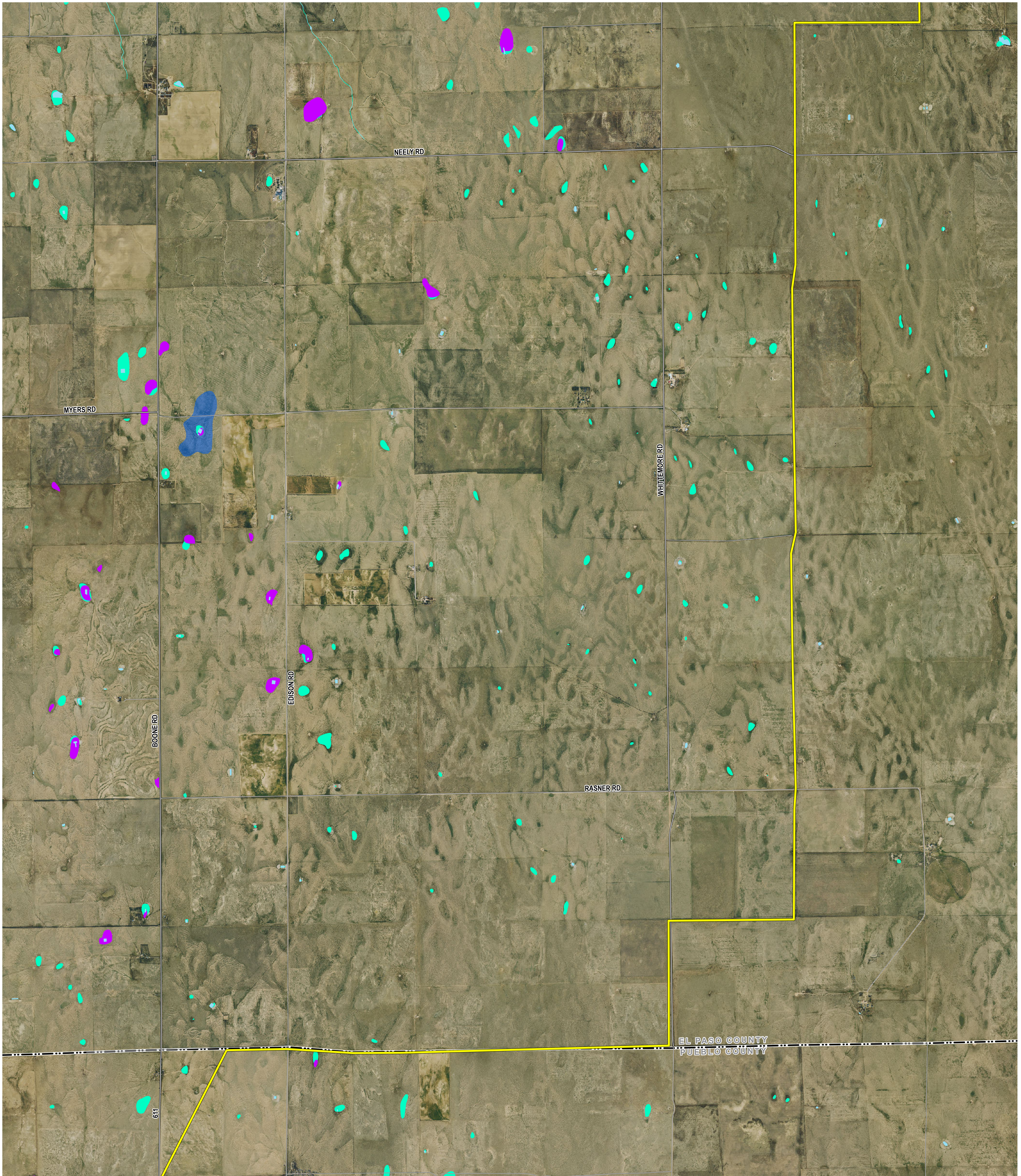


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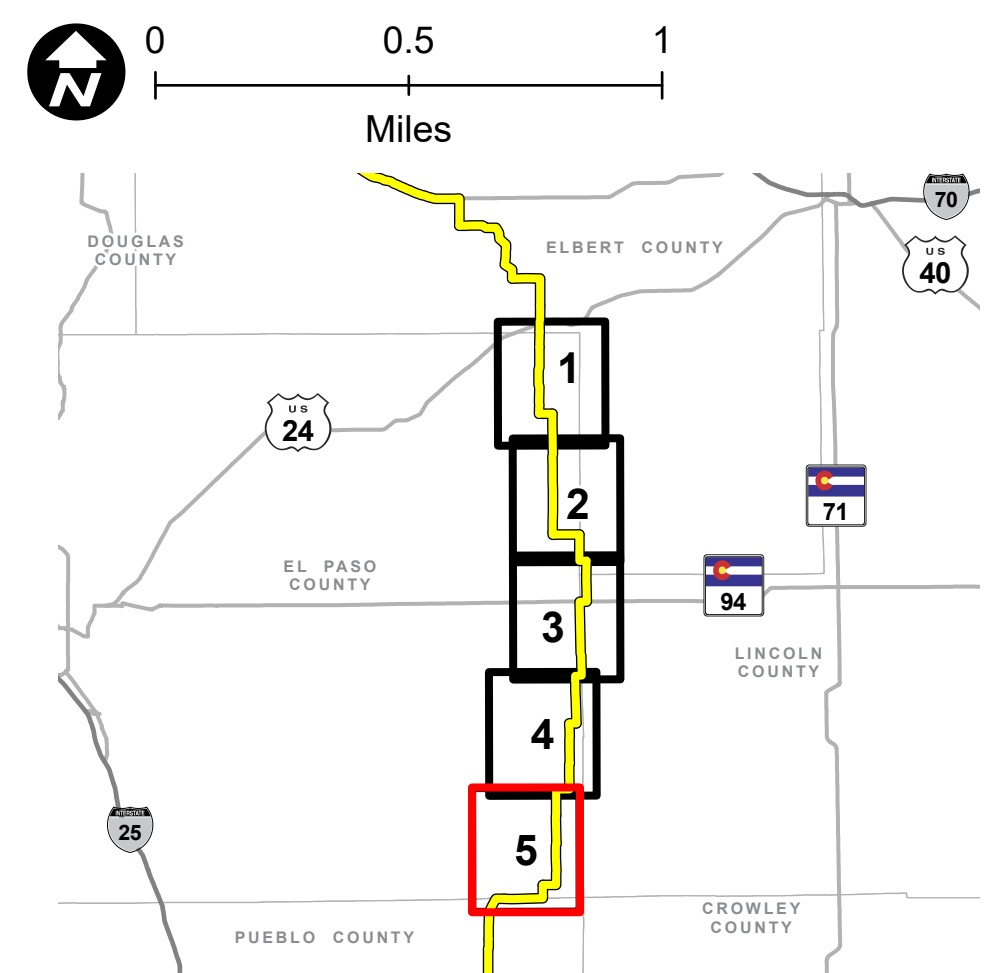


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ATTACHMENT L: PRELIMINARY DRAINAGE ANALYSIS



Memo

Date: Thursday, May 23, 2024

Project: Xcel Pathway Segment 5 in El Paso County

To: El Paso County Public Works Planning and Development Department
County Case No. TBD

From: Engineer Contact:
HDR Engineering, Inc.
Brian Brown, P.E.
Brian.brown@hdrinc.com,
(970) 215-4616
1670 Broadway St., Suite 3400
Denver CO 80202

Owner/Developer Contact:
Public Service Company of Colorado (PSCo)
Sascha Archie, Project Manager
Sascha.archie@xcelenergy.com
(718) 869-4118
1800 Larimer St., Suite 1300
Denver CO 80202

Subject: Drainage Letter for Overhead Utility Construction

The Colorado Power Pathway project (Pathway) is an investment proposed by Xcel Energy to improve the state's electric grid, increase electric reliability and enable future renewable energy development around the state. Pathway includes the installation of approximately 560 miles of new 345-kilovolt (kV) double-circuit transmission line as well as new and expanded substations. This Drainage Letter is part of a larger packet submittal regarding the build of 43 miles of new 345-kilovolt (kV) double-circuit transmission line for the Pathway Segment 5 El Paso County Transmission Line Build project (Project). This letter was developed following the guidance of the El Paso County Drainage Criteria Manual (DCM), with minor modifications to best tailor to the nature of a linear, overhead utility project.

Description of Project

The Project begins at proposed transmission line structure 328 (located 1.12 miles southwest of the intersection of Summit Street and Simla Highway) and runs south for 43 miles to proposed transmission line structure 64 (located 1.13 miles north of intersection of Prairie Hill Road and County Road 3608). The average space between structures is 860 feet. The new line is comprised of a mix of monopole, tangent, and dead-end steel pole structures, with pole foundation diameters varying from 3 feet to 10 feet. The proposed structure locations are within the existing PSCo right-of-way.

Existing and Proposed Drainage Characteristics

The Project area through the County is approximately 782 acres with a utility easement width of 150 feet. The estimated change from vegetated area to imperviousness area due to the structure foundations is less than 0.5 acres over the span of 43 miles, roughly 171 square feet of new impervious surface per mile of line, a de minimis change. Surface water flow from the project area will not change due to the minor localized grading impacts and structure installation. Given the line length and lack of drainage changes due to construction, a drainage plan figure has not been included with this memo.

Site disturbance would include minor grading and mowing (if needed) around the structures, grading for temporary access roads, installation of concrete foundations, and placement of conductor wire. The temporarily disturbed areas will be restored to existing vegetated conditions as nearly as practical once construction is complete. Impacts to existing grade due to permanent access are expected to be minimal and have a de minimis impact on drainage flow, direction, and flow concentration therefore, hydrologic and hydraulic calculations and tabulations have not been included in this memo.

Floodplain Development Permits (FDPs) will be acquired for any work within a designated floodplain. There are no expected changes in pre-construction and post-construction site hydraulics.

Water Quality Improvements

Erosion control practices (stormwater control measures) will be utilized to protect water quality. A detailed report and map will be developed identifying these practices as a part of the Stormwater Management Plan/Erosion and Stormwater Quality Control Permit (ESQCP) submittal. Secondary containment and/or covered storage will be utilized for on-site fuel storage. Additional lubricants or solvents utilized for material assembly will be stored in contractor equipment or vehicles.

All disturbed areas will be re-vegetated, if vegetated prior to construction, excepting areas of active agricultural land in crop production. Seed mix and seeding rates will be developed through consultation with the local Natural Resources Conservation Service or seed suppliers for the area.

Developer's Statement

I have read and will comply with all of the requirements specified in this drainage letter.

NAME:  _____

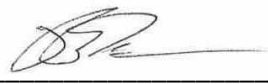
Public Service Company of Colorado (PSCo)

Chad Campbell

Environmental Services Manager

Engineer Statement

The attached drainage letter was prepared under my direction and supervision and is correct to the best of my knowledge and belief. Said drainage letter has been prepared according to the criteria established by the City/County for drainage and said letter is in conformity with the master plan of the drainage basin. I accept responsibility for any liability caused by negligent acts, errors, or omissions on my part in preparing this report.

NAME:  _____

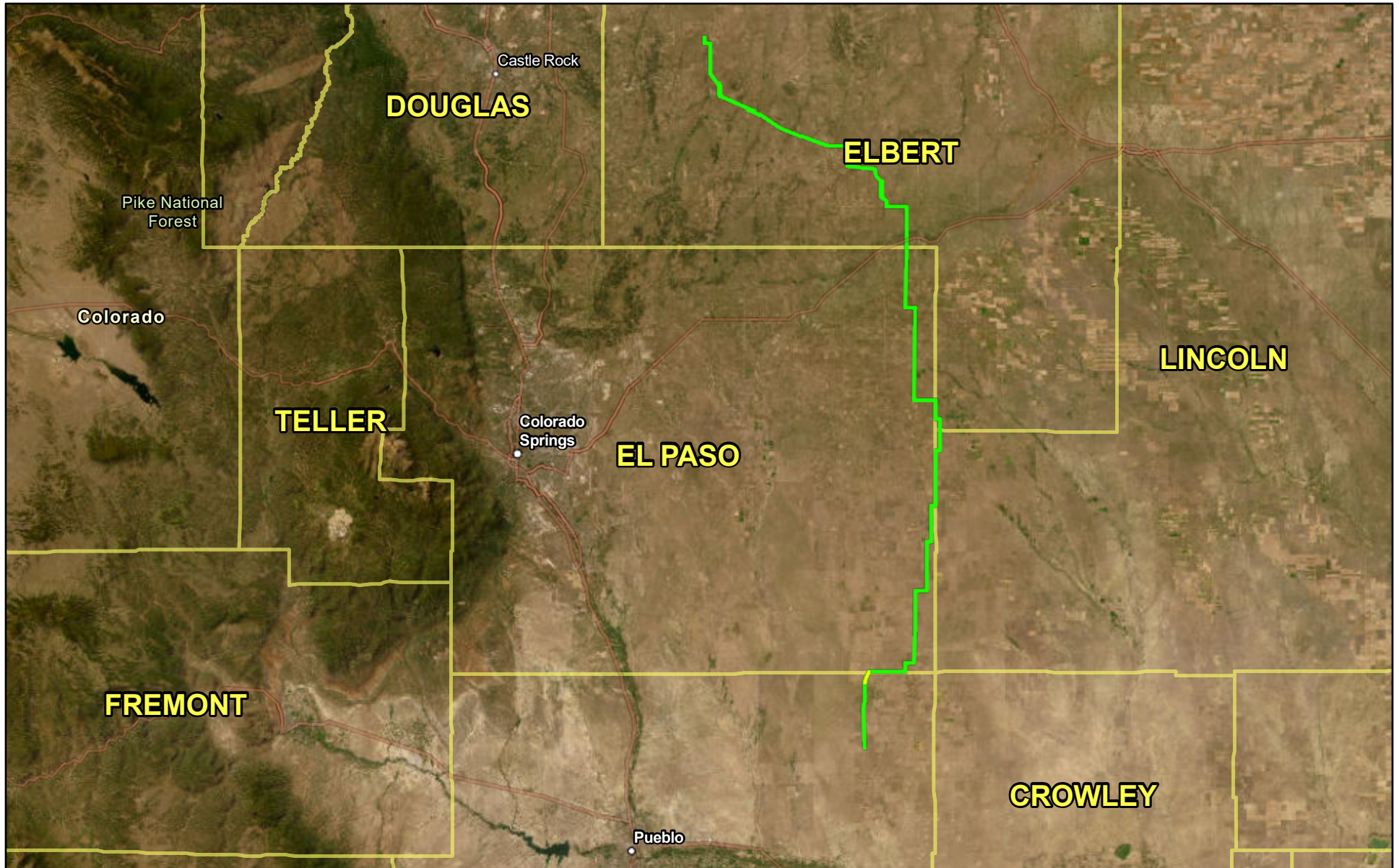
HDR Engineering, Inc.

Brian Brown

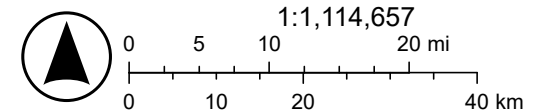
Registered Professional Engineer

State of Colorado No. 41644

Xcel Pathways Segment 5 El Paso County Transmission Line Build



5/23/2024



Earthstar Geographics, Esri, TomTom, Garmin, SafeGraph, FAO, METI/
NASA, USGS, EPA, NPS, USFWS