

ATTACHMENT C: ROUTING AND SITING STUDY FOR SEGMENT 5 (PART 1)

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ACRONYMS/ABBREVIATIONS

Acronyms/Abbreviations	Definition
CO	Colorado State Highway
CORE	CORE Electric Cooperative
CPCN	Certificate of Public Convenience and Necessity
CPUC	Colorado Public Utilities Commission
CR	County Road
ERA	Eastern Review Area
I-	Interstate
kV	Kilovolt
NNL	National Natural Landmark
Pathway	Colorado's Power Pathway
PTC	Production Tax Credit
Q&A	Question and Answer
SWA	State Wildlife Area
TTCI	Transportation Technology Center, Inc.
USAF A	U.S. Air Force Academy
US	U.S. Highway

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1.0 Introduction

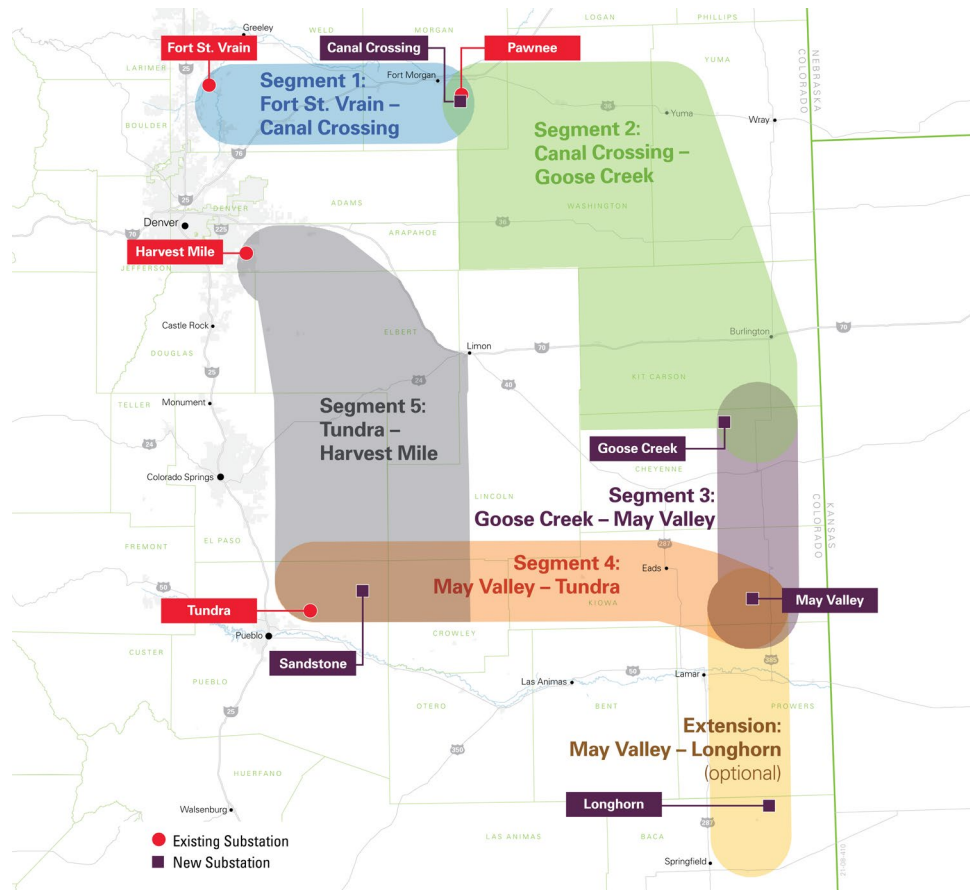
1.1 Colorado's Power Pathway

Public Service Company of Colorado, a Colorado corporation conducting business as Xcel Energy (Xcel Energy), proposes to construct, maintain, and operate Colorado's Power Pathway (Pathway) in eastern Colorado. Pathway is a \$1.7 billion investment proposed by Xcel Energy to improve the state's electric grid and enable future renewable energy development around the state. Pathway will ensure safe, reliable, and economical electric service to the public, boost the regional economy, and create jobs during its construction. Pathway includes:

- Installation of approximately 550 miles of new 345-kilovolt (kV) double-circuit transmission line in 14 counties
- Construction of four new electric substations (Canal Crossing, Goose Creek, May Valley and Sandstone)
- Expansion of, or equipment additions at, four existing electric substations (Fort St. Vrain, Pawnee, Harvest Mile and Tundra)

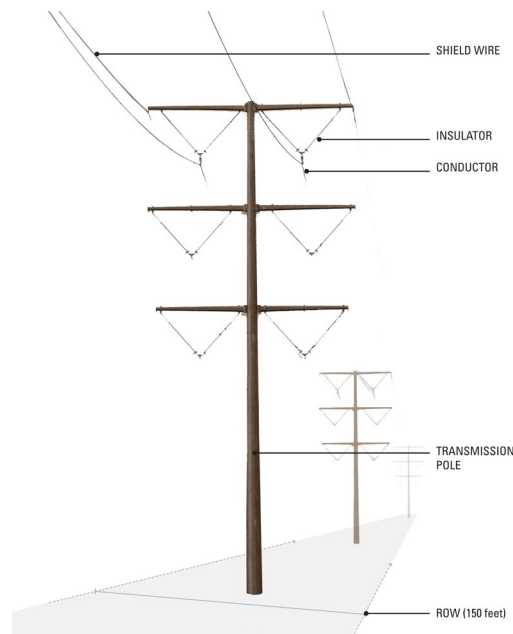
Pathway will be constructed in five segments (Figure 1) with each new or expanded electric substation serving as an endpoint for a transmission line segment. The Colorado Public Utilities Commission (CPUC) did not approve construction of the May Valley – Longhorn Extension (Extension) in its January 2024 Phase II Decision regarding Xcel Energy's Electric Resource Plan and Clean Energy Plan. Xcel Energy may bring a proposal to construct the May Valley – Longhorn Extension and Longhorn Substation forward to the CPUC again in the future but has paused its further development as part of Pathway.

The transmission line segment Study Areas, existing substation locations and approximate locations of new electric substations are shown in the following graphic. These are discussed in more detail in Section 3 of this document.



Colorado's Power Pathway Overview

The new 345-kV double circuit transmission line will be constructed using steel poles. A single pole will be used at most locations; however, two poles will be required for certain high loading locations, such as at angles where the line changes direction. Each pole will be placed on a concrete foundation. Voltage, conductor sag, pole type, terrain, length of span between transmission poles, and minimum clearances of existing buildings influence the necessary height of transmission poles. The transmission poles will be weathering steel resulting in a brown or rust color. A representative transmission line is shown in the following graphic.



Representative Transmission Line

The typical transmission line characteristics are provided in Table 1.

Table 1: Typical 345-kV Double Circuit Transmission Line Characteristics

Characteristic	Anticipated Design
Typical height	105–140 feet, maximum height of 199 feet
Right-of-way	150 feet total, 75 feet on either side of the centerline
Span length	Typically, 950 feet between transmission poles
Material/color	Weathering steel, brown or rust color
Clearance	Maintain all clearances as required by National Electric Safety Code

Transmission substations are essential components of the electric transmission grid and are connection points for two or more transmission lines and for generation interconnections for wind, solar, natural gas, and other energy sources. Transmission substations include electrical equipment located inside a fenced area. Pathway involves expansion of, or equipment additions, at four existing electric substations (Fort St. Vrain, Pawnee, Tundra, and Harvest Mile) and construction of four new electric substations (Canal Crossing, Goose Creek, May Valley and Sandstone). Each new electric substation will be constructed on a parcel of land owned in fee by Public Service Company of Colorado.

The existing electric substations (Fort St. Vrain, Pawnee, Tundra, and Harvest Mile) will be expanded, or equipment added within the existing fence line to accommodate the new transmission lines and the associated equipment needed to operate the lines. The four new electric substations (Canal Crossing, Goose Creek, May Valley and Sandstone) will be 345-kV switching stations. A switching station is a type

of electric substation that operates at a single voltage level and, therefore, does not have transformers that change or “transform” voltage from one voltage level to another.

1.2 Purpose and Need

The Eastern Plains region of Colorado is one of the nation's best areas for wind and solar energy generation, but it does not currently have a network transmission system that can integrate new generation resources into the state's interconnected grid system that is needed to meet Colorado's clean energy goals. Pathway will support Xcel Energy's Clean Energy Plan (Xcel Energy 2021) that is estimated to deliver as much as an 85% reduction in carbon dioxide emissions by 2030 and add approximately 5,000 megawatts of new wind, solar, and other resources. Pathway will help meet the state's growing electricity needs; improve reliability, safety, and affordability; and enable the transition to clean energy (Xcel Energy 2021). Pathway will allow developers of new energy generation projects to interconnect energy resources located in the areas of the state that are underserved by backbone transmission infrastructure and also allow Xcel Energy to deliver that energy to electric customers.

Transmission line Segment 2 and Segment 3 and associated new electric substations and substation expansions will be completed in 2025, assuming required approvals, such as construction permitting and land rights, are obtained. These segments will provide interconnection locations for qualified renewable energy resources that become commercially operational by the end of 2025 to take advantage of the Federal Production Tax Credit (PTC) program. The PTC is currently set to expire at the end of 2027. Taking advantage of the PTC will lower the cost of installing new renewable generation facilities, thereby benefiting all Colorado electric customers. With these new projects come jobs, lease revenue, and increased tax revenue for rural communities.

In March 2021, Xcel Energy filed a Certificate of Public Convenience and Necessity (CPCN) application with the CPUC describing the purpose, need and public benefits of constructing Pathway. In February 2022, the CPUC provided verbal approval, and in June 2022, CPUC provided written approval of the CPCN for Segments 1–5, and conditional approval for the Extension, based on a determination that Pathway is in the public interest (CPUC Proceeding No. 21A-0096E, Decision No. C22-0270). The CPUC did not approve construction of the Extension in its January 2024 Phase II Decision regarding Xcel Energy's Electric Resource Plan and Clean Energy Plan. Xcel Energy may bring a proposal to construct the Extension and Longhorn Substation forward to the CPUC again in the future but has paused its further development as part of Pathway. While the CPUC determines a public need for Pathway, it does not approve the location of specific project facilities. The location and land use approvals will be made through easement negotiations with landowners and the land use approval process in the applicable jurisdictions where the Pathway facilities will be located.

1.3 Schedule

Many variables factor into the schedule for projects of this magnitude. The construction schedule is contingent on acquiring all necessary land rights and permits. Pathway will be constructed and brought in-service in phases. The estimated construction timeline for each segment and substation and anticipated in-service dates are shown in Table 2.

Table 2: Pathway Schedule

Segment & Substation	Construction	In-Service
Segment 1 & Fort St. Vrain Substation Equipment Additions	Spring 2024–Spring 2026	Spring 2026
Segment 2 & New Canal Crossing & Goose Creek substations & Pawnee Substation Equipment Additions	Summer 2023–Spring 2025	Spring 2025
Segment 3 & New May Valley Substation	Summer 2023–Spring 2025	Spring 2025
Segment 4 & Tundra Substation Expansion & New Sandstone Substation	Spring 2025–Spring 2027	Spring 2027
Segment 5 & Harvest Mile Substation Equipment Additions	Spring 2025–Spring 2027	Spring 2027

2.0 Overview

Pathway routing and siting analysis is divided by segment and documented in a series of Routing and Siting studies. Each Routing and Siting Study is interrelated because of the overlap in segment Study Areas and shared electric substation endpoints. Each Routing and Siting Study documents the process used to review and consider reasonable routing and siting alternatives for the new major electrical facilities (pursuant to Colorado Revised Statute 29-20-108 (4) (a) and (b)). The Routing and Siting studies do not identify specific construction-related components, such as laydown/staging yards, access routes or haul routes. The Routing and Siting studies also do not assess the siting of the substation expansions and equipment additions as the substations are existing and, in these cases, new substations are not needed from system planning and cost perspectives. Table 3 outlines Pathway components discussed in each Routing and Siting Study. This Routing and Siting Study documents the process used to identify the preferred transmission line route for Segment 5 and the location of the new Sandstone Substation.

Table 3: Routing and Siting Study Index

Routing and Siting Study	Components ¹	Counties Crossed ²
Segment 1	Segment 1 Transmission routing	Weld County Morgan County
Segment 2	Segment 2 Transmission Line routing New Canal Crossing Substation siting New Goose Creek Substation siting	Morgan County Washington County Kit Carson County Cheyenne County Yuma County
Segment 3	Segment 3 Transmission Line routing New May Valley Substation siting	Kit Carson County Cheyenne County Kiowa County Prowers County

Routing and Siting Study	Components ¹	Counties Crossed ²
Segment 4	Segment 4 Transmission Line routing	Kiowa County Prowers County Lincoln County Crowley County El Paso County Pueblo County
Segment 5	Segment 5 Transmission Line routing Sandstone Substation siting	Pueblo County El Paso County Lincoln County Elbert County Arapahoe County Douglas County

- 1 Expansions and equipment additions at existing substations are not covered in the Routing and Siting studies as the work locations are predetermined.
- 2 Potential transmission line routes were considered in the counties listed for each Segment. Based on the outcome of the routing and siting analysis, Pathway does not cross Yuma and Douglas counties.

2.1 Segment 5 Description

Segment 5 involves construction of approximately 141 miles of new 345-kV double circuit transmission line from the Tundra Substation to the existing Harvest Mile Substation. The Segment 5 Study Area in the CPCN (discussed in Section 3.1.1) spans six counties in eastern Colorado: Pueblo, El Paso, Lincoln, Elbert, Douglas, and Arapahoe. The existing 345-kV Harvest Mile Substation will be expanded to accommodate new 345-kV terminations and equipment. No new land acquisition is required for the expansion.

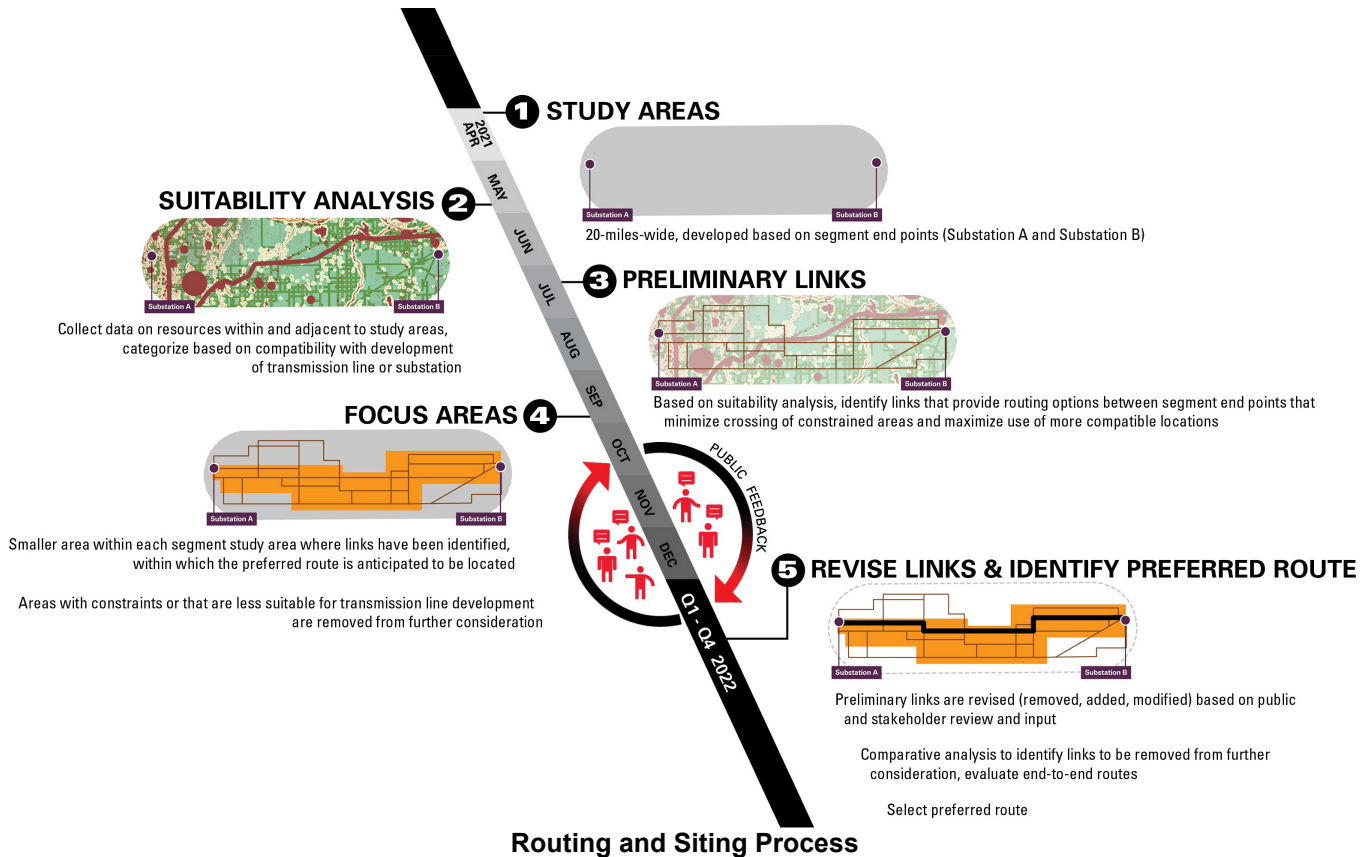
During the initial routing process, the Tundra Substation was planned to serve as the southern endpoint for Segment 5. The Tundra Substation is a 345-kV switching station that interconnects a solar-with-storage project, approved as part of Xcel Energy's approved Colorado Energy Plan Portfolio and has been in service since 2022. The Tundra Substation will be expanded to accommodate new 345-kV line terminations and equipment.

Beginning in winter 2022, consideration was given to an additional substation near the western end of Segment 4 and the southern end of Segment 5. In fall 2023, after the identification of a preferred route for Segment 5, Xcel Energy determined that the Sandstone Substation will be developed. The new 345-kV Sandstone Substation will serve as the southern endpoint of Segment 5. The Sandstone Substation will accommodate new 345-kV terminations and equipment. One 345-kV double circuit transmission line will connect the Sandstone Substation to the Tundra Substation as a part of Segment 4.

Construction of the Segment 5 transmission line and Sandstone Substation are anticipated to begin in 2025 and be complete in 2027.

3.0 Routing and Siting

Routing a transmission line and siting a substation require comprehensive reviews of factors including electric system planning, project costs, environmental and cultural resources, public involvement, regulatory compliance, existing and planned land use, land rights, and system engineering. As shown in the following graphic, the five-step routing and siting process assesses constraints and opportunities between segment endpoints to ultimately identify the preferred route location for the transmission line and the preferred substation sites. Each step is further discussed in Sections 3.1 through 3.5.



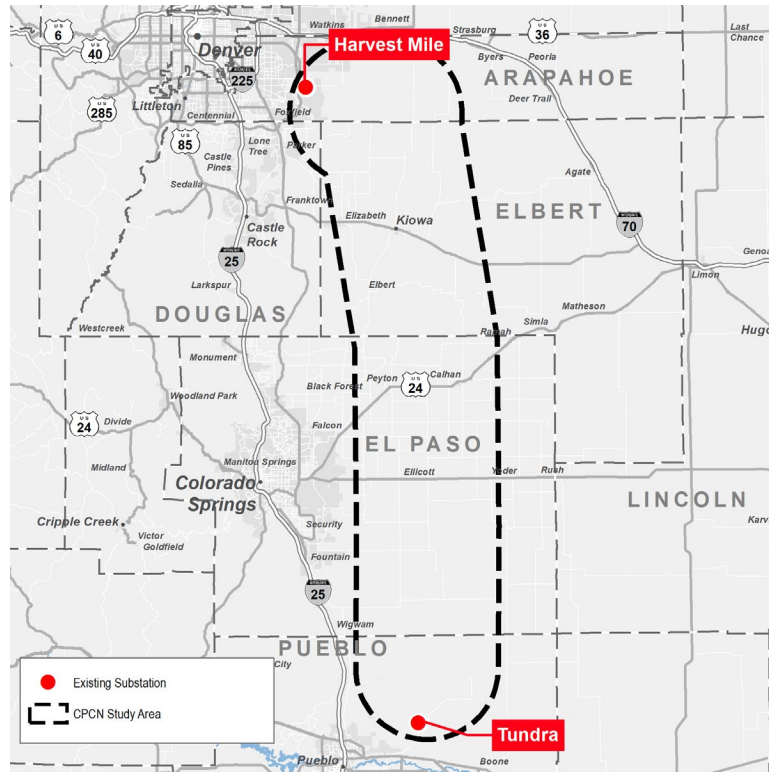
3.1 Step 1: Study Areas

Study Areas are broad corridors used to assess the constraints and opportunities between segment endpoints and to ultimately identify the locations of alternative and preferred transmission line links. The Study Areas identified for each segment in the CPCN were generally 20 miles wide and were developed based on the location of the substation endpoints.

3.1.1 Transmission Line Study Area

The area between the existing Tundra Substation and the existing Harvest Mile Substation includes Pueblo, El Paso, Lincoln, Elbert, Douglas and Arapahoe counties along with several developed urban areas, including the cities of Pueblo, Colorado Springs, and Aurora. The original 20-mile-wide Segment 5 Study Area, designated in the CPCN, is generally bounded by Interstate (I-) 25 to the west, I-70 to the

north, the Pueblo/Crowley and El Paso/Lincoln County lines to the east and Colorado State Highway (CO) 96 to the south (Segment 5 CPCN Study Area). The Segment 5 CPCN Study Area is shown on Figure 1 and in the graphic below.



Segment 5 CPCN Study Area

3.1.2 Public Outreach—Summer 2021 Virtual Introductory Meetings

Three virtual introductory meetings were held in June 2021 to provide a platform to inform the public and key stakeholders about Pathway, gather feedback, and address questions and concerns. These meetings were held virtually due to COVID-19 restrictions on large gatherings. Prior to the virtual introductory meetings, a website, email address, and telephone hotline were developed to share information about Pathway and to provide multiple ways for the public and stakeholders to communicate with Xcel Energy representatives. A total of 62,770 postcards were sent to all mailing addresses within the segment Study Areas ahead of the meetings to provide information on meeting dates, times, and connection information. Fourteen newspaper ads, two social media postings (one Facebook, one Twitter), and hotline, email, and website updates also announced the meetings to the interested public. Attendance at the three virtual introductory meetings is shown in Table 4.

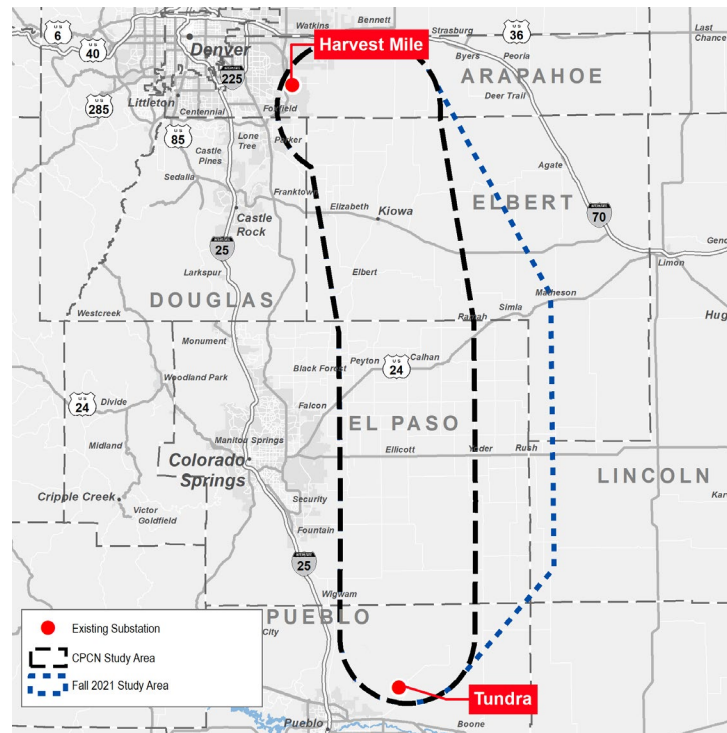
Table 4: Virtual Introductory Meeting Attendance

Meeting	Attendance
June 22, 9 a.m.	104 attendees
June 29, noon	72 attendees
June 29, 6 p.m.	35 attendees

A PowerPoint presentation was provided during each meeting to introduce the Pathway team and Xcel Energy as a company, and to provide information on the need, community and electric system benefits, regulatory review, routing and siting process, and schedule. A Question and Answer (Q&A) session was held after the presentation to discuss topics including cost, design and engineering, siting and land rights, vegetation management, and construction. Over the three virtual meetings, a total of 113 questions were asked by meeting attendees and covered the following topics:

- Project benefits
- Routing and siting
- Health and safety
- Resource planning and renewables
- Landowner compensation and property values
- Vegetation management and wildfire mitigation
- Access to presentation and maps
- Project timeline and communication channels
- Project cost and funding

During the virtual meetings, the U.S. Air Force Academy (USAFA) informed the Pathway team of their training areas within the Segment 5 CPCN Study Area. While routing through the training areas is feasible, the USAFA expressed preference for routing around the training areas to ensure its activities would not be impacted. Based on this feedback, the CPCN Study Area was expanded to form the Fall 2021 Study Area to evaluate additional transmission line routing farther east. The eastern boundary of the Fall 2021 Study Area is Elbert County Road (CR) 149 while the north, south and west boundaries are consistent with the CPCN Study Area. The following graphic shows the CPCN Study Area boundaries and the Fall 2021 Study Area boundaries.



Study Area Expansion—Fall 2021

3.2 Step 2: Suitability Analysis

The comprehensive Suitability Analysis involved gathering and mapping resource, land use, and infrastructure data for the Fall 2021 Study Area; determining routing and siting criteria based on compatibility with the proposed electric infrastructure; and visiting the Fall 2021 Study Area to verify mapped data and to meet with local jurisdictions and key stakeholders to gather feedback. Upon review of the data generated from these activities, the level of suitability was mapped across the Fall 2021 Study Area. Given that the study area expanded incrementally over time, subsequent Suitability Analyses were conducted after each expansion to evaluate the new areas under consideration. The stages and results of the Suitability Analysis for Segment 5 are further described in Sections 3.2.1 through 3.2.4.

3.2.1 Data Collection

Publicly available resource data, including existing electric transmission corridors, land use, oil and gas infrastructure, surface water, critical habitat, jurisdictional and formally designated lands, and conservation easements, were mapped to aid in the review of each iteration of the study area. The resource data identified major constraints and opportunities along Segment 5 that served as an indicator of routing suitability and permitting complexity. The resource data were mapped to determine the presence of compatible and incompatible resources and understand the area's physical characteristics. The resource maps showing resources within each iteration of the Study Area are included in Appendix A and the location of the resources are described in Table 5.

Table 5: Resource Data Presence in Study Area

Resource Map Page Number	Data Collected	Data Source(s)	Location in Study Area ¹
1	2021 Aerial	National Agriculture Imagery Program Imagery (2021)	<p>Denser development east of Colorado Springs; along U.S. Highway (US) 24, CO 94, CO 86; and near Harvest Mile.</p> <p>Notable Features US 24</p>
2	Jurisdiction	Colorado Ownership, Management, and Protection (2019)	<p>All Inclusive Study Area² is within City of Aurora, City of Centennial, Arapahoe County, Elbert County, Lincoln County, El Paso County, Crowley County and Pueblo County.</p> <p>State land parcels are checkered throughout All Inclusive Study Area with concentrations near Harvest Mile Substation, Tundra Substation, southern El Paso County, and western Lincoln County. These holdings include the Transportation Technology Center, Inc. (TTCI), located northeast of Tundra Substation.</p> <p>Conservation easements are concentrated east of Tundra Substation, in western Lincoln, northern/central Elbert and southern Arapahoe counties.</p> <p>A State Wildlife Area (SWA; Jumping Cow State Wildlife Area) is located north of CO 86 in Elbert County.</p> <p>Colorado State Stewardship lands (including Chico Basin Ranch Stewardship Land) are located north of Tundra Substation and east of Harvest Mile Substation.</p> <p>The Pueblo Chemical Depot owned by the Department of Defense is located east of Tundra Substation. Additional Department of Defense-owned land is located southwest of Ellicott.</p> <p>Notable Features Pueblo Chemical Depot located east of Tundra Substation Chico Basin Ranch Stewardship Land Concentrations of conservation easements throughout the All Inclusive Study Area TTCI holdings</p>

Resource Map Page Number	Data Collected	Data Source(s)	Location in Study Area ¹
3	NLCD Land Cover	National Land Cover Database (2019)	All Inclusive Study Area is dominated by herbaceous land cover with areas of shrub/scrub in the southern region of the All Inclusive Study Area. Areas of cultivated crops are found southwest of Limon and in Arapahoe County. Evergreen forests are located in Elbert County and northern El Paso County.
4	Zoning	City of Aurora (2021) City of Centennial (2020) Douglas County (2021) Arapahoe County (2021) El Paso County (2021) Elbert County (2023)	Digital data is only publicly available for City of Aurora, City of Centennial, Douglas County, Arapahoe County, Elbert County and El Paso County. Agriculture zoning dominates the All Inclusive Study Area. Some areas are designated as Planned Unit Development in El Paso and Elbert counties. Some areas in El Paso County are designated as Residential Rural.
5	State Wildlife Action Plan	Colorado Parks and Wildlife (2015)	Crucial Habitat Assessment Tool categories 3, 4, and 5 (contributing, common, and unknown) are found throughout the All Inclusive Study Area. Areas of category 2 (limiting) in the southwest region are within and around the TTCI holdings, west of the El Paso/Lincoln county line, and along CO 71. Small areas of category 1 (rare or fragile) are scattered throughout.
6	Public Institutions	Homeland Infrastructure Foundation-Level Data (2021)	Public schools are scattered throughout the Study Area, most are located along major roadways and within population centers. Police departments occur along US 24 and CO 86 and south of Harvest Mile Substation. Nursing homes are found in Limon, Elizabeth, and in the area south of Harvest Mile Substation.
7	Historic Places	National Register of Historic Places (2020)	Nationally listed historic places are found around the municipalities of Peyton, Calhan, Ramah and Elbert. One historic district is found southeast of Calhan.
8	Avian Species Habitat	Colorado Parks and Wildlife (2021)	Mountain Plover Breeding Range is found throughout most of the All Inclusive Study Area. Tri-Colored Bat Overall Range is found in the northern portion of the Study Area. The northwestern portion of the Study Area features a Burrowing Owl Breeding Range with Bald Eagle Summer Forage Area near the Harvest Mile Substation. One active bald eagle nest and one destroyed bald eagle nest are located northeast of the Harvest Mile Substation with additional nests located north of CO 86 and north of US 24.

Resource Map Page Number	Data Collected	Data Source(s)	Location in Study Area ¹
9	Ground Transportation	Colorado Department of Transportation (2021) Bureau of Transportation Statistics (2020)	Major east/west roadways throughout the All Inclusive Study Area include CO 94, US 24, and CO 86. The major north/south roadway in the All Inclusive Study Area is CO 71. A railroad parallels I-70 in the northeastern portion of the All Inclusive Study Area. Few transportation features are present that can be paralleled in the northern and southern regions of the All Inclusive Study Area.
10	Air Transportation	Federal Aviation Administration (2021)	Designated Special Use Airspace encompasses the majority of the southern portion of the All Inclusive Study Area and the area around Ramah. Civilian Training Areas are found in the very southern portion of the All Inclusive Study Area. USAF Training Areas are found in the west and central portions of the All Inclusive Study Area. Existing wind turbines occur along US 24 associated with the following existing wind projects: Golden West Power Partners LLC and Rush Creek Wind. A military Airport and Heliport are located in El Paso County south of CO 94. Private airports are scattered throughout the All Inclusive Study Area with several between US 24 and CO 86. Public airports are located near Calhan and Ellicott. Schriever Space Force Base is located near the western boundary of the All Inclusive Study Area, south of CO 94. Notable Features USAF Training Areas Schriever Space Force Base
11	Water Resources	National Hydrography Dataset (2020) Federal Emergency Management Agency (2021) National Wetland Inventory (2020) Playa Lakes Joint Venture (2019)	Intermittent and perennial streams are found throughout the northern and central regions of the All Inclusive Study Area. Federal Emergency Management Agency 100-year floodplains are located along some perennial streams throughout the All Inclusive Study Area. Notable Features Several water resources present including creeks, gulches, several unnamed tributaries, and wetlands/floodplains

Resource Map Page Number	Data Collected	Data Source(s)	Location in Study Area ¹
12	Water Wells	Colorado Division of Water Resources (2021)	Active water wells occur in large numbers throughout the Study Area, especially along the western region, near residential areas, and near the population centers along CO 94, US 24, and CO 86.
13	Oil and Gas Facilities	Colorado Energy and Carbon Management Commission, formerly Colorado Oil and Gas Conservation Commission (2021) Ventyx (2021)	A small number of oil and gas wells are scattered throughout the southern and central portions of the All Inclusive Study Area with higher concentrations north of CO 86. Two gas pipelines run southeast/northwest through the All Inclusive Study Area. Additional gas pipelines run east/west and north/south in Arapahoe County.
14	Extractive Industries and Landfills	Homeland Infrastructure Foundation-Level Data (2021) Colorado Division of Reclamation Mining and Safety (2021)	Several sand and gravel operation locations are found throughout the All Inclusive Study Area. Landfills are located near Elizabeth and Harvest Mile Substation. Other extractive operations are found throughout the northern and central regions of the All Inclusive Study Area and along I-70.
15	Topography	U.S. Geological Survey (2020)	The southern and central portions of the All Inclusive Study Area are relatively flat. Greater variations in topography are found in the northern portion of the All Inclusive Study Area.
16	Slope	U.S. Geological Survey (2020)	Slopes throughout the southern and central portions of the All Inclusive Study Area largely fall within the range of 0 to 10%, although a few slopes are above 15%. The northern portion of the All Inclusive Study Area features slopes largely between 0 and 15% with some areas reaching >20%.

Resource Map Page Number	Data Collected	Data Source(s)	Location in Study Area ¹
17	Existing Electric Infrastructure	Public Service Company of Colorado (2020) Federal Aviation Administration (2021)	<p>Existing 138-kV, 230-kV, and 345-kV transmission lines run southeast/northwest near the Tundra Substation and TTCI holdings.</p> <p>A 230-kV transmission line passes through the All Inclusive Study Area in a southwest/northeast direction.</p> <p>Existing 115-kV transmission lines associated with wind facilities traverse the eastern and central portions of the All Inclusive Study Area.</p> <p>A 345-kV transmission line connecting to the Rush Creek Wind facility parallels I-70.</p> <p>Several lines including a 115-kV, 230-kV, and 345-kV transmission lines follow Quincy Avenue into Harvest Mile Substation.</p> <p>Several solar facilities are near Harvest Mile Substation and southeast of Calhan.</p> <p>Two existing wind facilities, Golden West Power Partners LLC and Rush Creek Wind, are located along US 24.</p> <p>Notable Features</p> <p>There is limited existing transmission infrastructure that can be paralleled directly between endpoints. Denser electric infrastructure occurs in eastern and central portions of the All Inclusive Study Area, south of US 24.</p> <p>Existing wind energy facilities</p>
18	Communication Facilities	Homeland Infrastructure Foundation-Level Data (2021)	<p>Several Land Mobile Private Transmission facilities are located at the TTCI holdings and throughout the western portion of the All Inclusive Study Area and along CO 71. Microwave Service Towers are found throughout the All Inclusive Study Area, especially in the northwestern portion. Cellular towers, Land Mobile Commercial Towers, and Land Mobile Broadcast are scattered throughout the All Inclusive Study Area, particularly along the western portion</p>
19	Agricultural Areas	U.S. Department of Agriculture (2020) U.S. Environmental Protection Agency (2021)	<p>Irrigated lands are scattered throughout the All Inclusive Study Area with concentrations southeast of Matheson, near Agate, and in Arapahoe County.</p>
20	Parcels	El Paso County (2021) Pueblo County (2021) Arapahoe County (2021) Tetra Tech (2021)	<p>For informational purposes only.</p>

Resource Map Page Number	Data Collected	Data Source(s)	Location in Study Area ¹
21	Residential and Other Structures	Microsoft (2021) Homeland Infrastructure Foundation-Level Data (2021)	Residences are scattered across the more rural parts of the All Inclusive Study Area. Dense residential areas are found along the western portion of the All Inclusive Study Area and in population centers along US 24 and CO 94. Mobile home parks are found around Ellicott, Calhan, Kiowa, Byers, and Limon.
22	Public Land Survey	Bureau of Land Management (2020)	For informational purposes only.
23	Prime Farmland	Natural Resources Conservation Service (2020)	Areas of Prime Farmland are found in the southern portion of the All Inclusive Study Area. Areas of Prime Farmland if irrigated are found in the central and northern portions of the All Inclusive Study Area. Farmland of statewide importance is found in the eastern and northern portions of the All Inclusive Study Area. Areas not designated as Prime Farmland are found throughout the All Inclusive Study Area.
24	U.S. Environmental Protection Agency Registered Facilities	U.S. Environmental Protection Agency (2021)	Facilities registered by the U.S. Environmental Protection Agency are concentrated at the population centers within the All Inclusive Study Area, especially near the Harvest Mile Substation.
25	Karst	U.S. Geological Survey (2017)	Gypsum Basin is found throughout the All Inclusive Study Area.
26	Wildlife Species Habitat	Colorado Parks and Wildlife (2021)	Mule deer concentration areas are located throughout the All Inclusive Study Area with winter concentration areas south of Agate and around and east of Ramah. Pronghorn concentration areas are located in the area between Ramah, Limon, and Agate and south of Limon. The overall range of the swift fox is found throughout the All Inclusive Study Area, especially in the southern and eastern regions. The overall range for Preble's meadow jumping mouse is found throughout the western region of the All Inclusive Study Area. A black-footed ferret release site is found in Pueblo County near the Tundra Substation.
27	Soil Erodibility	Natural Resources Conservation Service Soil Survey Geographic Database (2020)	Generally, soils in the southern region of the All Inclusive Study Area are low to moderately erodible. Soils in the central and northern regions of the All Inclusive Study Area are also low to moderately erodible but have more areas of moderately erodible soils.
28	Important Bird Areas	Audubon Society (2020)	No Important Bird Areas are found within the All Inclusive Study Area.

¹ Resource maps and data evaluation are based on the best available data. The accuracy of the data may vary.

² The All Inclusive Study Area shown on the Resource Maps encompasses each iteration of the study area to show the full extent evaluated during the routing analysis. (See Sections 3.1.2, 3.5.1, and 3.5.5 for discussions on the incremental expansions of the Study Area over time.)

3.2.2 Routing and Siting Criteria

Resource data were categorized as suitable, sensitive or exclusion areas based on assessed compatibility with development of electric infrastructure. After categorizing each of the resources described in Table 5 and applying the criteria included in Appendix B, suitable areas were identified as areas that are less likely to be negatively impacted by construction and/or operation of transmission lines, feature compatible adjacent land uses, or lack sensitive resources. Suitable areas included land proximate to existing roads; existing land owned by Public Service Company of Colorado; areas of lesser sensitive species habitat value; undeveloped areas; and state, federal, and privately owned land with compatible uses. Sensitive areas were those where environmental impacts and/or land use conflicts may occur with the construction and/or operation of transmission lines and substations. Impacts in these areas can often be mitigated. Exclusion areas were locations with the highest level of sensitivity and the greatest potential for environmental, social, and economic impacts; permitting requirements; or prohibition by state or federal regulations. While it is not possible to avoid all impacts, classification of resources in this manner helps maximize the utilization of compatible areas and minimize the impacts to exclusion areas. Resource maps depicting the location of the data that influenced these criteria are included in Appendix A. For each of the resources described in Table 5, the suitable, sensitive, and exclusion criteria are shown in Appendix B for transmission line routing.

3.2.3 Mobilization and Coordination

Throughout the Routing and Siting Study process, the Pathway team repeatedly visited the study area to ground-truth map data and understand current land uses. During the ongoing review of the area, the team also met with City of Aurora and Arapahoe, El Paso, Elbert, Lincoln, and Pueblo County staff to introduce Pathway, discuss local resources and concerns to consider during routing, gather feedback, and confirm expected permitting requirements.

The Pathway team also met with agency representatives from Colorado Parks and Wildlife, U.S. Fish and Wildlife Service, State Land Board, USAFA, Schriever Space Force Base, and the TTCI to discuss unique agency concerns to consider during the Routing and Siting Study process. Table 6 lists the key topics discussed during these county and agency meetings.

Table 6: Agency Meeting Topics

Meeting	Key Topics Discussed
County and City Meetings	Planned development of large solar facilities Planned residential and industrial development Impacts to wildlife habitat and designated migration corridors Unexploded ordnance cleanup area Future roadway alignments and expansions Development fees and road agreements Existing interstate gas pipelines Existing wind and solar development Public response to other large development projects Feasibility of co-location in existing utility right-of-way
Colorado Parks and Wildlife	Ephemeral and dry drainages Raptor nest locations Chico Basin Ranch and Brett Grey Ranch Other large stewardship trust areas and conservation easements Eagle presence Habitat quality in the Bijou Basin ¹ Preference for co-location along Highway 86 Jumping Cow State Wildlife Area
U.S. Fish and Wildlife Service	Provision of Pathway shapefiles to better assess links Follow-up meeting to discuss more detailed comments from the U.S. Fish and Wildlife Service
State Land Board	Right-of-way through Stewardship Trust Land Minimizing diagonal routing Solar leases on State Land Board land Wind and solar planning areas
USAFA	Bullseye Airfield flight frequency and traffic Bullseye Auxiliary Airfield Training Areas Pueblo First Training Squadron Areas Obstacle avoidance during training activities Recommended setbacks from airfields
Schriever Space Force Base	Line-of-sight associated with satellites Future development of the Space Force Base
TTCI	Types of tracks and equipment tested within the TTCI holdings Necessary setback from catenary system Recommended location of transmission line and crossings to minimize induced voltage Future expansion of Railroad Test Track

3.2.4 Transmission Line Study Area Analysis

Each iteration of the study area is primarily characterized by agriculture and rangeland uses, oil and gas development, scattered residential, and small population centers including Kiowa, Simla, and Yoder. State land holdings, conservation easements, SWAs and federal land associated with military installations are also located in the study area. Areas that were more suitable and less suitable for transmission line routing were identified based on the mapped resource data and the routing criteria. These areas served as an indicator of routing complexity. The presence of more areas that are less suitable for routing could potentially result in an increase in transmission line miles when compared to the direct, straight-line distance between the segment endpoints. Table 7 provides the results of the Suitability Analysis and identifies key resources that influenced suitability within each iteration of the study area. A map depicting the suitability within each iteration of the study area is included as Figure 2.

Table 7. Resources Impacting Suitability in Study Area

	Resources Present
Segment 5 Study Area	<ul style="list-style-type: none"> • US 24 • Pueblo Chemical Depot • Chico Basin Ranch Stewardship Trust Land • Concentrations of conservation easements • Water resources, including creeks, gulches, unnamed tributaries, ephemeral streams and wetlands/floodplains • Existing wind energy facilities • Schriever Space Force Base • USAFA Training Areas • TTCI holdings • Private and public airports identified by the Federal Aviation Administration • Limited existing transmission that can be paralleled directly between endpoints. Denser electric infrastructure in central portion of Study Area south of US 24

3.3 Step 3: Preliminary Transmission Line Links

Based on the Suitability Analysis and mapping, field reconnaissance, and routing objectives, possible transmission line links were identified throughout the Fall 2021 Study Area. Transmission line links are route segments that can be combined to form end-to-end route options. Link locations generally minimized crossing less suitable and exclusion areas and maximized the use of areas ranked as more suitable.

Within the Fall 2021 Study Area, 77 preliminary links were identified in October 2021 that when pieced together created complete route options. These preliminary links are shown on Figure 3 with identifying labels and on the graphic in Section 3.4.3. more generally. In total, these 77 links created 391 miles of route options throughout the Fall 2021 Study Area. Given the location of the substation endpoints, the new transmission line must cross CO 94, US 24, CO 86 and several waterways. Crossing locations were

¹ The Bijou Basin, while not formally delineated, generally describes the area between CO 86 and the Arapahoe/Elbert county line, bounded by Ridge Road to the east and the existing 115-kV CORE Electric Cooperative (CORE) transmission line to the west.

identified based on the Suitability Analysis and mapping and field reconnaissance. Preference was given to crossing locations with an existing disturbance and areas where development is sparse on either side. Additional factors that helped identify waterway crossing locations included narrow waterways and associated habitat that would allow for a shorter crossing and fewer subsequent impacts.

Links 501 and 502 that exit from the north of the existing Tundra Substation were identified as locations that avoided crossing the Pueblo Chemical Depot. From there, three series of link options head east to avoid U.S. Air Force Academy Training Areas, where possible. Link 511 heads east just 1 mile south of Myers Road, through State Stewardship lands to meet up with links along Boone Road. Link 504 runs east along the southern boundary of the State Stewardship land along the Pueblo/El Paso County line and meets up with Segment 4's Link 427 to continue east to Boone Road. Links 511 and 427 meet up with several link options that run north/south and east/west and funnel into Link 518. Link 517 cuts diagonally from approximately Myers Road to Book Road, skirting the USAFA Training Areas to evaluate a more direct route through this area. Link options converge to move north near the El Paso/Lincoln County line to the CO 94 crossing.

Links 521 and 520 serve as the two CO 94 crossing options. The Link 520 crossing option is located in Lincoln County approximately 2.5 miles east of the community of Rush and crosses CO 94 mid-section to avoid nearby residences along CR 1 and CR 2. Link 521, located in El Paso County, crosses CO 94 along section lines approximately 0.7 mile west of the community of Rush.

Four north-south series of links traverse the area between CO 94 and US 24 and converge into two US 24 crossing options. Several connector links run between the route options in this area. Routing options in this area were constrained due to the existing Golden West and Rush Creek wind farms. Link 523, the westernmost link, travels north/south along North Yoder Road for a total of approximately 10.5 miles, shifting between the eastern and western sides of the road to avoid residences where feasible, then continues along section lines to US 24. Link 523 threads through the existing Golden West Wind Farm infrastructure, complying with applicable setback requirements from the turbines. The west-central option, consisting of Links 524 and 533, moves north mid-section, offset from Ramah Highway by approximately 0.5 mile. The west/central option then jogs west just north of Funk Road to run along Ramah Highway up to US 24. The central-east option, consisting of Links 528 and 531, runs north along section lines approximately 1 mile west of North Rush Road until it jogs west on Funk Road to parallel Berridge Road north where it ultimately joins up with Link 535. The eastern option, consisting of Links 527 and 530, runs north paralleling North Rush Road and Simla Highway. Approximately 1 mile north of Harrisville Road, the eastern option jogs farther west to connect to Link 534.

The two US 24 crossing options both avoid the nearby communities of Simla, Ramah and Calhan. Link 523 follows South Yoder Road north to US 24 where it crosses along section lines. South Yoder Road does not cross US 24, but Link 523 joins up with Antelope Road, just north of US 24. Link 535 deviates west from Ramah Highway to cross US 24, approximately 0.6 mile east of the town of Ramah. Link 535 continues north mid-section.

Links continue to traverse in a northwest orientation to CO 86 where they converge and create two crossing options. The western crossing option utilizes Link 551 to cross along section lines in a relatively undeveloped portion of CO 86. The eastern crossing option utilizes Link 552 and parallels CR 89 and

CR 93 to cross US 24 at an existing road crossing. This crossing location is also in a relatively undeveloped portion of CO 86. Link 550 runs east/west, paralleling CO 86 and connecting the two crossing options.

The two crossing options converge at Link 553, which crosses West Bijou Creek then splits largely into two route options to the Elbert/Arapahoe county line. The western option utilizes Links 556, 560, and 562. Link 556 parallels CR 150 briefly before continuing to cut west across relatively undeveloped terrain and cutting north to join up with Link 560. Links 560 and 562 follow an existing CORE transmission line north before reaching the Elbert/Arapahoe county line. The eastern option utilizes Links 554, 559, and 563. Link 554 parallels West Bijou Creek north, offset approximately 0.5 mile to the west. The eastern option then cuts west and north to parallel CR 65 north to the Elbert/Arapahoe county line. Several connector links run between the two route options in this area.

From there, a series of links follow the county line road east-west and another series of links follow CR 42 approximately 1 mile north. As links continue in a northwest direction, two route options form the approach to the Harvest Mile Substation. Link 576 largely parallels East Quincy Avenue along an existing transmission line corridor into Harvest Mile Substation. Link 575 runs east/west approximately 2 miles north of Link 576 along East Yale Avenue then cuts south along section lines down to Harvest Mile Substation.

3.4 Step 4: Focus Areas

Ongoing discussions with jurisdictions, feedback from the public, additional field review, and continued preliminary transmission line link evaluation resulted in areas with multiple constraints and areas less suitable for transmission line development being removed from further consideration. The location of the links defined the location of the Fall 2021 Focus Area, a smaller area within the Fall 2021 Study Area and within which the preferred route is anticipated to be located.

3.4.1 Transmission Line

The Fall 2021 Focus Area for Segment 5 is located generally in the eastern and central portions of the Fall 2021 Study Area. The eastern portion of the Fall 2021 Study Area avoids State Wildlife Areas and USAFA Training Areas. Utilization of the central portion of the Fall 2021 Study Area is necessary as the route must jog back west to connect to the Harvest Mile Substation. The extent of the Focus Area evolved over time as the Study Area expanded, public and stakeholder feedback was received, and additional routing reviews occurred. Other iterations of the Focus Area are discussed in Sections 3.5.1 and 3.5.5. The Fall 2021 Focus Area is shown on Figure 4.

3.4.2 Public Outreach—September 2021 Virtual Public Meetings

Two virtual routing and siting public meetings were held on September 23, 2021, for stakeholders to learn about the progress made on Pathway, including the development of Focus Areas in all segments for identification of transmission line links and substation sites. These meetings were held virtually due to COVID-19 restrictions on large gatherings. A total of 63,982 postcards were sent to all mailing addresses within the segment Study Areas announcing the meeting dates, times, and connection information. Thirty-six newspaper ads, a social media post on Facebook, an e-newsletter, and the hotline, email, and

website also informed the interested public of the meetings. Attendance during the two meetings is shown in Table 8.

Table 8: Routing and Siting Public Meeting Attendance

Meeting	Attendance
September 23, noon	184 attendees
September 23, 6 pm	81 attendees

A PowerPoint presentation provided information about need and benefits, routing and siting process updates, and upcoming in-person public open houses. A Q&A session was held after the presentation to answer questions. In total, 65 questions were asked and covered the following topics:

- Health and safety
- Project cost and funding
- Landowner compensation and property values
- Resource planning and renewables
- Access to presentation and maps

3.4.3 Public Outreach—Fall 2021 Public Open Houses

Fifteen in-person public open houses were held throughout all the Pathway segments in October and November 2021 to provide an update on the identification of preliminary transmission line links and substation site options and to solicit feedback from stakeholders. Five of these public open houses were held in proximity to the Segment 5 Fall 2021 Study Area. The preliminary transmission line links in Segment 5 and Fall 2021 Focus Area that were shared with the public and agencies for comment are shown in Figure 4. In total, 4,462 direct mail postcards were sent to mailing addresses within all the Pathway Focus Areas. Thirty-six newspaper ads, a social media post on Facebook, an e-newsletter, and hotline, website, and email updates announced the open houses to the interested public. Attendance at the open houses in proximity to the Segment 5 Fall 2021 Study Area is summarized in Table 9.

Table 9: Fall 2021 Public Open House Attendance

Date	Location	Public Attendance ¹
Wednesday, November 3	Arapahoe County Fairgrounds Event Center, Aurora	21 attendees
Thursday, November 4	Elbert County Fairgrounds, Kiowa	101 attendees
Monday, November 8	El Paso County Fairgrounds, Calhan	51 attendees
Tuesday, November 9	Ellicott Elementary School, Ellicott	36 attendees
Wednesday, November 10	Olde Towne Carriage House, Pueblo	9 attendees

¹ Open houses were held in other Segment Study Areas not proximate to the Segment 5 Fall 2021 Study Area. Invitees were encouraged to attend any of the open houses. A total of 445 people attended the fifteen public open houses.

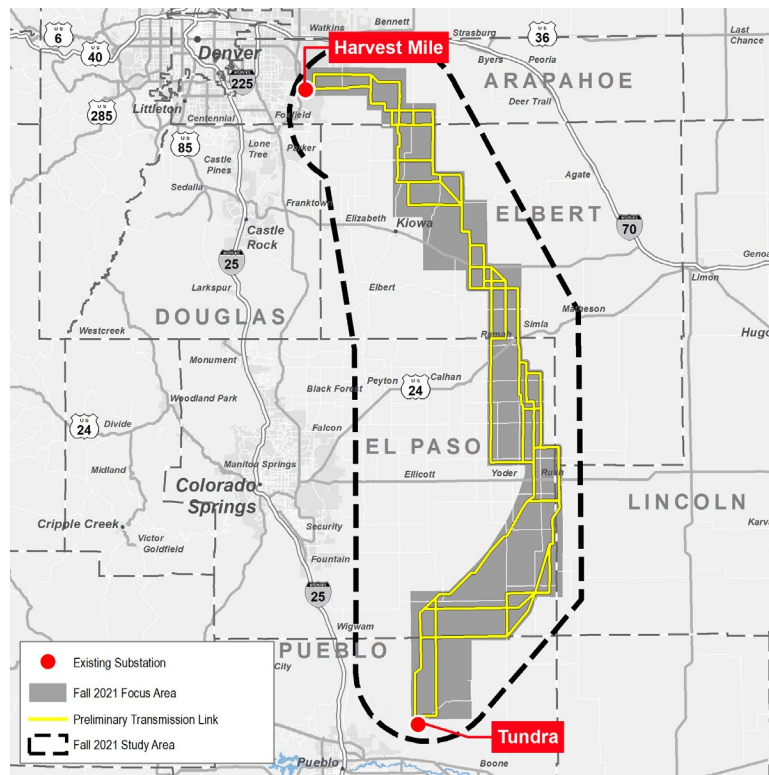
The Fall 2021 Focus Area and preliminary transmission line routes were shown on large-scale 60-inch-by-38-inch color sheet maps. Attendees were asked to note any factors that should be considered in a

particular area directly on the maps using a Sharpie marker. A formal public comment period ran from October 5 to November 24 in conjunction with the open houses. A paper comment form was distributed at the open houses and was available for download on the Pathway website. An electronic version of the comment form was also available on the website and included a copy of the interactive project map so users could drop a pin to comment on a specific location. Additionally, business cards with the project email and hotline were distributed, providing additional ways to comment. A total of 367 comment forms were submitted during the formal comment period; 179 comments pertained to Segment 5. Common topics included:

- Health and safety
- Link and substation site locations
- Landowner compensation and property values
- Resource planning and renewables
- Project support or opposition

Generally, public feedback from landowners in El Paso and Elbert counties urged the consideration of routes farther east as the perception was that there were fewer residences in that area. Landowners also urged the consideration of routes farther west, closer to the I-25 corridor, and along CO 86. Visual impacts, property values, agriculture and ranching operations, and wildlife impacts were key topics of public concern voiced at the Fall 2021 open houses.

Link-specific feedback provided at the open house and resulting modifications from that feedback is included in Appendix D. The following graphic and Figure 4 show all of the preliminary transmission line links in Segment 5 that were shown at the Fall 2021 open houses.












Fall 2021 Preliminary Transmission Line Links

3.5 Step 5: Revise Links and Identify Preferred Route

The resource data collected in the early stages of the Suitability Analysis were used along with information gathered during field reviews, conversations with jurisdictions, and public feedback to generate a Comparative Data Matrix (see Appendix E). The Comparative Data Matrix was used throughout the routing process as a tool to compare the preliminary transmission line links, or series of links, to each other. This comparison was based on numerical results of criteria such as engineering factors, jurisdiction/land use factors, presence of residences and other buildings, natural resources, and cultural resources. The complete Comparative Data Matrix utilized for this analysis is provided in Appendix E.

Preliminary transmission line links were revised (removed, added or modified) based on feedback from the Fall 2021 public open houses (discussed below in this section), continued link evaluations, and public and key stakeholder review and input; a record of all revisions is provided in Appendix D. Identifying the location of the additional link options in Segment 5 (discussed below in this section), was accomplished through a process that included engaging the public, landowners and other stakeholders. Cultural and historic resources, technical and engineering requirements, environmental constraints, existing and planned land use, and other factors that stakeholders have told Xcel Energy are important to consider were evaluated and compared for transmission line route options. These factors are further described in the following graphic.

	CRITERIA	CONSIDERATION		
	Acquisition of Land Rights	Existing easements and fee-owned property Jurisdiction and land ownership Formally designated areas with restrictions that prohibit development of transmission lines Existing and planned developments (residential, commercial, other) that may not have enough space for easements		
	Substation Engineering	Vacant developable land Available for purchase 60-acre site Accessibility for construction and operation – located adjacent to maintained public roads		
	Transmission Engineering	Topography/slope Proximity to buildings (homes, businesses)	Transportation infrastructure (Roads, Railroads, and Airports) Military and other special use airspace Oil & gas infrastructure such as wells and pipelines	
	Electric System Planning	Adjacency to existing transmission lines – reliability and redundancy Electric system interconnections (substations) Line length		
	Economics	Overall route length Construction, operation, and maintenance needs such as access Structure types required for straight sections for turns/angles		
	Environmental and Cultural Resources	Land use/land cover Proximity to residences and structures Designated scenic areas	Special status and protected species habitat, critical habitat Wetlands and waterways Cultural and historic sites	
	Public Involvement	Landowner feedback Stakeholder discussions	Comments received during public open houses and through Project website, email, and hotline Proximity to homes Noise EMF	Wildlife impacts Agricultural operations Traffic Visual impacts Landowner interest
	Renewable and Other Generation Resources	Existing and planned utility-scale wind and solar facilities Renewable generation zones Future electric system interconnections		
	Regulatory Compliance	Local land use permitting requirements such as zoning and setbacks Coordination with Colorado Parks & Wildlife and U.S. Fish & Wildlife Service Federal Aviation Administration and Department of Defense and/or other military airspace requirements Army Corps of Engineers for wetlands/waterways		

Routing and Siting Considerations

3.5.1 Link Evaluation and Addition of Areas Undergoing Evaluation

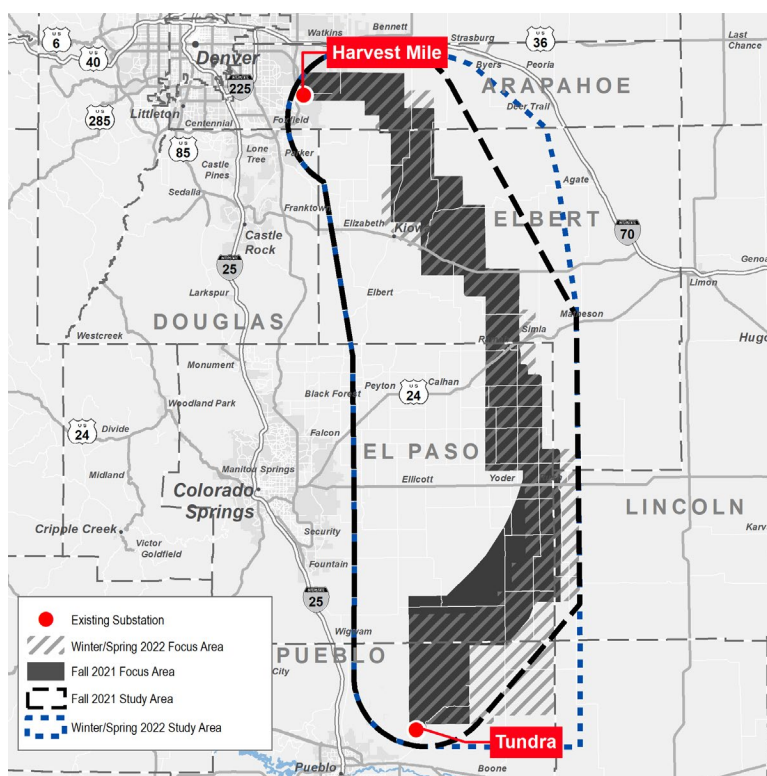
Based on landowner feedback during the Fall 2021 open houses, the diagonal preliminary transmission line links were in general unfavorable because they crossed through section lines, disrupting existing land use and/or future land use. In response, many diagonal links were either removed or modified to “stair step” down to connecting links and follow section lines, roads, field lines, or parcel boundaries. Public feedback also resulted in the evaluation of an additional 1,390 square miles east and west of the Fall 2021 Focus Area and extending outside the Fall 2021 Study Area to assess transmission line suitability; these areas were referred to as Areas Undergoing Evaluation (Figure 5).

Three hundred ten miles of preliminary transmission line links were added for consideration, including Link 5104 farther west along Peyton Highway, Link 595 farther west along CO 86, and Link 5100 farther east along CR 114 and CR 125. These preliminary transmission line links are shown on Figure 5. Additional link options were added along Link 517 to explore a stair-stepping alternative through the area. Several link options were added west of Boone Road to explore additional options of routing around residences in this area and stair-stepping instead of routing diagonally.

Two additional crossings of CO 94 were added at Link 5104 and Link 5152. Link 5104 crosses CO 94 at the existing Peyton Highway crossing. Link 5152 was added as a road adjacent alternative to Link 520. A few connector links were added between CO 94 and US 24 to provide additional route options and link combinations in this area. The addition of Links 5100 and 5104 added a third and fourth US 24 crossing options. The Link 5100 crossing option is located approximately 1.25 miles east of Simla. This crossing option threads through residences along US 24 and crosses just offset from CR 133. Link 5104 creates a new crossing of US 24 approximately 1.5 miles east of the town of Peyton, and joins Smith Ranch Road, north of US 24. Link 5100 also creates a new CO 86 crossing option along County Road 125. Link 5102 creates a fourth crossing option of CO 86. Link 5102 continues north from the terminus of Link 5104 and continues north mid-section, avoiding residences where possible and meeting up with Links 556 and 5101.

Based on public and stakeholder comment, Link 595 was added and parallels CO 86 west to approximately 0.25 mile east of Kiowa. Link 595 then turns north to follow the existing CORE transmission line and a pipeline easement, ultimately connecting to Link 560 and the newly added Link 5166. Connector links were added between CO 86 and the Elbert/Arapahoe county line to evaluate additional route options through this area. A series of links was added in Arapahoe County to evaluate routing between the terminus of Link 5100 and Quincy Avenue. Link 580, offset approximately 0.25 mile offset from Quincy Avenue, was added based on public feedback to evaluate the feasibility of being adjacent to existing transmission on the south side of Quincy Avenue.

During this stage of evaluation, the potential need for a second substation in addition to the Tundra Substation expansion was identified. The area around the existing Tundra Substation is constrained, creating a challenge for routing new generation interconnections to the Tundra Substation. A Substation Siting Area for the Sandstone Substation was identified east of the existing Tundra Substation. The boundaries of the Fall 2021 Study Area and Fall 2021 Focus Area were expanded to form the Winter/Spring 2022 Study Area and Winter/Spring 2022 Focus Area to accommodate additional links and the Sandstone Substation Siting Area. The Winter/Spring 2022 Study Area, Winter/Spring 2022 Focus Area, Areas Undergoing Evaluation and updated preliminary transmission line links are shown in Figure 5.



Study Area Expansion and Revised Focus Area—Winter 2022

3.5.2 Public Outreach—Winter 2022 Public Open Houses

Fifteen in-person public open houses were held throughout all the Pathway segments in January and February 2022 to share up-to-date preliminary transmission line links, Focus Areas, and routing decisions with the public and gather feedback. Five of these open houses were held in proximity to the Segment 5 Winter/Spring 2022 Study Area. A total of 14,825 direct mail postcards were sent to all property owners within the Focus Areas across all the Pathway segments. Thirty-six newspaper ads, 12 radio ads, a social media post on Facebook, an e-newsletter, and hotline, website, and email updates announced the open houses to the interested public. Attendance at the open houses within Segment 5 Winter/Spring 2022 Study Area is listed in Table 10.

Table 10: Winter 2022 Public Open House Attendance

Date	Location	Public Attendance ¹
Monday, January 31	Pueblo Community College, Pueblo	35 attendees
Monday, February 28	Arapahoe County Fairgrounds Event Center, Aurora	40 attendees
Tuesday, March 1	Elbert County Fairgrounds, Kiowa	199 attendees
Wednesday, March 2	Big Sandy Schools, Simla	127 attendees
Thursday, March 3	Edison School District, Yoder	104 attendees

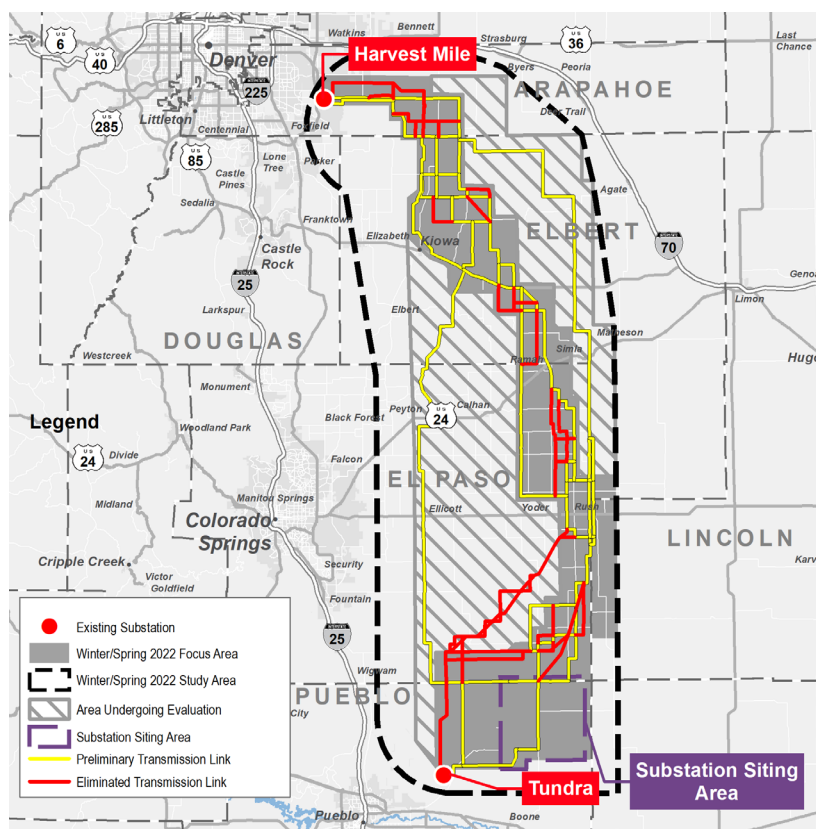
¹ Open houses were held in other Segment Study Areas not proximate to the Segment 5 Winter/Spring 2022 Study Area. Invitees were encouraged to attend any of the open houses. A total of 794 people attended the fifteen public open houses.

The revised Segment 5 transmission line links, Winter/Spring 2022 Study Area, Winter/Spring 2022 Focus Area, Sandstone Substation Siting Area and Areas Undergoing Evaluation were displayed on large-scale 60-inch-by-38-inch color sheet maps. Attendees were asked to identify any factors that should be considered in a particular area and staff members recorded these factors directly on the maps using a Sharpie marker.

A formal public comment period ran from January 21 to March 17, 2022, in conjunction with the open houses. Open house attendees were encouraged to submit paper comment forms that were distributed at the open houses. An electronic version of the comment form was also available on the website and included a copy of the interactive Pathway map so users could drop a pin to comment on a specific location. Additionally, business cards with the project email and hotline were distributed, providing additional ways to comment. A total of 498 comment forms were submitted during the formal comment period; 328 comments pertained to Segment 5. Common topics included:

- Health and safety
- General project support and opposition
- Link and substation site locations
- Wildlife and environmental impacts
- Resource planning and renewables
- Landowner compensation and property values

Link-specific feedback provided at the open house and resulting modifications from that feedback is included in Appendix D. The following graphic depicts the links shown at the Winter 2022 open houses.



Winter 2022 Transmission Line Links

3.5.3 Continued Link Evaluation and Identification of a Partial Preferred Route

Feedback received during the Winter 2022 open houses resulted in the western Area Undergoing Evaluation being removed from further evaluation (now referred to as the Area Removed from Further Evaluation) and 188 miles of alternatives being eliminated (Figure 6). Among the links eliminated were Links 5104 and 523; Link 5104 was eliminated because of its proximity to residences and an Elbert County Priority Economic Development Area, and Link 523 was eliminated because of its proximity to residences. Fourteen miles of preliminary transmission line links consisting of several connector links and Link 5158, which parallels an existing 115-kV transmission line and creates a new US 24 crossing, were added. Justification for link addition, modification and elimination is provided in Appendix D.

Evaluation of the transmission line links continued using the Comparative Data Matrix. The size of the Winter/Spring 2022 Focus Area and number of preliminary transmission line links resulted in numerous end-to-end link combinations. Instead of comparing all possible end-to-end combinations to each other, series of links that served the same purpose of moving through a particular region of the Winter/Spring 2022 Focus Area were compared with each other. Looking at these series of links at a local level enabled a more granular analysis of impacts, and links that not only minimized but balanced impacts across resources were chosen as the preferred. Alternative options to some of the preferred transmission line links were also identified, and other additional links were eliminated from consideration.

As preferred links were successively identified at a local level, a partial preferred route was pieced together. One of the three north-south route options east of Kiowa was eliminated from consideration because of its proximity to residences and natural resource concerns, but the remaining two options generally had comparable levels of impacts but to different resources. Further evaluation of the remaining two options was needed before determining a preferred route through the Bijou Basin. The partial preferred route (outside of the Bijou Basin) was then compared to other comparable alternative routes. The partial preferred and alternative routes are shown on Figure 6.

3.5.4 Public Outreach—Spring 2022 Public Open Houses

Four in-person public open houses specific to Segment 5 were held in May 2022 to share up-to-date preliminary transmission line links, Winter/Spring 2022 Focus Area, the partial preferred route, the Area Removed from Further Evaluation, and routing decisions with the public, and gather feedback. Each of these open houses was held within the Segment 5 Winter/Spring 2022 Study Area. A total of 9,650 direct mail postcards were sent to all property owners within the Focus Area and to local government and community stakeholders. Sixteen newspaper ads, a social media post on Facebook, an e-newsletter, and hotline, website, and email updates announced the open houses to the interested public. Attendance at the open houses within Segment 5 Winter/Spring 2022 Study Area is listed in Table 11.

Table 11: Spring 2022 Public Open House Attendance

Date	Location	Public Attendance ¹
Monday, May 2	Arapahoe County Fairgrounds Event Center, Aurora	18 attendees
Tuesday, May 3	Elbert County Fairgrounds, Kiowa	174 attendees
Wednesday, May 4	Big Sandy Schools, Simla	70 attendees
Thursday, May 5	Edison School District, Yoder	68 attendees

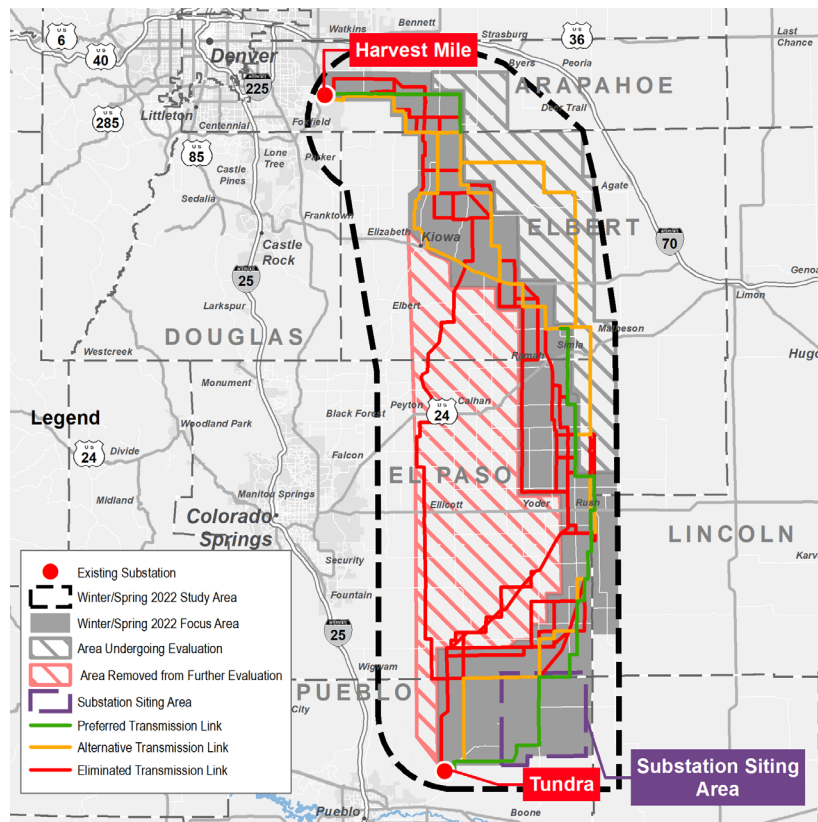
¹ Invitees were encouraged to attend any of the open houses in the Segment 5 Winter/Spring 2022 Study Area. A total of 330 people attended the four public open houses.

The revised Segment 5 transmission line links, partial preferred route, Winter/Spring 2022 Focus Area, Sandstone Substation Siting Area, Area Undergoing Evaluation and Area Removed from Further Evaluation were displayed on large-scale 60-inch-by-38-inch color sheet maps. Attendees were asked to identify any factors that should be considered in a particular area, and staff members recorded these factors directly on the maps using a Sharpie marker. A formal public comment period ran from April 28 to May 27, 2022, in conjunction with the open houses. Open house attendees were encouraged to submit paper comment forms that were distributed at the open houses. An electronic version of the comment form was also available on the website; this form included an interactive map so users could drop a pin to comment on a specific location. Additionally, business cards with the project email and hotline were distributed, providing additional ways to comment. A total of 181 comment forms were submitted during the formal comment period, the majority of which pertained to Segment 5. Common topics included:

- Wildfires
- Health and safety
- Renewables development
- Environmental

- Route link locations
- Transmission line undergrounding
- Landowner compensation and property values

Link-specific feedback provided at the open house and resulting modifications from that feedback is included in Appendix D. The following graphic depicts the links shown at the Spring 2022 open houses.



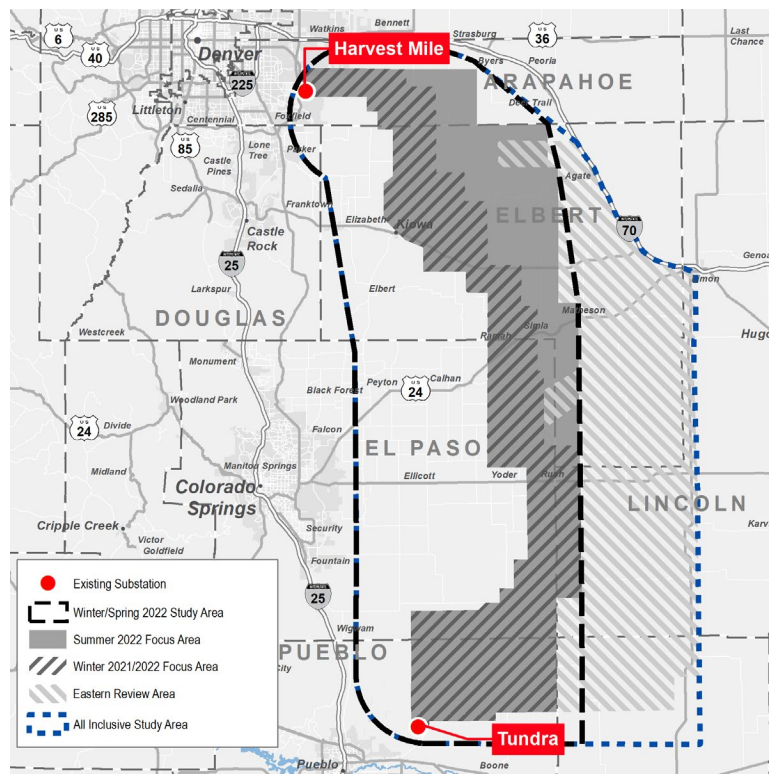
Spring 2022 Transmission Line Links

3.5.5 Continued Link Evaluation and Consideration of the Eastern Review Area

Based on feedback from landowners, stakeholders and elected officials during the Spring 2022 open houses, the Eastern Review Area (ERA) was analyzed to determine whether there was a viable option farther east that would receive more landowner and public support and better balance the technical routing considerations when compared to the previously identified alternative transmission line links. The ERA consisted of 1,699 additional square miles in Pueblo, Crowley, Lincoln, El Paso, and Elbert counties. The ERA was not previously analyzed because of its location relative to the CPCN Study Area, the transmission line length proposed in the CPCN along with the associated cost and schedule, the number and extent of conservation easements and other protected lands covering more than 158,000 acres (246 square miles), the Jumping Cow SWA and associated State Trust Land, and the West Bijou National

Natural Landmark (NNL).² A Suitability Analysis was performed for the ERA using the same process described in Section 3.2. The ERA boundary and ERA Suitability Analysis results are shown on Figure 7.

Based on the routing objectives, mapping and field reconnaissance, 131 miles of potential additional route options were identified within the ERA. Link locations generally minimized crossing less suitable and exclusion areas and maximized the use of areas ranked as more suitable. Landowner feedback on specific links during the Spring 2022 open houses was considered and some links in the Winter/Spring 2022 Study Area were revised and posted to the Pathway website. A second Sandstone Substation Siting Area was identified farther east to accommodate the southern endpoints of some of the potential additional route options. To account for the ERA and potential additional route options, the Winter/Spring Study Area was expanded to form the All Inclusive Study Area as shown in the following graphic. The ERA, revised transmission links, potential additional route options, and second Sandstone Substation Siting Area are shown on Figure 8.



Study Area Expansion—Summer 2022

3.5.6 Public Outreach—Summer 2022 ERA Open Houses

Two open houses were held in August 2022 to gather feedback about potential additional route options from property owners and residents in the ERA. The purpose of the open houses was to give the ERA

² The NNL is approximately 7,600 acres of contiguous land and is managed by the Savory Institute, which works at sites around the world using holistic land management techniques to re-establish native short-grass prairies. The area around the NNL is generally preserved from viewshed impacts by lands being held in conservation easement to the top of most elevated areas.

landowners an opportunity to provide feedback since the ERA was a newly identified area under review. Each of these open houses was held in proximity to the ERA. A total of 163 landowner mail packets were mailed to ERA property owners within 350 feet of the potential additional route options to gauge their interest in having a transmission line on their property and to invite them to the open houses. Packet contents included a project overview letter and information sheet, a landowner questionnaire, fact sheets, and a half sheet containing an open house invitation and project contact information. A total of 1,007 direct mail postcards were sent to all property owners within the ERA and local government and community stakeholders. Two newspaper ads (which ran twice), and a website update announced the open houses. Attendance at the open houses in proximity to the ERA is listed in Table 12.

Table 12: Summer 2022 ERA Open House Attendance

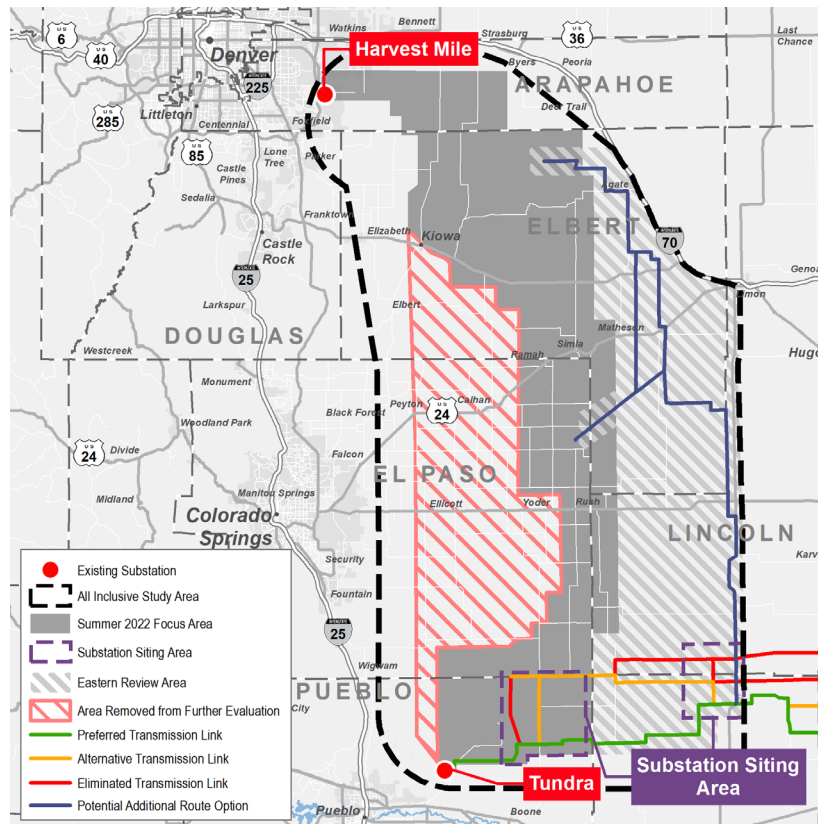
Date	Location	Public Attendance ¹
Wednesday, August 3	Limon Community Building, Limon	54 attendees
Thursday, August 4	Karval Community Building, Karval	48 attendees

¹ Invitees were encouraged to attend either of the open houses in the ERA. A total of 102 people attended the two public open houses.

The potential additional route options, the ERA, and the Sandstone Substation Siting Areas were displayed on large-scale 60-inch-by-38-inch color sheet maps. Attendees were asked to identify any factors that should be considered in a particular area and staff members recorded these factors directly on the maps using a Sharpie marker. A formal public comment period ran from July 13 to August 12, 2022, in conjunction with the open houses. Open house attendees were encouraged to submit paper comment forms that were distributed at the open houses. An electronic version of the comment form was also available on the website and included a copy of the interactive Pathway map so users could drop a pin to comment on a specific location. Additionally, business cards with the project email and hotline were distributed, providing additional ways to comment. A total of 87 comment forms were submitted during the formal comment period. Common topics included:

- Property values
- Visual impacts
- Health and safety
- Renewables development
- Disruption to agricultural operations
- Potential additional route option locations

Link-specific feedback provided at the open house and resulting modifications from that feedback is included in Appendix D. The following graphic depicts the links shown at the Summer 2022 ERA open houses. Since the purpose of these open houses was to receive feedback from landowners on the potential additional route options in the ERA, other Segment 5 links were not displayed on meeting materials.



Summer 2022 Transmission Line Links

3.5.7 Continued Evaluation of the Eastern Review Area

Feedback from landowners during the Summer 2022 ERA open houses on the potential additional route options in the ERA was mixed, with comments ranging from favorable, to neutral, to strongly opposed. This mix of feedback was similar to that received along other route options previously identified outside of the ERA, including that from Elbert and El Paso counties. Additionally, landowners in the Pueblo County community submitted comments expressing their disappointment with the Substation Siting Area in Lincoln/Crowley counties and communicating their support for a substation in Pueblo County. In addition to minor landowner-requested modifications, landowners also encouraged the consideration of routing along I-70 and the railroad to maximize routing along existing infrastructure. This feedback was considered and resulted in the addition of some potential additional route options and some modifications to existing potential additional route options as shown in Figure 9.

Upon further examination and consultation with conservation easement owners, it was determined that route option 5A was fatally flawed since the conservation easements located on either side of CO 71 explicitly prohibit utility development. Additionally, it was determined that route option 5F would parallel the southern end of the NNL and would be visible from within the NNL, including views from overlooks and geologic resources utilized by the Denver Museum of Nature & Science. While not a fatal flaw, most of the end-to-end route options utilizing the potential additional route options within the ERA would result in this impact.

The overall mixed feedback on the potential additional route options in the ERA, feasibility of routing through conservation easements, and technical challenges and cost concerns associated with line lengths of potential routes through the ERA, led to the elimination of potential additional route options in the ERA.

3.5.8 Substation Siting Area Selection

Given the elimination of route options in the ERA and the location of the preferred route discussed in Section 3.5.10, the Substation Siting Area in Crowley/Lincoln County was removed from consideration. Identification of potential substation sites continued in the Substation Siting Area in Pueblo County in case it was determined that the Sandstone Substation would be developed. The identification of a preferred substation site was largely driven by the location of the preferred route, the results of the Suitability Analysis, and the substation siting criteria (Appendix C).

3.5.9 Additional Field Reconnaissance and Findings

Left with three series of link options through Elbert County generally between CO 86 and the Elbert/Arapahoe county line, the Pathway team conducted a field reconnaissance via helicopter to visually assess the end-to-end route options, paying particular attention to areas inaccessible by road. The westernmost route option, utilizing Link 595, was the most co-located option³ when considering road, transmission line, and gas pipeline adjacency, and was less impactful to the landscape compared to the central and easternmost options. Co-location creates incremental changes in impacts along existing infrastructure that was considered preferable to new impacts along greenfield routes. By paralleling the existing CORE transmission line north of CO 86, this route option has planned subdivisions on either side of it, resulting in the need to cross one of the two planned subdivisions. The westernmost route option had more residences within all measured distances in this area compared to the central route option, although many are located along CO 86 or the existing CORE transmission line adjacent to Links 595, 5166, and 562. The westernmost route option would impact existing residences along CO 86 that are located close to the highway and may not be avoidable. This route option avoids conservation easements.

The central route option, utilizing Links 551, 553 and 599, was determined to result in greater impacts to undisturbed areas compared to the westernmost route option since the former incorporates areas that are less accessible by road. This would present access challenges for construction and maintenance and result in the need to construct longer access roads. This route option also avoids conservation easements.

The easternmost route option, consisting of Link 5160, jogs back and forth along CR 125 to avoid the Jumping Cow SWA and routes around the Bijou Basin but would impact the viewshed of the NNL and traverse conservation easements that prohibit utility facilities. This route option also crossed State Trust Land adjacent to the SWA. The State Trust Land in this area create a larger contiguous landholding with

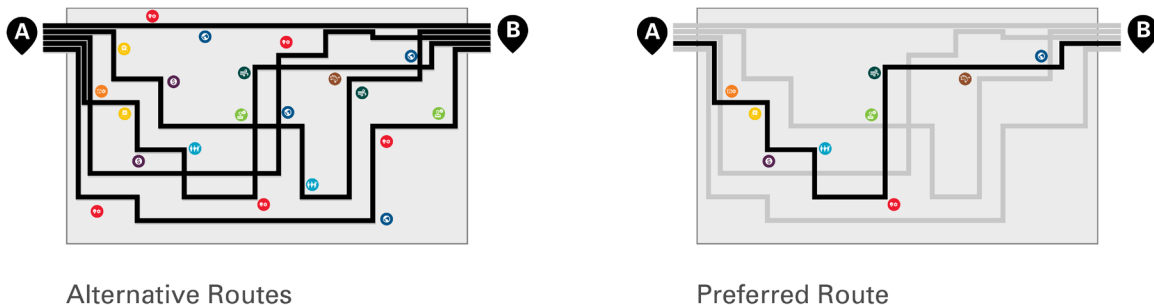
³ [Elbert County Zoning Regulations](#) indicate in Article V that “Co-location of the proposed transmission line adjacent to or with existing transmission lines rights-of-way shall be considered prior to siting new routes, where possible.” Additionally, the Elbert County Zoning Regulations also indicate that transmission lines “May not be located within one-quarter (1/4) mile of an existing subdivision, town, or agricultural development if not co-located, or nearer if approved by the Board of County Commissioners.”

the SWA to further the conservation of the resources protected and managed in this area. The location of this route option, routed between the SWA and other conservation easements, left little room to site around any land use concerns that may arise through negotiations with landowners. Colorado Parks and Wildlife did not favor this route option because the Jumping Cow SWA and high-quality grasslands are located in this area.

The following categories were also considered when comparing the remaining end-to-end route options to each other: Cost, Schedule/Permit Considerations, Routing Technical Considerations, Political Considerations, and Landowner and Community Feedback.

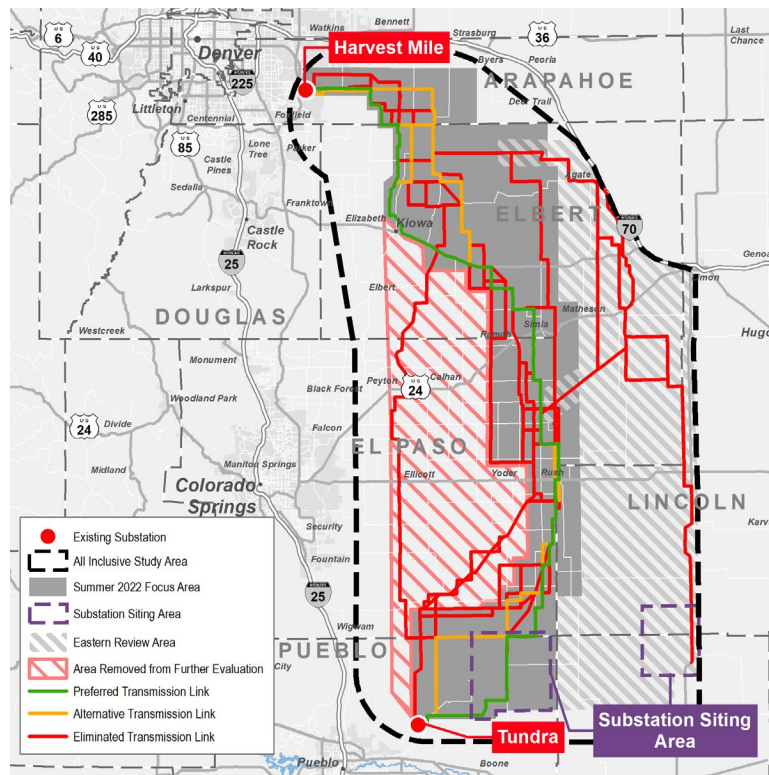
3.5.10 Identify Complete Preferred Route

Determining the location of the preferred route was accomplished through an extensive process described in Sections 3.1 through 3.5.9 that included engaging the public, landowners and other stakeholders. Cultural and historic resources, technical and engineering requirements, environmental constraints, existing and planned land use and other factors that people told use are important to consider were evaluated and compared to establish the transmission line route options. Below is a conceptual graphic showing a preferred route that balances impacts to nearby resources (conceptually shown as different colored icons), since avoiding all impacts to all resources is often not feasible.



Preferred Route Selection (Conceptual Graphic)

Sections 3.5.3 and 3.5.9, in particular, describe the iterative process used to identify the complete preferred route. The preferred route chosen has the highest percentage (63%) of co-location with existing linear infrastructure, including existing transmission lines, roads, rail and pipelines for its entire length and is less impactful to the landscape compared to other route alternatives. This route was considered based on feedback from the public, jurisdiction staff and Colorado Parks and Wildlife. Access for construction and maintenance is favorable along this route option given its proximity to existing infrastructure such as the existing CORE transmission line. Generally, this route option balances impacts across resources due to its co-location with other existing infrastructure.



Preferred Route Links

3.5.11 Substation Site Selection

In fall 2023, it was determined that the Sandstone Substation would be developed. The Sandstone Substation will serve as the southern endpoint for Segment 5. Segment 4 will run in and out of the Sandstone Substation on its way to the Tundra Substation to connect each segment of Pathway. Segment 4 will continue to and terminate at the Tundra Substation since the Tundra Substation provides a necessary connection to the existing grid. At this time, Segment 4 was renamed “May Valley – Sandstone – Tundra” and Segment 5 was renamed “Sandstone – Harvest Mile”.

Identification of the preferred substation site was largely driven by routing as the preferred transmission line route was determined ahead of the decision to develop Sandstone Substation. Based on the location of the preferred transmission line route and the substation Suitability Analyses, a preferred substation site was chosen. This site meets the substation siting criteria, is most suitable and compatible with substation construction and operation and is accessible via the preferred transmission line route. The preferred site is also owned by a landowner who shows an interest in substation development on their property. The preferred Sandstone Substation site is shown in Figure 10.

4.0 Next Steps

4.1 Ongoing Local Government, Key Stakeholder, and Public Outreach

The Pathway website, email address, and hotline will continue to be updated with the latest information on routing decisions, opportunities for public involvement, permitting, and construction. These resources will continue to serve as ways for the public and stakeholders to stay informed about progress and communicate with representatives. Information presented during the virtual and in person open houses is provided on the Pathway website for ongoing reference.

No additional open houses are planned within Segment 5 at this time since the preferred transmission line route has been chosen. Any open houses and/or public hearings required by Segment 5 permitting entities will be conducted as Pathway progresses through the permitting phase.

4.2 Final Design, Permitting, Construction, and In Service

4.2.1 Final Design, Landowner Outreach, and Micrositing

Transmission poles vary in height depending on voltage (size of line), terrain, length of span between transmission poles, sag of the conductor, pole type, and minimum electrical clearance prescribed by the National Electric Safety Code. Anticipated design of the transmission poles constructed for Pathway is discussed in Section 1. Final design and location of the transmission poles is still ongoing and will be finalized prior to material order placement and construction.

Final route refinement will occur at the local level as easements are secured with landowners and Pathway proceeds to the permitting phase. Landowner preferences, jurisdictional input, and locations of sensitive resources may influence the exact locations of the transmission poles, pole design, and the ultimate location of the transmission line and substations.

4.2.2 Permitting

Federal, state, and local permits/approvals may be required prior to construction. Any necessary construction-related authorizations, which are typically administrative in nature, will be obtained between the time local land use permits are approved and when construction begins. State approvals may include, for example, permits for road, bridge, and highway crossings or road occupancy permits from the Colorado Department of Transportation; and stormwater discharge permits and Air Pollution Emissions Notices from the Colorado Department of Public Health and Environment.

Jurisdictional outreach was conducted with each city and county anticipated to be crossed by the transmission line route or where endpoint substations are located to solicit feedback and discuss potential land use permits that may be required for the transmission line and each substation. Land use permitting is anticipated with local jurisdictions crossed by the preferred transmission line route and substation sites. The anticipated local land use permits for Segment 5 preferred transmission line route were identified based on a review of local land use code and early coordination with city and county representatives; these permits are listed in Table 13. Permits for temporary construction laydown and staging areas from

local jurisdictions may also be required. All necessary land use and construction-related permits will be acquired from the appropriate county and municipal authorities.

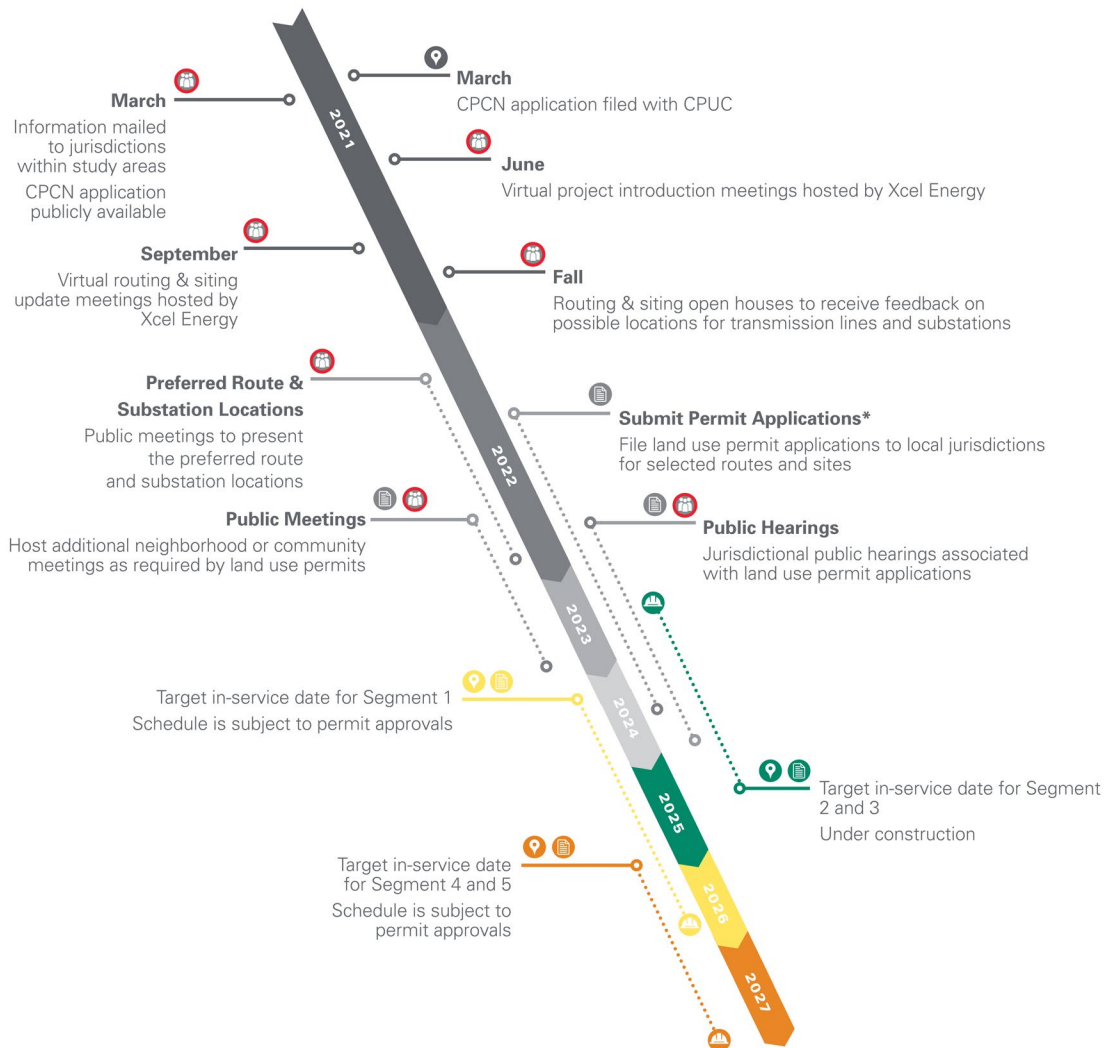
Table 13: Anticipated Segment 5 Land Use Permits

County	Data Source(s)	Permit
Pueblo	Pueblo County (2019)	1041 Areas and Activities of State Interest Permit
El Paso	El Paso County (2015)	1041 Areas and Activities of State Interest Permit
Lincoln	Lincoln County (2017)	Special Use Review Permit
Elbert	Elbert County (2022)	1041 Areas and Activities of State Interest Permit Special Use Review Permit
Arapahoe	Arapahoe County (2006)	1041 Areas and Activities of State Interest Permit Location and Extent Permit
Aurora	City of Aurora (2021)	Conditional Use Approval Site Plan Review

4.2.3 Construction and In-service

Construction of the Segment 5 transmission line, expansion of the Tundra Substation, equipment additions at the Harvest Mile Substation, and construction of the Sandstone Substation are anticipated to start in 2025 and have an estimated 2-year construction duration through 2027. The estimated in-service date for these facilities is 2027.

The estimated schedule for Pathway is displayed in the following graphic. There are many variables that factor into the construction schedule for projects of this magnitude. One key variable that may impact the construction schedule is the timing of approval for final siting and routing for each segment of transmission line and substation and acquiring all necessary land rights and permits. Other construction timing variables include engineering design or scope changes that may occur over the course of Pathway development and the timing of equipment procurement.



Pathway Estimated Schedule

5.0 References

- Arapahoe County. 2006. Regulations Governing Areas and Activities of State Interest in Arapahoe County. Available online at: <https://www.arapahoegov.com/DocumentCenter/View/345/FINALArapahoeCounty1041Regulations?bidId=> Accessed October 2022.
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- Xcel Energy. 2021. Our Energy Future: Destination 2030, 2021 Electric Resource Plan and Clean Energy Plan. March 31, 2021. Available online at: https://www.xcelenergy.com/company/rates_and_regulations/resource_plans/clean_energy_plan. Accessed March 2022.

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FIGURES

Figure 1: Segment 5 CPCN Study Area

Figure 2: Segment 5 Study Area Suitability

Figure 3: Segment 5 Preliminary Links

Figure 4: Segment 5 Fall 2021 Focus Area

Figure 5: Segment 5 Winter 2022 Links and Sandstone Substation Siting Area

Figure 6: Segment 5 Spring 2022 Links

Figure 7: Segment 5 Eastern Review Area Suitability

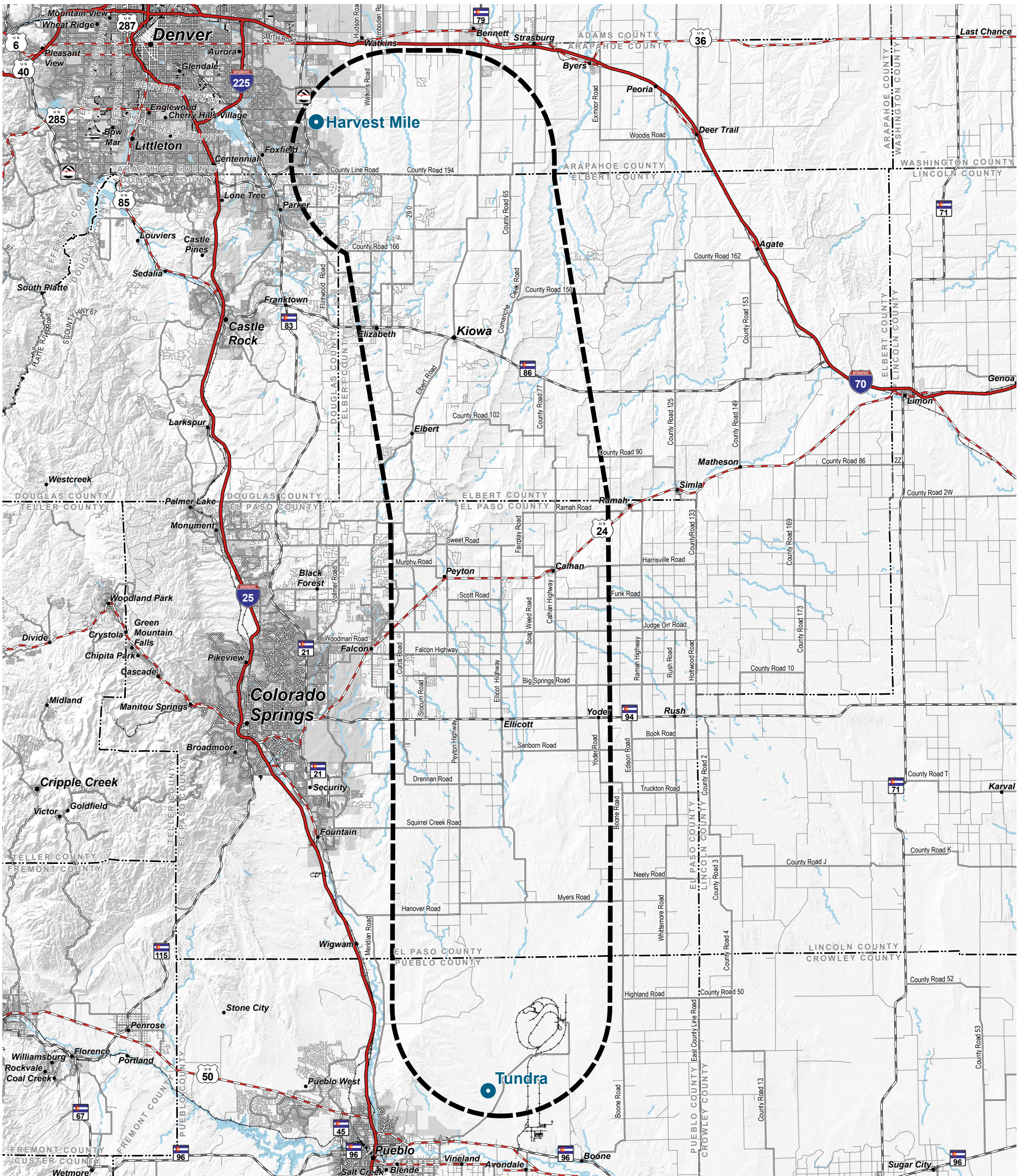
Figure 8: Segment 5 Eastern Review Area, Summer 2022 Links and Sandstone Substation Siting Areas

Figure 9: Segment 5 Eastern Review Area Revised Potential Additional Route Options

Figure 10: Segment 5 Preferred Route

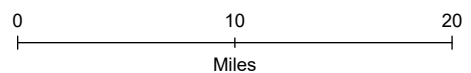
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COLORADO'S POWER PATHWAY

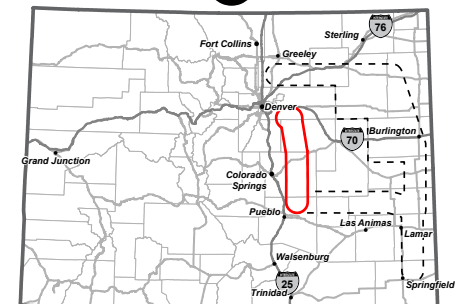


- Legend**
- Existing Substation
 - CPCN Study Area
 - Transportation**
(CDOT 2021, BTS 2020)
 - Interstate
 - U.S. Highway
 - State Highway
 - Local Road
 - Railroad

- Hydrology**
(NHD 2020)
- Waterbody
- Boundary**
(CDOT 2021, DOLA 2021)
- Municipal Boundary
 - County



Miles



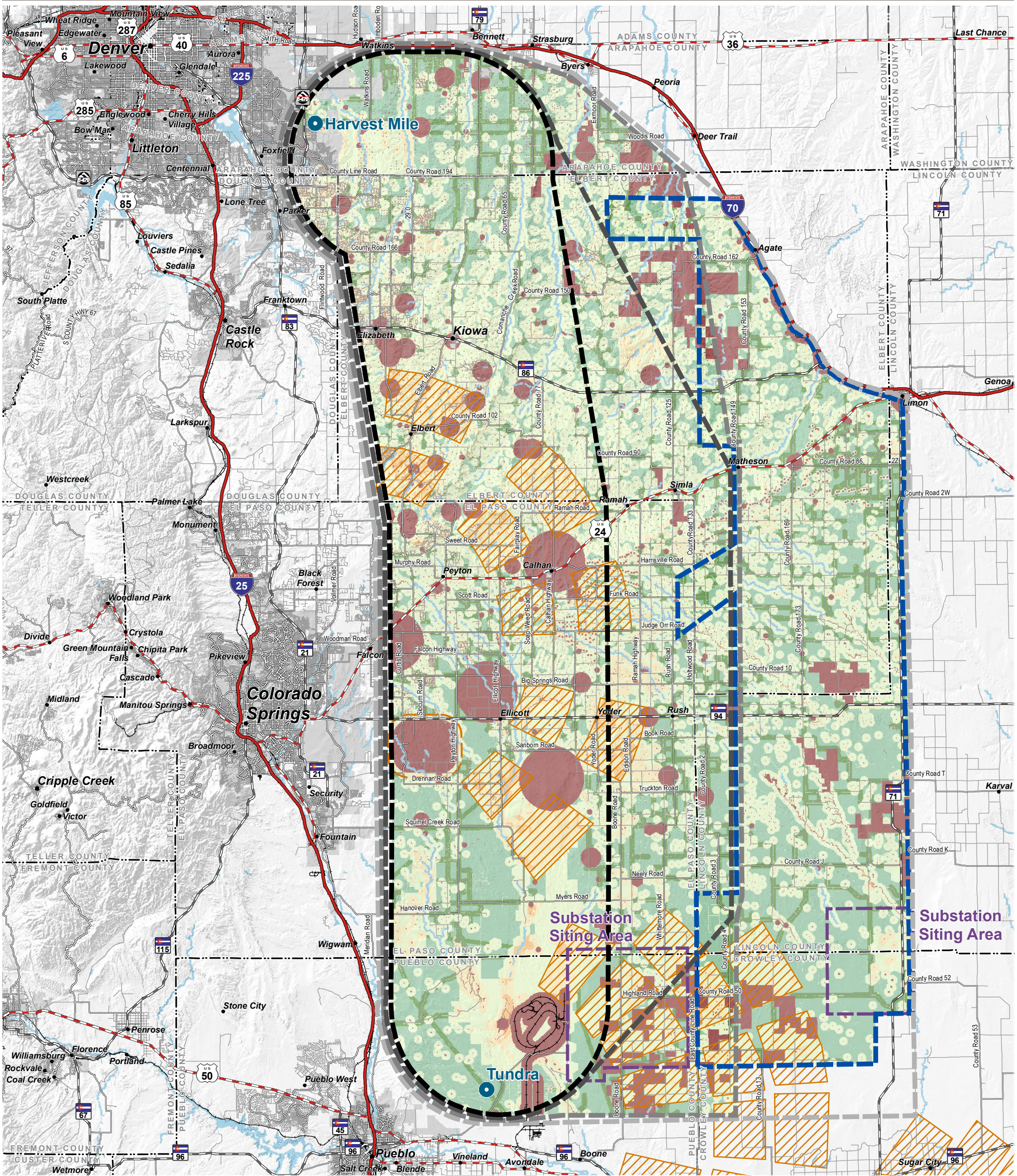
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Figure 1: Segment 5 CPCN Study Area

COLORADO'S POWER PATHWAY

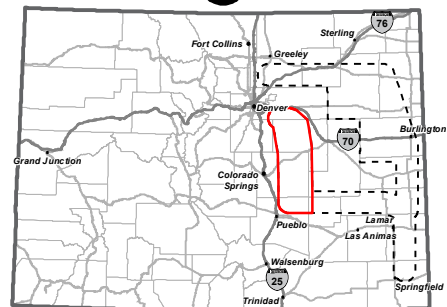


Legend

- Existing Substation
 - CPCN Study Area
 - Fall 2021 Study Area
 - Winter/Spring 2022 Study Area
 - All Inclusive Study Area
 - Eastern Review Area
 - Schriever Space Force Base 10,000ft Buffer
 - U.S Air Force Training Area
- Suitability**
(May 31st, 2022)
- Most Suitable
 - Less Suitable
 - Least Suitable
 - Exclusion Area

- Hydrology**
(NHD 2020)
- Waterbody
- Boundary**
(CDOT 2021, DOLA 2021)
- Municipal Boundary
 - County

0 10 20
Miles

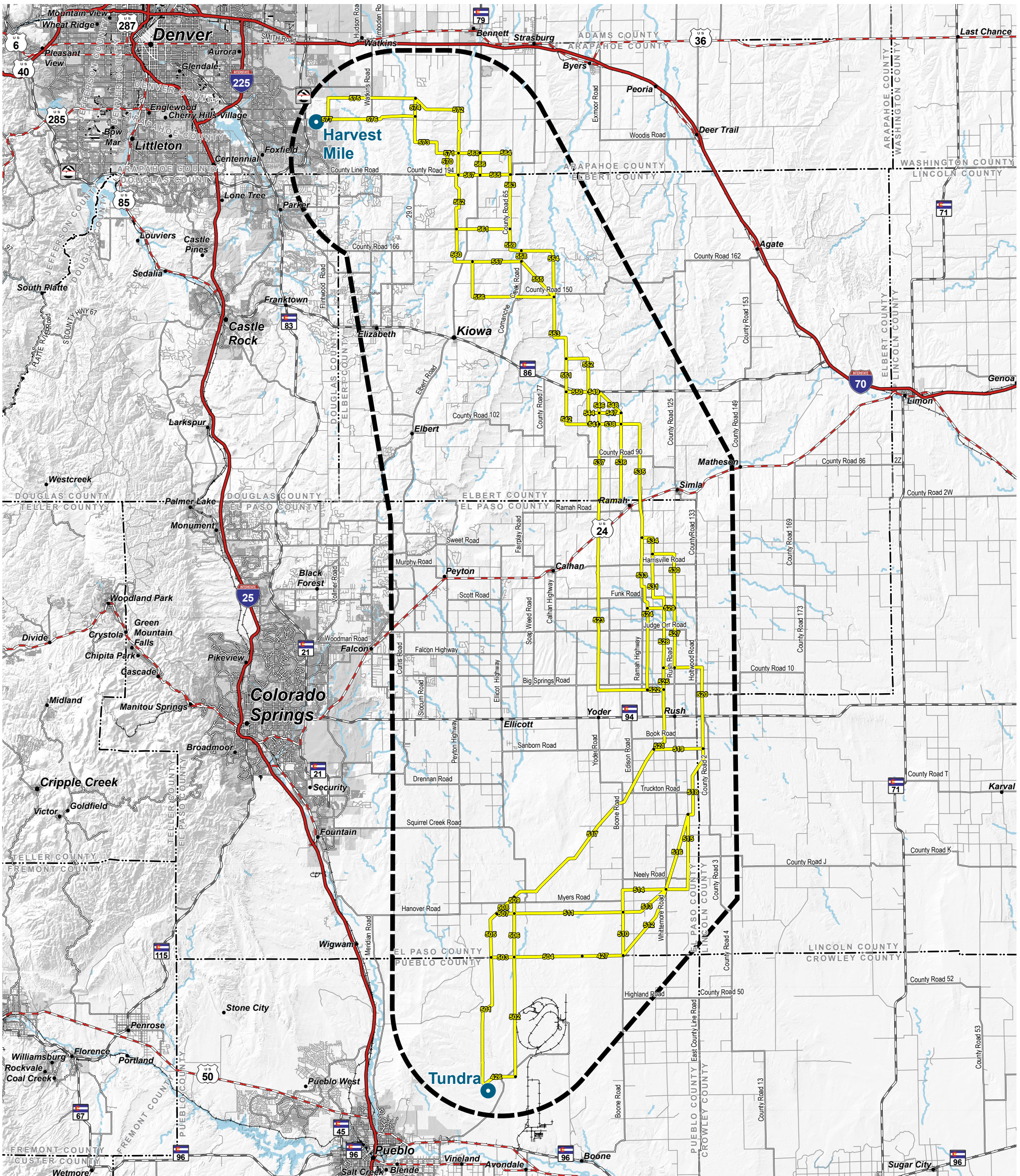


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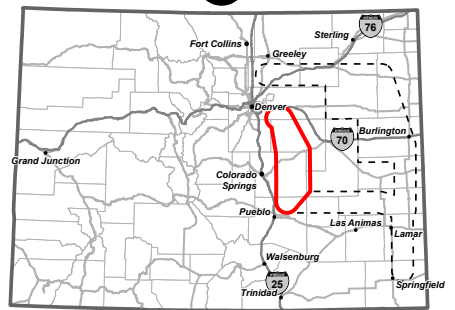
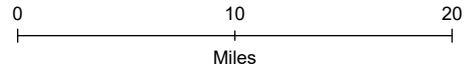
Figure 2: Segment 5 Study Area Suitability

COLORADO'S POWER PATHWAY



- Legend**
- Existing Substation
 - Fall 2021 Study Area
 - Preliminary Transmission Route Link
- Transportation**
(CDOT 2021, BTS 2020)
- Interstate
 - U.S. Highway
 - State Highway
 - Local Road
 - Railroad

- Hydrology**
(NHD 2020)
- Waterbody
- Boundary**
(CDOT 2021, DOLA 2021)
- Municipal Boundary
 - County



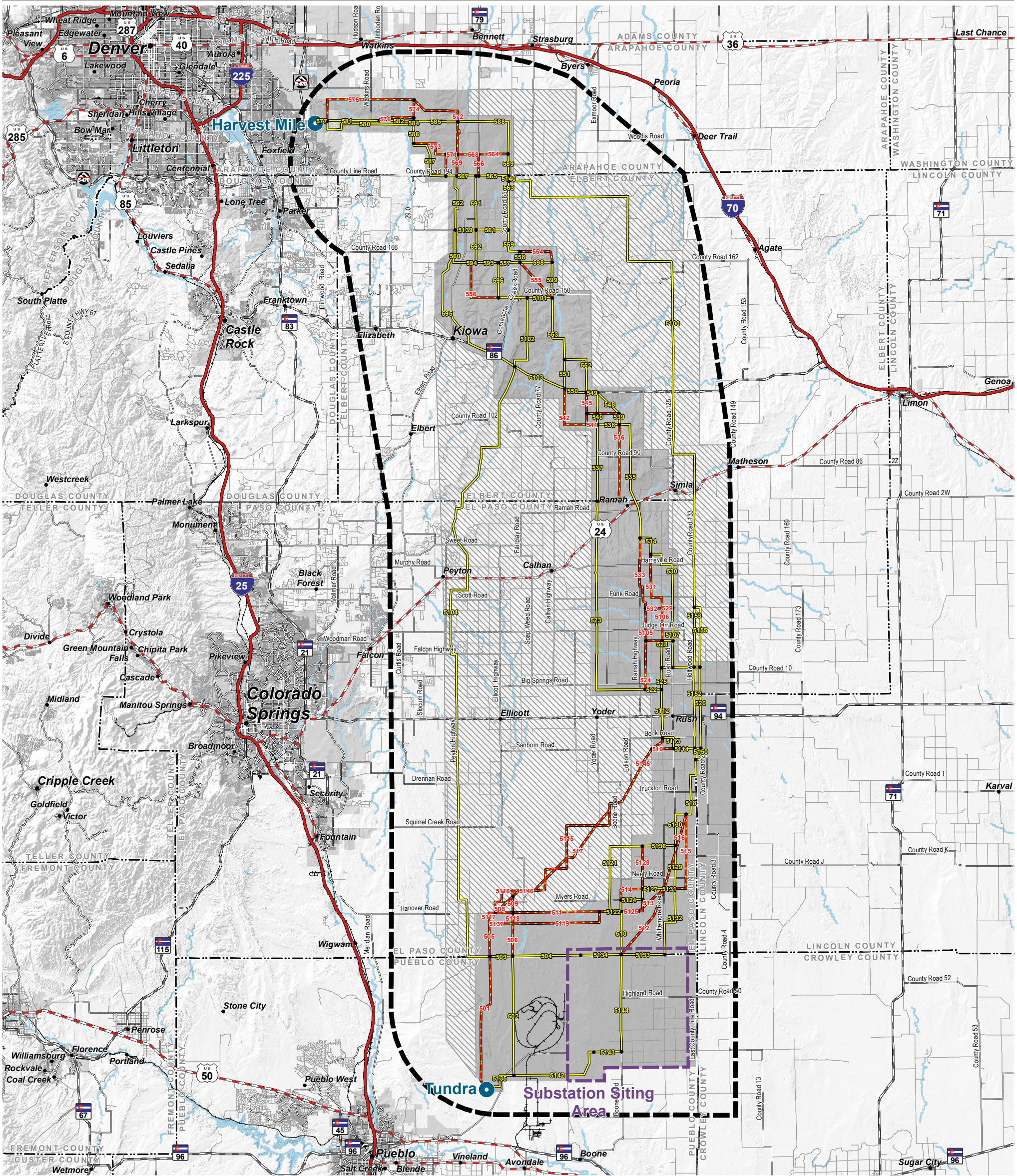
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Figure 3: Segment 5 Preliminary Links

COLORADO'S POWER PATHWAY

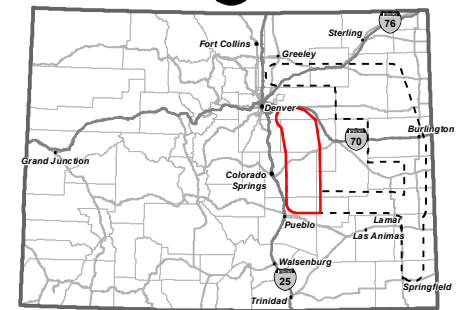


- Legend**
- Existing Substation
 - Winter/Spring 2022 Study Area
 - Winter/Spring 2022 Focus Area
 - Area Undergoing Evaluation
 - New 345kV Substation Siting Area
 - Preliminary Transmission Route Link
 - Eliminated Transmission Link

- Transportation**
(CDOT 2021, BTS 2020)
- Interstate
 - U.S. Highway
 - State Highway
 - Local Road
 - Railroad

- Hydrology**
(NHD 2020)
- Waterbody
- Boundary**
(CDOT 2021, DOLA 2021)
- Municipal Boundary
 - County

0 10 20
Miles



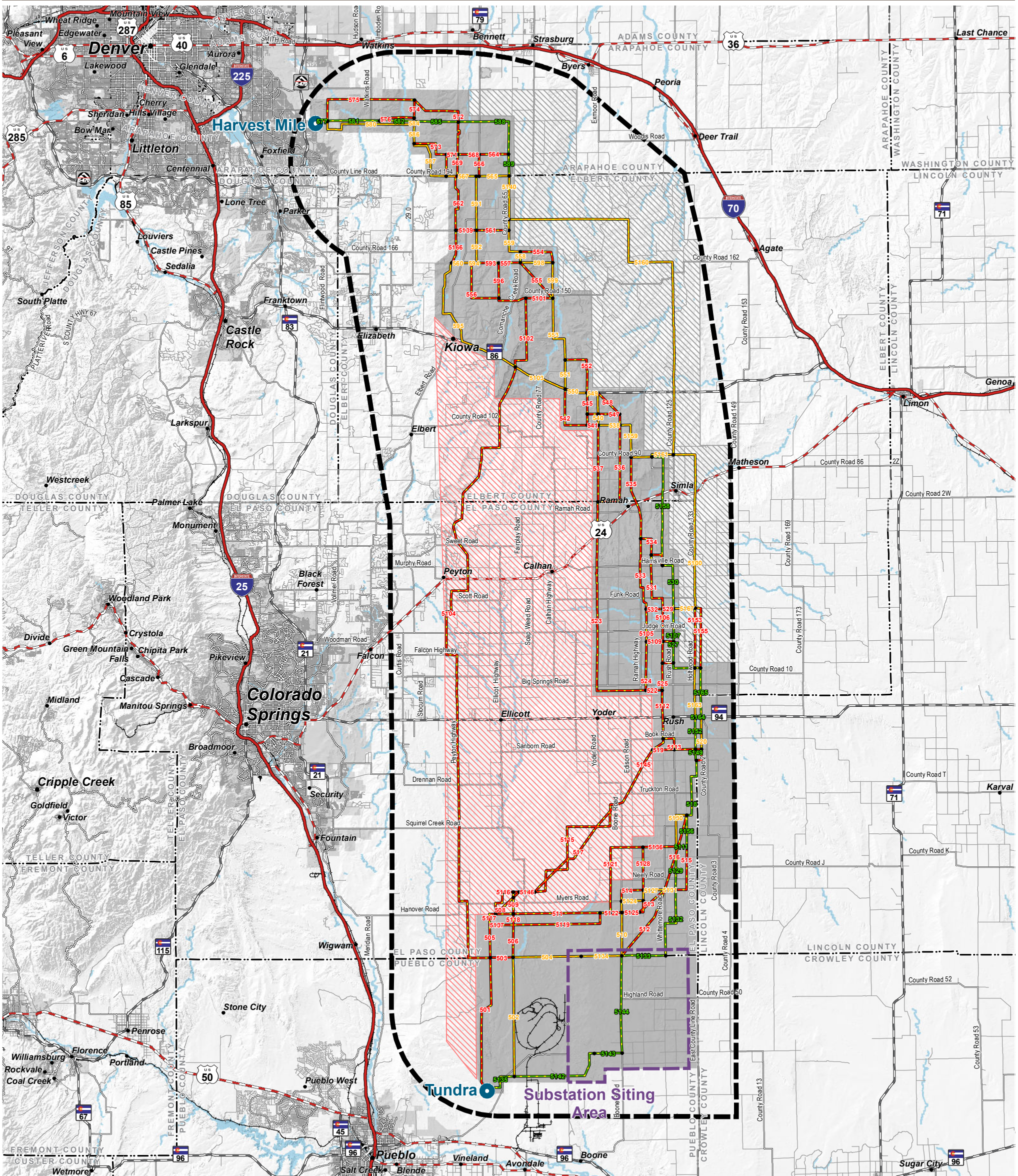
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Figure 5: Segment 5 Winter 2022 Links and Sandstone Substation Siting Area

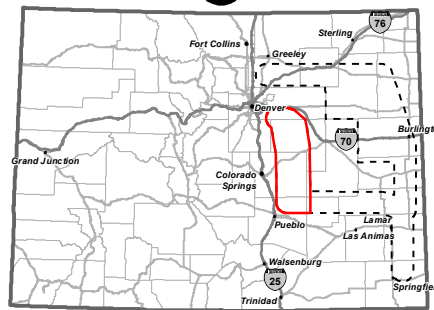
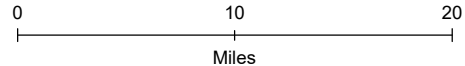
COLORADO'S POWER PATHWAY



- Legend**
- Existing Substation
 - Winter/Spring 2022 Study Area
 - Winter/Spring 2022 Focus Area
 - New 345kV Substation Siting Area
 - Area Undergoing Evaluation
 - Area Removed from Further Evaluation
 - Preferred Transmission Link
 - Alternative Transmission Link
 - Eliminated Transmission Link

- Transportation**
(CDOT 2021, BTS 2020)
- Interstate
 - U.S. Highway
 - State Highway
 - Local Road
 - Railroad

- Hydrology**
(NHD 2020)
- Waterbody
- Boundary**
(CDOT 2021, DOLA 2021)
- Municipal Boundary
 - County



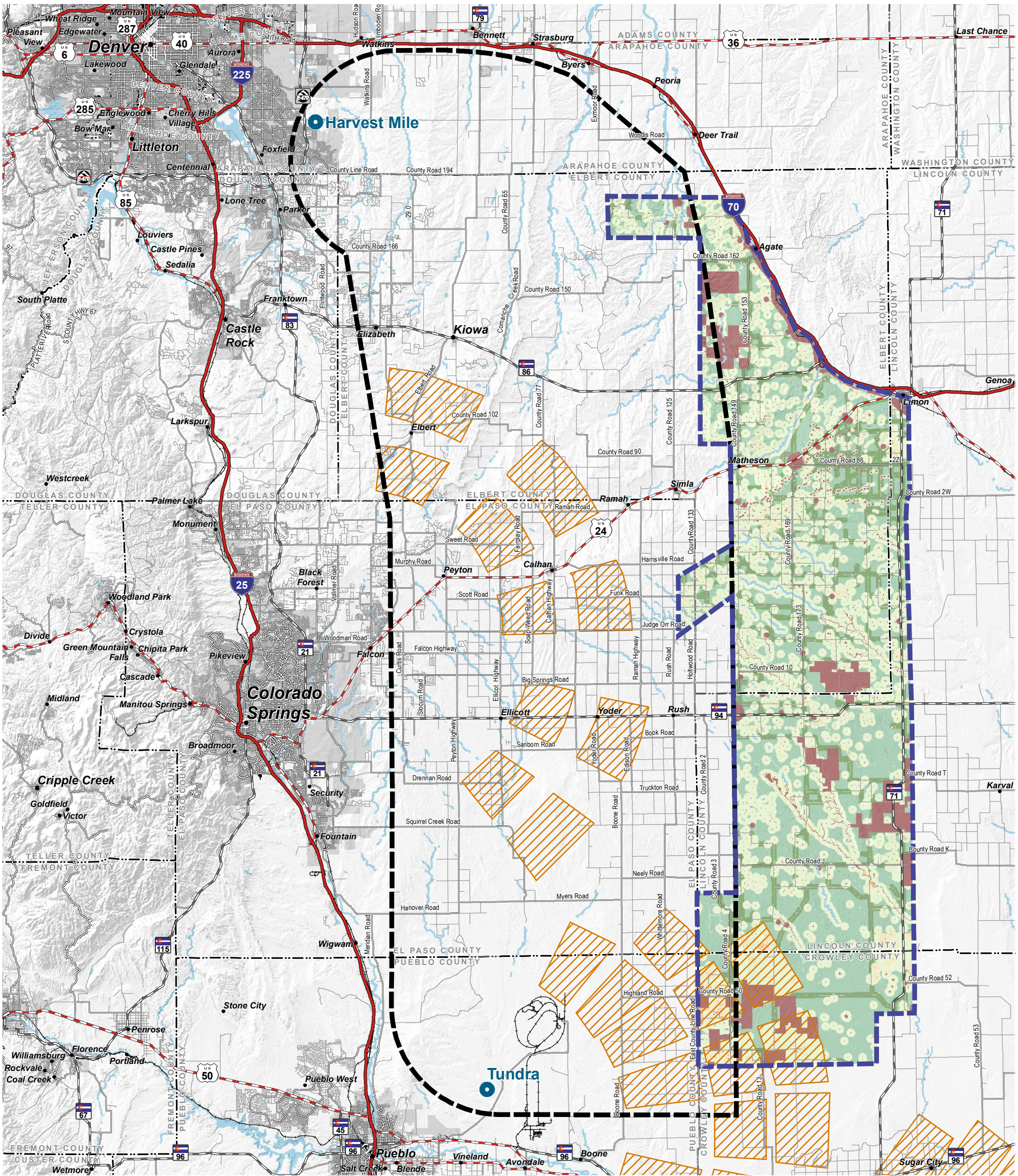
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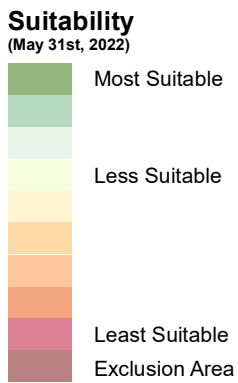
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Figure 6: Segment 5 Spring 2022 Links

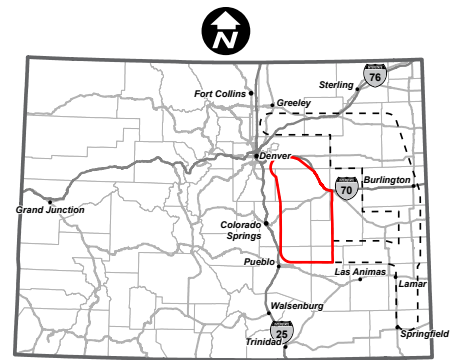
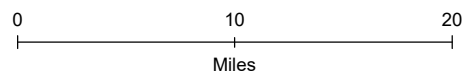
COLORADO'S POWER PATHWAY



- Legend**
- Existing Substation
 - Winter/Spring 2022 Study Area
 - Eastern Review Area
 - U.S Air Force Training Area
- Transportation**
(CDOT 2021, BTS 2020)
- Interstate
 - U.S. Highway
 - State Highway
 - Local Road
 - Railroad



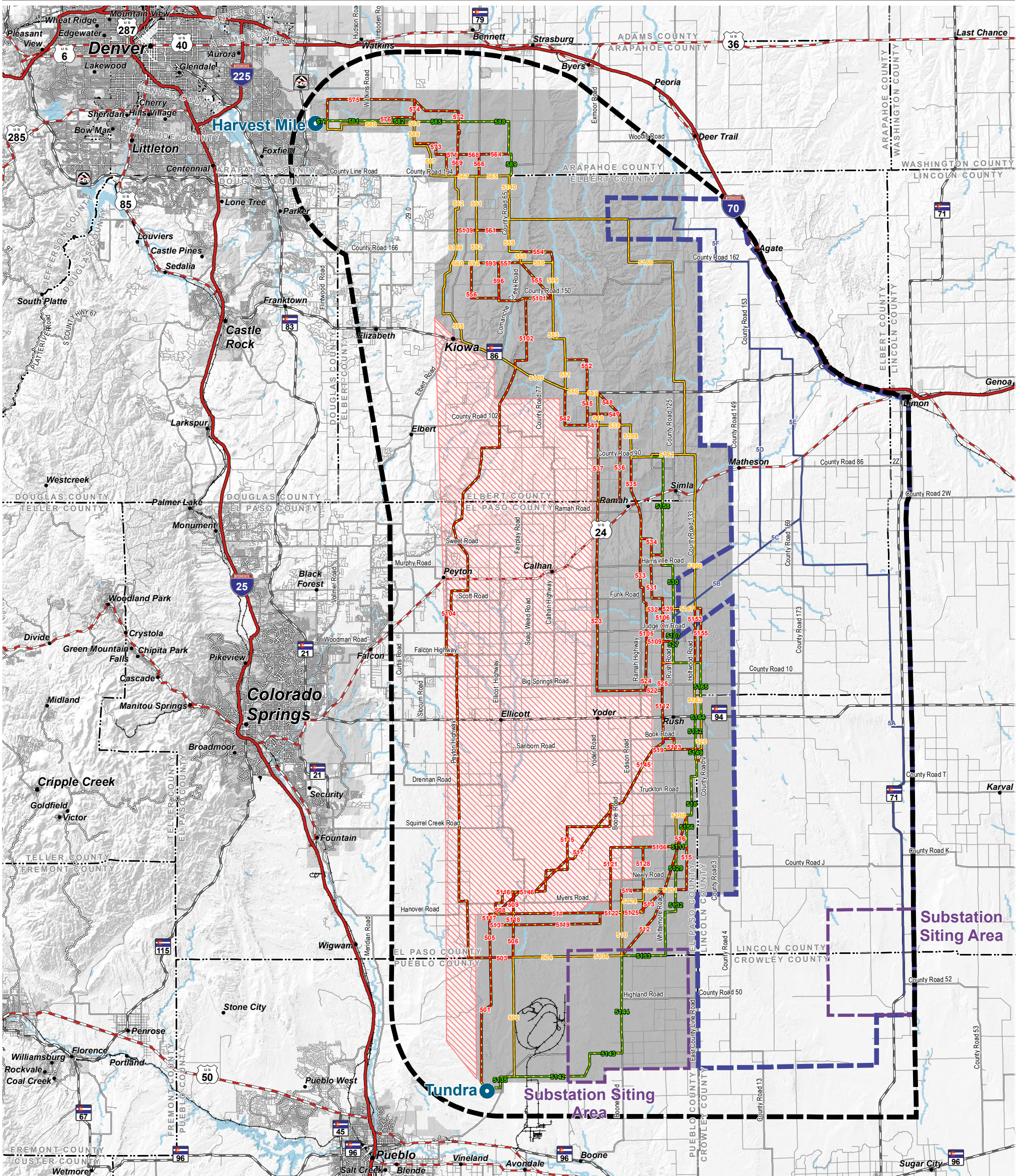
- Hydrology**
(NHD 2020)
- Waterbody
- Boundary**
(CDOT 2021, DOLA 2021)
- Municipal Boundary
 - County



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Figure 7: Segment 5 Eastern Review Area Suitability

COLORADO'S POWER PATHWAY

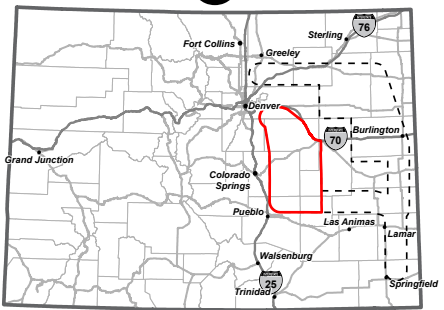


- Legend**
- Existing Substation
 - All Inclusive Study Area
 - Summer 2022 Focus Area
 - New 345kV Substation Siting Area
 - Area Undergoing Evaluation
 - Area Removed from Further Evaluation
 - Eastern Review Area
 - Preferred Transmission Link
 - Alternative Transmission Link
 - Eliminated Transmission Link
 - Segment 5 Potential Additional Route Option

- Transportation**
(CDOT 2021, BTS 2020)
- Interstate
 - U.S. Highway
 - State Highway
 - Local Road
 - Railroad

- Hydrology**
(NHD 2020)
- Waterbody
- Boundary**
(CDOT 2021, DOLA 2021)
- Municipal Boundary
 - County

0 10 20
Miles

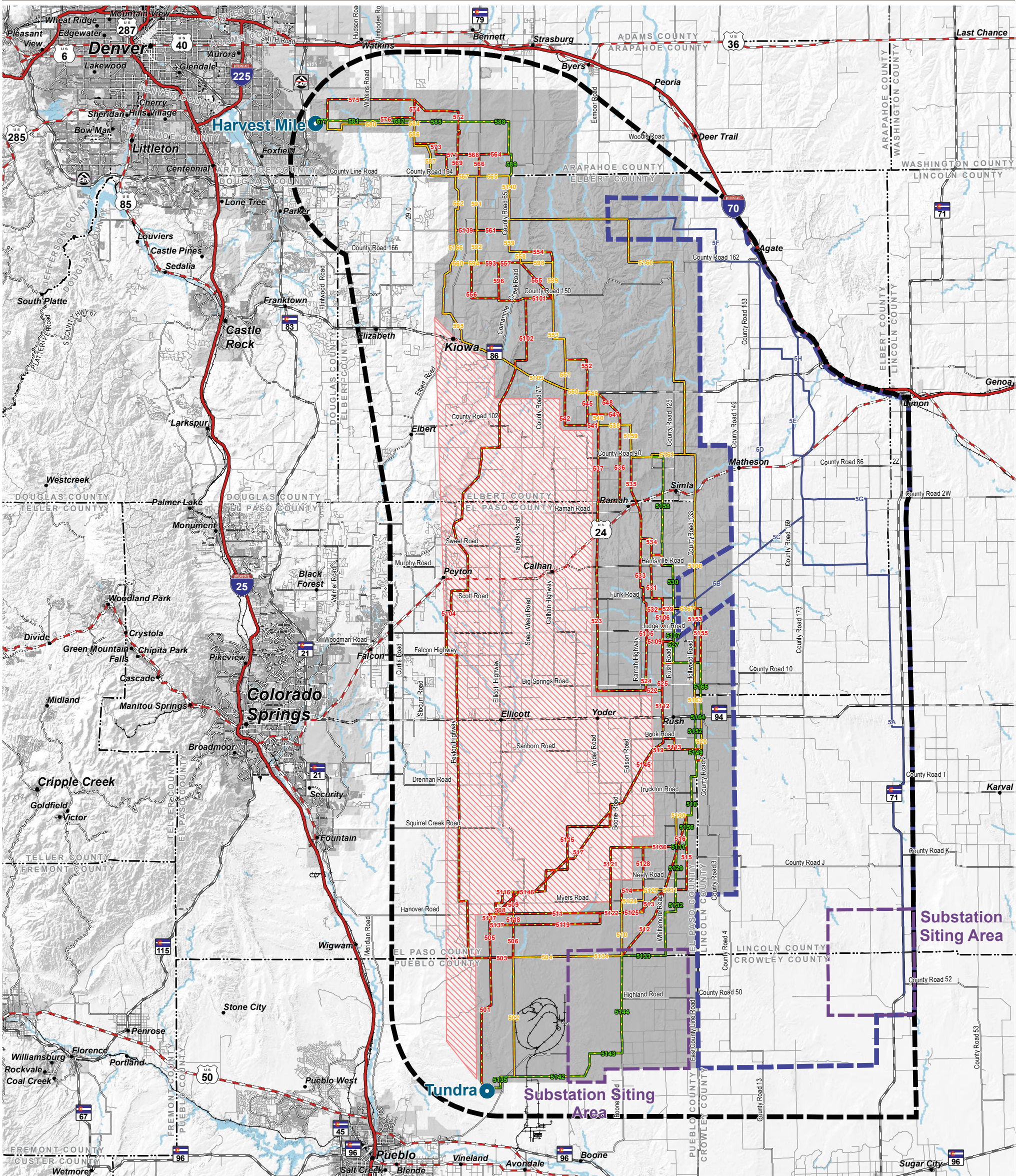


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Revised: 1/20/2023 | NOT FOR CONSTRUCTION
Path: P:\1163_0025_CO_Power_Pathway\GIS\Layouts\Segment_5\Routing_Study\StudyArea_PrelimLinks_SummerERA_2022.mxd

Figure 8: Segment 5 Eastern Review Area, Summer 2022 Links and Sandstone Substation Siting Areas

COLORADO'S POWER PATHWAY

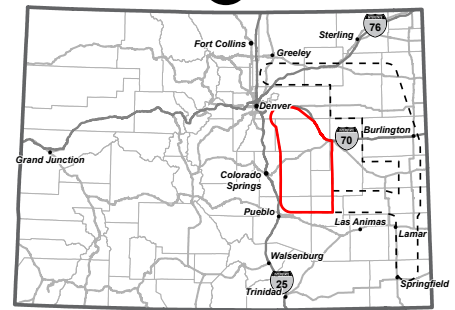


- Legend**
- Existing Substation
 - All Inclusive Study Area
 - Summer 2022 Focus Area
 - New 345kV Substation Siting Area
 - Area Removed from Further Evaluation
 - Eastern Review Area
 - Preferred Transmission Link
 - Alternative Transmission Link
 - Eliminated Transmission Link
 - Segment 5 Potential Additional Route Option

- Transportation**
(CDOT 2021, BTS 2020)
- Interstate
 - U.S. Highway
 - State Highway
 - Local Road
 - Railroad

- Hydrology**
(NHD 2020)
- Waterbody
- Boundary**
(CDOT 2021, DOLA 2021)
- Municipal Boundary
 - County

0 10 20
Miles

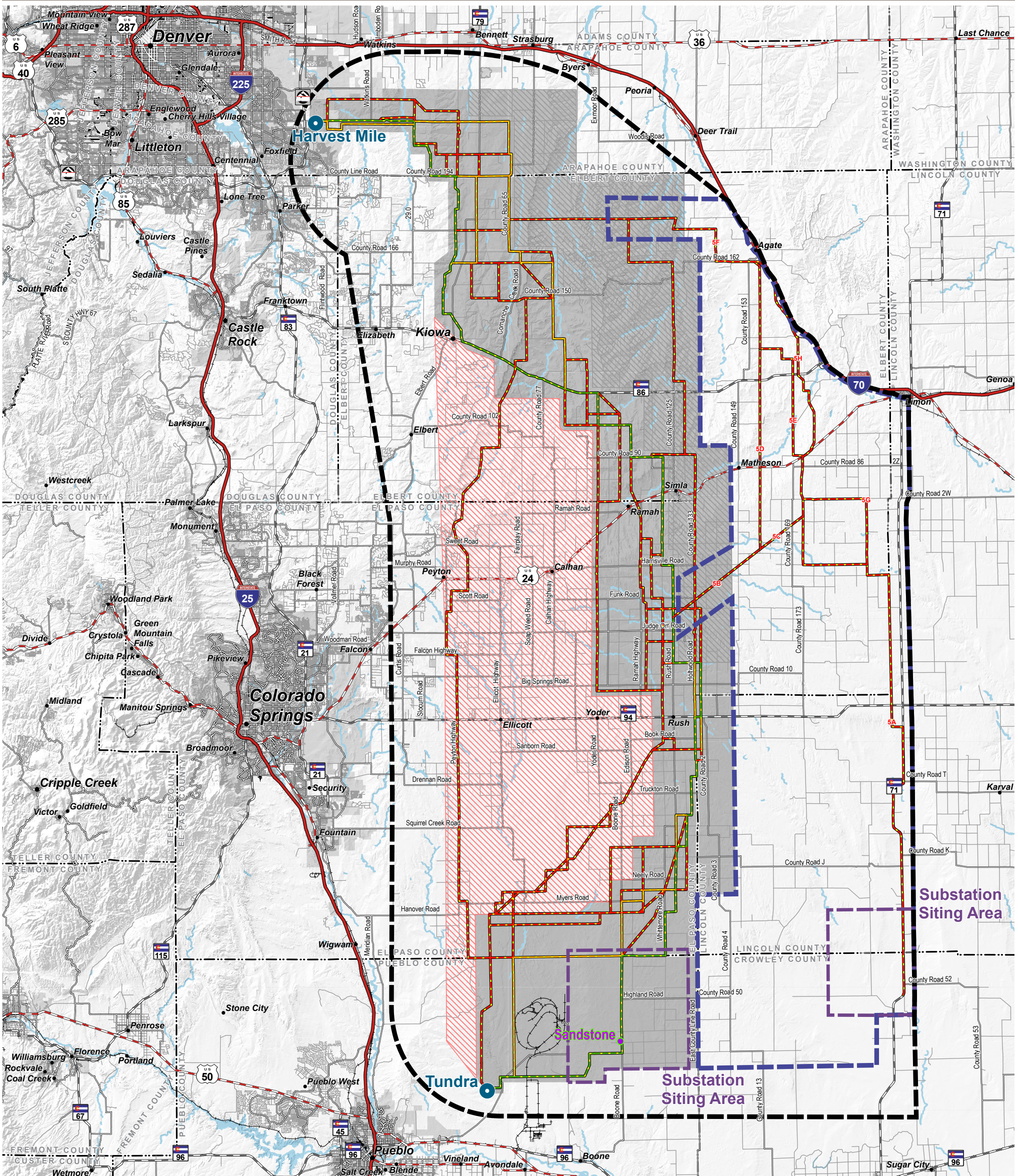


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Path: P:\1163_0025_CO_Power_Pathway\GIS\Layouts\Segment_5\Routing_Study\StudyArea_PrelimLinks_SummerERA_REVISED_2022.mxd

Figure 9: Segment 5 Eastern Review Area Revised Potential Additional Route Options

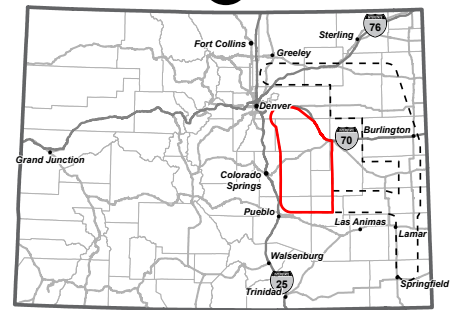
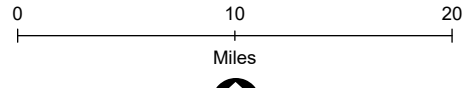
COLORADO'S POWER PATHWAY



- Legend**
- Existing Substation
 - Proposed Substation Location
 - All Inclusive Study Area
 - Summer 2022 Focus Area
 - New 345kV Substation Siting Area
 - Area Undergoing Evaluation
 - Area Removed from Further Evaluation
 - Eastern Review Area
 - Preferred Transmission Link
 - Alternative Transmission Link
 - Eliminated Transmission Link

- Transportation**
(CDOT 2021, BTS 2020)
- Interstate
 - U.S. Highway
 - State Highway
 - Local Road
 - Railroad

- Hydrology**
(NHD 2020)
- Waterbody
- Boundary**
(CDOT 2021, DOLA 2021)
- Municipal Boundary
 - County



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Path: Z:\Projects\IDEN\1163_0025_CO_Power_Pathway\GIS\Layouts\Segment_5\Routing_Study\Routing_Study.aprx

Figure 10: Segment 5 Preferred Route