



# **COLORADO'S POWER PATHWAY**

**MORGAN COUNTY 1041  
REGULATIONS**

**SITE SELECTION AND CONSTRUCTION  
OF MAJOR FACILITIES OF A PUBLIC  
UTILITY**

**PERMIT APPLICATION**

**JUNE 2022**

## COLORADO'S POWER PATHWAY

**Colorado's Power Pathway**

**Morgan County 1041 Regulations – Permit Application – Submittal Requirements**

<b>Information</b>	<b>Location in this Permit Application</b>	<b>Morgan County Guidelines and Regulations for Areas and Activities of State Interest Code Citation</b>
1) 1041 Application Form	Behind Cover Letter	3-304(2)(a)
2) Project Narrative <ul style="list-style-type: none"> <li>a) Project Description</li> <li>b) Present Use and Zoning</li> <li>c) Type of Facility</li> <li>d) Proposed Development Schedule</li> <li>e) Hazard and Emergency Procedures</li> <li>f) Impacts and Mitigation</li> <li>g) Alternatives Analysis</li> <li>h) Additional Information for Transmission Projects</li> <li>i) Compliance with Criteria for Approval</li> </ul>	Sections 1 and 3 Section 4 Section 6 Section 7  Section 8  Section 12 and Attachment A Section 11 Section 13  Section 14	3-304(2)(b), 3-305(3)(a; c) 3-304(2)(c) 3-304(2)(e) 3-304(2)(f)  3-304(2)(g)  3-305(2)(e-h; k; n-o), 3-305(3)(b)  3-305(2)(i-j; l) 3-305(3)(f)  3-306
3) Vicinity Map and Plans	Sections 5 and 10 and Attachments A and C	3-304(2)(d), 3-305(2)(a; c)
4) Title Information <ul style="list-style-type: none"> <li>a) Property Owners</li> <li>b) Right of Way Agreements</li> <li>c) Mineral Rights Information</li> </ul>	Section 9, Attachment D, and Request for Waiver Behind Cover Letter	3-305(2)(b)
5) Development Agreement	Section 9.5	3-305(2)(m)
6) Other Information	None identified during Pre-Application Conference	3-305(2)(d; p)
7) Application Fees	Submitted with application	

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## ATTACHMENTS

Attachment A: Routing and Siting Studies for Segments 1 and 2
Attachment B: Vicinity Maps, Sheet Maps, Zoning Map, and Parcel Maps for Special District Information
Attachment C: Plans, Representative Photographs, and Simulations
Attachment D: Landowner List (Including Special District Information), Mineral Ownership, and Certification Letter
Attachment E: EMF Study for Pathway

**LIST OF ACRONYMS AND ABBREVIATIONS**

1041	Areas and Activities of State Interest Permit
APEN	Air Pollutant Emissions Notice
APLIC	Avian Power Line Interaction Committee
Application	1041 Permit Application
BMP	Best Management Practice
CCR	Code of Colorado Regulations
CDPHE	Colorado Department of Public Health and Environment
CFR	Code of Federal Regulations
Compass	Colorado Cultural Resource Online Database
CPCN	Certificate of Public Convenience and Necessity
CPUC	Colorado Public Utilities Commission
CRS	Colorado Revised Statutes
CWA	Clean Water Act
EMF	Electric and Magnetic Fields
FAA	Federal Aviation Administration
IEEE	Institute of Electrical and Electronics Engineers
IPaC	USFWS Information for Planning and Consultation
kV	Kilovolt
LEPC	Lesser Prairie-Chicken
mG	Milligauss
Morgan County §1041 Regulations	Morgan County's Guidelines and Regulations for Areas and Activities of State Interest
NESC	National Electric Safety Code
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
Pathway	Colorado's Power Pathway
PLJV	Playa Lakes Joint Venture
PTC	Federal Production Tax Credit
ROW	Right-of-Way

SWMP	Stormwater Management Plan
TCA	Temporary Construction Area
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WOTUS	Waters of the U.S.
Xcel Energy	Public Service Company of Colorado, a Colorado corporation doing business as Xcel Energy

## 1 INTRODUCTION

Public Service Company of Colorado, a Colorado corporation doing business as Xcel Energy (Xcel Energy), proposes to construct, maintain, and operate Colorado's Power Pathway (Pathway) in eastern Colorado. Xcel Energy is submitting this 1041 permit application (Application) for a permit to locate and construct major facilities of a public utility (1041 permit) pursuant to the Morgan County §1041 Regulations (Morgan County 2021).

The Application addresses each section in the Morgan County §1041 Regulations, as noted in the headings and tables throughout the Application. Like information is grouped throughout the Application. As a result, the Application does not follow the exact subsection order in the Morgan County §1041 Regulations.

Pathway is a \$1.7 to \$2 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:

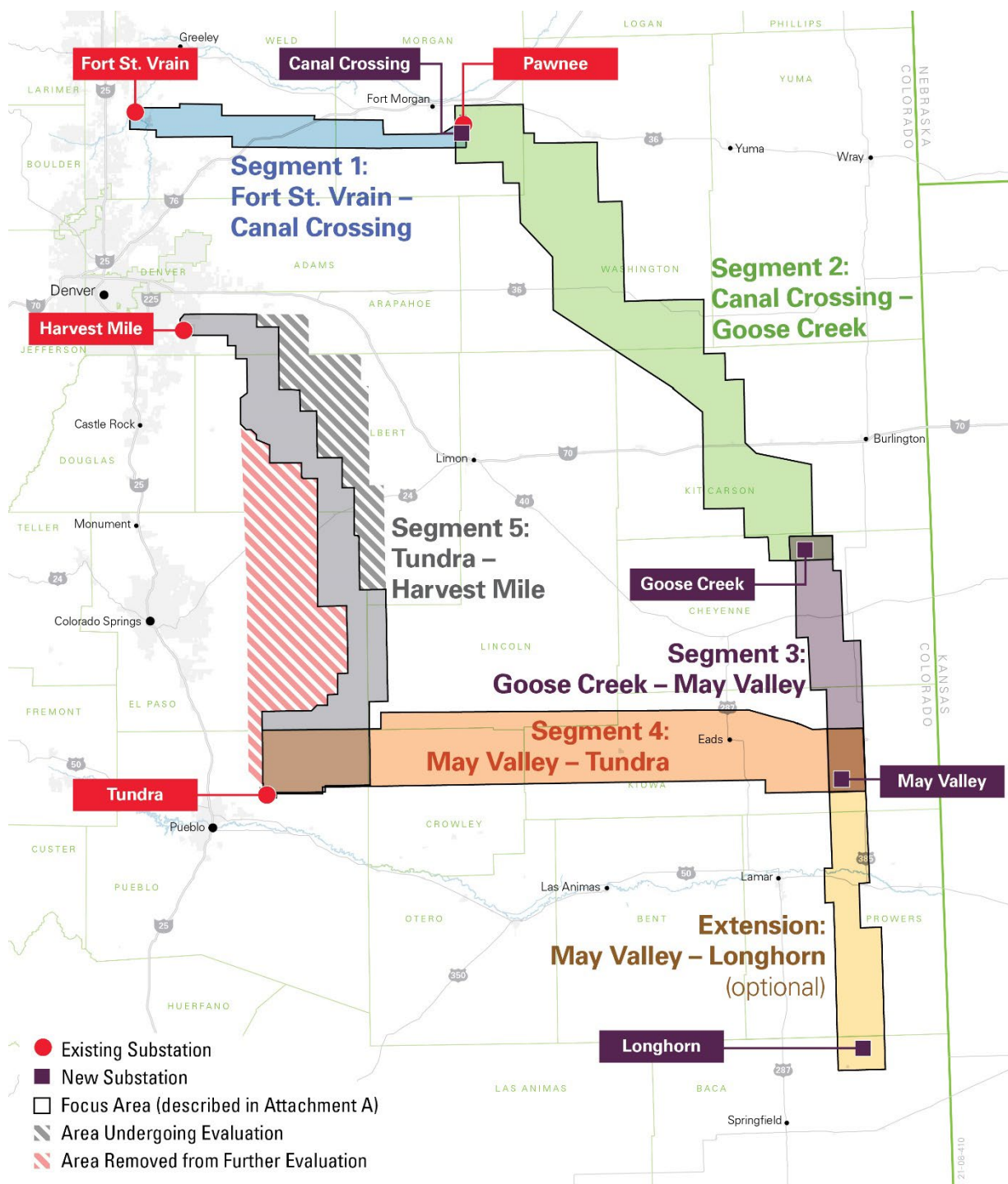
- Installation of approximately 560 to 650 miles of new 345-kilovolt (kV) double-circuit transmission line in 13 to 14 counties (depending on final route selection);
- Construction of four new electric substations (Canal Crossing, Goose Creek, May Valley, and Longhorn); and
- Expansion, equipment additions, or equipment upgrades at four existing electric substations (Fort St. Vrain, Pawnee, Harvest Mile, and Tundra).

Pathway will be constructed in five segments, with an optional sixth segment (Figure 1), with each new or expanded electric substation serving as endpoints for the transmission line segments:

- Fort St. Vrain – Canal Crossing (Segment 1)
- Canal Crossing – Goose Creek (Segment 2)
- Goose Creek – May Valley (Segment 3)
- May Valley – Tundra (Segment 4)
- Tundra – Harvest Mile (Segment 5)
- May Valley – Longhorn (Extension)

A fifth new substation (Sandstone Substation) may be constructed near the western end of Segment 4 and southern end of Segment 5 if an additional substation is determined to be necessary in this area to provide a location for future generation interconnections.

A decision regarding the need for this substation will likely be made in early 2023. The estimated length of each transmission line segment and location of each substation is outlined in Table 1.



**Figure 1: Colorado's Power Pathway**

**Table 1: Colorado's Power Pathway by County**

County	Segment (Estimated Miles of Transmission)							Substation
	1	2	3	4	5*	Ext.	Total	
Baca	-	-	-	-	-	2	2	New Longhorn
Cheyenne	-	9	36	-	-	-	45	New Goose Creek
Crowley	-	-	-	41	-	-	41	
Kiowa	-	-	22	64	-	6	92	New May Valley
Kit Carson	-	62	-	-	-	-	62	-
Lincoln	-	-	-	-	TBD	-	TBD	
Morgan	27	21	-	-	-	-	48	New Canal Crossing, Existing Pawnee equipment additions
Prowers	-	-	-	-	-	51	51	-
Washington	-	53	-	-	-	-	53	-
Weld	44	-	-	-	-	-	44	Fort St. Vrain Expansion
El Paso	-	-	-	-	TBD	-	TBD	-
Elbert	-	-	-	-	TBD	-	TBD	-
Arapahoe	-	-	-	-	TBD	-	TBD	Harvest Mile Expansion
Pueblo	-	-	-	23	TBD	-	TBD	Tundra Expansion
Total	71	145	58	128	TBD	59		

\* Transmission line routing in Segment 5 is still underway and estimated mileages are therefore noted to be determined (TBD).

Pathway facilities proposed in unincorporated Morgan County include 48 miles of new 345-kV double-circuit electric transmission line and a new electric substation (Canal Crossing Substation). Pathway will be constructed in segments, with portions of Segments 1 and 2 proposed to be located in Morgan County (27 miles of Segment 1 and 21 miles of Segment 2).

The following addresses the information that applies to Pathway from Section 3-305(3)(a) of the Morgan County §1041 Regulations. Note that Pathway is a backbone transmission system that serves Colorado; as such, this Application does not address project-specific details that apply for developments or direct utility service projects.

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 these new generation resources into the state's interconnected grid system, which 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 percent reduction in carbon dioxide emissions by 2030 and add approximately 5,000 megawatts of new wind, solar, and other resources. Pathway will

help to meet the state's growing electricity needs, improve safety, reliability, and affordability, and enable the transition to clean energy. Pathway will allow developers of energy generation projects to interconnect energy resources located in the areas of the state that are underserved by backbone transmission lines and allow Xcel Energy to deliver energy to electric customers.

Transmission line Segment 2 and Segment 3 and associated new substations and substation expansions or equipment additions will be completed in 2025, assuming required approvals 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 2025. Taking advantage of the PTC will lower the cost of installing new renewable generation facilities, thereby benefitting 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 Colorado Public Utilities Commission (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. 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 through easement negotiations with landowners and the land use approval process in the applicable jurisdictions where the Pathway facilities would be located.

## **1.1 ESTIMATED PATHWAY SCHEDULE**

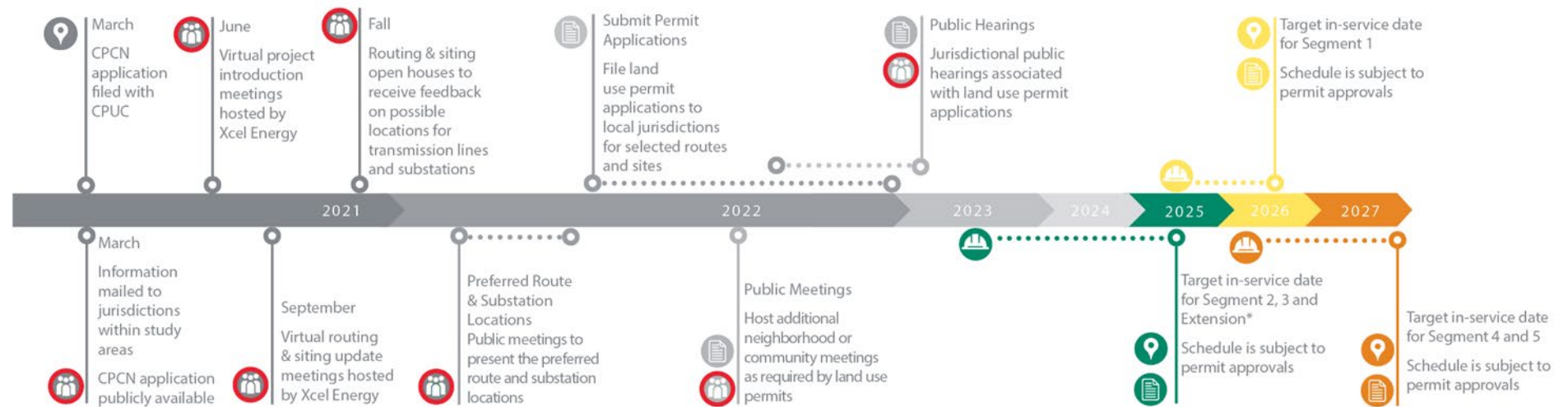
The estimated approval, construction, and in-service schedule for Pathway facilities is shown in Figure 2. Many variables factor into the schedule for projects of this magnitude. The construction schedule is contingent on acquiring all necessary land rights and permits.

Pathway will be constructed and brought in-service in phases. The estimated construction timeline for each segment and related substation, and anticipated in-service dates are shown in Figure 2 and Table 2.

**Table 2: Estimated Individual Segment and Substation Construction and In-Service Dates**

<b>Segment &amp; Substation</b>	<b>Construction</b>	<b>In-Service Year</b>
Segment 1 & Fort St. Vrain Substation expansion & Pawnee Substation equipment additions	Spring 2024–Spring 2026	Spring 2026
Segment 2 & New Canal Crossing & Goose Creek Substations	Summer 2023–Spring 2025	Spring 2025
Segment 3 & New May Valley Substation	Summer 2023–Spring 2025	Spring 2025
Segment 4 & Tundra Substation expansion	Spring 2025–Spring 2027	Spring 2027
Segment 5 & Harvest Mile Substation expansion	Spring 2025–Spring 2027	Spring 2027
Extension & New Longhorn Substation	To be determined	To be determined

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\* Extension in-service date will be determined after the Request for Proposal process.

**Figure 2: Estimated Pathway Schedule**

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## **1.2 PATHWAY ACTIVITIES PRIOR TO SUBMITTAL OF APPLICATION**

### **1.2.a Public Outreach**

Public outreach efforts were conducted to receive public and stakeholder feedback and input on transmission line route and substation site selection (see Transmission Line Routing & Substation Siting Studies section).

- In June 2021, three virtual introductory meetings were held for the public to discuss Pathway's benefits to communities and the process to be used to identify the locations of the proposed transmission lines and new substations. These meetings were held virtually due to restrictions on large gatherings due to COVID-19.
- In June through September 2021, Pathway representatives met with jurisdictions within Pathway's Study Areas to discuss Pathway and receive feedback. Pathway representatives met with Morgan County representatives on June 11, 2021.
- In September 2021, two virtual routing and siting meetings were held for the public to learn about the progress made on Pathway, including the development of focus areas for identification of transmission line links and substation sites. These meetings were held virtually due to restrictions on large gatherings due to COVID-19.
- In October and November 2021, 15 in-person public open houses were held to gather public feedback on the preliminary transmission links. A public open house was held in Fort Morgan on October 2, 2021.
- In January through March 2022, 15 in-person open houses were held to present the preferred route for Segments 1, 2, 3, 4, and the Extension and to present additional preliminary transmission links for Segment 5. A public open house was held in Fort Morgan on January 25, 2022.
- In May 2022, four in-person open houses were held to gather additional public feedback on the preliminary transmission links and preferred route for Segment 5.

### **1.2.b Transmission Line Routing & Substation Siting Studies**

Routing a new transmission line and siting a substation require a comprehensive review and analysis of factors and criteria including, but not limited to, electric system planning, engineering, environmental and cultural resources, land use, regulatory requirements, land rights, stakeholder input, and public and worker safety. As shown in Figure 3, 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 locations for new substation sites. The process is described in detail in the routing and siting studies for each segment of Pathway. The Routing and Siting Studies for Segments 1 and 2 are attached to this Application as Attachment A. The other routing and siting studies are not provided because they do not involve transmission lines or substations within Morgan County.

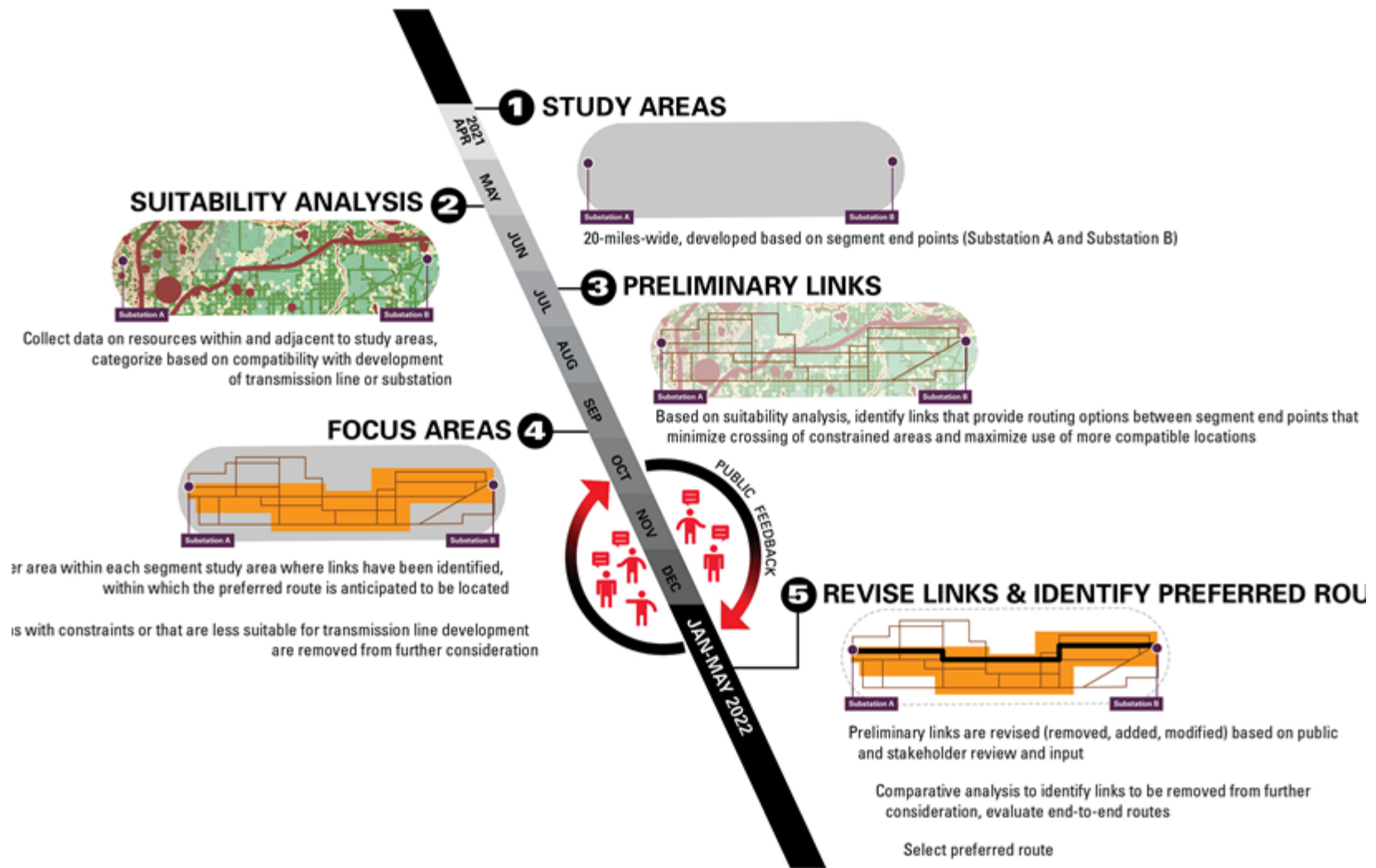


Figure 3: Pathway Routing and Siting Study Process

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### **1.3 REGULATORY FRAMEWORK**

Federal, state, and local permits and approvals may be required prior to Pathway construction. Outreach was conducted with each jurisdiction crossed by Pathway to solicit feedback and discuss potential permits that may be required.

Multiple Colorado statutory provisions and local government land use plans and controls apply to Pathway, including approval of a CPCN from the CPUC; notice, consultation, and permit approvals from counties and municipalities, and notice to owners of a mineral estate associated with the substation sites.

All necessary land use, environmental, and construction permits, approvals and authorizations will be obtained prior to the start of and during construction as required and may include but are not limited to major land use permits, right-of-way (ROW) permits, road use agreements, access permits, oversize/overweight permits, grading permits, and stormwater permits.

Xcel Energy anticipates avoiding impacts to jurisdictional waters of the U.S. (WOTUS) in Morgan County and therefore does not anticipate that Pathway facilities in the county will require a Nationwide Permit 57 or other U.S. Army Corps of Engineers permitting under the Federal Clean Water Act, Section 404.

Some Pathway facilities in southeastern Colorado counties may be located near areas of mapped lesser prairie-chicken (LEPC) habitat. The U.S. Fish and Wildlife Service (USFWS) is proposing to list the LEPC as threatened in the Northern Distinct Population area, which includes southeast Colorado, under the Endangered Species Act. Pathway representatives will continue to coordinate with USFWS and Colorado Parks and Wildlife to determine whether additional evaluation or permitting under the Endangered Species Act is required if the LEPC is listed as threatened.

The regulatory requirements identified by Xcel Energy are described in Table 3. Table 3 is intended as an illustrative list of the permits and approvals that may be required for Pathway, but other permits or approvals may be required.

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**Table 3: Land Use Permit Requirements and Applicability to Pathway**

<b>Jurisdiction</b>	<b>Pathway Components</b>	<b>Title</b>	<b>Trigger</b>	<b>Statutory Reference</b>	<b>Status</b>
Federal Aviation Administration (FAA)	Structures occurring in Navigable Airspace	FAA Form 7460-1, Notice of Proposed Construction or Alteration	Objects affecting navigable airspace	Title 14 Code of Federal Regulations (CFR) Part 77	To be submitted following final design
CPUC	All	CPCN	Need for new electrical facility in Colorado	Colorado Revised Statutes (CRS) 40-5-101, CRS et seq., and Rule 1303 4 Code of Colorado Regulations (CCR) 723-1 and Rules 3002, 3102, and 3206, 4 CCR 723-3	Proceeding No. 21A-0096E, Approved June 2, 2022
	All	Notification of Intention to Submit Permit Application for Major Electrical Facilities	Filing permit application for location, construction, or improvement of major electrical or natural gas facilities	CRS 29-20-108	In addition to other notifications, Xcel Energy met with Morgan County on June 11, 2021, and April 6, 2022, about Pathway.

<b>Jurisdiction</b>	<b>Pathway Components</b>	<b>Title</b>	<b>Trigger</b>	<b>Statutory Reference</b>	<b>Status</b>
	All	Government and State Notice Requirements, Mineral Owners	Public hearing by a local government on an application for development	CRS 24-65.5-103	In accordance with the statute CRS 24-65.5-103, the applicant will provide notice to the mineral owners associated with Canal Crossing Substation prior to the Morgan County hearing. Mineral owners may choose to waive their right to receive the notice not less than 30 days before the hearing and may also waive their right to a separate hearing regarding notification.
Colorado Department of Public Health and Environment (CDPHE)	All	Construction General Stormwater Permit and Stormwater Management Plan (SWMP)	Construction sites that disturb one acre or greater	5 CCR 1002-61	To be obtained prior to construction
	All	Land Development Air Pollution Emissions Notice (APEN)	Construction disturbance greater than 5 acres or duration longer than 6 months	5 CCR 1001-14	To be obtained prior to construction

<b>Jurisdiction</b>	<b>Pathway Components</b>	<b>Title</b>	<b>Trigger</b>	<b>Statutory Reference</b>	<b>Status</b>
Colorado Department of Transportation	Components crossing state and federal roadways	Access and Crossing Permits	Crossings of state roadway	2 CCR 601-1	To be obtained prior to construction
Colorado State Historic Preservation Office	To be determined following final design and pre-construction surveys	Determination of Compliance with Historical, Prehistorical, and Archaeological Resources	Potential impacts to historic, prehistoric and/or archaeological resource	CRS 24-80-401-411, CRS 24-80-1301-1305, 8 CCR 1504-7	To be obtained prior to construction. Pathway is currently in coordinating with SHPO on any applicable requirements.
<b>Concurrent County Land Use Permits</b>					
Morgan County	Segment 1, 2 Canal Creek Substation, equipment additions at Pawnee Substation	1041 Permit	Proposed development of an activity of state interest (major facility of a public utility) in Morgan County	Guidelines and Regulations for Areas and Activities of State Interest	Submitted Summer 2022
Kit Carson County	Segment 2	Land Use Change Permit	Any proposed change in land use in unincorporated Kit Carson County	Kit Carson County Code, Article 2	Submitted Summer 2022
Washington County	Segment 2	Use by Special Review and 1041 Permit	Proposed development of transmission line in Washington County	Application for Use by Special Review, Washington County	Submitted Summer 2022

<b>Jurisdiction</b>	<b>Pathway Components</b>	<b>Title</b>	<b>Trigger</b>	<b>Statutory Reference</b>	<b>Status</b>
Cheyenne County	Segment 2, 3 Goose Creek Substation	Conditional Use Permit and 1041 Permit	Proposed development of a conditional use in Cheyenne County	Cheyenne County Comprehensive Plan and Zoning Ordinance	Submitted Summer 2022
Kiowa County	Segments 3, 4, and Extension New May Valley Substation	1041 Permit	Proposed development of an activity of state interest (major facility of a public utility) in Kiowa County	Guidelines and Regulations for Areas and Activities of State Interest County of Kiowa	To be submitted Summer 2022
<b>Additional County and City Land Use Permits to be Filed at a Later Date</b>					
Arapahoe County	Segment 5 Harvest Mile Substation Expansion	1041 Permit	Proposed development of an activity of state interest (major facility of a public utility) in Arapahoe County	Regulations Governing Areas and Activities of State Interest in Arapahoe County	Anticipated submittal Fall 2022
Baca County	Extension New Longhorn Substation	Not Applicable	Not Applicable	Per letter dated February 28, 2019, Baca County Board of Commissioners confirm Baca County does not require land use permits (Baca County, 2022).	Not Applicable

<b>Jurisdiction</b>	<b>Pathway Components</b>	<b>Title</b>	<b>Trigger</b>	<b>Statutory Reference</b>	<b>Status</b>
Crowley County	Segment 4	Use by Special Review	Development of public utility and public service structures, including transmission lines in Crowley County	Crowley County Planning and Zoning Manual, Section 2	Anticipated submittal Fall 2022
El Paso County	Segment 5	1041 Permit	Proposed development of an activity of state interest (major facility of a public utility) in El Paso County	El Paso County Land Development Code; Attachment B: Guidelines and Regulations for Areas and Activities of State Interest	Anticipated submittal Fall 2022
Elbert County	Segment 5	1041 Permit	Proposed development of an activity of state interest (major facility of a public utility) in Elbert County	Guidelines and Regulations for Areas and Activities of State Interest Elbert County	Anticipated submittal Fall 2022
Town of Platteville	Segment 1	Not applicable	Town confirmed only Colorado Department of Transportation permit required	Platteville Municipal Code, Chapters 15-18	Not applicable

<b>Jurisdiction</b>	<b>Pathway Components</b>	<b>Title</b>	<b>Trigger</b>	<b>Statutory Reference</b>	<b>Status</b>
Pueblo County	Segment 4, 5, Tundra Substation	1041 Permit	Proposed development of an activity of state interest (major facility of a public utility) in Pueblo County	Pueblo County Code, Title 17, Division 2: Areas and Activities of State and Local Interest	Anticipated submittal Fall 2022
Weld County	Segment 1 Fort St. Vrain Expansion	1041 Permit	Proposed development of an activity of state interest (major facility of a public utility) and change to an existing approved Use by Special Review permit in Weld County	Weld County Charter and County Code Chapter 21 Areas and Activities of State Interest, and Minor Amendment to a Use by Special Review Procedural Guide	Anticipated submittal Fall 2022
City of Aurora	Segment 5	Conditional Use Permit	Proposed development of a conditional use in City of Aurora	Aurora Unified Development Ordinance, Article 146 Zoning and Subdivision Procedures, Section 5 Specific Procedures	Anticipated submittal Fall 2022

## **2 COMPLETED APPLICATION FORM 3-304(2)(a)**

A completed 1041 Permit application form is included in this submittal behind the cover letter. The application fee will be submitted concurrent with this Application.

## **3 DESCRIPTION OF PROPOSED FACILITY AND SITE 3-304(2)(b)**

This Application addresses only the portion of the Pathway transmission line, substation, and other related structures located within Morgan County. Pathway land use permitting is occurring concurrently with Washington, Kit Carson, Cheyenne, and Kiowa counties for the portions of Segment 2 and Segment 3 that occur in those jurisdictions. Coordination is ongoing with additional jurisdictions for other Segments, as listed in Table 3.

This Application package was prepared per the requirements of the Morgan County §1041 Regulations. The Application also was prepared based on direction provided by Morgan County representatives during the Pre-Application Conference held on April 6, 2022. Morgan County representatives confirmed that the materials provided for the Pre-Application Conference served as the Preliminary Application pursuant to Section 3-304 of the §1041 Regulations. In accordance with Section 3-305(3), an impact analysis was requested during the Pre-Application Conference. For completeness and in accordance with Section 3-305(2)(d), this Application addresses the requirements in both Sections 3-304 and 3-305 of the §1041 Regulations. Consistent with Section 2-201(3), this Application addresses all activities of state interest in Morgan County associated with Pathway, and the Morgan County Board of County Commissioners will review the Application in one consolidated hearing.

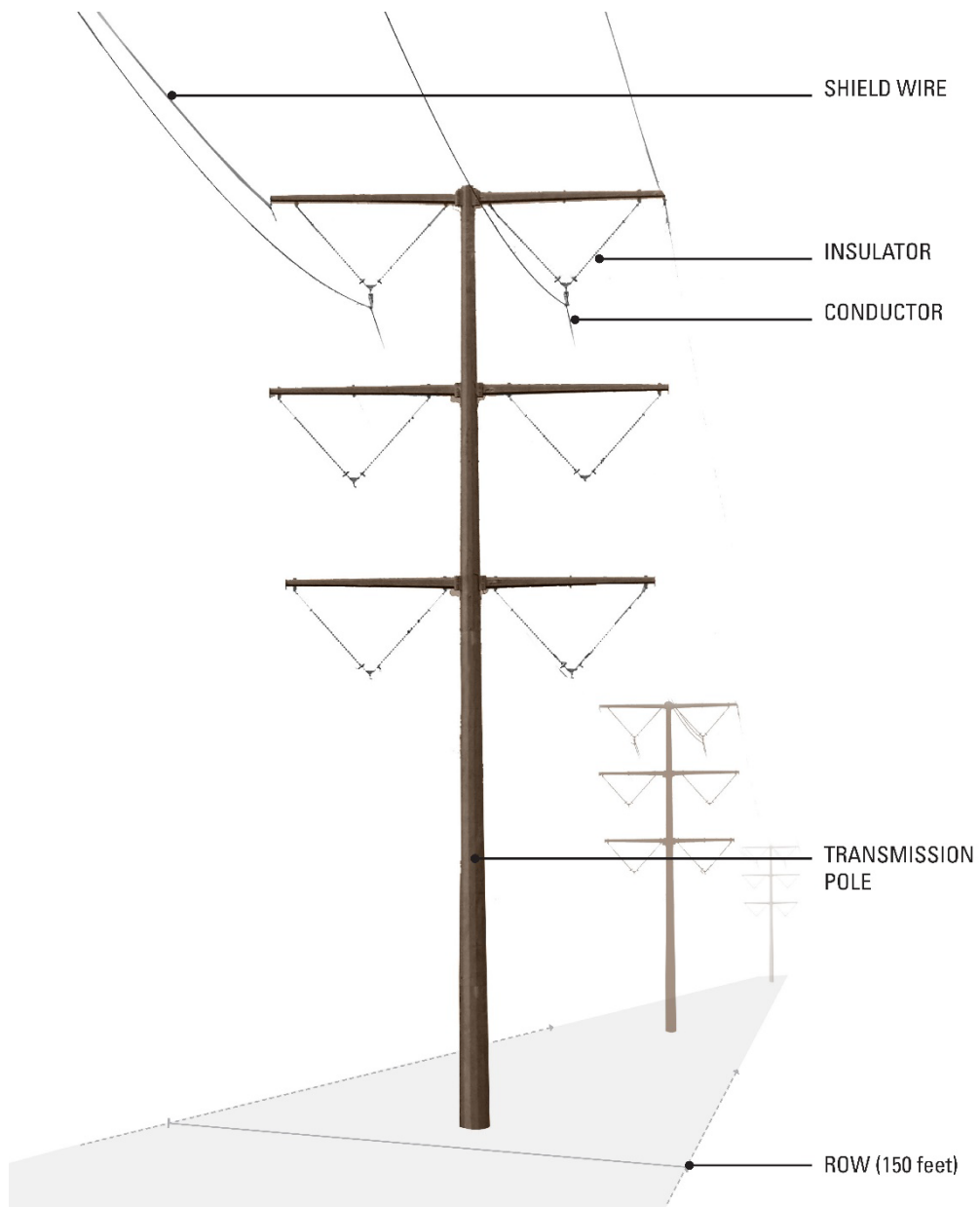
Pathway facilities proposed in Morgan County include 48 miles of 345-kV double-circuit transmission line in Segments 1 and 2 and the proposed new Canal Crossing Substation (Attachment B). Minor equipment additions within the fence line at Pawnee Substation will also be in Morgan County, but is not included for consideration under this Application. The proposed transmission line route in Morgan County is generally located in the area south of Wiggins and Fort Morgan, oriented in a west to east direction. The proposed route is south of Highway 76 and crosses Highway 71 south of Brush as shown on Figure 1. The new Canal Crossing Substation is proposed to be located approximately 5 miles south of the existing Pawnee substation, off of County Road I (Figure 1). The following sections describe the Pathway facilities within Morgan County jurisdiction.

### 3.1 TRANSMISSION LINE

The new 345-kV double circuit transmission line will be constructed using steel poles. A single pole will be used for most transmission pole locations; however, two poles will be required for certain high-loading transmission pole locations such as at angle locations where the line changes direction. Each pole will be placed on a concrete foundation, except for certain poles located in sandy soils in the northern portion of Segment 2; these may be placed using vibratory caissons. Voltage, conductor sag, pole type, terrain, length of span between transmission poles, and minimum clearances of existing buildings influence the necessary height of transmission pole. The transmission poles will be weathering steel and a brown or rust color. The anticipated physical characteristics of a double-circuit structure are summarized in Table 4, and a representative transmission pole with line is shown in Figure 4. Typical pole configuration profiles and representative photo simulations are included in Attachment C.

**Table 4: Typical 345-kV Double Circuit Transmission Line Characteristics**

Characteristic	Anticipated Design
Typical height	105-140 feet (poles will not exceed 190-foot maximum height)
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



**Figure 4: Typical Transmission Pole Configuration (Illustrative)**

Segment 1 enters Morgan County from the west, south of County Road O. After crossing County Road 6, the route diagonals to the southeast. Segment 1 continues east along County Road L and County Road K before reaching the Canal Crossing Substation. Segment 2 begins at the Canal Crossing Substation and continues generally eastward, following County Road I southeast to County Road G. Segment 2 continues east just north of County Road G and begins a “stair step” pattern south of County Road 33, east on County Road D, and south on County Road 36.

Near the Canal Crossing Substation, a portion of the existing 345 kV Pawnee-Missile transmission line will be rerouted to follow the Pathway transmission line ROW. The new Pathway transmission line will take the place of that relocated portion of the Pawnee-Missile transmission line, occupying the existing Pawnee-Missile ROW. This arrangement will reduce complexity at the existing transmission line crossing.

### **3.2 SUBSTATION**

Transmission substations are essential components of the electric transmission grid and are connection points for two or more transmission lines and for generation interconnections with wind, solar, natural gas and other energy sources. Transmission substations include electrical equipment located inside a secured fenced area.

The new Canal Crossing Substation will be constructed on an approximate 80-acre parcel of land owned in fee by Public Service Company of Colorado, located east of the divergence of County Road K and County Road I and approximately 5 miles south of the existing Pawnee Substation. The access drive to the Canal Crossing Substation will extend off of County Road I to the substation access gate. The new substation will be a 345-kV switching station. A switching station is a type of 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. The Canal Crossing Substation is planned to be in-service in 2025.

The substation equipment will be enclosed within a security fence that is 10 feet tall. A typical fence detail is included in Attachment C. The following equipment will be located within the fenced area: circuit breakers, disconnect switches and bus work, capacitor banks, surge arresters, SSVTs, line traps, insulators, steel support structures, foundations, and an electrical equipment enclosure containing control and communication devices. The substation also contains static masts for lightning protection and maintenance areas for access to the equipment. Stormwater detention facilities are typically located inside or adjacent to the substation fenced area and provide detention, water quality treatment, and discharge rate control. A substation General Arrangement drawing is included in Attachment C.

Low voltage auxiliary power (station service) will be derived from the transmission system to operate the control and communication equipment. In the event the primary station service is not available due to an outage or other issue, an automatic switch to a backup source will occur to ensure continuity of substation operations. If available, the preferred backup station service source will be derived from a nearby distribution line and will be installed to support construction and equipment testing prior to placing the new substation in service. In areas outside of Xcel Energy's service territory, coordination with local power providers will be required in order to have the overhead station service line extended from the nearest suitable existing electric line to the new substation site.

### **3.3 TRANSMISSION LINE AND SUBSTATION ACCESS**

Construction access roads will allow construction crews and vehicles to access transmission pole locations and temporary construction areas (TCAs, described below). Traffic controls may be required near TCAs during construction to ensure the safety of crews and the travelling public.

Access to the Canal Crossing Substation will be designed to meet Morgan County design standards and use existing parcel access from County Road I. Existing access will be upgraded to accommodate vehicles as needed.

Where practicable, existing public roads and private roads will be utilized during Pathway construction, maintenance, and operation. Some private roads may require improvements and some new access roads will need to be constructed to accommodate construction equipment and long-term maintenance of the transmission line.

Where road improvements are needed, Xcel Energy will acquire any necessary grading, stormwater, and erosion control permits and comply with permit requirements. Xcel Energy will acquire access easements where necessary access routes traverse private property. Some access routes may remain post-construction to maintain access to transmission lines for operation and maintenance activities.

### **3.4 TEMPORARY CONSTRUCTION AREAS**

TCAs will be used during construction to stage construction equipment and materials including construction trailers, cranes, and transmission poles. Some TCAs may require grading to level out the area for equipment placement and materials storage. TCAs are also necessary when stringing the conductor wire. Permits will be obtained for TCAs, as required. At the end of each construction phase, all equipment will be removed from the TCAs for that construction phase. Some proposed improvements at the TCAs will be

permanent, and remaining areas will be restored in a manner generally similar to preconstruction conditions.

In Morgan County, Xcel Energy has an existing TCA used for another project that will be used for Pathway construction. Xcel Energy will renew their agreement with the landowner and apply for Temporary Use Permit renewal from Morgan County. In addition, a TCA will be located adjacent to the proposed Canal Crossing Substation.

Additional and final TCA locations will be identified once construction plans are finalized and permitted at that time. Additional details about TCAs are discussed in the following sections. The TCAs will be an approved accessory use for the Pathway transmission lines and substation in Morgan County under this Application including use of the TCAs as a concrete batch plant. Final TCA locations identified by Xcel Energy will be reviewed and administratively approved by County staff.

#### **3.4.a Staging/Laydown Areas**

Staging and laydown areas are expected to be located within the TCAs and will be used for equipment delivery, storage, and assembly. Additional areas used for transmission pole laydown and staging may be required for construction.

#### **3.4.b Helicopter Fly Yards**

Transmission poles may be installed using either cranes or a helicopter. Some TCAs also may be used as helicopter fly yards in those areas where helicopter assistance is required for transmission pole installation. Transmission poles may be assembled in the fly yards and transported by helicopter to the location where each pole will be installed.

#### **3.4.c Conductor Stringing Areas**

TCAs will be used for stringing the conductor wire. The locations and use of TCAs for this function are required at specific angles to ensure the conductor wire is pulled in line with the transmission poles, thereby limiting the strain on the poles. In addition, temporary TCAs may be used adjacent to public roadways for temporary guarding/protecting of the roadway during stringing of the new transmission line. Typically, these temporary guard sites will be restored following construction, as described above.

### **3.5 AREAS FOR OTHER CONSTRUCTION ACTIVITIES**

Construction contractors may utilize temporary concrete batch plants during construction to produce concrete needed for transmission pole and substation foundations. A concrete batch plant consists of the various equipment and materials needed to make concrete. Concrete batch plant equipment typically includes mixers,

batchers, conveyors, stackers, bins, heaters, chillers, silos, controls, and dust collectors. Concrete batch plants can be either stationary or mobile. The numbers, locations, and types of concrete batch plants will be determined by the construction contractor and will be a permitted accessory use pursuant to the 1041 Permit that will be reviewed and approved administratively by County staff as described above, subject to local operational requirements prior to construction. The construction contractor will obtain and meet the requirements related to a Concrete Batch Plan APEN with CDPHE.

Construction contractors also will use TCAs to store water trucks, traffic control items, and best management practice (BMP) materials. Water will be used in concrete production, dust suppression, and compaction activities. Traffic control will be implemented where required for the safety of the crews and the traveling public. BMPs will be installed to meet stormwater, grading, and erosion control requirements. Construction contractors will work with the appropriate jurisdictions to obtain and follow all related construction permits.

## **3.6 CONSTRUCTION PROCESS**

### **3.6.a Construction Phases**

Construction of the transmission line and substation is expected to occur in phases that generally include the following: construction access and vegetation clearing, installation of BMPs, equipment mobilization and material delivery, foundation construction, transmission pole placement and installation, conductor wire stringing and electrical equipment installation, and land restoration.

Construction access road improvements, grading, and setup of TCAs, along with vegetation work, will be conducted prior to construction of the transmission line and substation. Proposed access roads will allow construction crews and vehicles to access transmission pole locations, TCAs, and the substation area.

Vegetation management within the ROW and substation site will be required prior to, or in conjunction with, construction. Trees and tall vegetation growing within or near the Pathway ROW can cause downed lines, power outages and wildfire. Vegetation management crews will work to prevent these situations from occurring. Vegetation management involves the use of various types of treatment including removing, pruning, and mowing vegetation and the treatment of vegetation with herbicides to ensure safe operations. The extent of this work will vary along the transmission line and substation area depending on level of vegetation encroachment and additional ROW needs.

### ***3.6.a.1 Transmission Line Construction***

Once the pre-construction preparation work has been completed, work on the transmission lines and work within the substation will begin. The new transmission pole foundations will consist of concrete reinforced with steel that can range in diameter and depth based upon the subsurface conditions. Construction crews will begin drilling for transmission pole foundations. Reinforced concrete drilled pier foundations typically range from 6 to 9 feet in diameter and are drilled 20 to 40 feet deep. Once construction crews have drilled the hole for the new transmission pole, the foundation is installed, and the hole is backfilled. Substation foundations are installed in a similar manner which includes excavation followed by pouring the concrete.

Transmission poles will be placed using either cranes or a helicopter. Helicopter installation will be used in areas with steep terrain or poor surface access and involves assembling the transmission poles in the material staging area then transporting the transmission poles by helicopter to installation locations to be lowered into place. Helicopter installation enables access to areas that are difficult for construction vehicles to traverse, minimizes construction impacts such as erosion, and expedites construction. This type of installation improves construction efficiency and helps protect the environment in areas of steep terrain or limited accessibility. Due to the nature of helicopter installation and FAA safety requirements, residences located near the transmission poles will be required to evacuate during helicopter installation. Xcel Energy and the construction contractor will coordinate with the FAA during helicopter operations and obtain all required permits. Xcel Energy and the construction contractor will provide residents with prior notice if evacuation is required.

The remaining transmission poles will be installed using the traditional crane-installation method. Conventional crane installation will involve first hauling the pole pieces to the location and then assembling the transmission poles at the installation locations and setting them with the crane. Once assembled, transmission poles will be transported by truck to installation locations and cranes will lift the poles into place.

Once all the transmission poles are in place, the conductor wire and optical ground wire are strung using a temporary pulley system attached to the insulators. Conductor is pulled from one transmission pole to the next through a pulley system temporarily placed on the transmission pole. After a section of conductor is pulled through a series of transmission poles, the conductor is attached to insulators, which are attached to the transmission pole and the pulleys are removed. Trucks, heavy equipment, and sometimes helicopters are used in this process. Other equipment including bird diverters, spacers, and galloping devices are also installed as needed. TCAs will be located at specific angles to ensure the conductor wire is pulled in line with the transmission poles, remaining in alignment.

### **3.6.a.2 Substation Construction**

Following substation grading and foundation installation, steel equipment support structures will be erected onsite. Electrical equipment (circuit breakers, bus work, capacitor banks, surge arresters, SSVTs, line traps, insulators, and an electrical equipment enclosure containing control and communication devices) will be installed after the foundations and support structures are in place. Equipment testing and placing in service occurs after construction is complete. In some cases, substations may be constructed in phases. An initial phase may be followed by the addition of more equipment in phases as system needs require until the ultimate buildout is complete.

Once construction has been completed for each Pathway segment, all temporary work areas and the transmission line ROW will be restored in a manner generally similar to their condition prior to construction and as may be provided for in private agreements. This work may include drain tile and fence repair, rut removal, decompaction, tilling, seeding and stabilization measures. All areas not needed for on-going operations and maintenance and not being used for crop production will be reclaimed and/or reseeded as soon as practicable and in coordination with the landowner following construction in a given area. Similarly, restoration of temporary work areas at the substation site will be completed after construction and final grading is complete. If any loss or damage occurred to crops or other non-restorable property during construction, Xcel Energy will compensate the landowner for such loss or damages. ROW agents will meet with landowners to learn about site-specific circumstances, which may need to be addressed.

### **3.6.b Construction Staffing, Vehicles, and Equipment**

The first workers, vehicles, and equipment to mobilize for Pathway will conduct investigative fieldwork and prepare work areas for construction. Prior to construction and during the Pathway planning and design stages, soil borings are taken to understand the sub-surface conditions where Pathway facilities will be built. Geotechnical borings are taken using bore drill rigs. Vegetation clearing is utilized to meet requirements for conductor clearances, minimize potential ignition sources, and to provide access within the ROW. Tree clearing and other vegetation removal is completed with both manual and mechanized equipment and will take place on the identified access route and the area within the easement. Matting is utilized as needed in wet or soft areas to prevent compaction, minimize soil disturbance and improve site safety.

It is anticipated that one 10-hour shift per day (Monday through Saturday) will be worked during transmission line and substation construction. The maximum number of construction workers on site at any one time at any work area will be approximately 40

for the new transmission line and 30 for the new substation. Transmission line construction is expected to be completed in phases over the duration of the construction schedule for each Pathway segment. Canal Crossing Substation construction is expected to last up to 24 months. Neither the transmission line nor the substation will have any permanent on-site employees. Upon completion, Pathway will be operated and monitored remotely 24 hours a day, 7 days a week, 365 days a year to provide safe and reliable electric service. On average, the substation will be visited one to two times per month for inspections and maintenance. The transmission line will be inspected regularly (at least annually) to look for the following:

- Non-compatible vegetation and hazards within the ROW.
- Equipment needing repair or replacement.
- ROW encroachments, which can be hazardous to safety and reliable operations.
- Anything that might jeopardize safe, reliable operation of the power line.
- Utilities must visit the ROW for these inspections, but visits typically are minimal, and landowners will be contacted prior to on-site inspections or maintenance. However, in cases of emergency, advanced contact may not be possible.

It is anticipated that an average of 15 trucks per day will be utilized during the construction of the transmission line. The impact to local public roads will vary day-by-day as the construction moves along the route. The construction of the substation will involve mostly personal vehicle trips for construction workers of 10 to 12 trips per day.

A crane, drill rig, concrete truck, boom trucks, trailers, transmission poles, steel casing, and rebar cages are equipment and materials that will be moved into the site for construction. The transmission line poles are delivered by truck and assembled at the foundation site and set in place with the use of cranes and other heavy equipment. Trucks, heavy equipment and sometimes helicopters are used to install conductor wire after all transmission poles are erected in an area.

Similar equipment is used for substation construction and includes a crane, drill rig, concrete truck, boom trucks, trailers, support structures, steel casing, and rebar cages. A staging area on or adjacent to the substation site will be designated for truck traffic to deliver materials to the substation; these trips will be approximately once or twice per week. Concrete will be delivered via concrete trucks, and the concrete will be pumped or poured on site. There will be daily concrete truck deliveries made when the foundations and piers are constructed. There will be multiple deliveries of yard rock (up to 100 per day) and cement (up to 20 per day) required daily at certain stages of

construction. To mitigate any potential impacts to local County roads, Traffic Control Plans will be prepared and followed during construction.

#### **4 PRESENT USE AND ZONING 3-304(2)(c)**

Zoning is shown in the related map in Attachment B. Table 5 describes the present use and zoning of Pathway's components in Morgan County.

**Table 5: Summary of Present Use and Zoning**

<b>Pathway Component in Morgan County</b>	<b>Present Use <sup>1</sup></b>	<b>Present Zoning <sup>2</sup></b>
Transmission Line	Grassland Cultivated Crop Pasture	Agriculture (A)
Canal Crossing Substation	Grassland	Agriculture (A)

<sup>1</sup> MRLC (2019)

<sup>2</sup> Morgan County (2022)

#### **5 VICINITY MAP 3-304(2)(d) AND 3-305(2)(a)**

The Vicinity Map showing the proposed Canal Crossing Substation site and transmission line and the surrounding area is included in this submittal as Attachment B. Section 3-304(2)(d) requires details to be shown on the Vicinity Map; Table 6: Vicinity Map Details To Be Shown Per 3-304(2)(d) and 3-305(2)(a) below shows what is provided and what is not applicable. The figures in Attachment B address requirements, as applicable, in Section 3-305(2)(a).

The following information shows the applicant, engineer, surveyor, and consultants contact information to address Section 3-305(2)(a)(iii).

**Applicant:**

Carly Rowe  
Manager, Siting and Land Rights  
Xcel Energy  
1800 Larimer Street, Suite 400  
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303-571-7088

**Engineer:**

Josh Peterson, P.E.  
Principal Transmission Engineer  
Xcel Energy  
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Denver, CO 80202  
303-571-6559

**Surveyors:**

Ty Trammell  
Survey-Director Power Delivery  
Westwood Survey & Engineering  
10170 Church Ranch Way, Ste 201  
Westminster, CO 80021  
806-678-5540

**Consultant:**

Stephanie Phippen  
Permitting and Environmental Lead  
Tetra Tech, Inc.  
350 Indiana Street, Suite 500  
Golden, CO 80401  
303-980-3515

Josh Gonzales  
Project Manager  
LW Survey  
12345 W. Alameda Pkwy, Ste 205  
Lakewood, CO 80202  
720-331-2339

**Table 6: Vicinity Map Details To Be Shown Per 3-304(2)(d) and 3-305(2)(a)**

Required per Morgan County §1041 Regulations	Applicability/Location in this Application
<b>Section 3-304(2)(d)</b>	
(i) If a power plant is proposed, the area within fifty (50) miles from the site;	Not applicable, no power plant proposed.
(ii) If new transmission lines or pipelines are proposed, provide map showing all existing transmission lines and pipelines for a distance of two miles beyond any reasonable alternative studied.	Applicable for existing transmission lines, shown on Attachment A and B.
(iii) For upgrades of existing transmission lines or gas pipelines, provide a map showing all existing transmission lines and pipelines within one mile on either side of the proposed alignment.	Not applicable because Pathway is not upgrading an existing transmission line. However, existing transmission lines are depicted on Attachments A and C.
(iv) For all other major facilities of a public utility, the area within ten (10) miles of the site if another major facility is proposed.	Applicable for Canal Crossing Substation, shown on Attachment A and B.
<b>Required per 3-305(2)(a)</b>	
(i) The name of the proposed development or use and total number of acres under consideration.	Name shown on Attachment B maps <ul style="list-style-type: none"> <li>• Approximately 80 acres under consideration for Canal Crossing substation</li> <li>• Approximately 873 acres are under consideration for transmission line ROW in Morgan County (calculated as 150 foot ROW for 48 miles of transmission line)</li> <li>• 953 total acres under consideration in Morgan County</li> </ul>
(ii) Since all maps and plans may be used for public presentation, the map scale and size should be large enough for effective, presentation and should accurately illustrate the application.	Scale and size on Attachment B maps and Attachment C plans

<b>Required per Morgan County §1041 Regulations</b>	<b>Applicability/Location in this Application</b>
<b>Section 3-304(2)(d)</b>	
(iii) Name, address, and telephone number of the applicant, designer: engineer, surveyor, and any other consultants of the applicant.	Provided in Section 5 of this document
(iv) Date of preparation, revision box, written scale, graphic scale, and north arrow for each map.	Provided on Attachment B maps

## 6 TYPE OF FACILITY 3-304(2)(e)

A detailed description of the Pathway facilities planned to be in Morgan County is provided in Section 3. Table 7 below provides a summary of the requested information in Section 3-304(2)(e) of Morgan County §1041 Regulations.

**Table 7: Type of Facility Summary**

<b>Type of Facility Summary 3-304(2)(e)</b>	
3-304(2)(e)(i) Approximate floor space of office building	
Not Applicable, no buildings proposed	
3-304(2)(e)(ii) The voltages and lengths of transmission lines	
Voltage	345-kV, double-circuit
Segment 1	27 miles
Segment 2	21 miles
Morgan County	48 total miles
3-304(2)(e)(iii) Power source and generating capacity.	
Not applicable, no generation proposed	
3-304(2)(e)(iv) The functions and sizes of substations	
Substations are connection points for two or more transmission lines or generation sources that may or may not transform voltages	
Canal Crossing	Operates at a single voltage level and does not have transformers that change or “transform” voltage. Provides a connection to the existing electric grid and future generation tie lines. Not direct load serving.
	345-kV switching station
	80 acres
3-304(2)(e)(v) The diameters and lengths of pipelines	
Not applicable	
3-304(2)(e)(vi) The capacities of the storage tanks and types of petroleum derivative to be stored.	
Not applicable	
3-304(2)(vii) Corridor locations	
Segment 1	Segment 1 enters Morgan County from the west, south of

<b>Type of Facility Summary 3-304(2)(e)</b>	
	County Road O. After crossing County Road 6, diagonals to the southeast. Segment 1 continues east along County Road L and County Road K before reaching the Canal Crossing Substation.
Segment 2	Segment 2 begins east of the Canal Crossing Substation. Segment 2 generally follows County Road I southeast to County Road G. Segment 2 continues east just north of County Road G and begins a “stair step” pattern south of County Road 33, east on County Road D, and south on County Road 36.
<b>3-304(2)(e)(viii) Service area</b>	
Colorado’s Power Pathway will improve the state’s electric grid and enable future renewable energy development by providing backbone transmission capacity and will not directly service load.	
<b>3-304(2)(e) (ix) Resource area (e.g. source of power being generated or transmitted, source of petroleum derivative being transported).</b>	
Pathway does not connect to a specific power source. Facilities in Morgan County are part of the larger Pathway that creates a transmission “loop” to provide additional transmission capacity. Pathway is being routed through some of the best wind and solar resource zones in Colorado. New renewable energy generation is anticipated to be developed in these zones. The location of these new generation resources is currently unknown until Xcel Energy’s Electric Resource Plan process is complete. Generally, new generation resources are expected to interconnect at substations located at segment endpoints.	

## 7 PROPOSED DEVELOPMENT SCHEDULE 3-304(2)(f)

### 7.1 EMPLOYEES AND SHIFTS

Table 8 below addresses 3-304(2)(f)(i), estimate maximum number of employees, number of shifts and employees per shift during the construction, operation, and maintenance phases of the project.

**Table 8: Employees and Shifts per Phase**

<b>Construction Phase</b>	<b>Employees</b>	<b>Shifts</b>	<b>Employees per Shift</b>
Construction	40 employees for transmission line, 30 employees for substation	1 10-hour shift (Monday to Saturday)	Up to 70 employees

Construction Phase	Employees	Shifts	Employees per Shift
Operations	None – the facilities are unstaffed with the exception of remote monitoring	Remotely monitored 24/7/365	None
Maintenance	2-6 employees	1-2 times a month, as needed	2-6 employees

## 7.2 FUTURE PHASES, EXTENSIONS AND RELATIONSHIPS TO OTHER PROJECTS

The following addresses 3-304(2)(f)(ii), specify any future phases or extensions of the facility and relationship of the facility (if currently foreseen) to larger programs and plans. Pathway facilities proposed in Morgan County include 48 miles of 345-kV double-circuit transmission line in Segments 1 and 2, and the proposed new Canal Crossing Substation (Figure 1). As described in Section 3.2, transmission substations like Canal Crossing can be used to interconnect future generation resources to the electric grid. Future equipment additions, including tie lines, for any generation interconnections are anticipated to be located on the 80-acre substation development parcel described in this Application. This Application shall allow such equipment necessary for all phases through ultimate build-out of the facility which is conceptually depicted on the preliminary General Arrangement in Attachment C, including any accessory equipment, structures, and uses typically incidental and subordinate to Pathway's principal facilities and uses. Specific tie lines from generation resources to Canal Crossing are not part of this Application.

The proposed facilities in Morgan County are part of the Colorado's Power Pathway proposed by Xcel Energy. Pathway will add a network transmission system that can integrate wind and solar generation sources in the Eastern Plains region of Colorado where they are most efficient to where the energy demand is the highest. By linking the best areas for generating wind and solar energy with where demand is, Pathway will improve the state's electric grid and enable future renewable energy development in the Eastern Plains region of Colorado. Pathway will increase electric service safety and reliability, boost the regional economy by incentivizing new energy generation development, and create jobs during construction. Section 1 of this Application describes Colorado's Power Pathway, which includes approximately 560 to 650 miles of transmission line and new and expanded substations.

### 7.3 PLANNING AND PERMITTING TIMETABLE

The following addresses 3-304(2)(f)(iii), specify timetable for planning (e.g., federal permits, other state permits, local zoning). The planning and permitting schedule are shown in Table 9. Easements and ROW will be secured prior to construction in any area. For more detailed information on the types of federal, state and local permits required for Pathway, see Section 1.2.

**Table 9: Planning and Permitting Schedule for Morgan County**

<b>Permit Type and Activity</b>	<b>Start</b>	<b>Completion</b>
<b>Federal Permitting</b>		
FAA permitting	Summer 2022 – Spring 2023, prior to construction and after final design	End of construction 2025
USFWS coordination	March 2021	End of construction in 2025 if continued consultation required
<b>State Permitting</b>		
Colorado CPUC CPCN filing	March 2021	June 2, 2022
Initial jurisdictional outreach to state agencies such as CPW	March 2021	Ongoing through completion of construction, anticipated for 2025
Submit Morgan County 1041 Permit Application	Spring/Summer 2022	Fall 2022
Other Morgan County Construction Permitting	Spring/Summer 2022	Summer 2023

### 7.4 PROJECT SCHEDULE FOR CONSTRUCTION AND OPERATION

The following addresses 3-304(2)(f)(iv), estimate beginning and completion of construction and beginning of operation of facility. The estimated schedule for Pathway construction in Morgan County is shown in Table 10. Many variables factor into the schedule for projects of this magnitude. The construction schedule is contingent on acquiring all necessary land rights, permits, labor, and materials. Pathway will be constructed and placed in-service in phases.

**Table 10: Anticipated Segment 1 and 2 In-Service Dates**

<b>Segment &amp; Substation</b>	<b>Construction</b>	<b>In-Service Year</b>
Segment 1	Spring 2024–Spring 2026	Spring 2026
Segment 2, including Canal Crossing Substation	Summer 2023–Spring 2025	Spring 2025

## **7.5 SUPPORT FACILITIES**

The following addresses 3-304(2)(f)(v), describe support facilities (e.g., pollution control, parking areas, landscaping) to be provided. As described in Section 3.5 of this Application, BMPs will be used during construction to control sediment and runoff from work areas. Required construction and waste management procedures will prevent accidental spills or runoff of sediment or contaminants to waterbodies or groundwater.

Pathway is not anticipated to generate pollution during operations and maintenance and will not require permanent pollution control equipment. Permanent drainage and detention facilities to control stormwater runoff are planned at the Canal Crossing Substation site. The site will introduce new impervious area, mainly consisting of a gravel substation pad and gravel access road. The drainage design will incorporate permanent drainage and detention facilities to mitigate impacts from construction. The drainage design will accommodate the requirements set forth by the Colorado Floodplain and Stormwater Criteria Manual. An extended detention basin will provide detention, water quality treatment, and rate control. The drainage design will reduce the peak discharge from the site for storm events and will demonstrate that the peak discharge for the 100-year event will be reduced to a rate less than the peak discharge of the pre-development 10-year event. A SWMP will be created and stormwater management features incorporated into the design of the substation as necessary.

No public parking spaces are needed for Pathway and access drives from nearby roads for construction and maintenance will be incorporated into the transmission line and substation design. A drive aisle for maintenance trucks and equipment will be located within the Canal Crossing Substation security fence and surrounding the electrical components. The access drive to the Canal Crossing Substation will extend from County Road I to the substation access gate. Vehicles visiting the site for ongoing substation maintenance operations will be able to pull completely off County Road I onto the access drive. Access to the transmission line poles will be off nearby roads to the transmission line ROW.

Once construction is complete, all areas not needed for operations and maintenance will be reclaimed in a manner generally similar to their condition prior to construction or

as may be provided for in private agreements (including by re-seeding in accordance with Xcel Energy's vegetation management standards). Similarly, substation site restoration will be completed after construction and the substation equipment will be enclosed within a 10-foot-tall security fence.

Section 11.1 of the Application addresses non-structural alternatives as required by 3-304(2)(f)(vi).

## **8 HAZARD AND EMERGENCY PROCEDURES 3-304(2)(g)**

### **8.1 POTENTIAL PHYSICAL HAZARDS**

This section addresses 3-304(2)(g)(i), describe hazards, if any, of fire, explosion and other dangers to the health, safety and welfare of employees and the general public.

Transmission lines are built and maintained to meet or exceed safety standards, such as those specified by the National Electrical Safety Code and the North American Electric Reliability Corporation. Every effort is made to ensure safety in construction, operation and maintenance of transmission lines. Transmission lines are designed to withstand extreme weather conditions and protective devices at line terminals stop the electricity flow under abnormal operating circumstances. The transmission poles will be equipped with shield wires above the energized line; this equipment adds to the structure height but also provides protection against lightning strikes.

Xcel Energy's transmission lines are monitored 24/7 for line contact, the term describing when an object comes in contact with the transmission line conductors. If there is an unanticipated event in the line, the line is isolated from the system to protect the public and the line from operating under unsafe conditions. Xcel Energy's transmission lines are inspected annually to check for line connections and damage. For the safety of the general public, unauthorized personnel are not permitted to enter the substation site or come in contact with the transmission line conductor wire.

### **8.2 POTENTIAL ENVIRONMENTAL HAZARDS**

This section addresses 3-304(2)(g)(ii), describe hazards, if any, of environmental damage and contamination due to materials used at or activities taking place at the proposed facility.

Chemicals that may be used during construction and operation are those found in diesel fuel, gasoline, coolant (ethylene glycol), and lubricants in machinery. Hazardous materials will not be drained onto the ground or into streams or drainage areas. Enclosed containment will be provided for trash disposal. Construction waste, including trash and litter, garbage, other solid waste, petroleum products, and other potentially

hazardous materials, will be removed and taken to a disposal facility authorized to accept such materials. No hazardous materials will be used, stored, or generated on site of Pathway facilities. Pathway will not require transportation of hazardous materials.

Construction, operation, and maintenance activities will comply with applicable federal, state, and local laws and regulations regarding the use of hazardous substances. Construction activities will be performed using methods that prevent entrance or accidental spillage of solid matter, contaminants, debris, and other pollutants and wastes into flowing streams or dry watercourses, lakes, and underground water sources. Activities will follow BMPs for the management of wastes to avoid and minimize effects from potential spills or other releases to the environment.

Short-term, temporary increases in fugitive dust and construction equipment exhaust (fumes) are anticipated during construction activities. These are not expected to cause a public nuisance. Substation and transmission line operations will not require on-site staff and will be monitored remotely. Visits from personnel will be limited to emergencies or maintenance and inspection activities. As a result, increased dust or exhaust are not expected during operations.

Xcel Energy will apply for a CDPHE APEN for land development prior to construction and follow state standards to control the release of fugitive dust related to construction if necessary. The APEN will be required for a disturbance greater than 5 acres and/or a construction duration longer than 6 months.

Pathway will not cause hazardous conditions, potential air or water pollutants, or other noxious influences.

### **8.3 EMERGENCY PROCEDURES**

This section addresses 3-304(2)(g)(iii), describe emergency procedures to be used in the event of fire, explosion or other event which may endanger the public health, safety and welfare.

Xcel Energy's facilities are designed, constructed, operated, and maintained to meet or exceed all applicable requirements of the Institute of Electrical and Electronics Engineers (IEEE) standards and accepted industry standards and practices including IEEE 979, Guide for Substation Fire Protection. All applicable fire laws and regulations, as outlined in CRS 31-15-601, will be observed during construction and normal operation of the transmission line and substation.

Fires at substations and along transmission lines are very rare. Xcel Energy's substations and powerlines are monitored and controlled remotely from an operations center where event response is coordinated. In the rare event of an emergency, Xcel

Energy will likely be aware of an issue before the general public or emergency responders. Nevertheless, the public is encouraged to contact Xcel Energy's emergency number: 800-895-1999. Unauthorized personnel, including emergency responders, should not approach the facilities and should not touch the electric lines or anyone or anything in contact with them. In the event of an outage or transformer failure, the affected substation equipment is immediately de-energized by the breaker equipment and Xcel Energy personnel are dispatched to the site. Xcel Energy personnel receive safety training for emergency situations relating to high-voltage electrical equipment. Xcel Energy also coordinates closely with local fire departments and first responders and consults with them to discuss any concerns within their response area. Xcel Energy offers free online safety training to fire departments and first responders that is based on national standards through the Responding to Utility Emergencies Program.

## **8.4 NATURAL HAZARDS AND MITIGATION**

This section addresses 3-304(2)(g)(iv), describe any prevalent natural hazards that will affect or be affected by development, and describe mitigating measures to be taken to reduce danger due to such natural hazards.

Xcel Energy electric facilities, including transmission line poles, are specifically designed for the locations where they are placed. Geotechnical studies are conducted for both transmission line poles and substations to identify subsurface conditions and determine foundation specifications. Transmission lines are structurally designed according to the National Electric Safety Code (NESC), which incorporates standards from the American Society of Civil Engineers on structural loading. The NESC requires structures over 60 feet tall to be able to resist the loading from various ice and wind scenarios.

The base design wind speed for eastern Colorado is 90 miles per hour. This wind speed is part of an equation that also considers terrain, span length between transmission poles, and transmission pole height to produce an overall wind pressure applied to the wires and the transmission line pole. In addition, the design scenario considers how the structural capacity of a transmission pole is affected by the icing conditions on the wire. The weight of the ice increases the tension in the wires and therefore the loading on the transmission pole. The result of this design scenario is that transmission lines typically have additional structural capacity for much higher wind speeds than the NESC requires after accounting conservatively for icing conditions.

## **9 TITLE INFORMATION AND DEVELOPMENT AGREEMENT 3-305(2)(b) AND 3-305(2)(m)**

### **9.1 SURFACE PROPERTY OWNERS**

Attachment D of the Application lists the names and addresses available in Morgan County's Assessor's database of all surface owners within five-hundred (500) feet of the proposed transmission line centerline.

### **9.2 PLANS FOR LEGAL ACCESS**

Xcel Energy is currently negotiating with all of the potentially affected landowners for necessary land rights along the proposed transmission line route. These negotiations include securing an option for a permanent non-exclusive easement for the 150 foot wide ROW of the transmission line as well as permanent and temporary easements required for access and TCAs during and after construction. Once land surveying, final engineering design, and permitting are complete, Xcel Energy will exercise the options and record the final easements. The easements for each phase of the project will be secured and recorded prior to construction starting on that phase.

### **9.3 PROPERTY INTERESTS PHYSICALLY DISTURBED OR CROSSED BY THE PROJECT**

Xcel Energy has not yet ordered title commitments along the proposed transmission route and cannot provide details of existing encumbrances located on these parcels. Given the nature of Pathway, Xcel Energy has submitted a request for waiver as part of this Application. The request for waiver is included behind the cover letter at the front of this Application.

### **9.4 MINERAL RIGHTS CROSSED**

The proposed Pathway transmission line and poles are exempt from the requirement to identify owners of mineral interests under 3-305(2)(b)(iv). The state statute commonly known as "The Surface Development Notification Act" (CRS 24-65.5-101 et seq.) provides that not less than 30 days before the date scheduled for the initial public hearing by a local government on an application for development, the applicant must send a notice of that hearing by certified mail to mineral estate owners (owners or lessees of the mineral estate under the property which is the subject of the application). Pursuant to the Act, the definition of an "Application for Development" covers a wide range of surface development land use approvals, but certain named development activities are specifically exempt from that definition. One exemption includes applications with respect to utility electric lines, which includes Xcel Energy's

transmission lines. Thus, due to the nature and scope of Pathway, the transmission line is exempt from the statutory mineral estate owner mailing notification requirements.

Mineral rights owners in the Canal Crossing Substation site are listed in Attachment D. Xcel Energy will notify any owner or lessee of a mineral estate underneath the substation property not less than 30 days before the initial public hearing for this Application pursuant to CRS 24-65.5-103.

## 9.5 DEVELOPMENT AGREEMENT

No new or upgraded public services or facilities are anticipated to be needed to serve Pathway in Morgan County. To the extent that new facilities are required, Xcel Energy will work with Morgan County to enter into a mutually agreeable Development Agreement for the Pathway Project as required by 3-305(2)(m).

## 10 MAPS 3-305(2)(c) AND (3)(b)

This section addresses 3-305(2)(c) and (3)(b), which detail the maps required in this Application. Table 11 below shows where each of the required maps are located.

**Table 11: Maps To Be Included Per Morgan County §1041 Regulations**

<b>Required per 3-305(2)(c)</b>	<b>Location in this Application</b>
(i) Map delineating study area and describe how the study area was determined;	Attachment A
(ii) Map showing all special districts (school, fire, water, sanitation, etc.) within the study area.	Attachment B includes a map of parcels crossed by Pathway and Attachment D lists the special districts associated with each parcel.
(iii) Map or narrative delineating the area within the study area where the physical and socio-economic environment is likely to be affected, beneficially or adversely, by the site selection and construction of the proposed facility.	Attachment A and Section 12
<b>Required per 3-305(3)(b)</b>	<b>Location in this Application</b>
(ii) Information regarding other utility facilities.	Other utilities are shown on Attachment A, Existing Electric Infrastructure and Oil and Gas Resource Maps.
(a) A map showing each existing major facility of a public utility within the County of the type proposed for development.	Pathway is a backbone transmission system that will connect generation sources in eastern Colorado to demand throughout Colorado; as such, this Application does not address
(b) The design capacity of each such facility, the excess capacity of each such facility, and the percentage of capacity at which each such facility operates.	
(c) Whether present facilities can be upgraded to adequately accommodate a ten (10)	

year projected increase in demand for services to be offered by the proposed project.	capacity or demand for utility services because no new generation sources are proposed as part of Pathway.
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## 11 ALTERNATIVES CONSIDERED 3-305(2)

This sections that follow meet the requirements outlined in the Morgan County §1041 Regulations 3-305(2)(b)(i), (j), and (l). As described in Section 12 of this Application, potential impacts from Pathway will be mitigated and are not significant. Therefore, less environmentally damaging alternatives have not been identified, consistent with Section 3-305(3)(b)(viii).

### 11.1 ANALYSIS OF NON-STRUCTURAL ALTERNATIVES

This section addresses 3-305(2)(i), analysis of non-structural alternatives to the project such as conservation of energy use, no development, or management (different scheduling, conservation programs, facility design, land trades etc.) if applicable.

The purpose of Pathway is to create a network transmission system that can integrate new generation resources needed to meet Colorado's clean energy goals. The existing infrastructure is not adequate to meet demand. Therefore, no non-structural alternatives are viable.

### 11.2 ANALYSIS OF STRUCTURAL ALTERNATIVES

This section addresses 3-305(2)(j), analysis of structural alternatives to the project such as alternate locations and routes, alternative types of facilities, use of existing ROWs, joint use of ROWs with other utilities, and upgrading of existing facilities

Pathway routing and siting efforts were divided by segment and documented in a series of six Routing and Siting studies. Each Routing and Siting Study is interrelated due to the overlap in segment Study Areas and shared substation endpoints. Each Routing and Siting Study documents the process utilized to review and consider reasonable siting and routing 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 and haul routes. The Segment 1: Fort St. Vrain – Canal Crossing Routing and Siting Study, and the Segment 2: Canal Crossing – Goose Creek Routing and Siting Study, are included in Attachment A and provide an alternatives analysis to address this requirement.

### 11.3 DESIGN ALTERNATIVES

This section addresses 3-305(2)(I), analysis of design alternatives concerning access, landscaping, architectural controls and so forth.

Given the small area occupied by the transmission poles and the substation footprint, and the minimal anticipated visual impact, landscaping is not proposed as part of Pathway. The type of steel used for the transmission poles will be determined through consultation with the local jurisdictions. Two options are available; weathering steel that oxidizes to resemble a natural brown look or galvanized steel that has a gray color. Access to the transmission poles from nearby Interstate, U.S. Highways, and local roads will be confirmed prior to construction.

## 12 ENVIRONMENTAL IMPACT ANALYSIS 3-305(2) AND (3)

The sections that follow address multiple subsections in both 3-305(2) and 3-305(3) that relate to potential impacts from construction and operations of Pathway in Morgan County and also proposed mitigations where appropriate. In aggregate, each of the detailed subsections addresses the requirements detailed in Table 12. Additional information about the environmental factors considered during the routing and siting study process is provided in Attachment A.

**Table 12: Information To Be Included Per 3-305(2) and (3)**

<b>Required per Morgan County §1041 Regulations</b>	<b>Location in this Application</b>
<b>Section 3-305(2)</b>	
(e) Summarization of major natural and socio-economic environmental constraints as they affect the site selection and construction of the facility as proposed.	Sections 12 including 12.1 and 12.2; Appendix A
(f) Summarization of the effects of the proposed site selection and construction upon the natural and socio-economic environment of the impact area as applicable to submission requirements. Included should be an analysis of impacts upon agricultural productivity and agricultural resources and upon vested water rights.	Section 12 including 12.1
(k) Analysis of air and water pollution impacts and control alternatives.	Sections 12.3 and 12.4, respectively
(n) Analysis of hydrologic, atmospheric, geologic, pedologic, biotic, visual, and noise impacts.	Sections 12.3 through 12.8
(o) Surface and subsurface drainage analysis.	Section 12.4

Required per Morgan County §1041 Regulations	Location in this Application
Section 3-305(3)(b)	
<p>(i) Land use:</p> <ul style="list-style-type: none"> <li>(a) Describe the relationship of the project to local land use policies and comprehensive plans and to policies and plans adopted or under preparation by federal, state, regional or other affected local governmental agencies.</li> <li>(b) Detail the agricultural productivity capability of the land affected by the proposal (SCS classification).</li> <li>(c) Specify how the proposed development will utilize existing easements or rights of way for any associated distribution or collector networks.</li> </ul>	<p>Sections 12.1 and 12.9</p>
<p>(iii) Water resources:</p> <ul style="list-style-type: none"> <li>(a) On the map of the base area, or another appropriate map, indicate any flood plain associated with the proposal. Documentation of the historical flooding activity should be included. Detail potential, adverse impacts related to the associated floodplain.</li> <li>(b) Describe the potential adverse effects of the proposal upon plant and animal life dependent upon the water resources in question.</li> <li>(c) Describe proposed sewage treatment facilities and nonpoint source controls.</li> <li>(d) Describe pollutant loads (point and non-point sources) expected directly from the development. Specify seasonal variations.</li> <li>(e) Describe the proposed water system, including: <ul style="list-style-type: none"> <li>i) Source of supply, volume and rate of flow at full development.</li> <li>ii) Water Rights owned or utilized.</li> <li>iii) Proposed points of diversion and changes of points of diversion.</li> <li>iv) Volume of stream flow to remain unused between points of diversion.</li> <li>v) Dependability of supply (physical and legal).</li> <li>vi) Effects on downstream users.</li> </ul> </li> </ul>	<p>Section 12.4; Section 12.12 notes that no sewage treatment or water systems are proposed; Section 12.6 addresses plant and animal life including those dependent on available water.</p>
<p>(iv) Air quality.</p> <ul style="list-style-type: none"> <li>(a) Detail how many average daily trips will be generated by the proposal.</li> <li>(b) Describe atmospheric and meteorologic conditions in the impact area, and the background ambient air quality (TSP, SO<sub>2</sub>, HC, CO, NO<sub>x</sub>, O<sub>3</sub>, etc.).</li> <li>(c) Describe pollutant outputs anticipated from the development and mitigation strategies.</li> </ul>	<p>Section 12.3</p>
<p>(v) Significant environmentally sensitive factors:</p>	<p>Section 12</p>

Required per Morgan County §1041 Regulations	Location in this Application
<p>(a) Identify and locate on a map of appropriate scale the juxtaposition of any of the following features present in the proposed development or activity and its vicinity, and detail the potential impact of the proposal upon each feature.</p> <ul style="list-style-type: none"> <li>i) Marshlands and wetlands.</li> <li>ii) Ground water recharge areas.</li> <li>iii) Potential natural hazards.</li> <li>iv) Forests and woodlands.</li> <li>v) Critical wildlife habitat.</li> <li>vi) Public outdoor recreation areas.</li> <li>vii) Unique areas of geologic, historic or archeological importance.</li> </ul>	
<p>(vi) Visual aesthetics and nuisance factors:</p> <ul style="list-style-type: none"> <li>(a) Identify any significant deterioration of existing natural aesthetics, creation of visual bright, noise pollution or obnoxious odors which may stem from the proposal.</li> <li>(b) Where significant, map or describe area within view of project.</li> <li>(c) Describe proposed mitigation strategy.</li> </ul>	Section 12.7
<p>(vii) Transportation impacts:</p> <ul style="list-style-type: none"> <li>(a) Describe what impacts the proposal will have upon transportation patterns in the area intended to be served or affected by the proposal.</li> <li>(b) Describe the potential impact on roads within the County.</li> <li>(c) Identify improvements required to any roads within the County in order to serve the project adequately.</li> </ul>	Section 12.11

In summary, sensitive natural resources are considered in identifying the locations for the transmission lines and substations to minimize potential impacts. Impacts to wetlands will be avoided or minimized by careful placement of the substation and transmission poles. Transmission poles are sited in locations that will avoid conflicts with irrigation equipment and its operation to the extent practicable. Impacts to rivers and streams will be avoided or minimized by placing transmission poles outside the waterway and spanning the waterbody. Locations of known sensitive species habitat are mapped and avoided where practicable. Conservation areas, wildlife refuges, and wildlife areas will be avoided where practicable. Seasonal restrictions are implemented to avoid constructing near habitat during certain seasons (such as nesting) as recommended by CPW and USFWS guidance. Electrical components of the transmission lines and substations will be separated to minimize the risk of avian contact. Bird diversion devices will be installed on the utility facilities where necessary.

Xcel Energy will continue to coordinate with wildlife agency representatives regarding Pathway throughout planning, design, construction, maintenance, and operations, and will comply with all regulatory requirements. A Class I cultural resources desktop analysis was completed to identify areas previously surveyed and known cultural resources.

## **12.1 AGRICULTURAL RESOURCES AND PRODUCTIVITY, VESTED WATER RIGHTS**

Land occupied by the Canal Crossing Substation and transmission line pole foundations for Segments 1 and 2 in Morgan County will be removed from current land use. The area around and between the transmission line poles can continue to be used for existing purposes, such as agriculture. Xcel Energy will coordinate with landowners regarding the placement of Pathway facilities on properties enrolled in the Conservation Reserve Program. Areas disturbed during construction of Pathway will be restored in a manner generally similar to preconstruction condition in coordination with the landowners and their current land use.

Pathway will not cause a significant impact in the immediate area in Morgan County. Current uses adjacent to the Pathway facilities will be able to continue mainly unchanged after construction, thereby preserving desirable community and rural patterns which exist. Following construction, agricultural activities along the transmission line route can continue outside of the small area occupied by the transmission poles and the Canal Crossing Substation footprint.

Pathway will not require water rights for construction, maintenance, or operation and will not affect existing water rights.

## **12.2 PHYSICAL AND SOCIO-ECONOMIC DEVELOPMENT**

According to the U.S. Census Bureau, Morgan County had a total estimated population of 29,008 in 2021. This is an increase of approximately 3 percent for Morgan County since the 2010 Census. U.S. Census demographics from 2021 for Morgan County show a 51 percent male and 49 percent female distribution of the predominantly 91 percent white population. Per capita income in Morgan County is \$24,800, approximately 37 percent lower than the statewide estimate of \$39,545 (U.S. Census Bureau 2022). In March 2022, unemployment in Morgan County was 3.5 percent according to the U.S. Department of Labor: Bureau of Labor Statistics (FRED 2022a). The March 2022 statewide average for unemployment was 3.7 percent (FRED 2022b).

Pathway will deliver economic benefits to rural communities across eastern and southern Colorado, including Morgan County, over the short- and long-term. More immediately, Pathway construction will provide local jurisdictions and host communities

with potential additional tax revenue and employment opportunities. Revenue may increase for some local businesses, such as restaurants, gas stations, grocery stores, and hotels as well as other local businesses. Existing businesses and social services are adequate to support Pathway due to the small size of the construction crew and temporary nature of the construction activities. Given the relatively small size of the crews needed for construction of Pathway, no impacts to emergency health care facilities or law enforcement services are anticipated.

Once Pathway is constructed, it will facilitate ongoing job opportunities and tax revenue in the clean energy projects (wind, solar, etc.) that ultimately interconnect to Pathway.

Additionally, generation developers will have the opportunity to build projects that otherwise were infeasible due to lack of transmission access to market and/or transmission constraints. These generation projects may provide other additional economic development through increased jobs associated with construction and local tax-based revenue associated with land usage, and payments to existing landowners.

Xcel Energy anticipates that crews of 25 and 30 construction workers will be needed for construction of Pathway transmission lines and Canal Crossing Substation in Morgan County, respectively. Construction crews may reside in the area during construction.

### **12.3 AIR QUALITY**

Morgan County is in attainment with National Ambient Air Quality Standards for all criteria pollutants (EPA 2022; ozone, particulate matter, carbon monoxide, nitrogen oxides, sulfur dioxide, and lead).

Short-term effects are anticipated from a temporary increase in construction vehicles, which may increase fumes and fugitive dust, construction equipment exhaust (fumes), and clearing and preparing areas for construction (dust). The short-term effects are not expected to cause a public nuisance. If a nuisance arises during construction, the nuisance will be mitigated in coordination with Morgan County.

It is anticipated that an average of 15 trucks per day will be utilized during construction of the transmission line. The impact to local roads will vary day-by-day as the construction moves along the route. The construction of the Canal Crossing Substation will involve mostly personal vehicle trips for construction workers of 10 to 12 trips per day. There will be daily concrete truck deliveries made when the foundations and piers are constructed. There will be multiple deliveries of yard rock (up to 100 per day) and cement (up to 20 per day) required daily at certain stages of construction. Water trucks will be utilized during construction activities to suppress dust from vehicles and equipment as necessary. Xcel Energy will apply for a CDPHE APEN for land development prior to construction and follow state standards to control the release of

fugitive dust related to construction if necessary. The APEN will be required for a disturbance greater than 5-acres and/or a construction duration longer than 6 months.

During operation, Pathway will not generate trips in excess of those currently experienced as the transmission line and Canal Crossing Substation facilities represent a passive use and will not be staffed. Transmission line and Canal Crossing Substation operations will not require on-site staff and will be monitored remotely. Visits from personnel will be limited to emergencies or maintenance and inspection activities and increased fumes, exhaust and dust during operation is not expected.

## 12.4 WATER RESOURCES

A desktop analysis of the portion of Pathway within Morgan County was completed to identify potentially jurisdictional wetlands and other WOTUS that may be subject to regulation under Section 404 of the Clean Water Act (CWA). The following digital information was evaluated for the 150-foot ROW and an additional 50-foot buffer on either side of the ROW, including the Canal Creek Substation site:

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

The Water Resources Maps in Attachment A illustrate the mapped NWI, NHD, and PLJV locations within the Study Area for Morgan County. The major NHD-mapped drainages associated with wetland and other WOTUS features near proposed Pathway facilities in Morgan County include Badger Creek, Bijou Creek, Kiowa Creek, Beaver Creek, and associated unnamed tributaries. NWI-mapped features associated with these drainages include riverine wetlands, freshwater emergent wetlands, and freshwater ponds. As outlined in Table 13 below, the transmission line ROW intersects 13 of these mapped wetland features, the longest crossing of which is approximately 868 feet. No PLJV-mapped playas are located near Pathway facilities.

**Table 13: NWI Length Crossed by the Transmission Line in Morgan County**

NWI Wetland Type	Approximate Length (Feet)
Riverine	14
Riverine	20
Riverine	23
Riverine	24
Riverine	32
Riverine	35

<b>NWI Wetland Type</b>	<b>Approximate Length (Feet)</b>
Freshwater Emergent Wetland	42
Freshwater Emergent Wetland	48
Freshwater Emergent Wetland	87
Freshwater Emergent Wetland	131
Freshwater Emergent Wetland	178
Freshwater Emergent Wetland	198
Riverine	868

Pathway intends to avoid impacts to wetlands and WOTUS features to the extent practicable. The potential wetlands and WOTUS identified through desktop analysis of NWI data that may be impacted by construction of Pathway will be verified in the field and inventoried and/or delineated to determine the actual locations and extent of wetlands prior to construction of Pathway. The span between transmission line poles can be up to 1,400 feet, and thus can be sited to avoid pole placement within and to span across wetlands and other WOTUS features to avoid permanent impacts. Based on the lengths provided in Table 13, it is not anticipated that Pathway will result in any permanent impacts to wetlands or other WOTUS features in Morgan County.

Associated access roads, laydown yards, the Canal Crossing Substation location, and other appurtenant features of Pathway will also be sited to avoid permanent impacts to wetlands and WOTUS features. In the event that a regulated water resource cannot be avoided, Pathway will comply with applicable federal and state regulations, including permit requirements under Section 404 of the CWA.

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

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

Xcel Energy will coordinate with Morgan County and incorporate drainage facilities at the Canal Crossing Substation as appropriate. Xcel Energy will comply with permit application requirements, County Standards, and construction protocol to ensure that Pathway does not violate water quality standards. Prior to construction, a Storm Water

Permit for Construction Activities will be obtained from CDPHE and a SWMP for the Canal Crossing Substation site will be developed.

The Water Resources Resource Maps in Attachment A also illustrate the mapped FEMA floodplain data available for Morgan County. Pathway will avoid regulated floodplains to the extent practicable. The transmission line will span floodplain areas with overhead conductors.

## **12.5 GEOLOGICAL RESOURCES**

Pathway facilities will be located in areas mapped as gravel, alluvium, and eolian deposits. A geotechnical study, based on soil borings at Canal Crossing Substation site and along the length of the transmission line will be conducted for the project. Engineers will use this study to determine the size and type of foundations needed to support substation equipment and transmission line poles as well as soil resistivity. No significant natural hazards have been identified in the areas planned for Pathway development in Morgan County. Professional engineers will guide construction and do not foresee any unusual risks. A Phase I Environmental Site Assessment will be completed for the proposed Canal Crossing Substation site and will include a review of historical resources and regulatory records, as well as interviews and a site reconnaissance, to confirm there are no recognized environmental conditions attributable to historical uses of the Canal Crossing Substation development area.

## **12.6 BIOLOGICAL RESOURCES**

A desktop analysis of the portion of Pathway within Morgan County was completed to characterize the environmental setting of Pathway and evaluate the potential for occurrence of special-status species based on available habitat. The analysis included the transmission line route plus a 1-mile buffer. The 1-mile buffer also included the Canal Crossing Substation. The 1-mile buffer was used to evaluate biological resources that could be influenced by project construction or operation (e.g., raptor nests). To assess the potential for occurrence of special-status species within the county, the following publicly available information was reviewed:

- Google Earth Aerial Imagery (Google 2022)
- National Land Cover Database (NLCD 2019)
- USFWS Information for Planning and Consultation (IPaC) online tool (USFWS 2022b)
- USFWS Critical Habitat Portal (USFWS 2022c)
- Colorado Natural Heritage Program Species Elements Database (CNHP 2022)

- CPW Species Activity Mapping Data (CPW 2022a)
- CPW State Species List (CPW 2022b)
- Online species profiles and distribution information (CPW 2022c)

In addition to publicly available information, a windshield survey of proposed Pathway facility locations was completed in September 2021 to identify any potential areas of concern for biological resources. Ground-based raptor nest surveys and aerial raptor nest surveys were conducted in April and May 2022 to identify potentially active eagle and other raptor nests within 0.5-mile of the proposed transmission line route and the Canal Crossing Substation.

Pathway has been conducting ongoing coordination with CPW and USFWS regarding potential biological resources that may be impacted by Pathway. Pathway had a project introduction meeting with CPW on December 12, 2021, followed by a routing workshop on January 10, 2022, and a follow-up routing discussion on April 22, 2022. On May 9, 2022, Pathway had a project introduction meeting with USFWS. The feedback received from CPW and USFWS during these meetings has been used to inform the routing and siting of Pathway. Pathway will continue to coordinate with CPW and USFWS through permitting, construction, and operation of the project, as needed, to ensure compliance with all applicable federal and state regulations.

### **12.6.a Land Cover**

The Land Cover Resource Maps in Attachment A illustrate land cover for Pathway in Morgan County. Land cover is dominated by grassland/herbaceous cover (approximately 75 percent) and cultivated crops (approximately 21 percent). The total acreage and percent of land cover types within 1 mile of proposed Pathway facilities is presented in Table 14.

**Table 14: Land Use and Land Cover Present within 1 Mile of Proposed Pathway Facilities in Morgan County**

<b>Land Use/Land Cover Description</b>	<b>Acres</b>	<b>Percent</b>
Grassland/Herbaceous	42,782	75.0
Cultivated Crops	12,262	21.5
Developed, Open Space	785	1.4
Scrub/Shrub	593	1.0
Pasture/Hay	487	0.9
Developed, Low Intensity	61	0.1
Barren Land (Rock/Sand/Clay)	36	0.1
Emergent Herbaceous Wetlands	33	0.1
Developed, Medium Intensity	16	<0.1
Open Water	10	<0.1
Deciduous Forest	9	<0.1

Land Use/Land Cover Description	Acres	Percent
Developed, High Intensity	3	<0.1
Evergreen Forest	<1	<0.1
Woody Wetlands	<1	<0.1
TOTAL	57,078	100

Source: NLCD 2019

### 12.6.b Management Areas and Priority Habitat

Federal, state, and local agencies designate areas to help conserve habitats critical to migratory birds and other sensitive species (e.g., National Wildlife Refuges, National Grasslands, state parks, and state wildlife areas). The Jurisdiction Resource Maps in Attachment A illustrate land jurisdiction for Pathway in Morgan County. There are no federally or state-managed conservation areas within 1 mile of proposed Pathway Facilities in Morgan County. In addition, no USFWS-designated Critical Habitat is mapped in the same area (USFWS 2022c).

Beyond these priority habitats, Pathway will avoid or minimize impacts to habitat generally as practicable. Impacts to most vegetation will be temporary and limited to the 150-foot-wide ROW and TCAs. The ROW will be cleared of tall vegetation for ongoing maintenance. Measures will be implemented to minimize the spread of noxious weeds in the ROW. To avoid or minimize impacts to aquatic habitat within the ROW, surface waters, riparian areas, and wetlands in areas less than 1,400 feet width at the crossing will be spanned as practicable. Pathway will adhere to BMPs and erosion control measures outlined in the SWMP.

### 12.6.c Special Status Wildlife

The USFWS IPaC online tool and CPW online databases were used to identify federally and state-protected species that may occur near Pathway facilities in Morgan County, including species listed or proposed for listing under the Endangered Species Act, bald and golden eagles protected under the Bald and Golden Eagle Protection Act, and state-listed threatened or endangered species (CPW 2022a, CPW 2022b, CNHP 2022, USFWS 2022c). In addition to the federally and state-listed species that receive regulatory protection, state Species of Concern (SC) were also evaluated. Although SC species do not receive any regulatory protection, they have been identified by the state as having management interest either due to declining populations or habitat loss.

The Wildlife Species Habitat and Avian Habitat Resource Maps in Attachment A illustrate mapped special-status wildlife and avian habitat for Pathway in Morgan County. A total of 21 special-status wildlife species were identified as potentially occurring within 1 mile of proposed Pathway facilities in Morgan County. Table 15 outlines the likelihood of occurrence of each species based upon review of known species ranges, habitat requirements, land cover data, and aerial imagery.

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**Table 15: Special-Status Species Potentially Occurring within 1 Mile of Proposed Pathway Facilities in Morgan County**

Common Name	Scientific Name	Federal/ State Status <sup>1</sup>	Habitat Associations/ Range	Likelihood of Occurrence <sup>2</sup>
<b>Mammals</b>				
Black-tailed prairie dog	<i>Cynomys ludovicianus</i>	- / SC	Occurs in the eastern third of Colorado, in shortgrass prairie habitat below 6,000 feet elevation. The species lives in colonies and they construct burrows where they live and raise their young. 1-mile buffer of proposed Pathway facilities is within the overall species range and medium potential colony occurrence area.	High
Gray wolf	<i>Canis lupus</i>	FE / -	Requires large areas of contiguous habitat, including forests and mountain terrain, with an abundance of prey and cover. The species has been considered extirpated from Colorado until very recently.	Unlikely
Preble's meadow jumping mouse	<i>Zapus hudsonius preblei</i>	FT/ ST	Riparian vegetation with adjacent, preferably undisturbed grassland and nearby water sources. 1-mile buffer of proposed Pathway facilities is within mapped overall range; however, the nearest mapped occupied habitat occurs approximately 35 miles northeast in western Weld County.	Low
River otter	<i>Lontra canadensis</i>	- / ST	Occurs in beaver ponds, streams, and warm water sloughs. Overall range includes the South Platte River located approximately 6.4 miles north of the 1-mile buffer of proposed Pathway facilities.	Low
Swift fox	<i>Vulpes velox</i>	- / SC	Occurs in shortgrass prairie habitat with flat or rolling terrain and high visibility over long distances, up to 7,000 feet elevation. 1-mile buffer of proposed Pathway facilities within overall species range.	Moderate

Common Name	Scientific Name	Federal/ State Status <sup>1</sup>	Habitat Associations/ Range	Likelihood of Occurrence <sup>2</sup>
<b>Birds</b>				
Bald eagle	<i>Haliaeetus leucocephalus</i>	BGEPA / SC	Large rivers, lakes, and reservoirs with an abundance of fish. Nesting is typically in large trees close to water. 1-mile buffer of proposed Pathway facilities within overall species range. Nest site mapped approximately 3 miles north of the 1-mile buffer of proposed Pathway facilities; roost site mapped approximately 2.5 miles north of the 1-mile buffer of proposed Pathway facilities. Additional nests and roosts are located along the South Platte River approximately 7 miles to the north of the 1-mile buffer of proposed Pathway facilities.	High
Eastern black rail	<i>Laterallus jamaicensis</i> ssp. <i>jamaicensis</i>	FT / -	Eastern black rails occur in salt, brackish, and freshwater marshes, pond borders, wet meadows, and grassy swamps. Generally associated with Lower Arkansas River Basin.	Low
Ferruginous hawk	<i>Buteo regalis</i>	- / SC	Occurs in arid and open habitats including grasslands, sagebrush or saltbush plains, and deserts. Nests in lone trees, cliffs, rock outcrops, or on the ground in a high area like a knoll. 1-mile buffer of proposed Pathway facilities within species breeding range.	Moderate
Golden eagle	<i>Aquila chrysaetos</i>	BGEPA / -	Open native habitats with an abundance of prey. Nesting occurs on cliffs, knolls, and raised areas. 1-mile buffer of proposed Pathway facilities within overall species range.	Moderate
Long-billed curlew	<i>Numenius americanus</i>	- / SC	Occur in grasslands in close proximity to ponds, reservoirs, playas, and wet meadows. 1-mile buffer of proposed Pathway facilities within species breeding range.	Moderate

Common Name	Scientific Name	Federal/ State Status <sup>1</sup>	Habitat Associations/ Range	Likelihood of Occurrence <sup>2</sup>
Mountain plover	<i>Charadrius montanus</i>	- / SC	Occurs in shortgrass prairie habitat, nesting in sparsely vegetated areas or areas with barren open ground, and often found near prairie dog colonies. 1-mile buffer of proposed Pathway facilities is within species breeding range.	Moderate
Piping plover <sup>3</sup>	<i>Charadrius melodus</i>	FT / ST	Reservoirs, lakes, and rivers with sand and gravel areas and sparse vegetation. 1-mile buffer of proposed Pathway facilities outside range for the species.	Unlikely – No downstream impacts anticipated.
Western burrowing owl	<i>Athene cunicularia hypugaea</i>	- / ST	Open habitats with low or sparse vegetation on gently sloping terrain. Nesting typically occurs in small mammal burrows. Often found nesting in the perimeters of prairie dog colonies. 1-mile buffer of proposed Pathway facilities occurs in species breeding range and medium potential prairie dog colony occurrence area.	Moderate
Whooping crane <sup>3</sup>	<i>Grus americana</i>	FE / SE	Freshwater marshes, wet prairies, shallow lakes, and lagoons. 1-mile buffer of proposed Pathway facilities outside range for the species.	Unlikely – No downstream impacts anticipated.
<b>Fish</b>				
Pallid sturgeon <sup>3</sup>	<i>Scaphirhynchus albus</i>	FE / -	Large river systems with firm sandy bottoms (i.e., Missouri River). 1-mile buffer of proposed Pathway facilities outside range for the species.	Unlikely – No downstream impacts anticipated.
<b>Reptiles</b>				
Common gartersnake	<i>Thamnophis sirtalis</i>	- / SC	Occurs in grasslands, prairies, streams, wetlands, and is often found near water. 1-mile buffer of proposed Pathway facilities within overall species range.	Moderate
<b>Amphibians</b>				
Northern leopard frog	<i>Rana pipiens</i>	- / SC	Riparian areas, wet meadows, and ponds, with nearby upland habitat.	Low

Common Name	Scientific Name	Federal/ State Status <sup>1</sup>	Habitat Associations/ Range	Likelihood of Occurrence <sup>2</sup>
<b>Insects</b>				
Monarch butterfly	<i>Danaus plexippus</i>	FC / -	Found in a wide variety of habitats and are known to occur in grasslands and prairie habitats in Colorado. The species requires milkweed ( <i>Asclepias</i> spp.) host plants to lay their eggs.	Moderate
<b>Plants</b>				
Ute ladies'-tresses orchid	<i>Spiranthes diluvialis</i>	FT / -	Moist meadows associated with perennial stream terraces, floodplains, and oxbows at elevations below 6,500 feet.	Low
Western prairie fringed orchid <sup>3</sup>	<i>Platanthera praeclara</i>	FT / -	Unplowed, calcareous prairies and sedge meadows. 1-mile buffer of proposed Pathway facilities outside range for the species.	Unlikely- No downstream impacts anticipated.
<b>Invertebrates</b>				
Cylindrical papershell	<i>Scaphirhynchus albus</i>	- / SC	Headwater lakes or low-gradient streams with muddy and sandy bottoms; requires warm water fish for hosts.	Low

1 FC = Federal Candidate, FE = Federally Endangered, FT = Federally Threatened, ST = State Threatened, SE = State Endangered,

2 Likelihood of Occurrence: Unlikely—unsuitable habitat in project and vicinity; Low—marginally suitable habitat in project and vicinity; Moderate—suitable habitat present in project, or species known to occur in habitat similar to project; High—highly suitable habitat present in project, or known populations exist in project vicinity.

3 Platte River Species = Water-related activities or uses in the Platte River Basins may affect these species in downstream reaches.

Of these 21 species, three federally-protected or candidate species (golden eagle, bald eagle, and monarch butterfly) and one state-protected species (burrowing owl) were determined to have a moderate or high likelihood of occurrence within the 1-mile buffer of proposed Pathway facilities in Morgan County.

In addition to listed species, CPW tracks and maps data for big game species habitat throughout the state (CPW 2022a). The Wildlife Species Habitat Resource Maps in Attachment A illustrate mapped big game habitat for Pathway in Morgan County. Two mule deer (*Odocoileus hemionus*) winter concentration areas and one area identified as severe winter range occur within the 1-mile buffer of proposed Pathway facilities. No other big game species habitat is mapped in the same area.

Potential Impacts to wildlife species would primarily be associated with temporary disturbance from construction activities within the ROW, namely the removal and management of vegetation. In addition, increased noise and equipment movement during construction may temporarily displace mobile wildlife species from the immediate workspace area. These impacts are considered short-term in duration and normal wildlife movements would be expected to resume after construction has been completed and disturbed areas have been restored in a manner generally similar to preconstruction conditions.

To avoid or minimize impacts to wildlife, Pathway will implement measures such as requiring proper trash and food debris disposal and compliance with posted speed limits. CPW recommendations (CPW 2021) will be incorporated where practicable.

Vegetation clearing during migratory bird breeding season (generally April 15 through September 1) could impact active nests by disturbing or destroying them, resulting in fatalities of adults, eggs, and/or young. Additionally, lighting, construction noise, and vibration in the immediate vicinity of active nests, could potentially result in nest failure or abandonment. Operation of Pathway could result in direct impacts to raptor species through electrocution and/or collision. To avoid these potential impacts, Pathway has been sited to avoid known eagle nest and roost locations to the extent practicable.

To avoid or minimize potential project impacts to migratory birds and raptors, including eagles, Pathway will conduct tree/vegetation clearing during the nonbreeding season for birds (September 1–April 15), if feasible. If vegetation clearing cannot occur during the nonbreeding season, vegetation clearance surveys, raptor nest surveys, and burrowing owl surveys may be conducted per USFWS and CPW guidance to identify avian nesting activity and determine appropriate avoidance buffers (CPW 2020, CPW 2021) or monitor active nest sites until determined to be inactive.

In addition, electrical components of the transmission lines and Canal Crossing Substation will be separated to minimize the risk of avian contact and will follow Avian

Power Line Interaction Committee (APLIC) guidelines (APLIC 2006). Bird flight or swan diverters or other marking devices may be used as determined necessary for specific locations.

Xcel Energy will continue to coordinate with USFWS and CPW to address concerns regarding wildlife impacts throughout planning, design and construction of Pathway, and will comply with all regulatory requirements.

## **12.7 VISUAL AESTHETICS/RESOURCES**

The existing visual landscape in the area around the proposed Pathway facilities consists of mainly agricultural land uses including pivot irrigated crops and pastureland. Trees are sparse and shrub/scrub and herbaceous land cover dominate the area. Industrial facilities present near Pathway facilities include oil and gas wells, communication facilities, and oil and gas pipelines. Electric distribution lines are visible throughout the area and are generally located along roads to serve residential and commercial areas. There are several existing high voltage transmission lines and electrical substations in Morgan County (HIFLD 2022). Other linear infrastructure, including railroads, Interstate Highways, U.S. Highways and local roads exist in proximity to Pathway. Where feasible, the Pathway route through Morgan County is collocated along this existing infrastructure to minimize impacts to the surrounding area. The transmission line and Canal Crossing Substation will be visible to viewers with direct, open views. Viewers located farther away are likely to experience less visual impact because the existing screening (topography, vegetation, buildings) and distance from the facilities will decrease potential views.

### ***Canal Crossing Substation***

The Canal Crossing Substation will be located 5 miles south of the existing Pawnee Station along an existing high-voltage transmission line corridor. The substation will operate as a private, unstaffed facility requiring few maintenance visits during operation, and can be considered a passive use of land. Slight variations in existing topography and existing vegetation will also provide partial screening of the substation, as these features will shield parts of it from view. The Canal Crossing Substation will not significantly alter viewsheds, scenic vistas, unique landscapes or land formations. The substation will use galvanized steel structures.

### ***Transmission Line***

The Pathway route through Morgan County is collocated along existing transmission infrastructure for approximately 12 miles and along several county roads to reduce visual impacts. The type of steel used will be weathering steel which oxidizes to resemble a natural brown look and is not shiny. Visual impacts of the transmission line

will vary based on proximity and with distance, the scale of the transmission line poles will be minimized. The visual landscape along the route features existing transmission lines, roadways, and industrial elements, and Pathway will result in an incremental increase in structures in the viewshed. Representative photographic simulations are included in Attachment C.

Existing undisturbed trees, shrubs, and native vegetation will be preserved to the extent possible to maintain visual contrast in the landscape. Following construction, the ROW will be restored in a manner generally similar to pre-construction conditions consistent with previous representations.

## **12.8 NOISE IMPACTS AND NUISANCE FACTORS**

The CPUC provides reasonableness determinations associated with noise and requires CPCN applicants to evaluate the expected level of noise of the proposed transmission facilities. Xcel Energy is required to meet state standards as outlined in the Code of Colorado Regulations (Section 4 CCR 723-3).

Construction-related noise will result in temporary short-term increases in noise in areas where construction and staging are taking place. Short-term noise result during substation construction, foundation construction, and assembly and erection of the transmission line structures. Short-term noise is anticipated from construction equipment such as auguring machines, cranes, heavy machinery, and trucks. Construction vehicles and equipment will be maintained in proper operating condition and equipped with manufacturer's standard noise control devices (e.g., mufflers or engine enclosures).

Indirect effects from post-construction activities, which include the noise from transmission line inspections and maintenance activities are anticipated to be negligible because of their short duration and infrequency.

All high-voltage transmission lines experience significant corona during wet weather, when water droplets form on the line. In normal, fair weather conditions, corona and its corresponding audible noise are usually at low levels (approximately 25 decibels less than wet weather noise). Corona also increases approximately 1 decibel for every 1,000 feet in elevation gain. Based on the noise study conducted for Pathway, the maximum projected noise level measured at 25 feet from the edge of the ROW is 49.8 dBA and the maximum projected noise level at 25 feet from the Canal Crossing Substation is 61 dBA. Per CPUC Rule 3206(f), noise levels below 50 dBA are not subject to further review regardless of the use of land, and noise levels below 75 dBA are deemed reasonable for land within an Industrial Zoning at 25 feet from the property line (Section 4 CCR 723-3). The projected noise levels from the Pathway transmission line and Canal

Crossing Substation were deemed reasonable by the CPUC and not subject to further review.

## **12.9 LAND USE**

Pathway is located within unincorporated Morgan County in the Agriculture Zone (A) district (Morgan County 2022). The Canal Crossing Substation is also located in parcels zoned as Agriculture (A). As set forth in Section 2-150 of Morgan County's Land Use Code, site selection and construction of major facilities of a public utility is an activity of state interest that requires a 1041 permit. A project that has received a 1041 permit under the Morgan County §1041 Regulations is classified as a use by right. Section 3-170(H) of Morgan County's Land Use Code further states, "A major facility of a public utility for which a development permit has been issued" is one of the "Agriculture Zone Uses-By-Right".

Per the 2008 Morgan County Comprehensive Plan, there are several goals within the Land Use Element applicable to Pathway: (1) To encourage development where the proposed development is compatible with existing land uses; (2) encourage the preservation of agriculture production lands in balance with pressures for land use changes to higher intensity development; and (3) encourage the preservation of agricultural production land to ensure continuation of this important industry (Morgan County 2008). Pathway is sited within agricultural zone districts within Morgan County and is compatible with agricultural use.

A review of NHD shows only one ditch mapped near Pathway facilities in Morgan County. Xcel Energy is mindful of the importance of functioning irrigation ditches to Morgan County's agricultural economy. If Pathway encroachments within a ditch impact the carriage of water, Xcel Energy will enter into any legally required agreement with the affected irrigation ditch company. If Xcel Energy identifies any such active irrigation ditches, Xcel Energy will supplement this Application with that information. The transmission line alignment avoids pivot irrigation in fields to minimize effects to existing agricultural operations. Aside from the small footprint of the individual transmission poles and the Canal Crossing Substation, areas under and around Pathway can continue in agricultural use.

Morgan County Comprehensive plan goals within the Transportation Element applicable to Pathway require new developments to mitigate impacts to adjacent county roads (Morgan County 2008). Pathway will mitigate impacts to county roads as described in Section 12.11. The transmission ROW is located in existing easements or ROWs as much as possible.

Temporary impacts to agricultural activities are expected to be minor. Disturbed areas surrounding new transmission poles will be revegetated following construction.

Construction and operation of the transmission line will not interfere with continued use of the surrounding areas for agricultural uses. Xcel Energy will avoid the removal of landscaping where possible. Disturbed areas would be returned to preconstruction conditions or reseeded according to landowner requests and Morgan County requirements.

### **12.9.a Existing Utilities**

A map showing existing electric infrastructure, including substations and transmission lines, within Morgan County is provided the Resource Map Books contained in Attachment A.

The purpose of Pathway is to create a network transmission system that can integrate new generation resources needed to meet Colorado's clean energy goals. The current electric transmission facilities in the Eastern Plains do not have adequate capacity to meet the forecasted demand. Pathway will be able to integrate approximately 3,000 to 3,500 megawatts of electric power output from new generation.

### **12.9.b Public Outdoor Recreation Areas**

There are no local public outdoor recreation areas in the vicinity of Pathway facilities in Morgan County (USGS 2022b). No impacts to recreation areas are anticipated.

## **12.10 UNIQUE AREAS OF HISTORIC OR ARCHEOLOGICAL IMPORTANCE**

Both a desktop cultural resources study and a field reconnaissance survey (May 5 to 6, 2022) were completed where proposed Pathway facility locations and potential historic or archeological resources were visible from public roads.

Cultural resource records were reviewed using archaeological site files and the Colorado Cultural Resource Online Database (Compass) maintained by the Colorado Historic Society Office of Archaeology & Historic Preservation. Included in the Compass database are records of properties listed in the National Register of Historic Places (NRHP). The cultural resources site file search was conducted for a 400-foot buffer of the transmission line ROW and Canal Crossing Substation within Morgan County (the Research Area).

Within the Research Area, two previous cultural resource surveys have been conducted (report numbers MR.SC.NR183 and MR.SC.NR172). Both surveys briefly intersect Segment 2.

Within the Research Area are five previously recorded cultural resources (Table 16). All five of the resources are historic and intersect Pathway. Three are historic transmission

lines (5MR695, 5MR698, 5MF701) and two are recorded as unknown. Two have been officially determined not eligible (5MR695 and 5MR701), two are unevaluated (5MR735 and 5MR1018), and one (the Beaver Creek to Hoyt Transmission Line) is field recommended as eligible (5MR698).

**Table 16: Previously Recorded Cultural Resources within the Research Area**

Site No.	Age	Description	NRHP Eligibility
5MR.695	Historic	The Beaver Creek to Sandy Transmission Line	Officially Determined Not Eligible
5MR.698	Historic	Beaver Creek to Hoyt Transmission Line	Field Recommended Eligible
5MR.701	Historic	Hoyt to Kiowa Creek Transmission Line	Official Determined Not Eligible
5MR.735	Historic	Unknown	Unknown
5MR.1018	Historic	Unknown	Unknown

Higher voltage transmission lines are generally installed crossing over lower voltage lines to avoid potential interference. Pathway will cross the three historic transmission lines. If needed, the Pathway transmission poles on either side of the historic transmission lines will be designed to be taller to increase the clearance. Site 5MR.735 is located completely outside the transmission line ROW or Canal Crossing Substation footprint. Site 5MR.1018 is approximately 2,060 acres in size and is crossed by the Beaver Creek to Sandy Transmission Line (5MR.695). The Pathway transmission line will follow County Road H adjacent to this site, along a portion of its northern border.

One resource (PW-ZR-01) was observed during the field reconnaissance survey. The resource is a historic residence and associated farmyard consisting of one partially collapsed building and partially collapsed corral. Historic background research indicates the property was a Homestead, originally patented by a William W. Peak in 1914 (BLM 2022). Historic aerials and topographic maps indicate the property was in use until the mid-1970s (NETROnline 2022; USGS 2022c).

Of the historic names identified in the historical background research, none appear to be prominent local figures. The site is also in poor condition as the building and coral are partially collapsed. Site PW-ZR-01 has not been formally recorded and is therefore unevaluated for eligibility to the NRHP. It is likely not eligible to the NRHP under Criterion B (associated with a significant person) or Criterion C (architecturally significant). It is associated with major local events (Criterion A) such as Euro-American settlement in Morgan County and the Homestead Act of 1862 and has not been evaluated for its research potential (Criterion D). Regardless of its formal eligibility status, the Pathway transmission line will be adjacent to site PW-ZR-01, along County Road 36.

## **12.11 TRANSPORTATION**

Construction of Pathway is not expected to cause significant effects to Morgan County transportation and any impacts will be temporary in nature. Work crews will mobilize each day from the laydown yard to the work areas. Traffic to local work areas will be limited to supervisory vehicles transporting work crews, required construction equipment, and equipment delivery vehicles. It is not anticipated that construction equipment or labor transportation will have a significant impact on traffic volumes or flow on local roadways or state/county highways. Any increases in traffic will be short-term in nature and limited to the construction time period near individual transmission poles.

Pathway will cross or be located near State Highway 71 and the following County Roads: 2, 5, 6, 12, 19, 20, 30, 33, 36, D, F, G, H, I, K, and L. Traffic will be delayed temporarily for the time it takes to string conductor across the road. Traffic Control Plans will be developed in areas where travel on roadways could be impacted during construction. Construction updates and schedules will be discussed with local government officials as needed as details are determined. Necessary road use and ROW permits will be obtained from Morgan County as needed prior to construction.

Pathway does not cross any railroads in Morgan County; as such, no impacts to railroads are anticipated.

Pathway is not located within the approach or departure zone of any airports in Morgan County. The closest airport to the Pathway route within Morgan County is 4.15 miles away. Therefore, no impacts to airports are anticipated. Xcel Energy will file with FAA as necessary for certain structures or areas of the line.

## **12.12 PUBLIC SUPPORT FACILITIES AND IMPACTS**

Pathway will cross the following special districts in Morgan County: East Morgan County Hospital District; East Morgan County Library District; Wiggins, Fort Morgan, and Brush Fire District; RE-50, RE-2 and RE-3 School Districts; North Kiowa Bijou Water District, Quality Water District, and the Wiggins Pest Control District.

Pathway will not require additional community or local government services beyond those currently provided in the area. Pathway creates no additional demand for transportation infrastructure, educational facilities, housing, water (other than trucked-in water for construction), sewage or wastewater treatment, or public transportation. Pathway will not impact services provided by or the location of special districts. See Section 12.11 regarding transportation impacts and mitigation.

### **12.13 IMPACT ON PUBLIC FINANCES**

Pathway is estimated to cost approximately \$1.7 billion and, if approved, the May Valley – Longhorn Extension will cost approximately \$250 million.

Project construction will require substantial amounts of contract labor, while also providing local jurisdictions and host communities with additional tax revenues and potential employment opportunities. Once Pathway has been completed, it will drive ongoing job opportunities and employment in the clean energy projects (wind, solar, etc.) that ultimately interconnect to Pathway.

## **13 ADDITIONAL INFORMATION FOR TRANSMISSION LINES AND SUBSTATION 3-305(3)(f)**

The sections that follow address Section 3-305(3)(f) for applicants seeking a permit for the site selection and construction of transmission lines or substations.

### **13.1 ELECTRIC AND MAGNETIC FIELDS**

Pathway facilities will be designed, constructed, operated, and maintained to meet or exceed applicable standards of design and performance set forth in the NESC.

Electric and magnetic fields (EMF) exist wherever electricity is produced or used, including around any electric appliance or wire that conducts electricity. Electric fields are created by voltage—the higher the voltage, the stronger the field. Anytime an electric appliance is plugged in, even if it is not on, an electric field is created in its vicinity. Electric fields are easily blocked by walls, trees, clothes, and skin. The farther the distance from the source of the electric field, the weaker it becomes. EMF extend outward from the conductor wire and decrease rapidly with distance from the conductor. There is no federal standard for transmission line EMF. Additional information is available online at [Transmission-EMF-Fact-Sheet.pdf \(coloradospowerpathway.com\)](https://coloradospowerpathway.com/Transmission-EMF-Fact-Sheet.pdf).

An EMF study was conducted for Pathway and submitted as part of Pathway's CPCN application (Attachment E). The study concluded that magnetic field levels at the edge of the Pathway transmission line ROW are projected to be 54.7 milligauss (mG). These levels are below 150 mG, and were deemed reasonable by the CPUC. No related impacts to human health and safety are anticipated.

### **13.2 PRUDENT AVOIDANCE MEASURES**

The routing and siting study process used to locate Pathway facilities in Morgan County is summarized in Section 1 and Appendix A of this Application. In February 2022, the CPUC provided verbal approval for the CPCN for Pathway Segments 1 through 5, and

conditional approval for the Extension, determining Pathway is in the public interest and in compliance with relevant CPUC rules and regulations. The CPUC approved the Pathway CPCN application on June 2, 2022.

## **14 COMPLIANCE WITH APPROVAL CRITERIA**

In accordance with Section 3-306 of the Morgan County §1041 Regulations, this section describes how Pathway routing and site selection, construction, maintenance, and operation comply with the approval criteria for the Board of County Commissioners approval of this Application. Each criterion from Section 3-306 is listed, followed by a description of how Pathway will comply.

*(a) The health, welfare and safety of the citizens of this County will be protected and served;*

Pathway is a necessary capital improvement to expand the existing electric transmission grid system in Colorado. The location, construction, and operation of Pathway will comply with all federal, state, and local regulations.

All Pathway facilities also will be designed, constructed, operated, and maintained to meet applicable standards of design and performance set forth in the NESC.

Pathway will be designed to minimize the risks from natural hazards, such as high winds and floods. Additional information on design and hazard avoidance and mitigation is provided in Sections 1 and 12.

*(b) The natural and socio-economic environment of this County will be protected and enhanced;*

Pathway facilities are sited to minimize impacts to natural resources as described in Section 1 and Attachment A. Pathway will enhance the socio-economic environment in Morgan County during the construction period via increased revenue to local businesses and social services. Project construction will require substantial amounts of contract labor, while also providing local jurisdictions and host communities with additional tax revenues and potential employment opportunities. Once Pathway has been completed, it will drive ongoing job opportunities and employment in the clean energy projects (wind, solar, etc.) that ultimately interconnect to Pathway.

*(c) All reasonable alternatives to the proposed action, including use of existing rights-of-way and joint use of rights-of-way, wherever uses are compatible, have been adequately assessed and the proposed action represents the best interests of the people of this County and represents the best utilization of resources in the impact area;*

The design and need of the proposed Project have been approved by the CPUC and represents the use and application of best technology and industry standards for transmission and transformation of electric energy. Routing and Siting studies were prepared 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)) (Attachment A). The Segment 1: Fort St. Vrain – Canal Crossing Routing and Siting Study and the Segment 2: Canal Crossing – Goose Creek Routing and Siting Study are included as Attachment A. Public open house meetings were conducted in Morgan County (and virtually) in June 2021, September 2021, November 2021, and January 2022 to inform the public and key stakeholders about Pathway, gather feedback, and address questions and concerns. The analyses of alternatives evaluated in the Routing and Siting studies and feedback from public and key stakeholders were used to determine the proposed preferred locations for Pathway facilities in Morgan County. The portions of Pathway in Morgan County as described in this Application represent the best interests of the people in the county and the best utilization of resources in the impact area.

*(d) A satisfactory program to mitigate and minimize adverse impacts has been presented;*

Pathway will mitigate and minimize adverse impacts as described in Section 12.

*(e) The nature and location or expansion of the facility complies with all applicable provisions of the master plan of this County, and other applicable regional, metropolitan, state, and national plans;*

Pathway is not inconsistent with any adopted county, regional, metropolitan, or state master plans or comprehensive plans. As described in Section 12.9, Pathway complies with the Morgan County Comprehensive Plan (Morgan County 2008). Pathway is sited within "Agriculture" zone districts within Morgan County and is compatible with agricultural use. The transmission line alignment spans existing irrigation ditches and pivot irrigation in fields to minimize effects to existing agricultural operations. Aside from the small footprint of the individual transmission poles and the Canal Crossing Substation, areas under and around Pathway facilities can continue in agricultural use. Regarding transportation, Pathway will mitigate impacts to county roads through use of BMPs and traffic control during construction, and post-construction restoration.

*(f) The nature and location or expansion of the facility complements the existing and reasonably foreseeable needs of the service area and of the area immediately affected by the facility;*

Pathway will not negatively affect the existing and reasonably foreseeable needs of the service area or the area immediately affected by the facility.

Pathway will not cause a significant change in land use in the immediate area. Current uses adjacent to Pathway facilities will be able to continue mainly unchanged after construction of this Project thereby preserving desirable community and rural patterns which exist. Following construction, agricultural activities along the transmission line route can continue outside of the small area occupied by the transmission poles and the Canal Crossing Substation footprint.

*(g) The nature and location or expansion of the facility does not unduly or unreasonably impact existing community services;*

Pathway will not unduly or unreasonably affect existing community services. [See (h), below.]

*(h) The nature and location or expansion of the facility will not create an expansion of the demand for government services beyond the reasonable capacity of the community or region to provide such services, as determined by the Board;*

Pathway will not require additional local government services beyond those currently provided in the area. Pathway creates no additional demand for transportation infrastructure, educational facilities, housing, water (other than water for construction), wastewater treatment, or public transportation.

As described in Section 3.6.b., during construction, it is anticipated that an average of 15 trucks per day will be utilized during the construction of the transmission line. The impact to local roads will vary day-by-day as the project moves along the route. The construction of the Canal Crossing Substation will involve mostly personal vehicle trips for construction workers of 10 to 12 trips per day. A staging area on the substation site will be designated on site for truck traffic to deliver materials to the substation; these trips will be approximately 1 to 2 trips per week. Concrete will be delivered via concrete trucks, and the concrete will be pumped or poured on site. There will be a large number of concrete truck deliveries when the foundations and piers are constructed. To mitigate any potential impacts to local county roads, Traffic Control Plans will be prepared and followed during construction.

*(i) The facility site or expansion area is not in an area with general meteorological and climatological conditions which would unreasonably interfere with or obstruct normal operations and maintenance;*

Pathway is not located in an area with meteorological or climatological conditions which would unreasonably interfere with normal operations and maintenance. Pathway is designed to minimize the risks from natural hazards, such as high winds and floods.

- (j) The nature and location of the facility or expansion will not adversely affect the water rights of any upstream, downstream, or agricultural users, adjacent communities or other water users;*

Pathway will not require water rights for construction or operation and will not affect existing water rights.

- (k) Adequate water supplies are available for facility needs;*

Water to be used during construction will be obtained from a local, permitted source. Pathway will not require water use during operation.

- (l) The nature and location of the facility or expansion will not unduly interfere with any existing easements for or rights-of-way, for other utilities, canals, mineral claims, or roads;*

As part of the land rights process, Xcel Energy will identify any existing easements or rights-of-way for other utilities, canals, mineral claims, or roads and will not cause any undue interference with existing easements or rights-of-way during construction and operation of Pathway.

- (m) Adequate electric, gas, telephone, water, sewage, and other utilities exist or shall be developed to service the site;*

Backup station service power to Canal Crossing Substation will be developed in coordination with the local power provider and, if needed, a communication line will be obtained from a local provider. Pathway facilities will not require gas, water, sewage or other utility service in Morgan County.

- (n) The nature and location for expansion of the facility will not interfere with any significant wildlife habitat or adversely affect any endangered wildlife species, unique natural resource or historic landmark within the impact area;*

Sensitive natural resources and wildlife interests were considered in identifying the preferred location for the Canal Crossing Substation and transmission line to minimize potential interference from Pathway facilities. In addition, Xcel Energy has communicated with CPW and USFWS representatives regarding Pathway and will continue to coordinate with them throughout design and construction of Pathway including compliance with all regulatory requirements. Pathway will not affect unique natural resources or historic landmarks in Morgan County.

- (o) The nature and location or expansion of the facility, including expected growth and development related to the operation and provision of service, will not significantly deteriorate water or air quality in the impact area;*

The Canal Crossing Substation will introduce new impervious area, mainly consisting of a gravel substation pad and gravel access road. The drainage design will incorporate permanent drainage and detention facilities to mitigate impacts from construction. The drainage design will accommodate the requirements set forth by the Colorado Floodplain and Stormwater Criteria Manual. An extended detention basin will provide detention, water quality treatment, and rate control. The drainage design will reduce the peak discharge from the site for all storm events and will specifically demonstrate that the peak discharge for the 100-year event will be reduced to a rate less than the peak discharge of the pre-development 10-year event. A SWMP will be created and stormwater management features incorporated into the design of the Canal Crossing Substation as necessary. Xcel Energy will coordinate with Morgan County and incorporate drainage facilities at the substation as appropriate in order to not significantly deteriorate water or air quality in the impacted area.

Construction activities will be performed by methods that prevent entrance or accidental spillage of solid matter, contaminants, debris, and other pollutants and wastes into flowing streams or dry watercourses, lakes, and underground water sources. All activities will follow BMPs for the management of wastes to avoid and minimize effects from potential spills or other releases to the environment.

Construction of the transmission line will not create runoff in excess of previous site levels and will not change existing topography or adversely affect drainage. There will be no alteration in the pattern or intensity of surface drainage as a result of construction or operation of the transmission line.

Xcel Energy will comply with permit application requirements, Morgan County standards, and construction protocol to ensure that Pathway does not affect water quality. Prior to construction, a Storm Water Permit for Construction Activities will be obtained from the CDPHE and a site-specific SWMP will be developed.

Short-term effects to air quality are anticipated from a temporary increase in construction vehicles, which may increase fumes and fugitive dust, construction equipment exhaust (fumes), and clearing and preparing areas for construction (dust). The short-term effects are not expected to cause a public nuisance. If a nuisance arises during construction, the nuisance will be mitigated in coordination with Morgan County. Substation operations will not require on-site staff and will be monitored remotely. Visits from personnel will be limited to emergencies or periodic maintenance and inspection activities and increased fumes, exhaust and dust during operation is not expected.

Xcel Energy will apply for a CDPHE APEN for land development prior to construction and follow state standards to control the release of fugitive dust related to construction,

if necessary. The APEN will be required for a disturbance greater than 5-acres and/or a construction duration longer than 6 months.

- (p) The geological and topographic features of the site are adequate for all construction, clearing, grading, drainage, vegetation, and other needs of the facility construction or expansion;*

Xcel Energy will conduct geotechnical investigations to identify potential geologic hazards along the transmission line alignment and at the Canal Crossing Substation location. Xcel Energy also has institutional knowledge of the area since Xcel Energy owns the existing Pawnee Substation facilities immediately adjacent to the existing area that will be utilized. Based upon investigations to date and knowledge of the area, Xcel Energy does not believe there are significant risks from geological hazards associated with Pathway.

The landscape along the Pathway facilities in Morgan County is flat with little variation in topography. Pathway will not significantly change the existing topography. The transmission line is designed to conform with existing topography and the Canal Crossing Substation has been sited to minimize the amount of grading necessary due to existing topography.

- (q) The existing water quality of affected state waters will not be degraded below state and federal standards or established baseline levels.*

Construction activities will be performed by methods that prevent entrance or accidental spillage of solid matter, contaminants, debris, and other pollutants and wastes into flowing streams or dry watercourses, lakes, and underground water sources. All activities will follow BMPs for the management of wastes to avoid and minimize effects from potential spills or other releases to the environment.

Water quality will be maintained during construction through BMPs and the site-specific SWMP. Pathway will not impact the quantity or quality of water flowing off of the site. The transmission line will span streams and waterways that cross the corridor and impacts to state waters will be avoided to the extent practicable.

- (r) The proposed project will not have a significantly adverse net effect on the capacities or functioning of streams, lakes and reservoirs in the impact area, nor on the permeability, volume, recharge capability, and depth of aquifers in the impact area.*

The transmission line would span or avoid any wetlands, streams, lakes, and reservoirs. Water quality will be maintained during construction through BMPs and the site-specific SWMP. Pathway will not impact the aquifers in the impact area.

- (s) *The benefits of the proposed developments outweigh the losses of any natural resources or reduction of productivity of agricultural lands as a result of the proposed development.*

Construction and operation of Pathway will result in minimal permanent impacts to natural resources or agricultural lands. Lands can continue in agricultural use, with the exception of the footprint of the individual transmission poles and the 80-acre Canal Crossing Substation. The development of Pathway in Morgan County is anticipated to provide local economic benefits during construction and potential long-term economic benefits should new generation resources be developed in the area. Pathway will also improve the state's electric reliability, therefore benefiting all consumers in Colorado.

- (t) *The applicant has obtained or will obtain all property rights, permits, and approvals necessary for the proposed project, including surface, mineral, and water rights and easements for drainage, disposal, utilities, access, etc. If the applicant has not obtained all necessary property rights, permits and approvals, the Board may; at its discretion, grant the permit conditioned upon completion of the acquisition of such rights prior to issuance of a zoning or building permit by Morgan County.*

Before commencing construction, Xcel Energy will acquire the required ROW easements for the area underlying the transmission line and thereby will hold a recognized property interest in the land on which Pathway is proposed. If applicable, Xcel Energy will work with the County staff and the Board on crafting conditions of approval to be included in the final permit. All easements required for construction of each phase of the project will be secured and recorded prior to the start of construction for that individual phase.

- (u) The proposed project will not present an unreasonable risk of exposure to or release of toxic or hazardous substances within the impact area. The determination of effects of the project shall include the following considerations:

- (i) *The means by which outdoor storage facilities for fuel, raw materials, equipment and related items are adequately enclosed by a fence or wall;*

No hazardous materials will be used, stored, or generated on site of Pathway facilities. Chemicals that may be used during construction and operation are those found in diesel fuel, gasoline, coolant (ethylene glycol), and lubricants in machinery, and such chemicals, if any will be kept within the TCAs pursuant to appropriate storage protocols and applicable regulatory controls.

- (ii) *The likelihood of hazardous materials or wastes being moved off the site by natural causes or forces;*

No hazardous materials will be permanently used, stored, or generated on site of Pathways facilities. Hazardous materials used during construction and operation will be used and disposed of in compliance with all applicable federal, state, and local regulations. Enclosed containment will be provided for trash disposal. Construction waste, including trash and litter, garbage, other solid waste, petroleum products, and other potentially hazardous materials, will be removed and taken to a disposal facility authorized to accept such materials.

Construction, operation, and maintenance activities will comply with applicable federal, state, and local laws and regulations regarding the use of hazardous substances. Construction activities will be performed by methods that prevent entrance or accidental spillage of solid matter, contaminants, debris, and other pollutants and wastes into flowing streams or dry watercourses, lakes, and underground water sources. All activities will follow BMPs for the management of wastes to avoid and minimize effects from potential spills or other releases to the environment.

*(iii) Containment of inflammable or explosive liquids, solids or gases.*

Chemicals that may be used during construction and operation would be stored within TCAs, as set forth in (u)(i) above.

Measures to contain or control any spill that may occur and to contact appropriate emergency offices and personnel will be formulated and designed in accordance with federal, state, and local requirements.

*(v) The scope and nature of the proposed project will not create duplicate services within Morgan County; and*

The scope of Pathway does not duplicate any existing services within Morgan County. Pathway fills a need for a network transmission line facility to connect demand centers with areas of the state best situated for wind and solar generation projects.

*(w) If the purpose and need for the proposed project are to meet the needs of an increasing population within the County, area and community development and population trends demonstrate clearly a need for such development.*

Not applicable, as the purpose and need for Pathway are not to meet the needs of an increasing population within Morgan County, but are primarily to meet the state's growing electricity needs; improve electric safety, reliability and affordability; and enable the transition to clean energy.

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