Pikes Peak Area Council of Governments
Communities Working Together

Meeting Agenda
Community Advisory Committee
Wednesday, July 29, 2026, 3:00 PM

In-Person
Pikes Peak Area Council of Governments Main Conference Room
14 S. Chestnut St., Colorado Springs, CO 80905

Virtual: Microsoft Teams (Video and Audio)
Meeting ID: 247 164 075 314 225
Passcode: 3WL7Lj3x

Virtual: Phone (Audio Only)
Phone: (929) 242-8427
Conference ID: 435 324 852

1. **Call to Order / Establish a Quorum / Introductions**
2. **Agenda Approval**
3. **Consent Items**
   (These items will be acted upon as a whole, unless they are called up for discussion by a Committee member or a citizen wishing to address the Committee.)
   A. Approval of the minutes (June 24, 2026) ✉
4. **Public Comments / Presentations**
   Public comments can be made before or during the meeting. Public comments during the meeting are limited to three minutes and can be done at the meeting location or remotely by using the posted Microsoft Teams link. Individuals are encouraged to notify the meeting organizer at ppacg@ppacg.org before the start of the meeting with the agenda item they would like to comment on. Public comments can be submitted before the meeting via email to ppacg@ppacg.org for distribution to the committee members.
5. **Action Items**
   A. Regional Freight Plan Draft: Josh Squires, Transportation Planner ✉
   B. Site Application for Peyton School District, Wastewater Alternatives Evaluation: Angie Martell, Environmental Planner ✉
   C. Regional Traffic Data Service: William Mast, GIS and Modeling Manager ✉
6. **Information Items**
   A. Federal Transit Administration Section 5310 Introduction: Lisa Gagnon, Transit Planner ✉

7. **Member Entity Announcements**
8. **Meeting Schedule** ✉
9. **Adjournment**

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Pikes Peak Area Council of Governments
Communities Working Together

Meeting Minutes
Community Advisory Committee
Wednesday, June 24, 2026, 3:00 PM

In-Person
Pikes Peak Area Council of Governments Main Conference Room
14 S. Chestnut St., Colorado Springs, CO 80905

Virtual: Microsoft Teams (Video and Audio)
Meeting ID: 246 018 225 915 72
Passcode: QN2T7Eq6

Virtual: Phone (Audio Only)
Phone: (929) 242-8427
Conference ID: 364 216 60

1. **Call to Order / Establish a Quorum / Introductions**
   The meeting was called to order at 3:00 pm.
2. **Agenda Approval**
   Chuck Theobald motioned to approve the agenda; Dave Betzler seconded. The motion carried unanimously.
3. **Consent Items**
   (These items will be acted upon as a whole, unless they are called up for discussion by a Committee member or a citizen wishing to address the Committee.)
   A. Approval of the minutes (May 27, 2026)
   Kathy Hisey motioned to approve; Gary Shugart seconded. The motion carried unanimously.
4. **Public Comments / Presentations**
   None.
5. **Action Items**
   A. Unified Planning Work Program Release for Public Comment: Danelle Miller, Transportation Associate Director, discussed the document.
   Chuck Theobald motioned to recommend that the Unified Planning Work Program Amendment 1 be released for public comment, Kathy Hisey seconded. The motion carried unanimously.
6. **Information Items**

A. Title VI Plan and Limited English Proficiency Plan Adoption: Lisa Gagnon, Transit Planner, discussed the document. A comment was made regarding the accuracy of the Census from our military bases. Lisa Gagnon and William Mast provided an update to the committee that the data was pulled from the American Community Survey.
B. Regional Freight Plan: Josh Squires, Transportation Planner, and Richard Driscoll and Christina Leech, of Cambridge Systematics, discussed the document and answered questions regarding Front Range Passenger Rail, drones, and connections with similar plans at the state or other levels.

7. Member Entity Announcements

Lisa Gagnon announced that Bike to Work was today, from 6-9am.
Roland Rainey announced there is another vacancy at the City of Colorado Springs, and he is in process of reviewing applications and conducting interviews.

8. Meeting Schedule

9. Adjournment

The meeting was adjourned at 3:56 pm.

Attendees

Present	Name	Agency/Affiliation
	Andrea Perry	League of Women Voters
	Brad Simmons	El Paso County
	Amanda Demarco	City of Colorado Springs
X	Candi Boyer	At-large
	Chuck Broerman	At-large
X	Chuck Theobald	City of Colorado Springs
X	Dave Betzler	Northern El Paso County Coalition of Community Associations
X	Ed Dills	Town of Ramah
X	Gary Shugart	At-large
X	Kathy Hisey	Town of Calhan
	Karen Lusby	Town of Monument
	Kevin Clark	El Paso County
X	Shayla Frazier	City of Fountain
X	Steve Schleiker	At-large
	Teresa Cheek	At-large
	Tyler Peoples	At-large
X	Welling Clark	El Paso County
X	Staff and guests	Pikes Peak Area Council of Governments

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Pikes Peak Area Council of Governments
Communities Working Together

Date: July 29, 2026

To: Pikes Peak Area Council of Governments Community Advisory Committee

From: Josh Squires, Transportation Planner, and Cambridge Systematics

Subject: Regional Freight Plan Draft

Action Requested: Review and Recommend

Summary

The Pikes Peak Area Council of Governments, with assistance from Cambridge Systematics, has completed the draft Regional Freight Plan. The plan builds upon the 2023 Regional Freight Mobility Study and evaluates freight movement throughout the Pikes Peak region while identifying strategies to support the safe, reliable, and efficient movement of goods.

At the previous meeting, the Community Advisory Committee received an overview of the draft plan, including the Freight Project Prioritization Framework, Projects and Corridors, and Funding Opportunities sections. Cambridge Systematics has incorporated committee feedback and finalized the draft plan.

Staff requests that the Community Advisory Committee recommend that the Pikes Peak Area Council of Governments Board of Directors release the draft Regional Freight Plan for public comment. Following the public comment period, any comments received will be incorporated, as appropriate, before the final plan is presented to the Community Advisory Committee for recommendation at the September meeting and then to the Board of Directors for adoption.

Proposed Motion

Recommend that the Pikes Peak Area Council of Governments Board of Directors release the draft Regional Freight Plan for public comment.

Attachments

1) Pikes Peak Area Council of Governments Regional Freight Plan Draft

Strategic Plan Goals

☐ Advocacy: Serve as an effective advocacy voice for common ground issues.
☒ Information Sharing: Serve as a significant resource for PPACG members to collect and share information with regional partners.

☐ Aging: Expand and extend senior access, awareness, education, and connectivity to support age-friendly communities and empower individual seniors.
☒ Transportation: Maintain and improve a coordinated, validated plan for transportation needs across the PPACG region.
☒ Program Excellence: Continue to excel in the key fundamental areas of PPACG: Military support, Environmental programs, Transportation, Area Agency on Aging, and regional communication and collaboration.

REGIONAL FREIGHT MOBILITY PLAN

October 2026

Delivering Pikes Peak
Regional Freight Plan

Regional Freight Mobility Plan

Pikes Peak Area
Council of Governments
Communities Working Together

prepared by

CAMBRIDGE SYSTEMATICS & WILSON & COMPANY

October 2026

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SECTION 1

INTRODUCTION



1.1 Freight Plan Objective

The Pikes Peak Area Council of Governments (PPACG) is a voluntary organization of municipal and county governments serving the PPACG region, which consists of El Paso, Teller, and Park Counties. Formed in 1967, PPACG's role has evolved over time to become the region's Metropolitan Planning Organization (MPO), as well as serving important functions related to air and water quality, land use, and rural transportation. Planning for current and future transportation needs is an important function of PPACG having recently adopted the 2050 Long Range Transportation Plan in February of 2025. In the Spring of 2023, PPACG began the development of its first Regional Freight Study, with the goal of gaining a deeper understanding of the regional freight system and to support future funding applications, both at the regional, statewide, and federal level, as well as planning initiatives. Today, this Regional Freight Plan builds on the accomplishments of the Regional Freight Study and establishes a data-driven decision-making framework to advance freight regional goals and objectives, informed by community input and engagement with freight stakeholders.

1.2 Approach and Outline

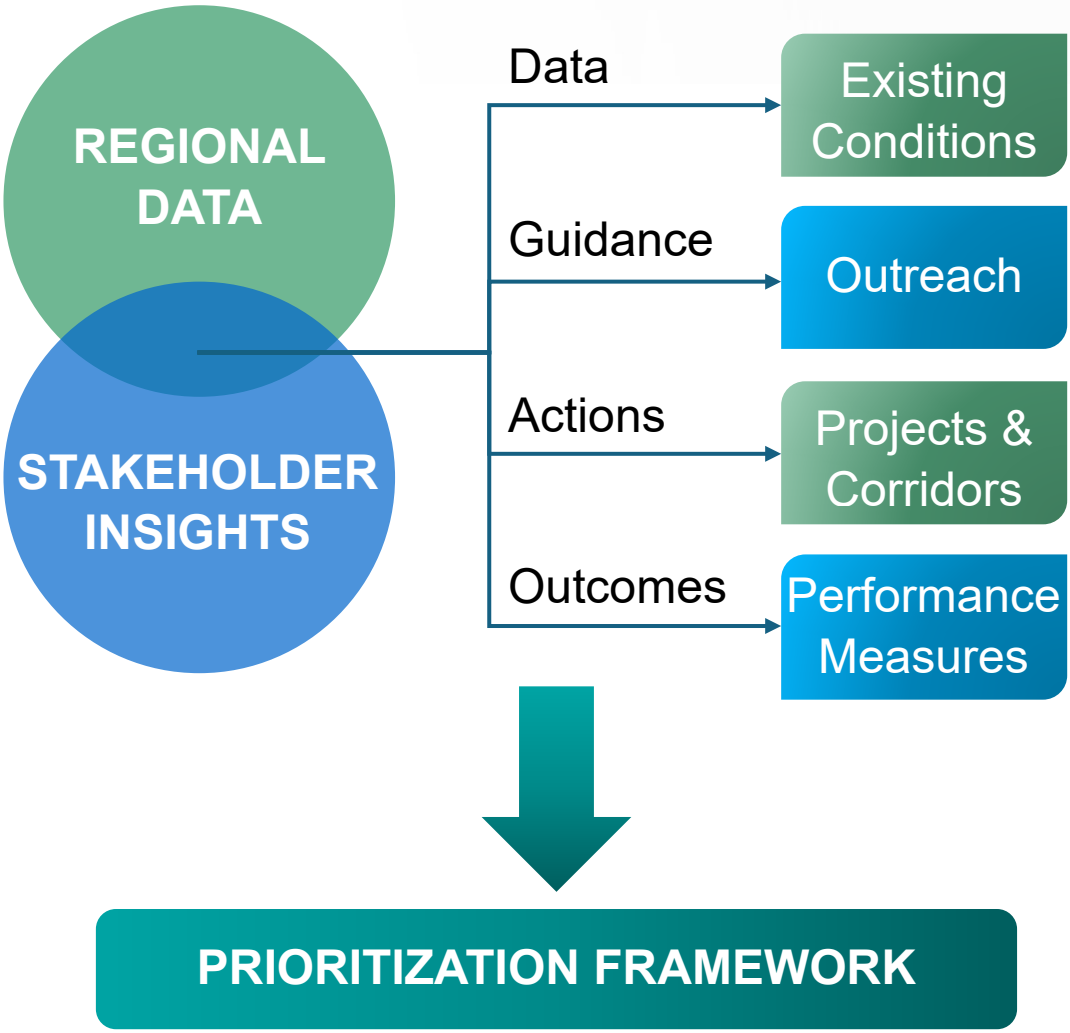
To provide a comprehensive decision-making framework that is both functional and implementable the Regional Freight Plan draws from both regional data on freight as well as stakeholder insights, creating an actionable plan that is informed by the region and supported through data. This decision-making framework, referred to in this plan as the Prioritization
Framework, is the primary outcome of the plan and developed through the implementation of four main tasks:

1. **Existing System and Conditions:** A key outcome of the Freight Study, the existing conditions assessment provides the data to understand the freight system infrastructure and operational conditions that inform stakeholders and identify where key areas of opportunity and challenge exist for current and future freight performance. Building on this foundation, updated LOCUS data was incorporated to enhance the understanding of truck flows.

2. **Outreach:** This was a central element of this plan, with ongoing engagement shaping the understanding of regional priorities, strengths, concerns, and opportunities and directly informing the development of a responsive, needs-driven prioritization framework.

3. **Performance Measures**: Based on available data and stakeholder feedback performance measures were developed to guide decision-making to align with regional priorities.

4. **Projects & Corridors**: Understand where investments have been made, and where future projects and priority corridors exist supports decision-making for freight related planning and programming.



The Prioritization Framework is intended to be a resource for decision making with freight priorities in mind. This framework is built off of a Goal-Objective-Performance Measure approach that describes the focus areas for freight in the region, defines the outcomes that would advance these goals, and which metrics are representative of these outcomes. This Plan, through each of the four outlined tasks, works toward the development of this hierarchy using stakeholder insights supplemented by regional data to build a prioritization framework curated to the vision and needs of the community.

SECTION 2

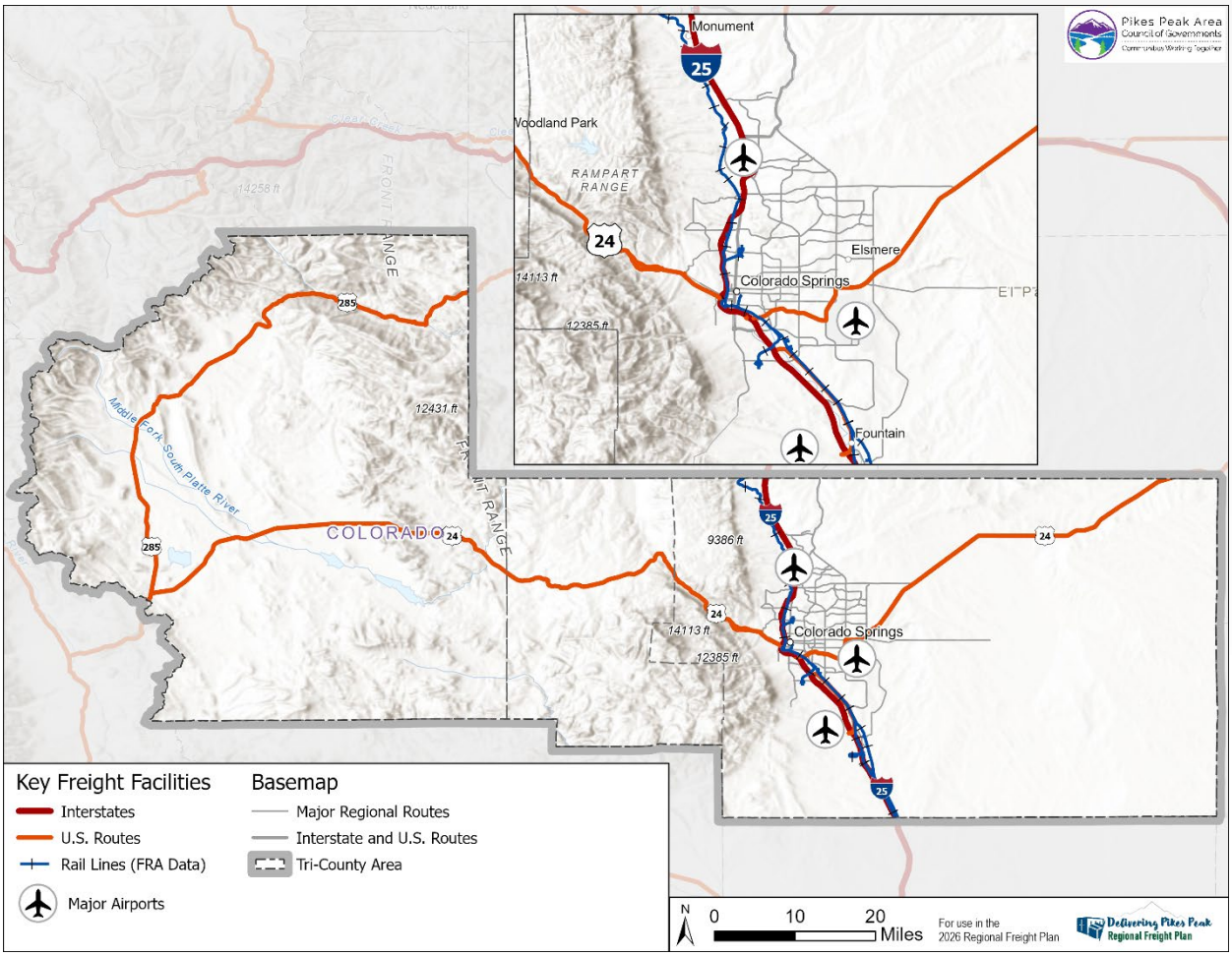
EXISTING SYSTEM AND CONDITIONS



2.1 PPACG Regional Freight Network

The PPACG region lies snugly along the eastern side of the Southern Rocky Mountains which outlines the major freight corridors in the region. This corridor is home to the region's major freight carrying railroad corridor operated jointly by Burlington Northern Santa Fe (BNSF) and Union Pacific (UP) Railroads as well as three airports- Colorado Springs Airport (COS), United States Air Force Academy Airfield (AFF) and Butts Army Airfield (AFF). US-285 provides north south connections for towns in Park county including Fairplay, the county seat. US-285 connects with US-24 in the former town of Antero Junction and further north connects with the city of Denver. I-70 the next closest interstate which runs through Denver connects with US-24 to the East of the PPACG region. US highway 24 serves as the east and west freight corridor across the region. Figure 2-1 outlines the region's freight network. The I-25 corridor is the main connection to larger trading hubs in the state and beyond as well as being the only location where certain modes such air and rail can access the region. This is where the major population center in the region is located as well as a large military base, Fort Carson.

FIGURE 2-1. PPACG REGIONAL FREIGHT NETWORK



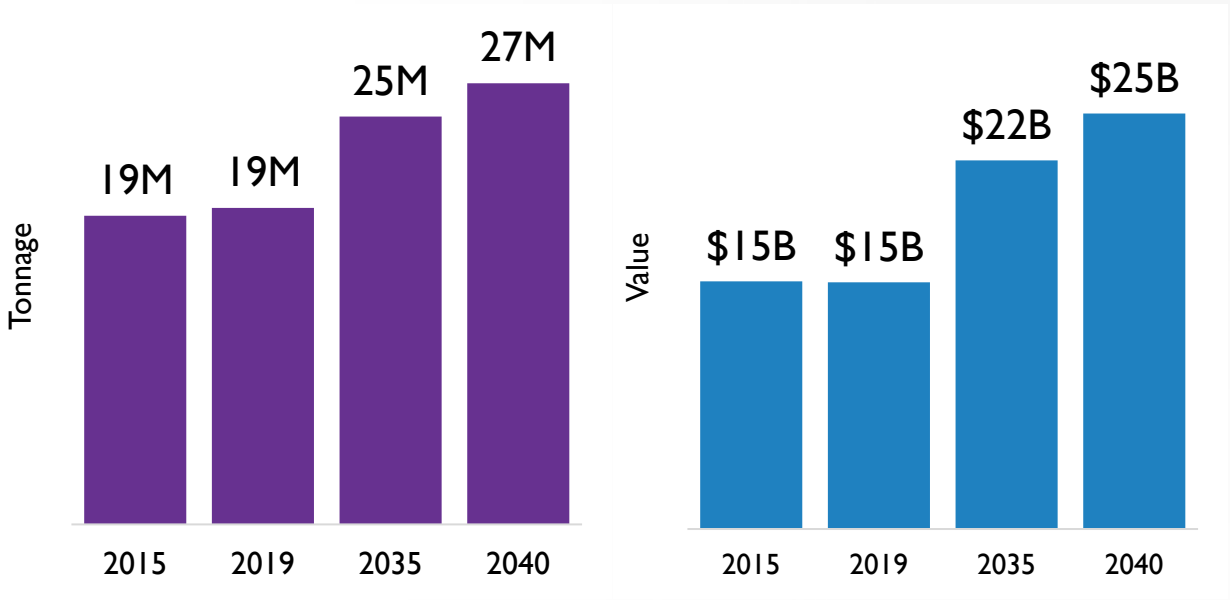
Source: PPACG

2.2 Economic Development

This section analyzes economic and population trends using Colorado employment data and Transearch data for current and future years to predict how freight infrastructure will need to adapt to support the region's economy. Transearch is a third party data product provided by S&P Global that tracks historic supply chain freight flows in North America for most freight modes and commodity types. The dataset includes future year projections of these same flows at the county level, which provides a useful basis for assessing freight trends in a region the size of PPACG.

Figure 2-2 shows the projections for freight growth in the region in terms of tonnage and value of commodities traveling into and out of the region. Between 2019 and 2040 the region is expected to see a 39% increase in the tonnage and a 68% increase in the value of goods traded in the region. These figures are in year 2020 dollars and do not reflect the potential rise in the price of goods but rather the higher value of goods being traded in the region.

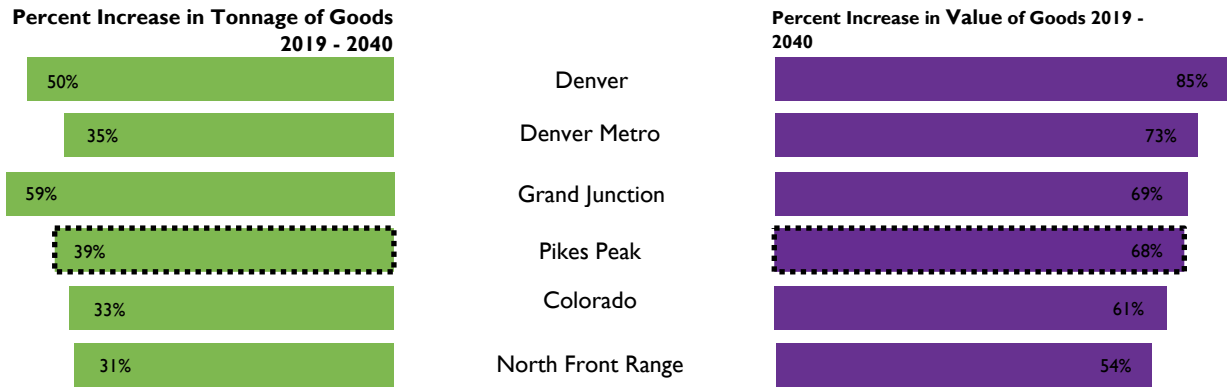
FIGURE 2-2 FREIGHT PROJECTIONS FOR FUTURE YEARS, TONNAGE AND VALUE



Source: Transearch 2019-2040

Figure 2-3 compares the PPACG region to other regional geographies. Overall the region is growing at a slightly higher rate than Colorado as a whole but is outpaced by Denver. Discrepancies in the value and tonnage are due to shifts in the mix of commodity types being traded in any given region. In general higher value commodities are further along in the manufacturing supply chain. Goods such as electronics, pharmaceuticals, and consumer goods, tend to be lighter than raw material commodities such as minerals, aggregates, agricultural products, and fuel.

FIGURE 2-3 PROJECTED ECONOMIC GROWTH 2019-2040



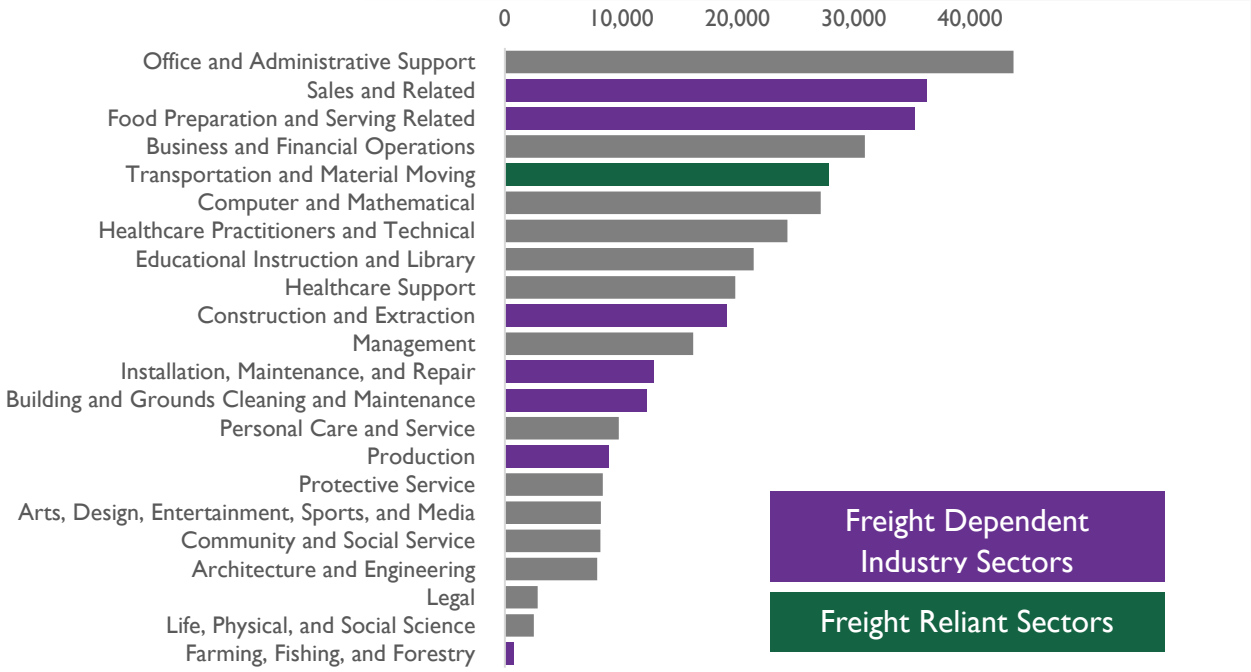
Source: Transearch 2019-2040

The Colorado Department of Local Affairs predicts that the population of the PPACG region will increase by 36% by 2050 from 774,212 people in 2020 to 1,051,765 people. 98% of that growth is expected to occur in El Paso county.

Figure 2-4 shows the projected levels of employment for different industries in Colorado Springs in 2031 using the Colorado Department of Labor and Employment forecasts. Several freight dependent sectors

have thousands of employees such as sales, food preparation, and construction. The transport and warehousing sector is expected to employ 28,000 people as well.

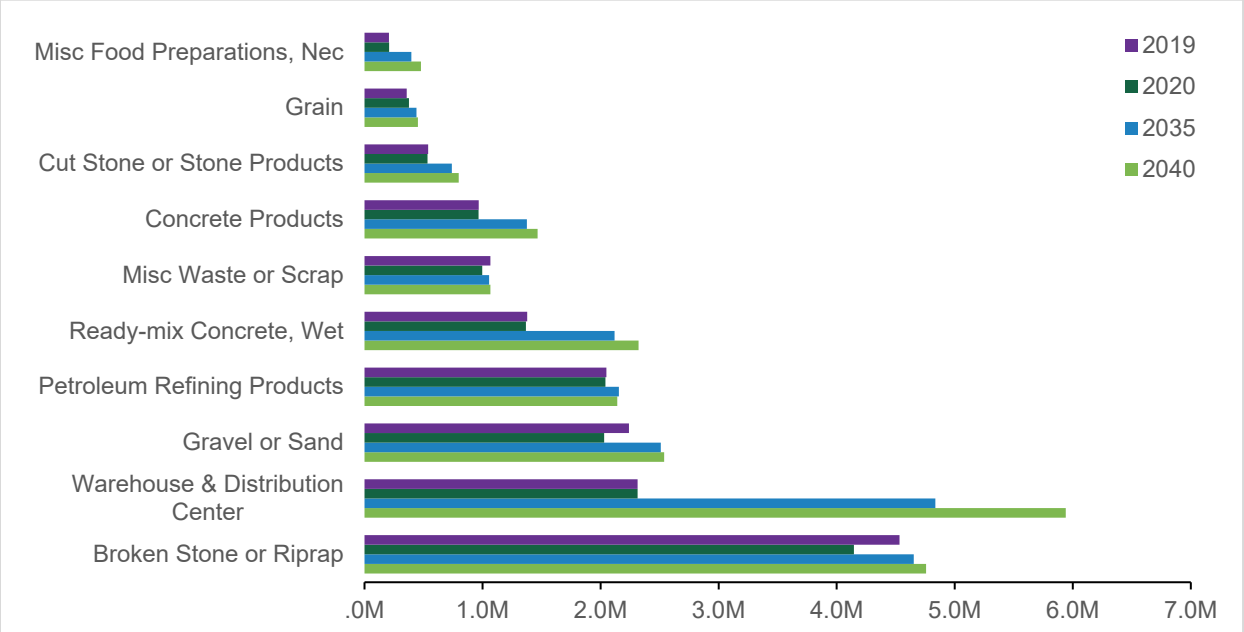
FIGURE 2-4 PROJECTED OCCUPATIONAL EMPLOYMENT IN COLORADO SPRINGS, 2031



Source: Colorado Department of Labor and Employment. Employment forecasts, 2023.

Figure 2-5 shows the top commodities by tonnage for each year of Transearch data available. While most of these top commodities are expected to grow in tonnage in 2035 and 2040, construction materials such as concrete products, especially ready-mix concrete and warehousing and distribution products, are expected to show the largest growth.

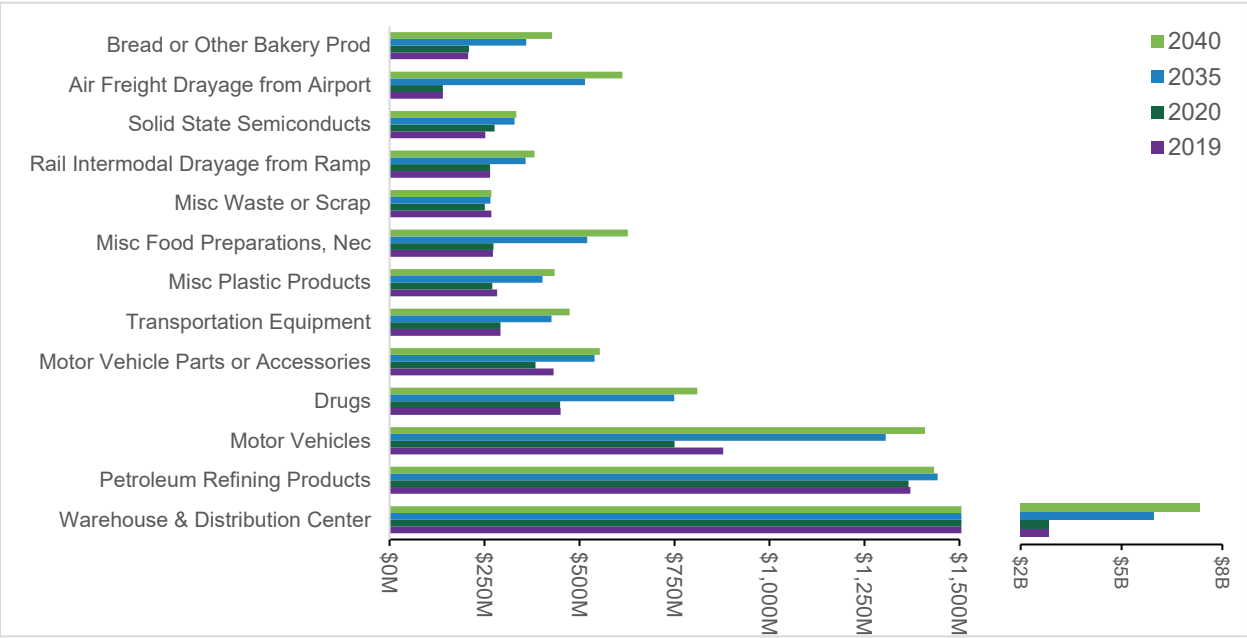
FIGURE 2-5: TOP COMMODITEIS BY TONNAGE



Source: Transearch 2019-2040 ("Warehouse and Distribution Center" is mostly composed of consumer and retail items moving over short distances but can include any secondary movements of freight that were processed at a warehouse that does not report more specific commodity types)

Figure 2-6 shows the top 10 commodities for all four years by value. Here, warehouse and distribution center products still show a strong growth of 157%, but the largest changes in value are due to motor vehicles, drug, food preparation, and air freight drayage.

FIGURE 2-6: TOP COMMODITIES BY VALUE



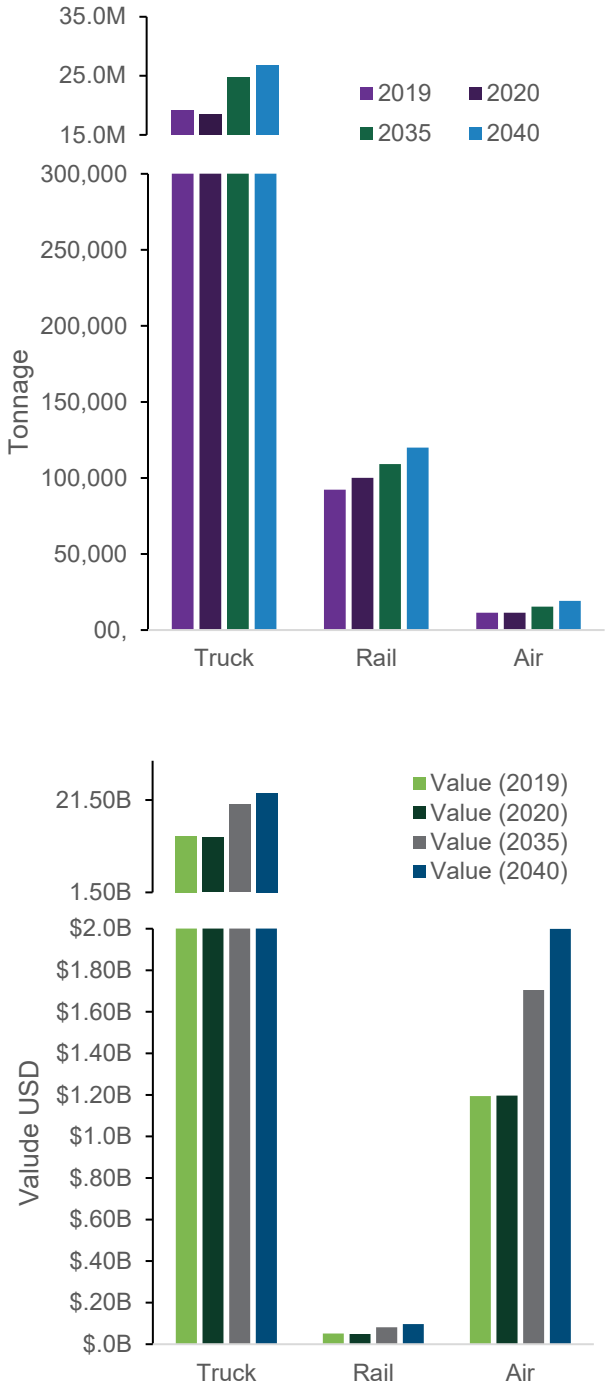
Source: Transearch 2019-2040 ("Warehouse and Distribution Center" is mostly composed of consumer and retail items moving over short distances but can include any secondary movements of freight that were processed at a warehouse that does not report more specific commodity types)

The growth in the population and economic activity documented in this section will provide new sites of potential intervention and cooperation for regional actors such as PPACG to better shape the future towards improving the quality of life and economic efficiency of the region. It is clear the region is growing robustly, on par with the state as a whole. The rate of growth will require investments in infrastructure, labor, and housing as inputs to capture the full economic potential presented here. Geographically - near Denver and along a major corridor for both truck and rail traffic - PPACG is both a facilitator of freight movements and a key destination in its own right. Some of the industries with the largest growth in the region – warehousing and construction - have huge physical and economic footprints that can extend well beyond PPACG. It's important that the region capture some of the economic activity flowing along I-25 for itself which may involve leveraging statewide investments as well as nurturing a competitive local labor and consumer market.

2.3 Summaries by Mode

The three major modes operating in PPACG have their own needs and advantages to supply the region with commodities and essential goods that support the local economy. Truck is by far the most important mode to the region's economy, handling the majority of its freight by tonnage and value. Truck is also the only mode that covers the entire region, with the only rail depots and airports exclusively located in El Paso County. Figure 2-7 shows the relative levels of freight movements for each mode for each year of available Transearch data. Truck carries 99% of all tonnage and nearly 92% of all value in the region for each year.

FIGURE 2-7 TONNAGE (ABOVE) AND VALUE (BELOW) FOR FREIGHT MODES



Source: Transearch. 2019-2040

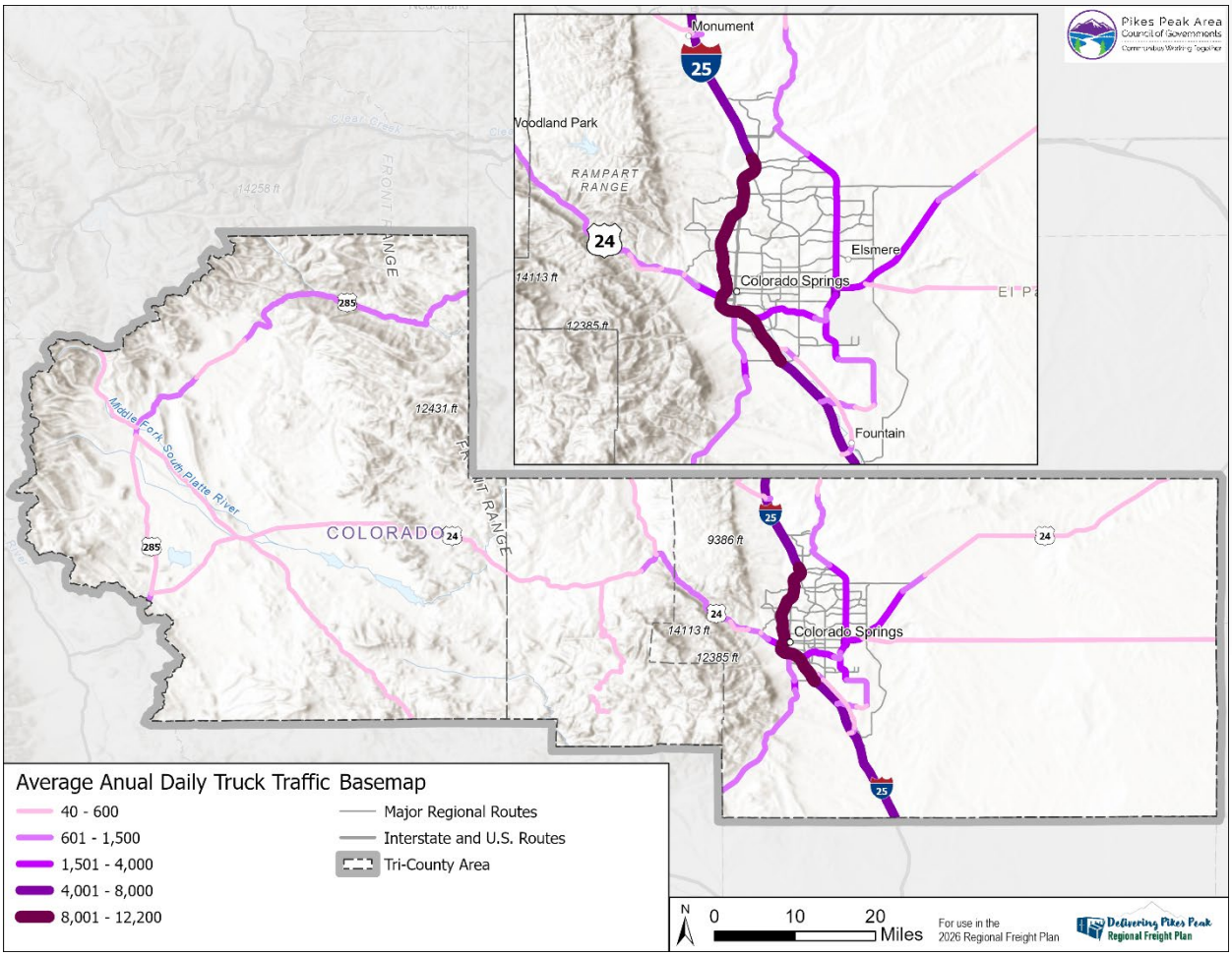
2.3.1 Truck

Trucks are a versatile mode of freight transportation capable often used a primary means of transporting goods as well as a secondary means of transporting goods from transfer facilities with other modes including rail and air. Figure 2-8 shows the average annual daily truck traffic (AADTT) for roadways in the PPACG region. AADTT is a measure of the volume of trucks that move on a roadway and is an important measure for understanding how many trucks are using infrastructure in the region.

The following describes the highest AADTT segments for important roadways:

- I-25 – running north south through Colorado Springs has the highest volume of trucks in the region from a low of 4,400 AADTT to 12,200. The highest scoring segment occurs between S Academy Blvd to Briargate Parkway.
- US-24 – running east west through the entire region the highest scoring segments occur in El Paso County with a high AADTT of 3,000.
- US-285 - an important route running east – northwest in Park County with a high AADTT of 850.
- CO-21/CO-83 – running north south on the east side of Colorado Springs and known locally as Powers Blvd, with a high of 4,400 AADTT from E Fountain Blvd (near Peterson Air Force Base) to Briargate Pkwy.

FIGURE 2-8: AVERAGE ANNUAL DAILY TRUCK TRAFFIC

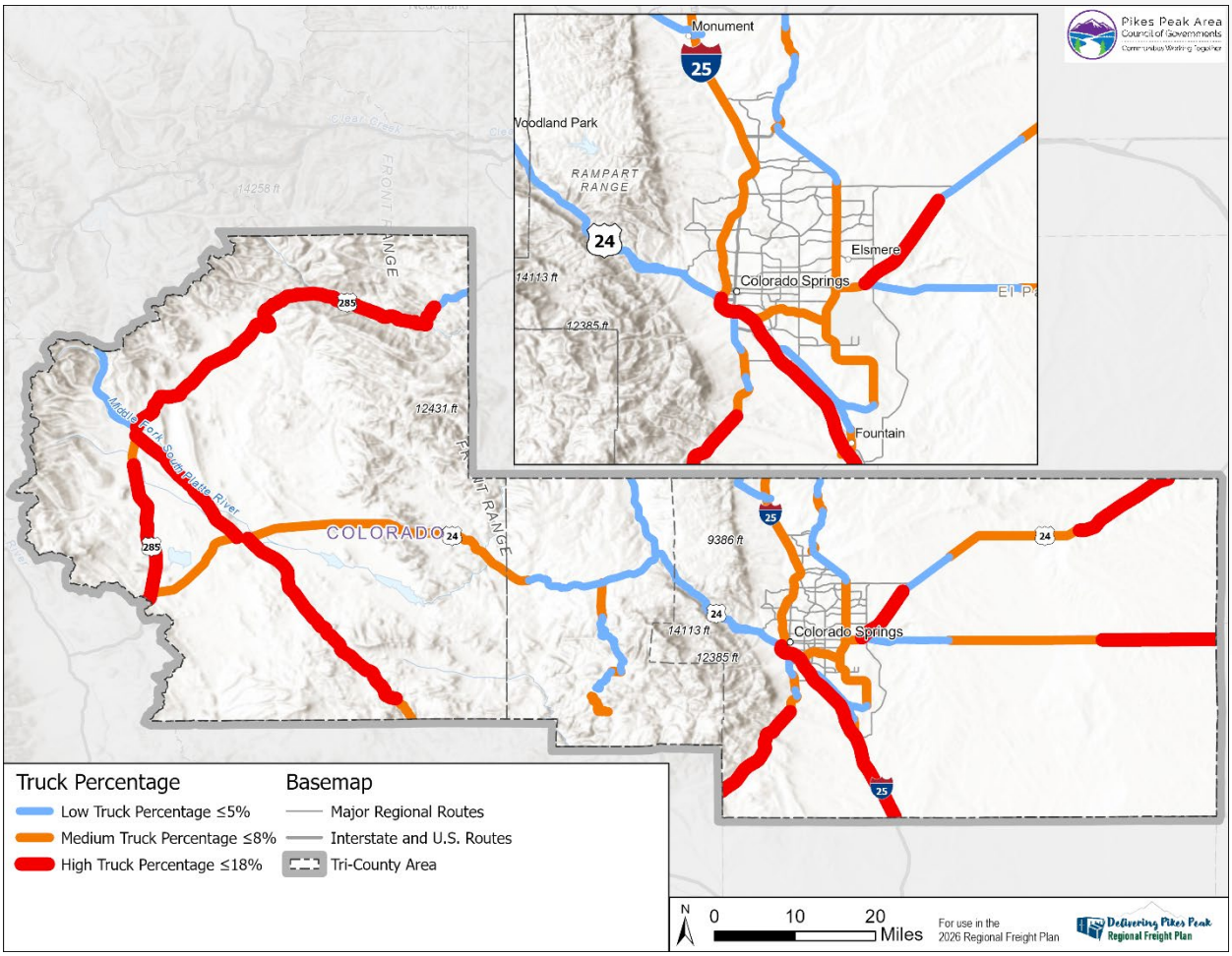


Source: Source: CDOT Roadway Inventory, 2022.

Notably, truck counts are considerably higher on specific segments of both US-24 and US-285 than other connecting segments. In exploring the segments where these increase from the 40-600 range to the 601-1,500 range it is evident that these increases correspond to raw materials extraction industries, in this case minerals mining like gold and gravel. This indicates that these routes are critical for connecting Park County and Teller County freight related industries to the broader Colorado economy, especially given that these are the only two corridors that trucks can use to access front range communities like Denver and Colorado Springs. Both CO-67 and CO-9, despite not carrying high numbers of trucks relative to other routes in the region, are critical arterials to connecting key freight industries in the western portions of the PPACG region.

Truck percentage is a measure of the ratio of trucks to regular traffic on a particular road. Critical freight roadways may have low overall truck volume (AADTT) but a high truck percentage meaning the road is used by trucks more than regular vehicles. Figure 2-9 shows the truck percentage for roadways in PPACG. Comparing AADTT and Truck Percentage we see that US 285, the eastern portion of US-24, CO-94 east of Colorado Springs, CO-115 south of Colorado Springs, and CO-9 in Park County are all essential freight roadways.

FIGURE 2-9: TRUCK PERCENTAGE



Source: CDOT Roadway Inventory, 2022.

Table 2-1 and Table 2-2 show the top commodities moved by truck in 2019 by tonnage and value respectively. Overall trucks transport a wide variety of goods from food, construction materials, raw materials, and even advanced equipment such as semi-conductors with little overlap between the value and tonnage.

TABLE 2-1: TOP COMMODITIES BY TRUCK TONNAGE, 2019

	Tonnage	Value
Broken Stone or Riprap	4,532,189 (23.4%)	$50,397,952 (0.3%)
Warehouse & Distribution Center	2,314,106 (12.0%)	$2,852,924,619 (19.1%)
Gravel or Sand	2,240,188 (11.6%)	$19,209,073 (0.1%)
Petroleum Refining Products	2,042,309 (10.6%)	$1,367,889,902 (9.2%)
Ready-mix Concrete, Wet	1,377,669 (7.1%)	$124,331,089 (0.8%)
Misc. Waste or Scrap	1,066,394 (5.5%)	$268,065,407 (1.8%)
Concrete Products	967,378 (5.0%)	$174,701,192 (1.2%)
Cut Stone or Stone Products	538,465 (2.8%)	$89,267,348 (0.6%)
Grain	357,944 (1.9%)	$37,268,652 (0.2%)

	Tonnage	Value
Misc. Food Preparations, Nec	207,339 (1.1%)	$272,252,480 (1.8%)

Source: Transearch, 2019("Warehouse and Distribution Center" is mostly composed of consumer and retail items moving over short distances but can include any secondary movements of freight that were processed at a warehouse that does not report more specific commodity types)

TABLE 2-2: TOP COMMODITEIS BY TRUCK VALUE, 2019

Top Truck Commodities by Value	Tonnage	Value
Warehouse & Distribution Center	2,314,106 (12.0%)	2,852,924,619 (19.1%)
Petroleum Refining Products	2,042,309 (10.6%)	1,367,889,902 (9.2%)
Motor Vehicles	81,637 (0.4%)	860,154,760 (5.8%)
Motor Vehicle Parts or Accessories	46,801 (0.2%)	431,449,670 (2.9%)
Pharmaceutical Drugs	10,588 (0.1%)	311,339,695 (2.1%)
Misc. Plastic Products	73,747 (0.4%)	283,025,188 (1.9%)
Misc. Food Preparations, Nec	207,339 (1.1%)	272,252,480 (1.8%)
Misc. Waste or Scrap	1,066,394 (5.5%)	268,065,407 (1.8%)
Rail Intermodal Drayage from Ramp	56,766 (0.3%)	264,409,861 (1.8%)
Solid State Semiconductors	9,773 (0.1%)	251,919,368 (1.7%)

Source: Transearch, 2019 ("Warehouse and Distribution Center" is mostly composed of consumer and retail items moving over short distances but can include any secondary movements of freight that were processed at a warehouse that does not report more specific commodity types)

2.3.2 Rail

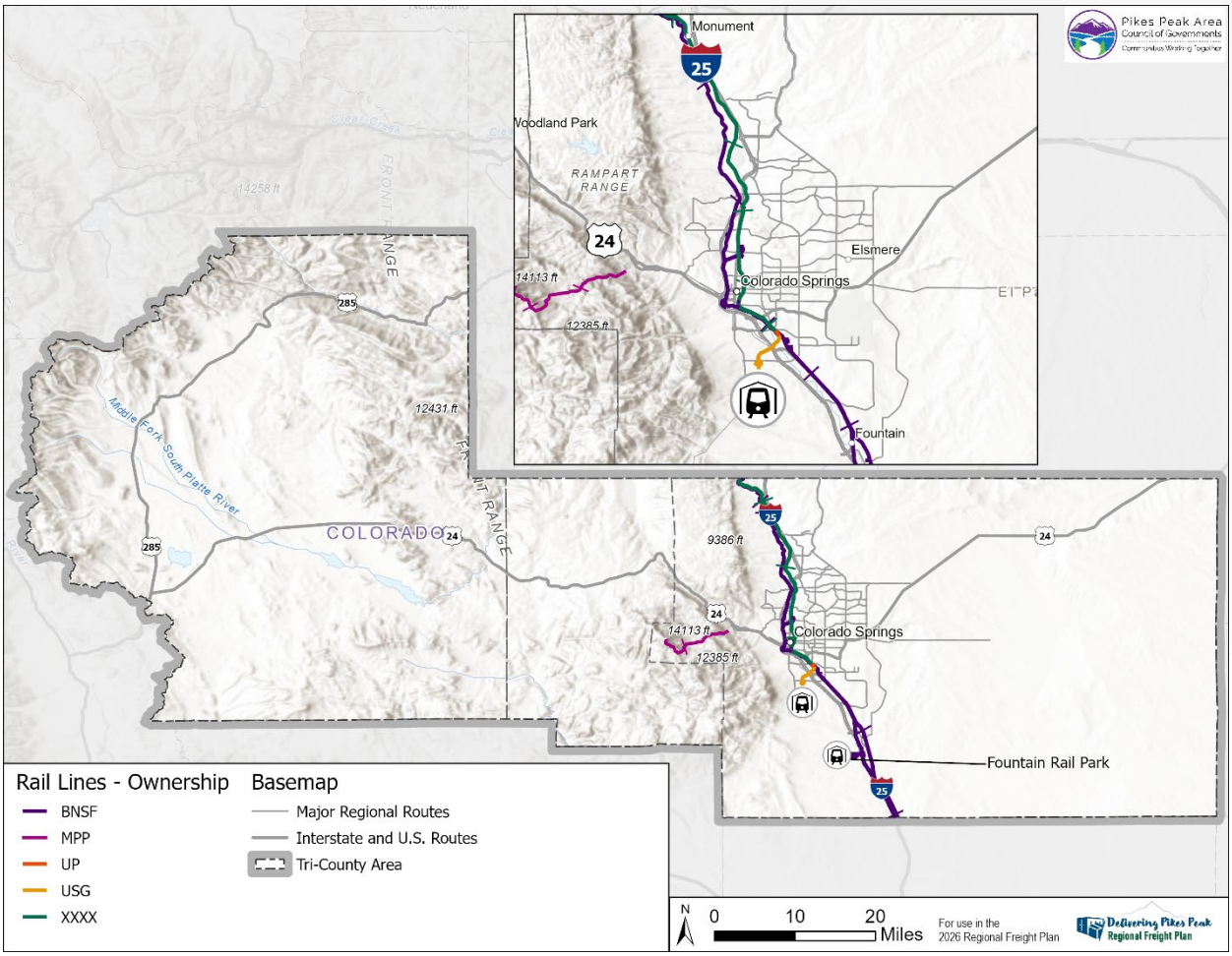
TABLE 2-3 MILEAGE BY RAILROAD OWNERSHIP

Railroad First Owner	Railroad Second Owner	Mileage
BNSF		12.5 (10%)
BNSF	UP	71.6 (56%)
MPP		8.8 (7%)
UP		0.4 (0.3%)
USG		7.0 (6%)
Other or XXXX		26.5 (21%)

Source: Federal Railroad administration (FRA)

Table 2-3 shows the total mileage by owner for all railroads and Figure 2-10 shows all existing rail corridors by the first owner. The major corridor which parallels I-25 is owned by BNSF with a similar railroad which is currently without ownership named “XXXX” per the Federal Railroad Administration’s designation for the track. The corridor operated by BNSF is jointly owned by UP for the majority of its track miles and both rail operators use these facilities in Colorado Springs. The Southern Colorado Rail Park, which was approved by the project’s public-private partnership (P3) Oversight Committee in 2018 and by the City of Colorado Springs and Colorado Springs Utility in 2023, is a future dual service rail park that will provide enhanced facilities for both BNSF and UP trains in southern Colorado. USG is operated by the Department of Defense and connects to the Fort Carson Rail Center. MPP is a renovated railroad currently used for tourism.

FIGURE 2-10: RAILROAD FACILITIES IN PPACG REGION



Source: Federal Railroad Administration (FRA)

Table 2-4 and Table 2-5 show the top commodities moved by rail in 2019 by tonnage and value, respectively. Rail tends to be used to ship bulk, heavy commodities with relatively lower value. However, several commodities shipped by rail in Colorado Springs are essential inputs into the local economy, such as fertilizers, lumber and wood products, and fossil fuels.

TABLE 2-4 TOP COMMODITIES BY RAIL TONNAGE, 2019

Top Rail Commodities by Tonnage	Tonnage	Value
Fertilizers	29,565 (32.0%)	8,912,842 (17.3%)
Lumber or Dimension Stock	19,397 (21.0%)	3,752,909 (7.3%)
Misc. Wood Products	18,260 (19.8%)	7,088,347 (13.7%)
Petroleum Refining Products	6,747 (7.3%)	3,034,757 (5.9%)
Fak Shipments	4,616 (5.0%)	2,529,491 (4.9%)
Malt Liquors	2,404 (2.6%)	1,811,844 (3.5%)
Motor Vehicles	1,722 (1.9%)	17,945,386 (34.8%)
Nut or Veg Oils or By-products	1,360 (1.5%)	448,565 (0.9%)
Liquefied Gases, Coal or Petroleum	1,271 (1.4%)	561,115 (1.1%)

Top Rail Commodities by Tonnage	Tonnage	Value
Misc Nonmetallic Minerals, Nec	1,184 (1.3%)	429,500 (0.8%)

Source: Transearch, 2019

TABLE 2-5 TOP COMMODITIES BY RAIL VALUE, 2019

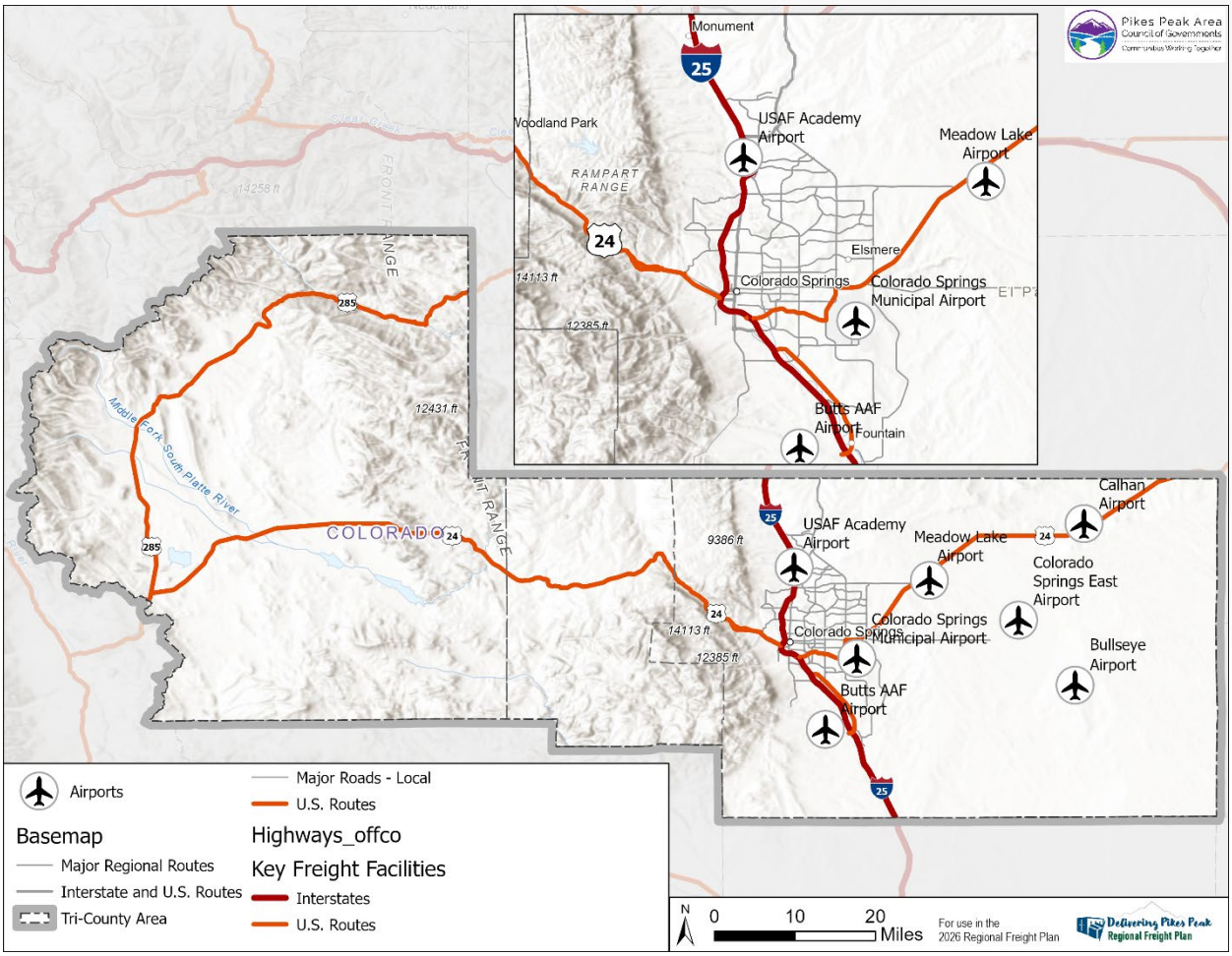
Top Rail Commodities by Value	Tonnage	Value
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Fak Shipments	4,616 (5.0%)	2,529,491 (4.9%)
Malt Liquors	2,404 (2.6%)	1,811,844 (3.5%)
Liquefied Gases, Coal or Petroleum	1,271 (1.4%)	561,115 (1.1%)
Fabricated Metal Products, Nec	170 (0.2%)	529,700 (1.0%)
Steel Springs	147 (0.2%)	492,905 (1.0%)

Source: Transearch, 2019

2.3.3 Air

Seven airports operate in the PPACG region, all within El Paso County. Only 1 of these airports the Colorado Springs Municipal airport handles freight traffic including mail, parcel, and commodity shipments. The airport also shares runaways with the Peterson Space Force Base.

FIGURE 2-11 ALL AIRPORTS IN PPACG REGION



Source: Bureau of Transportation Statistics, 2023

Table 2-6 and Table 2-7 show the top commodities moved by air in 2019 by tonnage and value respectively. Air tends to be used to ship mail, small packages, and lightweight, time sensitive commodities with much higher values. The majority of air commodity tonnage is used for small packaged freight shipments which are likely consumer goods. Recent years have seen a massive increase in this type of good. Prices for these individual package are not disclosed to the public. Most other top commodities shipped by air are specialized equipment or products.

TABLE 2-6 TOP COMMODITIES BY AIR TONNAGE, 2019

Top Air Commodities by Tonnage	Tonnage	Value
Small Packaged Freight Shipments	5,585 (49.2%)	Unknown
Instrum, Photo Equipment, Optical Eq	899 (7.9%)	$208,837,386 (17.5%)
Transportation Equipment	733 (6.5%)	$292,079,247 (24.4%)
Electrical Equipment	696 (6.1%)	$186,779,665 (15.6%)
Printed Matter	586 (5.2%)	$12,254,206 (1.0%)
Textile Mill Products	455 (4.0%)	$9,223,408 (0.8%)
Fabricated Metal Products	381 (3.4%)	$16,957,357 (1.4%)

Top Air Commodities by Tonnage	Tonnage	Value
Machinery	361 (3.2%)	$46,001,676 (3.9%)
Pharmaceutical Drugs	300 (2.6%)	$138,755,843 (11.6%)
Misc. Manufacturing Products	249 (2.2%)	$203,828,255 (17.1%)

Source: Transearch, 2019

TABLE 2-7 TOP COMMODITIES BY AIR VALUE, 2019

Top Air Commodities by Value	Tonnage	Value
Transportation Equipment	733 (6.5%)	$292,079,247 (24.4%)
Instrum, Photo Equipment, Optical Eq	899 (7.9%)	$208,837,386 (17.5%)
Misc. Manufacturing Products	249 (2.2%)	$203,828,255 (17.1%)
Electrical Equipment	696 (6.1%)	$186,779,665 (15.6%)
Pharmaceutical Drugs	300 (2.6%)	$138,755,843 (11.6%)
Machinery	361 (3.2%)	$46,001,676 (3.9%)
Fak Shipments	135 (1.2%)	$19,299,402 (1.6%)
Primary Metal Products	166 (1.5%)	$18,050,617 (1.5%)
Fabricated Metal Products	381 (3.4%)	$16,957,357 (1.4%)
Chemicals or Allied Products	136 (1.2%)	$14,978,945 (1.3%)

Source: Transearch, 2019

2.3.4 Summary

The vast majority of movements within the region occur by truck, which is typical in the U.S., and it is the key freight mode in the region. Trucks are the only mode which connect to the more remote regions of the Rocky Mountains in Teller and Park counties. They move a wide variety of commodity types, and they are projected to grow in the coming decades, highlighting the increasing need for roadway investment and maintenance. The region should prepare for the growth in infrastructure needs from increasing truck movements on the system and consider how those improvements will be invested to make an impact for the whole region. Freight investments could be focused on roadways with a high truck percentage potentially targeting barriers to trucks such as improving at-grade crossings with rail or improving vertical clearance issues at bridges with known bridge strike issues.

Rail carries lower volume and value of goods and is an extremely efficient mode of transportation. The types of goods moved on rail lines are essential inputs to the economy, many are raw materials such as lumber. Regional projects such as the future Southern Colorado Rail Park (SCRP) will likely increase the overall volume of goods being moved by rail. Rail investments are critical to strengthening the efficiency, reliability, and resilience of the freight transportation system. Improving rail infrastructure helps reduce congestion on both rail networks and parallel highways, enabling goods to move more efficiently and lower overall transportation costs. Strategic rail improvements such as capacity expansions, grade separations and operational enhancements can reduce delays, improve safety, and support long-term economic growth.

Air is essential for maintaining efficient, reliable connections for high-value and time-sensitive goods. Improvements to airports, air cargo facilities and supporting infrastructure helps reduce delays, increase capacity and ensure consistent operations especially as just in time delivery constitutes to grow, indicating the need for consistent coordination with COS as freight continues to grow in the region.

2.4 PPACG Freight Operations and Safety

This section describes freight operations in the PPACG region. The focus of this section is to detail the metrics, designs, and other considerations that impact and define operations. This includes safety, travel time reliability, route restrictions, military installations, hazardous materials routes, and other components of the transportation of freight.

Safety is an important consideration for transportation and freight. Using crash and incident data is critical for identifying locations where safety is a concern, studying the causal factors of reduced safety and prioritizing and rectifying those issues. This section examines crash and incident data for truck and rail crossing related incidents.

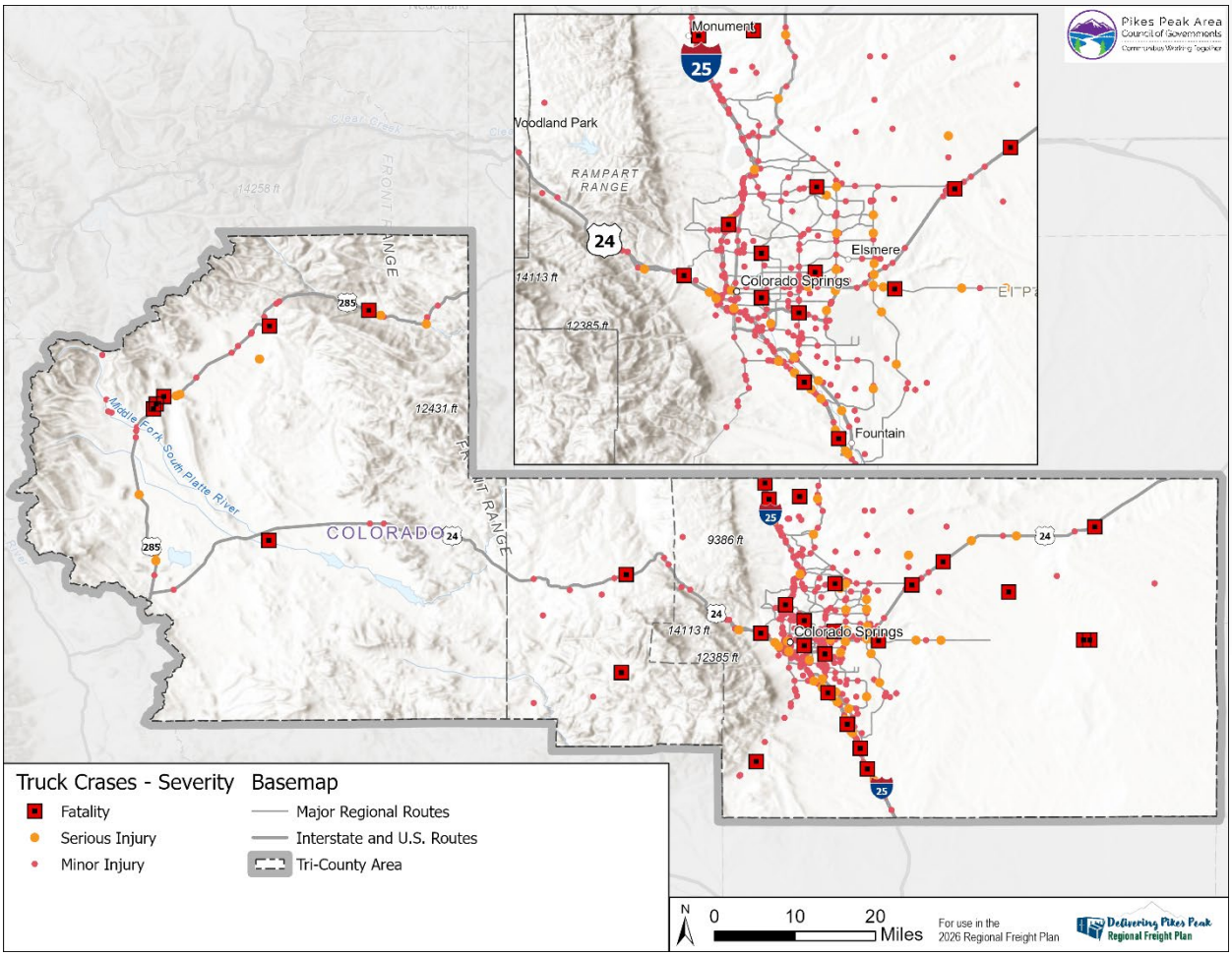
2.4.1 Truck Safety

Truck related crashes represent less than 4 percent of all crashes in the PPACG region but account for more than 7 percent of fatalities. This discrepancy is typical for truck activity, but identifying locations where fatalities are occurring frequently provides the opportunity to improve safety for all road users through design, technology and driver information. The region's most heavily trafficked freight highways represent the largest share of incidents, both fatal and non-fatal. These include the following locations which, among others, are candidates for studying the cause behind the incidents and implementing solutions for improving safety:

- US 285 in Park County saw 7 fatalities in the 8-year span between 2015 and 2022, 5 of which happened on a short segment northeast of Fairplay, despite having a far lower truck AADT of 750 compared to many of the major routes in El Paso County which regularly exceed 3,000 truck AADT (4X of the US 285 segment).

- I-25, south of Colorado Springs and also near Monument, has a high share of fatal incidents. Nearly 60% of the fatal crashes on I-25 in El Paso County between 2015 and 2022 happened on the segments either north of Davis Airfield to the northern county border or south of Academy Blvd to the southern county border, though those segments have lower truck AADT (4,000-8,000 compared to 8,000-12,200 for the segment of I-25 between Davis Airfield and Academy Blvd).

FIGURE 2-12 LARGE VEHICLE INJURY CAUSING CRASHES (2015-2022)



Share of Crashes by Route

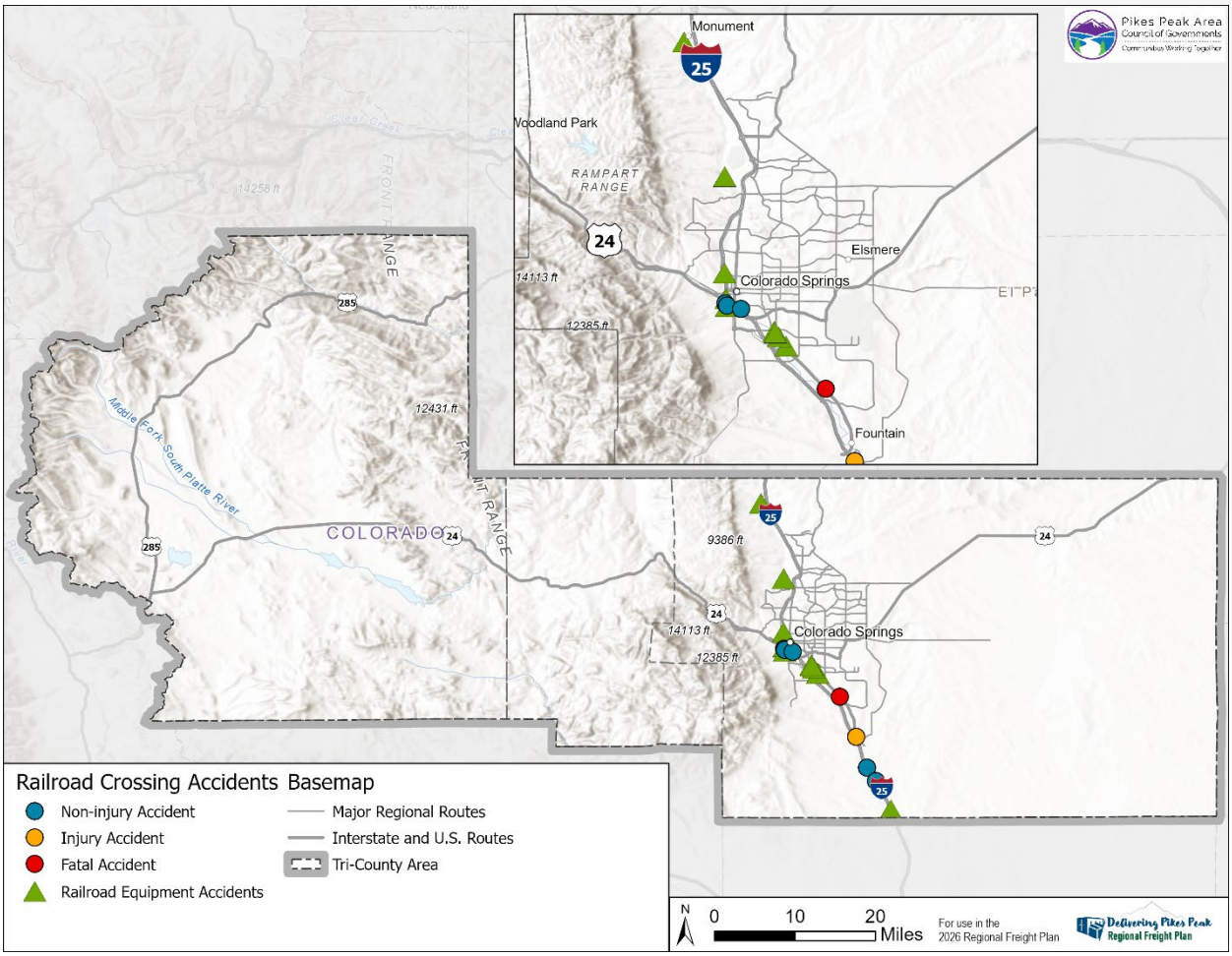
I-25	US-24	SH-21	US-285	Other
49%	19%	10%	7%	15%

Source: PPACG Traffic Crashes Dataset, CDOT Crash Database

2.4.2 Rail Safety

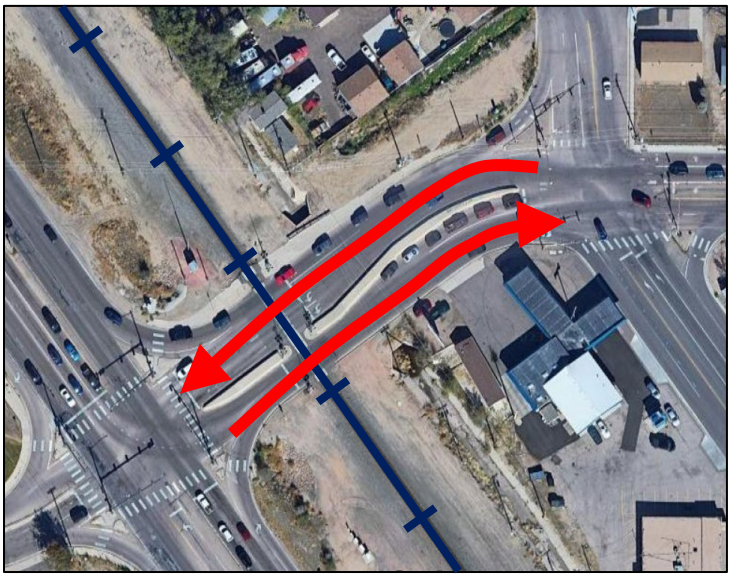
Rail incidents and accidents are rare but can be catastrophic and costly given the magnitude of rail freight. From 2000 to 2022, PPACG has seen fewer than 200 rail freight incidents, and only 2 resulted in either a fatality or serious injury. Figure 2-13 shows the locations of highway-rail crossing incidents and recorded equipment accidents in the region.

FIGURE 2-13 RAIL CROSSING INCIDENTS AND EQUIPMENT ACCIDENTS (2000-2022)



Source: Safety Data and Reporting, Federal Railroad Administration

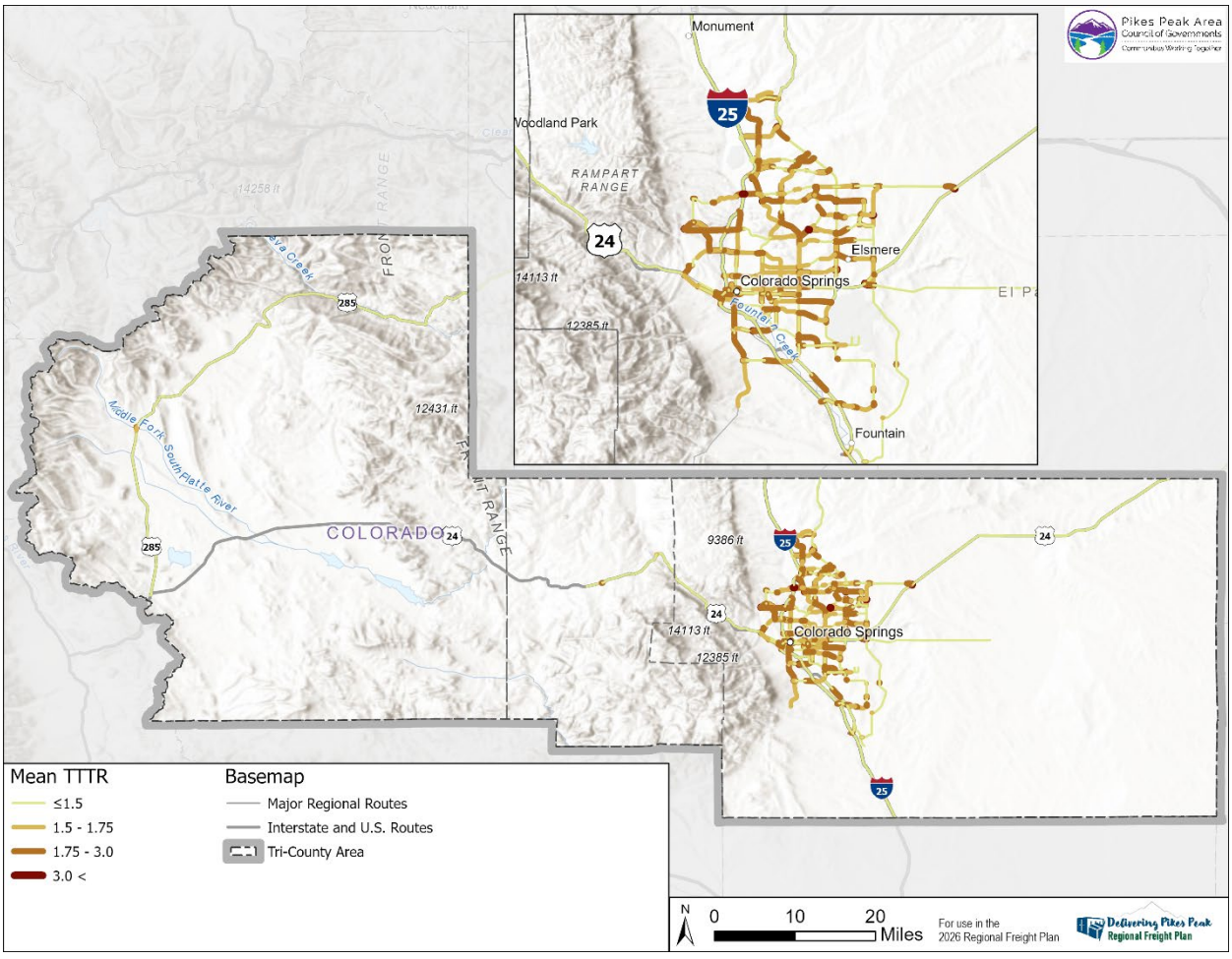
The singular fatality in the region was on the BNSF Fontaine Boulevard crossing, pictured right. The crossing where the fatality occurred corresponds with two roadway intersections, CanAm Highway (US-85) at Fontaine Boulevard, and Security Boulevard/Widefield Boulevard at Fontaine Boulevard.



2.5 Truck Travel Time Reliability Index (TTTR) & Truck Parking

Truck Travel Time Reliability Index (TTTR) is the ratio of the 95th percentile truck travel time to the "average" (50th percentile) travel time. Every unit increase indicates an additional 50th Percentile increase. The regional objective is to keep TTTR at 1.42 or lower, which many of the north-south oriented routes, including most segments of I-25, meet. Figure 2-14 shows TTTR for routes across the region. Notably, most of the worst TTTR is in the west-east direction, and only US-24 has TTTR under 1.5 among the west-east corridors. This indicates that there isn't a well-defined west-east uninterrupted flow freight corridor. The routes most closely reflecting a freight corridor are US-24 and Milton E. Proby Parkway.

FIGURE 2-14 TRUCK TRAVEL TIME RELIABILITY, 2025

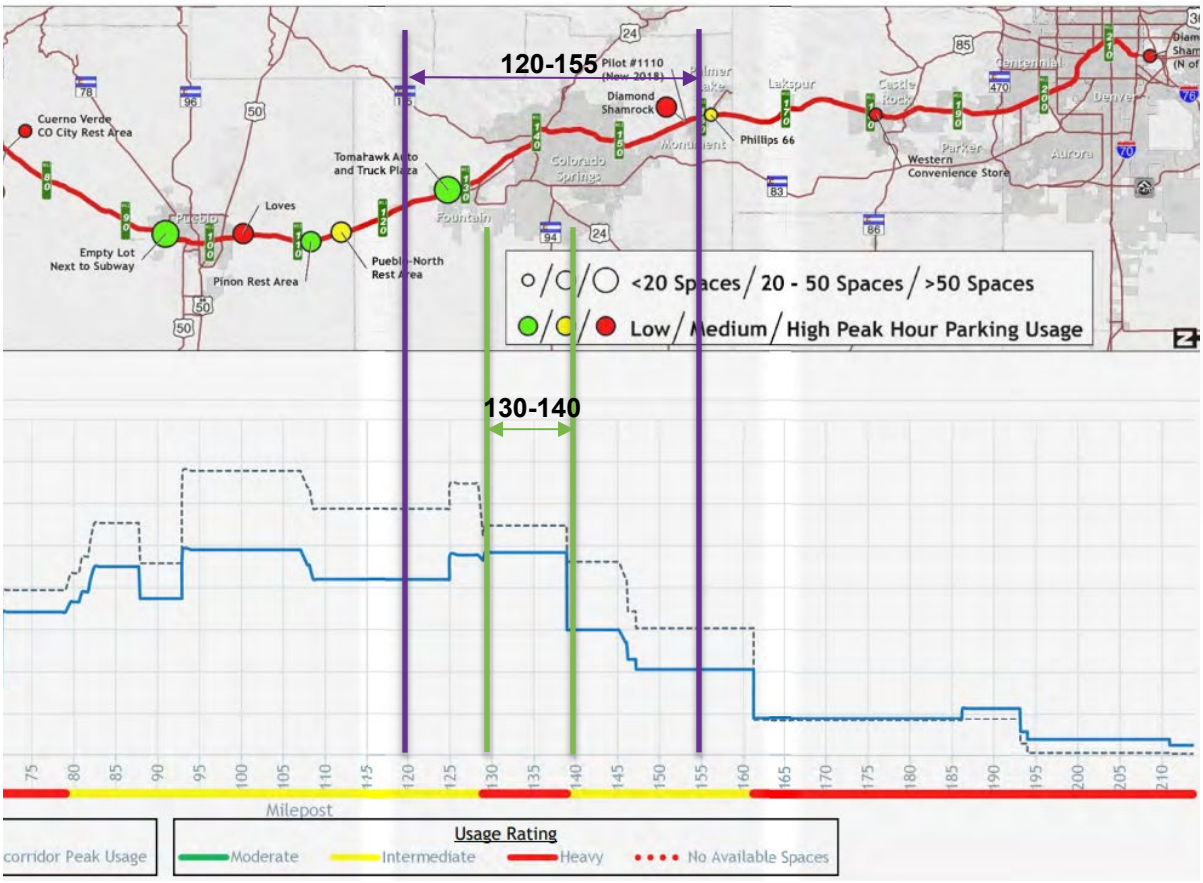


Source: National Performance Management Research Data Set, Federal Highway Administration

Additionally, truck parking is critical strategic infrastructure for drivers. Identifying parking shortages is important for both the safety of drivers and for the ability to navigate peak hour traffic and inclement weather. Figure 2-15 shows the map of the parking usage for the southern half of I-25 from CDOT's 2019 Truck Parking Assessment. The PPACG region is approximately between mile markers 120 and 155 (blue), with none of that length supporting "moderate" usage (the lowest usage). Heavy usage was noted specifically between mile markers 130 and 140 (green), between Fountain and Colorado Springs.

Identifying opportunities for parking infrastructure supports safe and functional freight transportation infrastructure. In order to further understand truck parking demand and trends, a regional truck parking study could be developed in the future to further identify specific locations for truck parking.

FIGURE 2-15 EXHIBIT FROM 2019 CDOT TRUCK PARKING ASSESSMENT

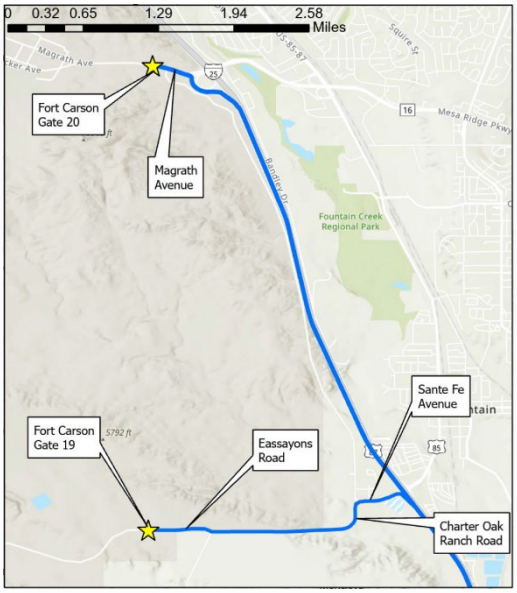


Source: 2019 Truck Parking Assessment, CDOT

2.6 Military

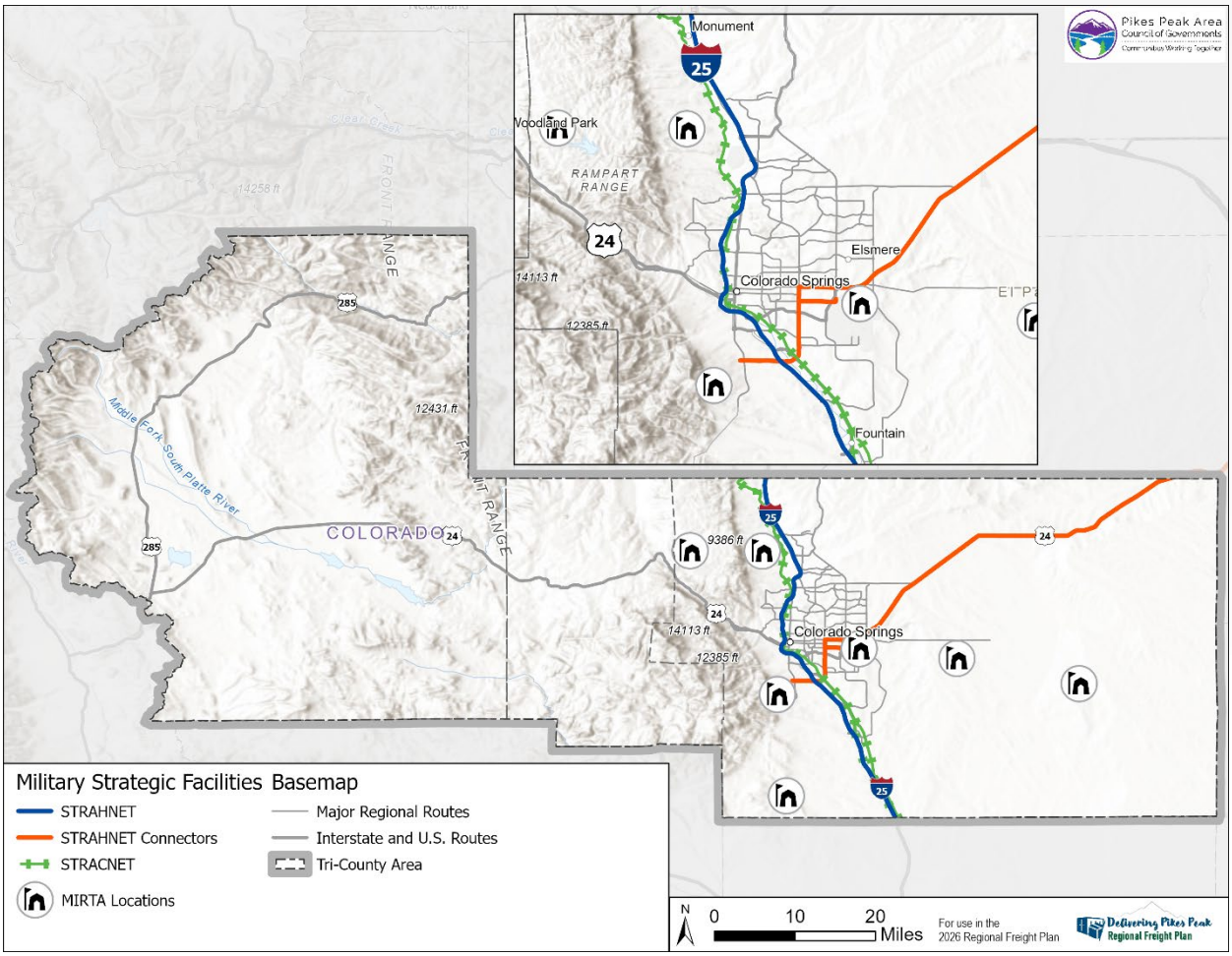
The region has a substantive federal military presence that is woven into the culture and economy of the region. The installations support the mass movement of both personnel and equipment, along with the necessary resources to support operations. For this reason, it is critical to identity those highway routes designated for military deployment. Figure 2-17 shows the strategic highway (STRAHNET), railway (STRACNET), and installations in the Pikes Peak Area . Additionally, the state is host to one of the nation's 17 Power Projection Platforms (PPPs) in Fort Carson. PPPs are strategic army installations that mobilize and deploy army assets and personnel for rapid national response. Fort Carson is the only PPP in the state, making the region's interstate assets among the most critical response-related infrastructure. The Department of Defense (DOD) is currently in the process of assessing a new PPP route for Fort Carson, which designates Fort Carson's Gate 19 and Gate 20 as the starting points, with the Colorado potion of the route continuing south along I-25 until the New Mexico border. The final destinations of the route are Port Beaumont and Port of Port Arthur in Texas. The PPP route enters I-25 at Exits 132 and 128 for Gates 20 and 19, respectively.

FIGURE 2-16 COLORADO PPP ROUTES



Source: SDDCTEA, Department of Defense

FIGURE 2-17 STRATEGIC MILITARY INSTALLATIONS, STRAHNET, AND STRACNET

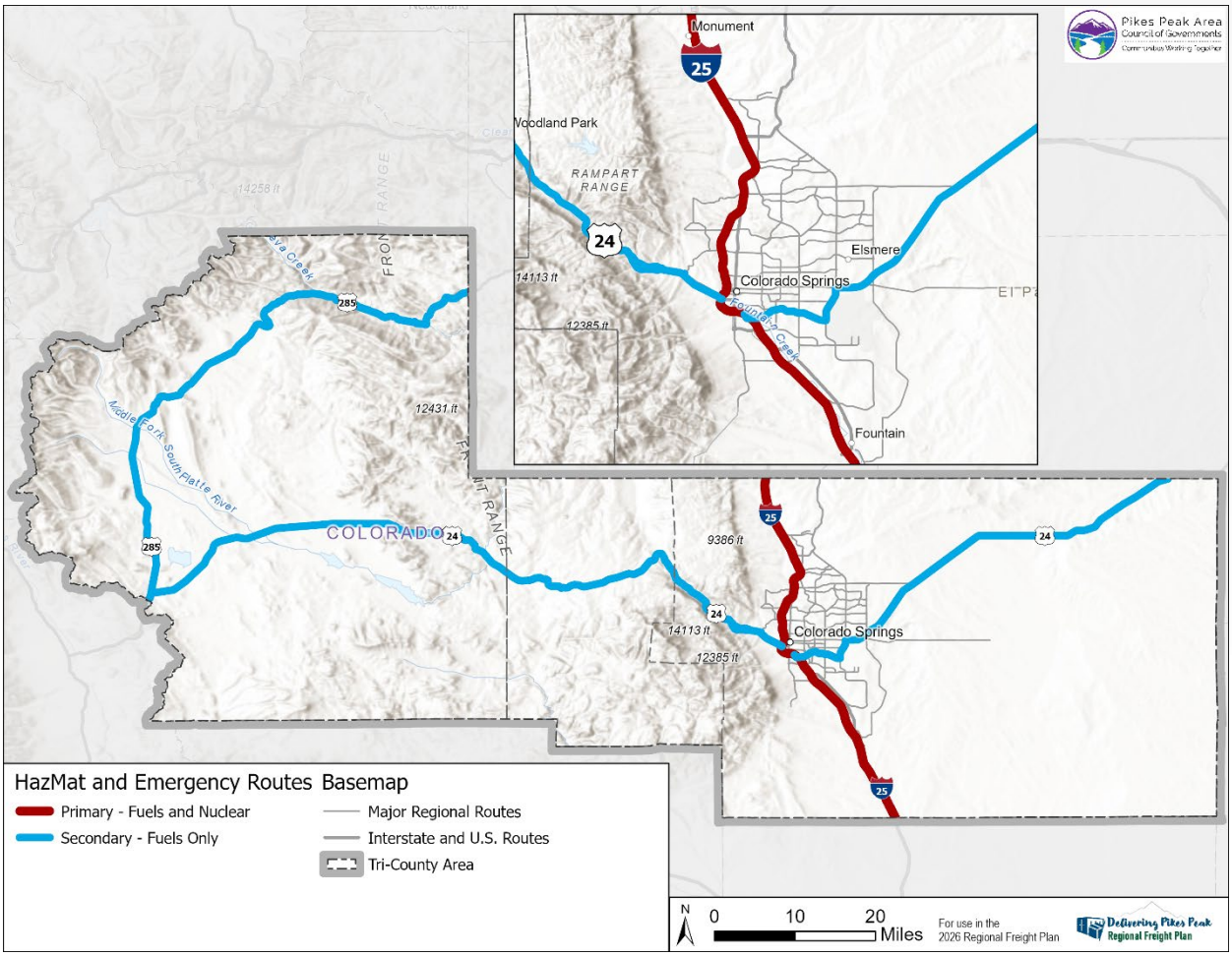


Source: SDDCTEA, Department of Defense

2.7 HazMat/Emergency Routes

The transportation of hazardous materials (HazMat) in the region is largely defined by the movement of fuels and nuclear products, though other HazMat products are transported in the region. These routes also coincide with the emergency response, with I-25 being the primary emergency route, and US-24 and US-285 as a secondary route. I-25 is the only route in the region, and one of only three in the state, that is designated for both the transport of nuclear products and other HazMat. The only other HazMat routes in the region are US-24 and US-285, both of which are designated for the transport of non-nuclear HazMat. Figure 2-18 shows the routes designated for the transport of HazMat products.

FIGURE 2-18 HAZMAT AND EMERGENCY ROUTES



Source: Colorado Information Marketplace, CDOT

The fact that HazMat routes leverage the highly developed infrastructure of the interstates and US routes means they are highly correlated with some of the major cities, communities, and ecosystems of the region. These major routes tend to have continuity with water resources including Monument and Fountain Creeks in El Paso County and the North Fork of the South Platte River headwaters in Park County, among the many other tributaries across all three counties in the PPACG region. CDOT is responsible for the permitting of hazardous materials transport in the state, with the Colorado State Patrol as the response agency. HazMat routing in the region is monitored through the permitting process, so understanding the needs of HazMat freight with from the local perspective is largely in the context of determining hazardous materials producing industries and identifying high risk communities and ecosystems. These are largely will defined as those locations immediately adjected to these HazMat corridors, therefore proactively determining the response strategy to potential incidents will strengthen the regions HazMat policy despite being largely hands-off for transport permits.

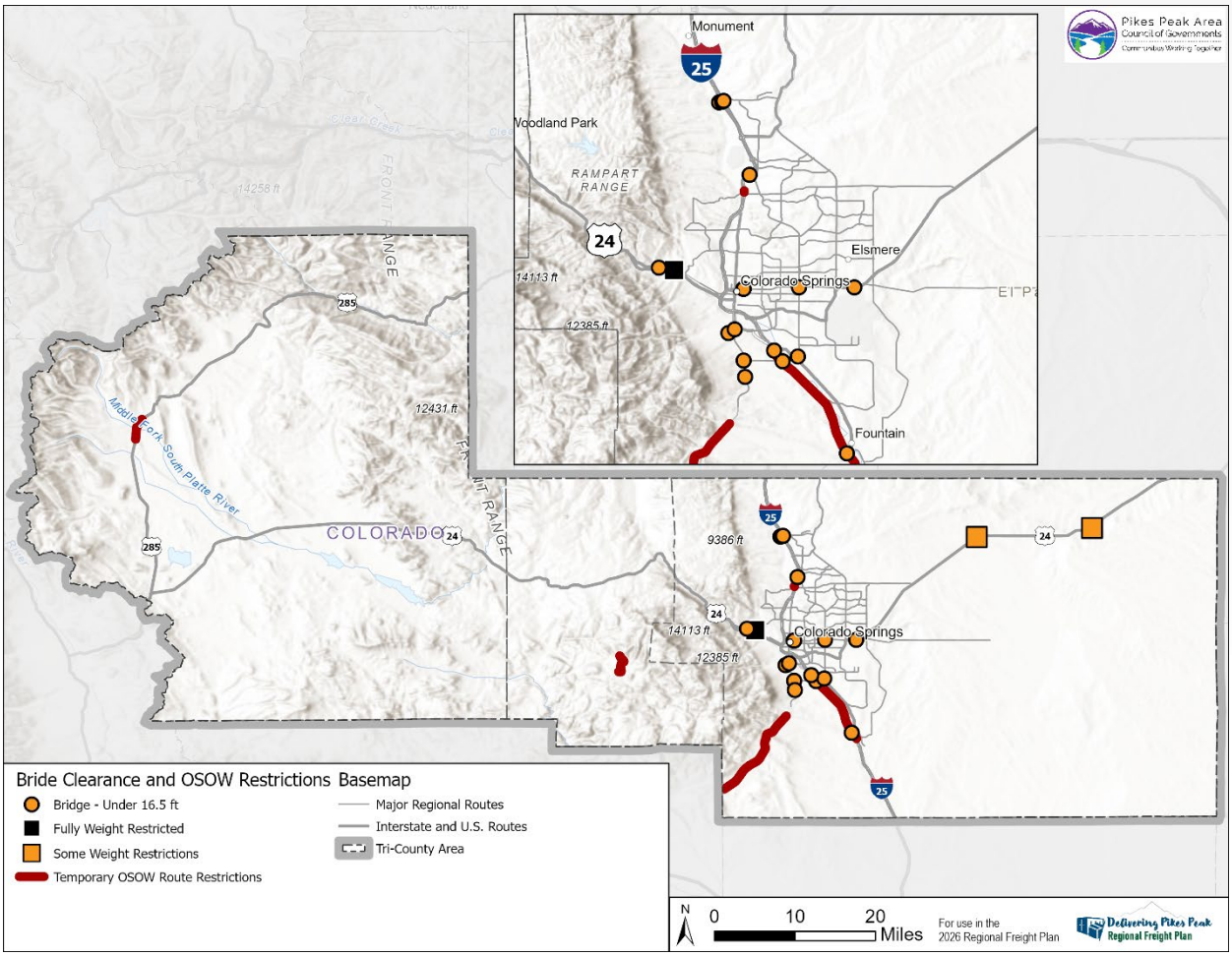
2.8 Truck Restrictions

Truck restrictions, in the form of dimensional and weight limitations, are critical for identifying locations where freight may be required to divert from traditional truck routes. In the PPACG region there are 8 active Oversize-Overweight (OSOW) restrictions, all of which are width restrictions. I-25 accounts for 5 of

the restrictions and represents an important consideration for the most heavily trafficked freight corridor. Additionally, there are 17 under 16.5 ft height limitations on bridges, two of which are located on US-24, a primary freight route, in Manitou Springs and north of Peterson Air Force Base. Only one bridge in the region fully excludes overweight trucks and is located on the US-24 Business Route east of Manitou Springs over Fountain Creek, while two other bridges on the eastern portion of US-24 in Peyton and Calhan have notable weight restrictions. Figure 2-19 shows the OSOW routes, vertical clearance and weight restricted bridges in the region.

OSOW and bridge restriction considerations are important because they impose truck limitations and require permits to supersede. The roadways at the locations shown in Figure 2-19 represent approximately one out of every six truck miles driven. Not all trucks are necessarily concerned with these limitations, so this mileage is lower when eliminating trucks with standard cargo and dimension, but is substantive particularly along the major freight corridors like I-25 and US-24. Truck limitations, particularly on major freight routes, are a barriers to entry for businesses that rely on large truck units for economies of scale. Grocery stores, warehouses, and distribution centers are then required to take extra steps, and incur additional costs, to ensure compliance with OSOW regulations. Additionally, detours could be required to circumvent the restriction resulting in higher travel costs and possible truck movements through communities. The military presence in the region could experience interruptions in everyday operations, though this would not impact emergency military response. It is generally important to understand these locations when planning for future development and identifying possible infrastructure improvements.

FIGURE 2-19 TRUCK RESTRICTIONS AND LIMITATIONS



Source: Colorado Information Marketplace, CDOT

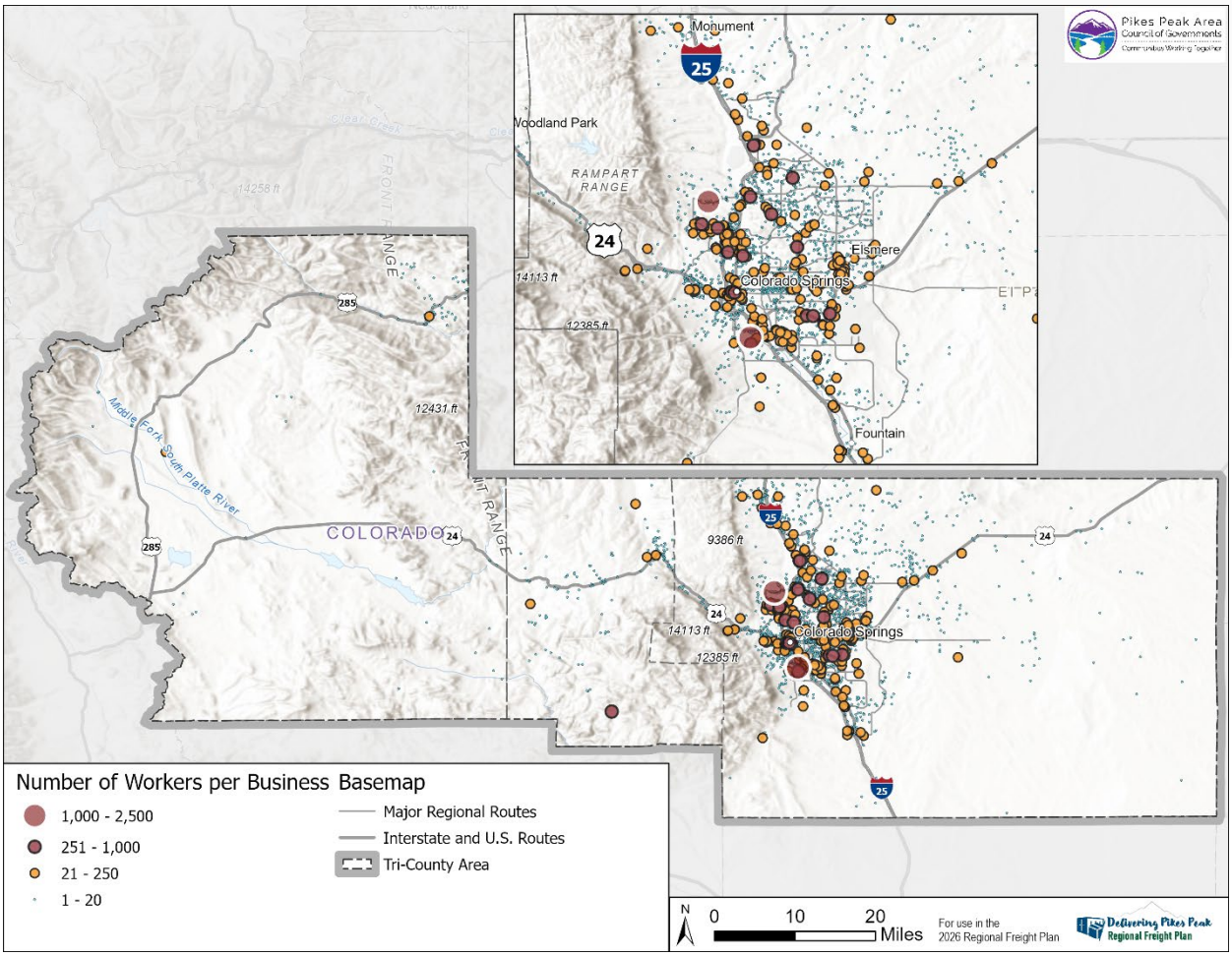
2.9 Last-Mile Considerations

The region's consumer goods are largely supplied by truck via I-25 in the Colorado Springs area, bringing commodities to various retailers and distribution centers. Figure 2-20 shows the freight industry employment and the routes associated with the clusters. Notably, and expectedly, downtown Colorado Springs has the highest freight employment density considering the retail presence, with E Platte Ave also supporting heavy freight employment for similar reasons. The advent of online retailing has also brought big box retailers, warehouses and distribution centers to the region. The "from warehouse-to consumer" leg of goods transportation, known as the last-mile, is an increasingly important consideration. The region, and specifically Colorado Springs, has recently seen growth in online retail distribution as evidenced by the introduction of an Amazon warehouse, and the growth of other big box retailer footprints, including Walmart, Target, Home Depot, Lowes, and others. It is therefore critical to monitor the freight corridors identified in Figure 2-20 for non-traditional freight transport in the form of delivery vehicles.

The key corridors identified in Figure 2-20 are generally consistent with existing major freight corridors. Notably, however, lower functional classification routes in the downtown Colorado Springs area and around Garden of the Gods Road may not functionally serve as major truck routes, so considerations

around the industries that exist and are developing there, and what kinds of truck will be operating through there, is important to establishing regulation as to what vehicle can and should operate in those areas. Additionally, those vehicles operating in these areas must consider loading and parking needs, which can result in complications if not properly addressed. Businesses should be responsible for providing adequate facilities based on expected truck volumes. Furthermore, the last mile associated with residential deliveries has changed with the advent of e-commerce, so while businesses engaging in these operations should be responsible for considering the availability of parking and loading space, recognizing these types of freight as an economic reality for the region is important for freight planning.

FIGURE 2-20 FREIGHT EMPLOYMENT CLUSTERS



Source: InfoUSA, 2020

The operations and safety piece of this plan supports the identification of key corridors in the region and narrows the scope for proposing improvements to the system as they relate to freight. The information presented provides a framework for targeting safety projects, enhancing the freight transportation infrastructure, and identifying/improving truck policy. There are several safety takeaways regarding mountain travel and at-grade rail crossings, and planning considerations regarding truck routing and W-E travel in the region. There should be an emphasis on ensuring rural areas have the appropriate resources for safe design and freight supporting infrastructure, and ensuring urban areas continue purposeful planning for sustainable and equitable growth.

2.10 Truck Flows

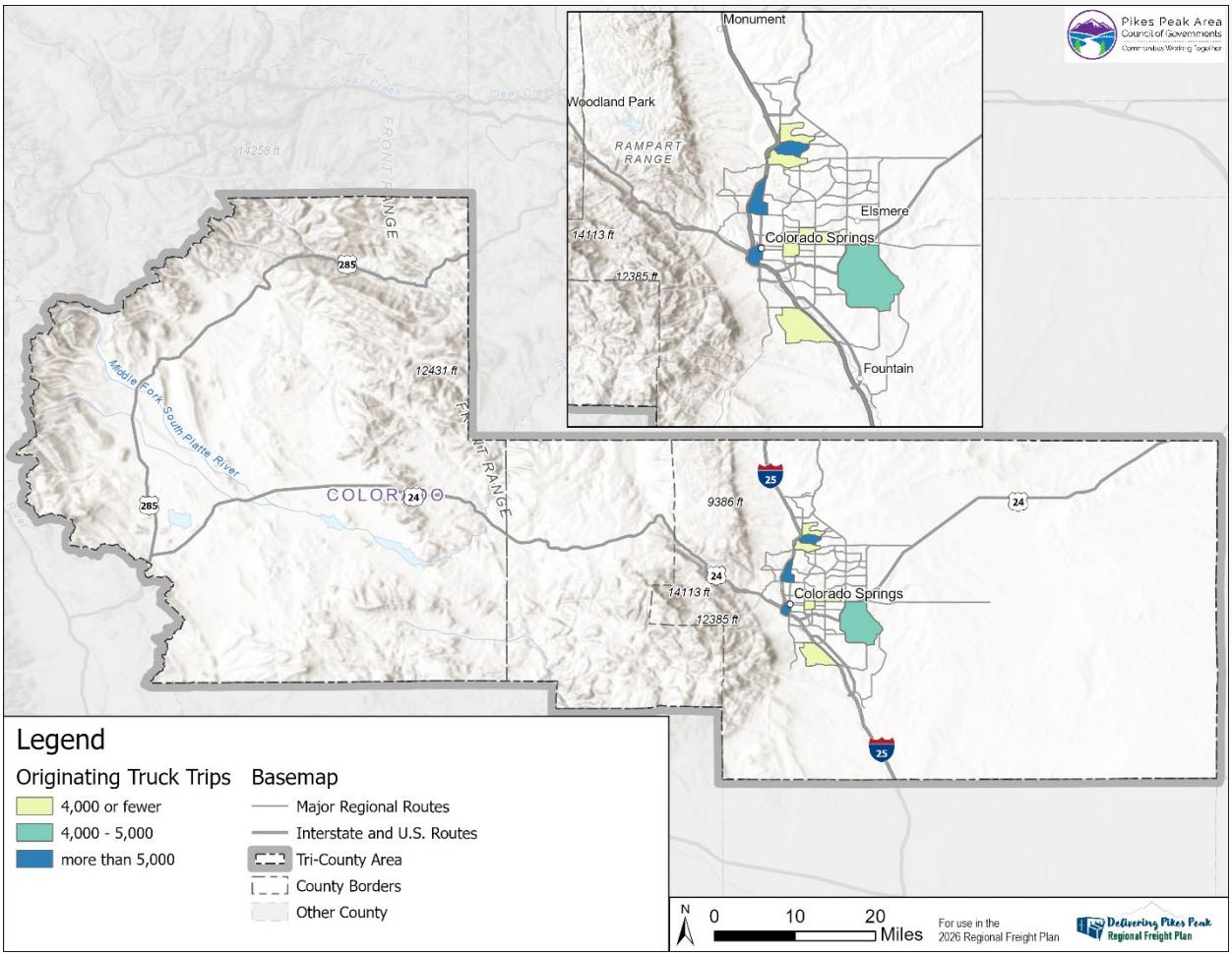
The region's top truck trip generators and attractors provide deeper insight into how freight vehicles are currently moving through the PPACG roadway network and where growth can be expected. Figure 2-21 and The top three destination tracts for truck trips are the same as the top three origin tracts in the region, which speaks to the importance of the interstate in the region's freight-related operations. The northern most destination tract is unique from the origin tracts, and corresponds to several big-box department stores serving a large proportion of the residential areas of the northern Colorado Springs area. The airport tract is in the top 5 for origin and destination tracts in the region. This indicates that despite being removed from direct interstate access the attractiveness of collocating large freight businesses with airports is strong enough to elevate the truck traffic. Additionally, this tract is among the more open in terms of growth opportunities. There are fewer total developments and a large existing truck traffic base, so infrastructure coordination may lead to growth in freight related industries in this area.

Figure 2-23 shows the location of wholesale trade and manufacturing businesses in the PPACG region, and in comparison to the top truck trip tracts there is a strong relationship between the location of these two kinds of businesses and where trucks are traveling. High density of both business types in the Garden of the Gods Road and US-24 interchange areas describe two of the top three tracts for truck trip origination and destination. The airport tract also has a high density of these businesses, though not as numerous in count.

Figure 2-22 show the top 10 truck trip generators and trip attractors in the PPACG Region, respectively. The data for these figures were derived from the LOCUS Truck trip tool which uses location-based services and big data to estimate tract-level origin-destination daily truck trips within a study area.

There are two high level takeaways from both the trip generators (originating) and trip attractors (destination) figures. First, the top 10 tracts for both are very similar, though not identical, due in part to the fact that vehicles entering a tract will at some point also exit the tract; but is also indicative of possible intermingling truck trips between tracts and large-scale manufacturing, shipping, or commercial/industrial activity. The second, more notably, is that many of these tracts are immediately adjacent to I-25 which means the interstate is not simply important, but a foundational element of freight in the region. Looking more specifically at the top 10 originating tracts, all of the highest trip generators are at or north of the I-25/US-24 interchange; this despite a number of commercial and industrial land uses in and around the airport. The density of businesses in these high origin tracts heavily outweighs volume associated with large-scale shippers and warehousing in the region.

FIGURE 2-21 TOP 10 ORIGINATING TRACTS FOR TRUCK TRIPS

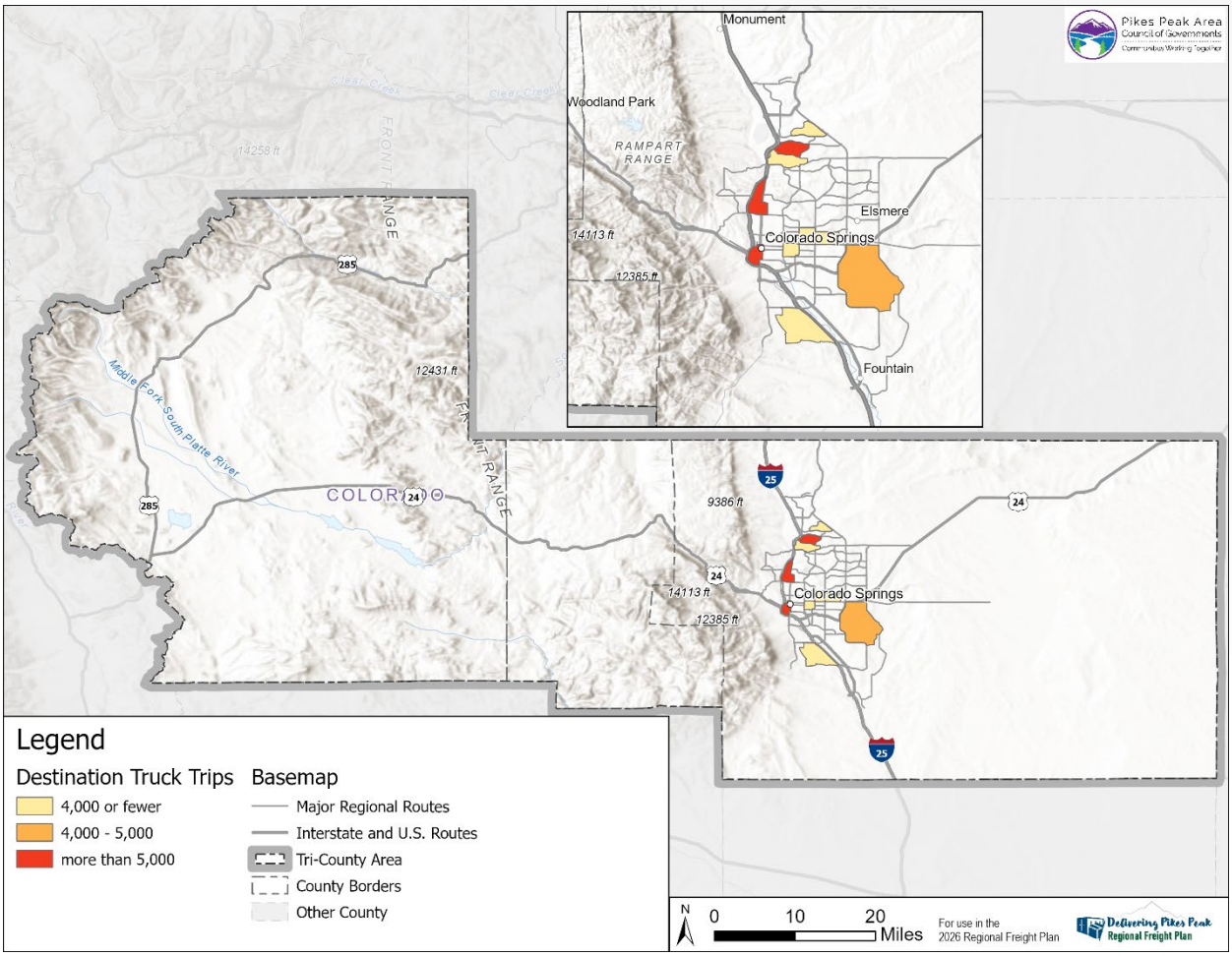


Source: LOCUS Truck, 2024

The top three destination tracts for truck trips are the same as the top three origin tracts in the region, which speaks to the importance of the interstate in the region's freight-related operations. The northern most destination tract is unique from the origin tracts, and corresponds to several big-box department stores serving a large proportion of the residential areas of the northern Colorado Springs area. The airport tract is in the top 5 for origin and destination tracts in the region. This indicates that despite being removed from direct interstate access the attractiveness of collocating large freight businesses with airports is strong enough to elevate the truck traffic. Additionally, this tract is among the more open in terms of growth opportunities. There are fewer total developments and a large existing truck traffic base, so infrastructure coordination may lead to growth in freight related industries in this area.

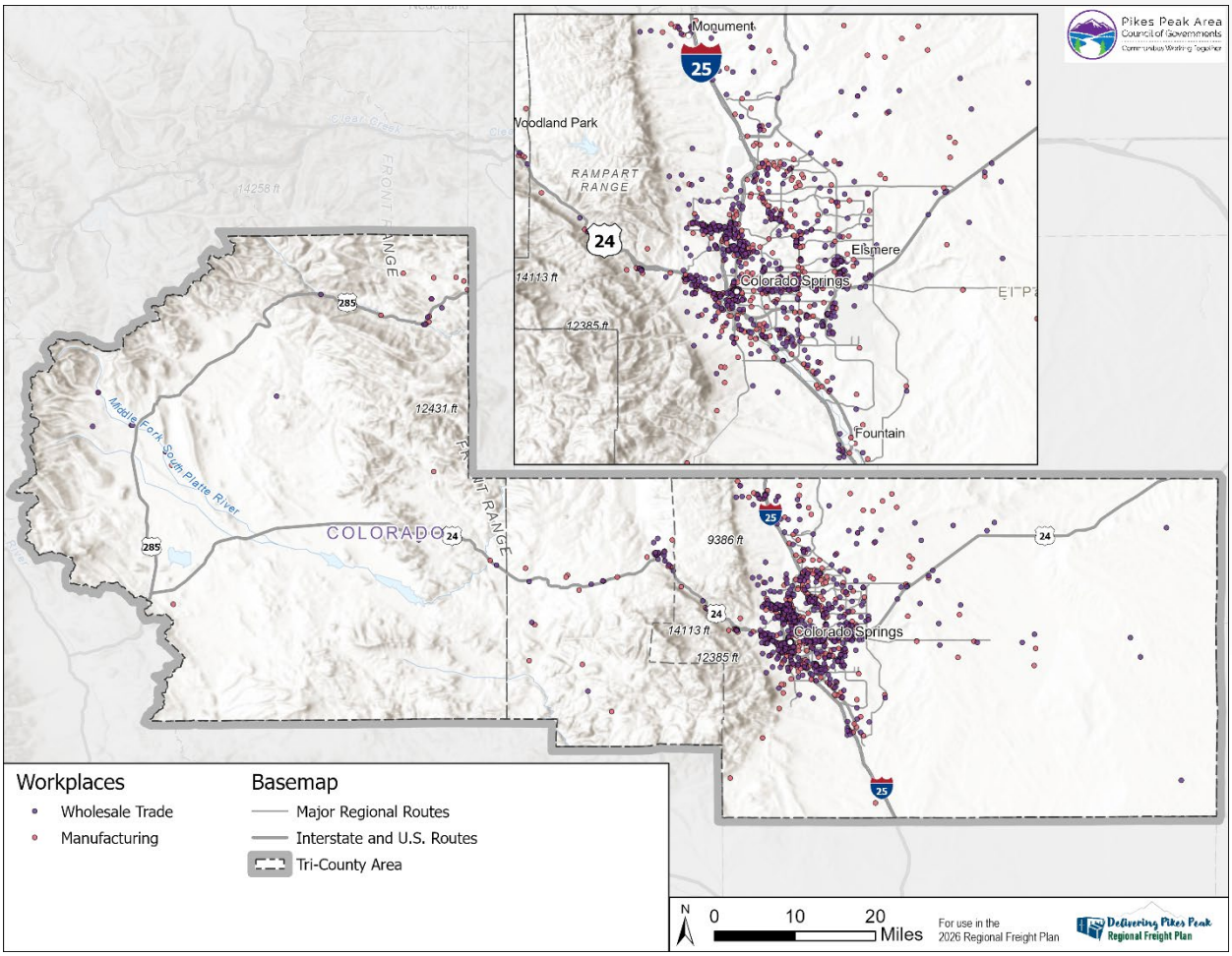
Figure 2-23 shows the location of wholesale trade and manufacturing businesses in the PPACG region, and in comparison to the top truck trip tracts there is a strong relationship between the location of these two kinds of businesses and where trucks are traveling. High density of both business types in the Garden of the Gods Road and US-24 interchange areas describe two of the top three tracts for truck trip origination and destination. The airport tract also has a high density of these businesses, though not as numerous in count.

FIGURE 2-22 TOP 10 DESTINATION TRACTS FOR TRUCK TRIPS



Source: LOCUS Truck, 2024

FIGURE 2-23 MANUFACTURING AND WHOLESALE TRADE WORKPLACES



These finding show that the region has predictable truck travel patterns, but also many major investment opportunities that play to the strengths of the region, both rural and urban. While many of the top truck trips tracts are located in El Paso county, and more specifically the Colorado Springs area, both Teller and Park support key corridors for transportation through and within the region and are full of opportunities for strategic growth.

SECTION 3

OUTREACH



3.1 Introduction

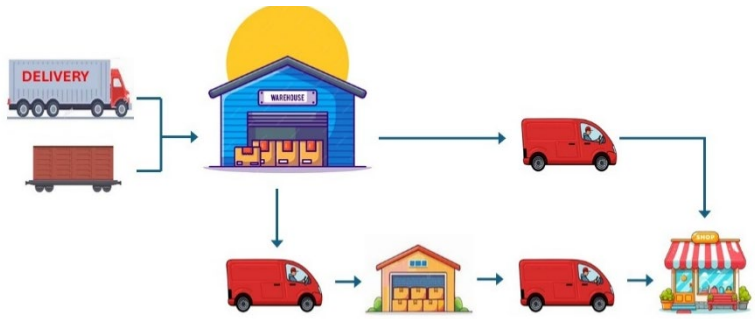
This stakeholder chapter summarizes the approach that was used to reach public and private-sector freight stakeholders during the development of the PPACG Freight Plan. The document describes how stakeholders were involved to provide input on the transport of freight-in regards to planning, investment, and operations. Stakeholder outreach objectives were to:

- Establish a broad public and private stakeholder base to guide the development of the plan.
- Provide meaningful opportunities for early and continued participation throughout the stakeholder outreach period.
- Gather stakeholder input to identify current freight needs, issues and potential opportunities.

The stakeholder engagement was to implicitly engage a broad array of industry representatives to guide the development of the plan - to gather personal perspectives on the regional freight system.

An effective regional freight plan is essential for optimizing transport efficiency and economic growth for the Pikes Peak Region. The Pikes Peak Local Freight Operation is somewhat standard with most shipping starting from regional distribution centers, where goods are then delivered to retailers and consumers, or they may pass through an additional local

FIGURE 3-1 PIKES PEAK FREIGHT OPERATION



distribution center before delivery. Final deliveries are predominantly made by truck to retail outlets or increasingly to the consumer's front door. However, stakeholder input has suggested emerging technologies in freight delivery may change how the last mile transportation is accomplished, particularly in urban areas.

This section discusses the strategies used to identify freight movement enhancements to optimize the efficiencies across the region from the users perspective. It also identifies the participants key challenges such as congestion, infrastructure needs, and a review of freight transport policies. By integrating stakeholder input and leveraging data-driven insights, the plan aims to create a sustainable and resilient freight network that supports local businesses and improves overall logistics performance. Emphasizing collaboration among public and private sectors, the regional freight plan serves as a roadmap for future investments and policy decisions, ensuring that the region remains competitive in a rapidly evolving global marketplace.

Freight planning directly influences local employment, business competitiveness, and infrastructure investment—creating opportunities across urban and regional economies. Connecting people and goods through freight movement is essential to keep the economy growing and provides a better quality of life for all. An optimized freight system reduces delivery costs and addresses congestion, enabling carriers and shippers to operate efficiently while generating warehouse and transportation jobs.

Regional Benefits

- Build upon previous planning efforts intended to improve, enhance, and grow the transport of freight in the Pikes Peak region
- Identify projects that optimize safety and the movement of freight
- Identify roadway conditions that are substandard for trucking operations
- Identify locations for truck parking to provide safer operations
- Organize data to pursue freight related grants to improve infrastructure
- Identify locations for grade separated RR Crossings to remove train/vehicle conflicts
- Support economic growth by developing relationships with area businesses and attracting new businesses

3.1.1 Stakeholder Participation

A successful freight plan begins with clearly defined objectives that align transportation activities with broader business priorities. The broader business priorities identified by stakeholders involved with the freight industry were key in developing strategies and projects for the freight plan.

The areas around Pikes Peak is home to a vibrant economy built in part on the effective movement of goods both for consumers and businesses as well as the mining and aggregate industries. The transport of freight is organized into supply chains that connect corridors, including highways and rail, and transfer and distribution centers. These corridors are used to link modes and consolidate goods and first and last mile connectors to facilitate pick-up and deliveries of goods. The reliability of the freight transportation network is critical when planning the transport of raw material and the distribution of finished products. Unexpected delays can result in slowing or halted manufacturing processes and decreasing productivity, which increases manufacturing costs and prices for the end consumer. To enhance future economic growth, the Pikes Peak region and State of Colorado must invest and implement strategies to support the increasing demand for a safe and reliable freight transportation network.

Three key stakeholders for the development of the plan include the Colorado Motor Carriers Association (CMCA), the Peak Innovation Center located on the Colorado Springs Airport, and the Southern Colorado Rail Park (SCRP). The CMCA and Peak Innovation Center are currently in place and have a major role with transporting freight in the region. The SCRP is a major initiative to establish a regional rail transport

hub in El Paso County, located west of I-25 and adjacent to Fort Carson and the Colorado Springs Ray Nixon Power Plant. All three provided valuable input for economic growth and identification of barriers for transporting freight in the region.

Colorado Motor Carriers Association – "The Voice of Colorado's Trucking Industry" Is a 501(C)6 organization established in 1939 to unite the trucking industry and its business strength throughout the State of Colorado. The association is the sounding board for trucking issues in the state, with a long-standing, substantial relationship with private trucking companies. The CMCA has the ability to speak for numerous trucking issues within the tri-county region.

Peak Innovation Center – Includes the Amazon Fulfillment, Sorting, and Distribution Centers, Northrup Grumman, and Aerospace Corporation, Arrival/Departure Airfield Control Group (A/DACG), with 1600 acres available for air freight industry companies. It is the largest private trucking freight distributor in the region.

Southern Colorado Rail Park – The planned Dual-Service Class I Industrial Rail Park is situated along the front range on over 3,000 acres of rural land situated between the Colorado Springs Nixon Power Plant (CSU) and Fort Carson Military Reservation west of I-25. The foundational premise of the project is to extend an existing CSU dual service rail spur (UP and BNSF) that will provide a catalyst for commercial development and job creation under a public-private partnership while also strengthening the military resiliency of Fort Carson.

Rail is a key component of freight movement in El Paso County which, according to stakeholder input, has a demand for increased transload facilities for freight distribution in the region. The Freight Network includes the BNSF and UP Class I railroads. The rail network that is served by these Class I railroads, will include the planned Southern Colorado Rail Park, the major railyard in downtown Colorado Springs, and various minor transload facilities throughout the City of Colorado Springs, City of Fountain, and El Paso County. The rail freight network for the region consists of approximately 90 miles of Class I rail routes.

The military is a critical economic driver for the region, especially El Paso County, City of Fountain, and the City of Colorado Springs. It is also a major driver of freight and cargo movements, especially for the Fort Carson Army Post. This includes the movement of military personnel, supplies and equipment for training and deployment, both within Colorado and nationally, and ultimately throughout the world. In the Pikes Peak Region, there are five military installations including the Fort Carson Army Post, Peterson Space Force Base, Schriever Space Force Base, United States Air Force Academy, and the North American Aerospace Defense Command (NORAD). Freight needs differ immensely for each of these installations. It should be noted existing military facilities are often reviewed for freight transportation assets as a contributing factor in base expansion and realignments.

3.1.2 Value of Stakeholder Input

Stakeholder input ensured that diverse perspectives were considered, which can lead to more effective and sustainable recommendations. An effectively run stakeholder process will establish more commitment towards decision-making, accountability, and trust with all involved.

Enhanced Decision-Making - Stakeholder engagement provides valuable insights that can improve decision-making processes. By understanding the needs and concerns of various groups, organizations can tailor solutions more effectively and garner more support for implementation.

Accountability - Engaging stakeholders fosters a sense of accountability and responsibility. This is essential for creating systems that are not only innovative but also sustainable and aligned with industry needs.

Improved Adoption and Trust - When stakeholders are involved in the process, it can lead to greater trust and acceptance of proposed recommendations. This is vital for successful implementation and long-term sustainability of projects and policies.

The input received should ensure the regional freight plan will reflect real world operations and safety priorities by capturing perspectives from those directly delivering goods and services, and managing freight logistics for the region. For the PPACG Regional Freight Plan, it was necessary for stakeholders to help support goals and objectives development; understand freight needs and safety concerns from the those who rely on local and regional the freight system; and build consensus and support for the effort.

3.2 Process

Meaningful stakeholder engagement started with participation from a broad range of public and private sector stakeholders. Their input is important to guide the development of the plan and to gather perspectives on the freight system, how freight-dependent industries use the system, current needs and issues and potential opportunities. The stakeholder process was focused on listening and documenting the feedback from those who rely on and use the Pikes Peak freight system daily. Four approaches to provide input on regional freight transportation were used to obtain feedback:

- Listening/Input Sessions (Dec 4, 2025, TAC, CAC, PPACG Board).
- One-on-One Interviews (Schriever/USAFA, Fort Carson, Amazon/Peak Innovation Park, BNSF, SCRP, City of Fountain.
- Regional Freight Plan Steering Committee.
- Online survey and an interactive map to pinpoint issues and concerns.

A pointed list of 38 public/private stakeholders was developed as a comprehensive, yet manageable, number of businesses to contact for participating in the development of the plan. From this list, the consultant team was able to make direct contact with 22 entities. For those not reached by the consultant team, the Colorado Springs EDC and CMCA were able to either represent those businesses or were able to reach the stakeholders to inform them of the plan and forward the invitation to attend the December 4, 2025 listening session and share the link to the online survey and mapping tool. They also shared study information and the meeting notice with other freight companies who may have interest in participating.

TABLE 3-1 LIST OF PUBLIC/PRIVATE STAKEHOLDERS

Regional Planning Entities	**Carriers, Shippers & Logistics Providers**
Pikes Peak Area Council of Governments (PPACG)	Old Dominion Freight Line
Denver Regional Council of Governments (DRCOG)	JB Hunt
Pueblo Council of Governments	Amazon Fulfillment Center
	United Parcel Service (UPS)
County & Local Government	FedEx
El Paso County	XPO Logistics
Teller County	Swift Transportation
Park County	Saia LTL Freight
City of Colorado Springs	Titan Worldwide Logistics
City of Woodland Park	Triple E Trucking
Town of Fairplay	ABF Freight
City of Fountain	Entegris
Town of Monument	RMB Products
Military Installations	**Industrial Commerce**
Fort Carson	Colorado Springs Utilities
	Aggregate & Mining Operations
Peterson Space Force Base	Martin Marietta Materials
Schriever Space Force Base	Acorn Petroleum
	Waste Connections of Colorado
US Air Force Academy	Southern Colorado Rail Park
Air Freight	**Chamber of Commerce/EDC**
Colorado Springs Airport	Colorado Springs Chamber of Commerce
Railroads	**Associations**
BNSF Railway	Colorado Motor Carriers Association
	Peak Innovation Park

3.2.1 Listening Session

On December 4, 2025, a listening session was held as a hybrid meeting to extend as large of a net as possible for stakeholders to participate while making it convenient for those who could not attend in person. The stakeholders were able to provide detailed feedback focusing on barriers to transportation. A summary of the listening session feedback may be found in Section 3.0. A link to the online survey and interactive map was shared with participants who were encouraged to provide it to other stakeholders who may not have attended the meeting.

3.2.2 Targeted Interviews

Several stakeholders were identified for follow-up one-on-one meetings to collect additional information from participants and for some key stakeholders who did not attend, such as Amazon and the Southern

Colorado Rail Park. It was also decided to meet with the regions' military installations for follow-up questions. Feedback from these meetings is incorporated into the summary found in Appendix A. Specifically, these meetings were held with representatives from:

- Peterson Space Force Base (12/15/2026)
- Schriever Space Force Base (12/15/2026)
- United States Air Force Academy (12/15/2026)
- Fort Carson Army Post (01/15/2026)
- Colorado Motor Carriers Association (01/27/2026)
- BNSF Railroad (02/06/2026)
- Peak Innovation Park/Amazon (02/11/2026)
- City of Fountain URA-Kimberly Bailey (02/11/2026)
- Southern Colorado Rail Park (02/16/2026)

3.2.3 Committees

A Steering Committee was established to provide oversight with the development of the regional freight plan. This committee included PPACG staff, Todd Frisbie from the City of Colorado Springs, Kimberly Bailey from the City of Fountain, Dan Ungerleider from the Town of Monument, the consultant team, and Tracy Sakaguchi from the CMCA in an advisory role.

Although members of the PPACG Technical Advisory Committee were part of the Public/Private Stakeholders participants for the listening session, the committee was also provided opportunity for input at their February 19, 2026, meeting.

Steering Committee

The Steering Committee was tasked with providing direction and guidance for the development of the Regional Freight Plan. The committee provided strategic oversight - providing significant guidance for the development of the Goals and Objectives. The committee, fostered collaboration for various elements and played a significant role with recommending strategies and projects for the region.

Technical Advisory Committee (TAC)

The role of the TAC is to provide technical advice and to recommend appropriate courses of action to the Pikes Peak Area Council of Governments Board of Directors and PPACG staff on current and emerging transportation issues, goals, plans, and programs. As a committee of technical experts and advisors to the Council of Governments for transportation related activities, the TAC has the best representation to provide technical input with the development of the Regional Freight Plan.

3.2.4 Online Input

To gather targeted stakeholder input, a survey and interactive map with the ability to pin online comments was created on a Social Pinpoint webpage. This provided an easy to use platform for participants to provide their business framework, identify common barriers, unique business needs, and potential growth opportunities. The interactive map allowed participants to identify specific locations for the consultant team to review to address barriers and areas of concern in the freight system. The identified locations

helped determine where specific projects could be located for project and strategy implementation, such as chaining stations, truck parking, and railroad siding extensions.

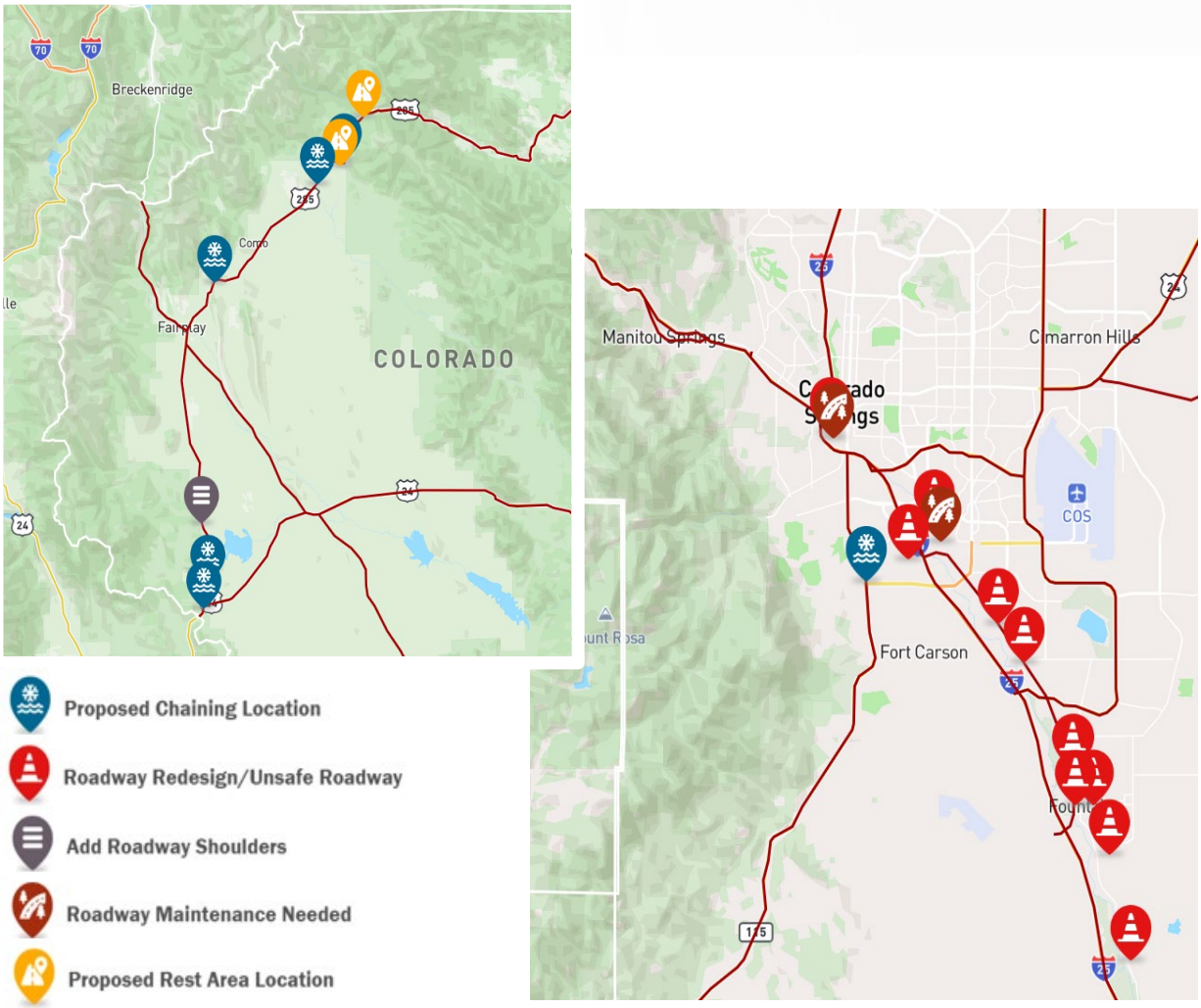
The Social Pinpoint survey allowed the consultant team to collect feedback from the freight industry and public sector about freight safety, operations, resiliency/maintenance, effective corridors/routes, technology (tracking, communications, and automation) and economic needs/opportunities. Direct interaction with the BNSF Railroad and the CMCA was invaluable as both interact with their colleagues with the CMCA being direct representatives for the trucking industry in Colorado.

The interactive map comments focused on five areas of concern - chaining stations, roadway geometric concerns, the need for shoulders/wider shoulders, roadway maintenance, and locations for rest areas.

Survey Priorities

- Road condition monitors
- Warning/advisory signs
- Additional shoulder parking
- Wider shoulders (in general)
- Chain-up/chain down infrastructure
- Additional rest stops
- Prioritization of truck routes for snow removal

FIGURE 3-2 STAKEHOLDER INTERACTIVE MAP COMMENTS



3.3 Findings

In-person feedback was the most successful approach in receiving stakeholder input. This feedback focused on the four topical areas of Safety, Economic Development, Resiliency, and the Military. It should be noted the findings from this effort do not supplant the findings of the 2024 PPACG Regional Freight Study but affirm and build upon the stakeholder input from that previous effort. One of the main outputs of the stakeholder engagement process from the prior study was a comprehensive Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis for the PPACG region.

FIGURE 3-3 2024 PPACG REGIONAL FREIGHT MOBILITY STUDY SWOT SUMMARY

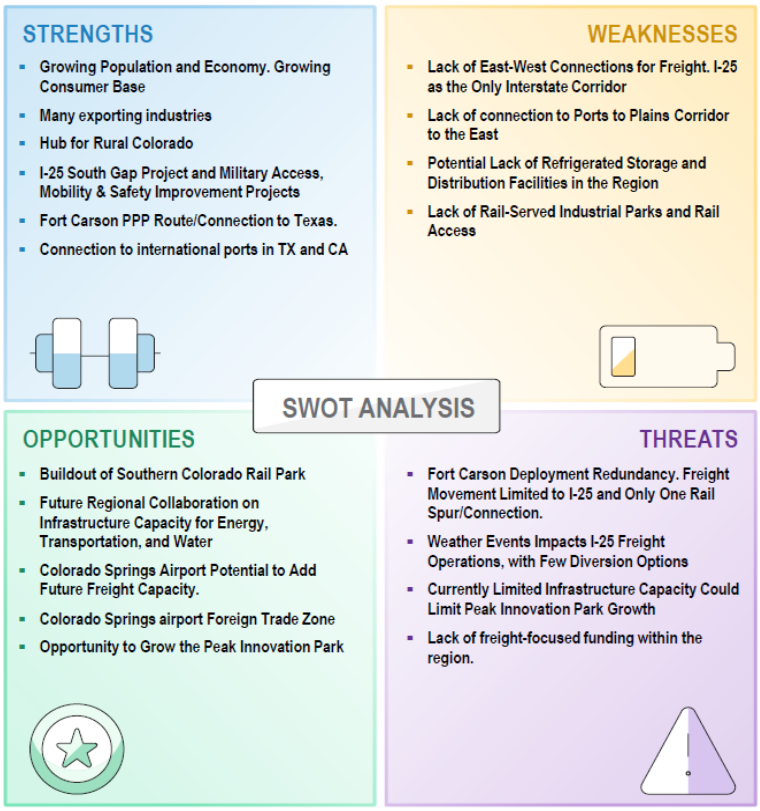


Figure 3-3 depicts the SWOT analysis from the 2024 Regional Freight Study which also included extensive stakeholder input. Throughout previous stakeholder interviews and partner listening sessions, participants were asked about strengths or operational challenges within the region. The 2024 Regional Freight Mobility Study SWOT findings can be found in Appendix B.

3.3.1 3.1 Safety

Stakeholder feedback on safety had several commonalities with the most being issues with existing railroad crossings and the safety concerns with their proximity to intersections. Another railroad concern is the length of the railroad sidings being short as todays train sidings need to be approximately 10,000 feet. Most sidings in El Paso County are about 7,000 feet. Truck parking, roadway surface conditions, chaining stations and communications combined with variable message signs were other areas of concern.

Safety Notes

1. South Sierra Madre St. in Colorado Springs is a Top 10 crossing in the state for railroad safety incidents-can be a source of a lot of backups (safety incidents at this location impact all road users).
2. The City of Colorado Springs completed a study that included the replacement of the Tejon and Nevada bridges (both low-bridge crossings) is worth consideration. It also includes addressing the low-speed railroad curve near Las Animas Street, a high incident location.
    - SODO Colorado Springs Railroad Realignment Study
3. In northern El Paso County the Countyline Rd in Palmer Lake; Icelake Rd; and 2nd St in Monument have intersections close to the railroad crossings.

4. In southern El Paso County the US 85/Main Street intersection is close to the railroad crossing.
5. All City of Fountain railroad crossings are an issue and are Top 10 potential incident locations in El Paso County.
6. The Fountain Downtown Master Plan notes there are several rail crossings impeding Downtown District revitalization.
7. The landfill along Blaney Road, which has a gravel surface, has high truck traffic. The impact on the roadway surface is significant and needs to be upgraded.
8. Truck parking in neighborhoods and along roadways is a recurring problem.
9. US 285 is a prominent freight corridor – there are minimal safe locations for commercial drivers to pull off and/or park. It is worth bringing this up for the State Freight Plan since it is such an important corridor for freight travel through the mountains.
10. US 285 is a significant concern for chain-up/chain down stations, particularly since there are state regulations drivers are required to follow (infrastructure is non-existent to properly support compliance).
    - Hot brake issues can arise, and downhill grade speeding is double fined, new stations can support brake cooling and other truck needs.
    - Not just 285, but the mountain corridors generally.
11. US-24 is a significant concern for chain-up/chain down stations particularly since there are state regulations drivers are required to follow (insufficient infrastructure to properly support compliance).
    - Hot brake issues can arise especially with heavy use as downhill speeding is a double fine. Stations can support break cooling and other truck service needs.
12. Communication and variable message signage for inclement weather including station wayfinding is important for mountain weather events.
13. Plan development should investigate Front Range Passenger Rail (FRPR) impacts with freight trains.
    - District report (3-10 round trips, whatever the necessary frequency is) has information. The Freight Plan will want to note impacts to freight rail traffic from FRPR.
14. All three railroad sidings in El Paso County are sub-standard length – 7,100' is the longest siding – industry standard is 10,000'.
15. South of Fountain on I-25 to Pueblo is a high incident corridor for trucks.
16. Access to the Peak Innovation Park on HazMat routes is very important.
17. Hazmat routes at rail crossings are a concern.
18. Southern Colorado Rail park will need to consider grade separated crossings and truck parking with its implementation.

3.3.2 Economic Development

Stakeholder input highlighted opportunities to enhance the movement of freight within the regionBoth urban and rural areas are experiencing increased demand for the movement of goods in the region. The

SCRP and Peak Innovation Park were both identified as areas of high freight movement for both over the road and rail freight. The SCRP will be a key transload facility for Southern Colorado integrating both. Increasing the use of existing railroad spurs was also suggested as an area to focus economic growth.

Economic Development Notes

1. There are opportunities on the west side of the City of Fountain in the Gateway District near I-25 and Fort Carson. The east side of I-25 is getting an industrial "face lift" to attract industrial businesses in an area focused to promote their growth. Signage, infrastructure, etc. is being installed that will complement this growth is a critical consideration for freight focused businesses.
2. Bandley Drive in the City of Fountain is an important road for freight as it provides access to existing and planned warehousing and industrial development.
3. In 2023 Fountain implemented a truck route with adoption of its Master Transportation Plan and should be a consideration of the study.
4. El Paso county is experiencing a lot of warehousing and distribution centers, most of which are supportive of e-commerce.
5. Regional waste sites are mostly located in El Paso County and will continue to be an important service for the region.
6. The eastern roadways in El Paso County are important for the transport of local agriculture and other industries located in the rural area increasing the need for hardened infrastructure to ensure their longevity, safety, and continued growth.
7. Existing railroad spurs are underutilized in the region.
8. The Southern Colorado Rail Park, from the perspective as a multimodal transload facility, is invaluable to the region.
9. From Denver to Pueblo there are no public transload facilities - having something in the region for connecting truck to rail is important.
10. The Peak Innovation Park is experiencing rapid office and commercial warehouse development and needs to have safe and efficient freight access. Powers Blvd is a corridor that can provide access to the airport development along with other commercial development along its corridor. Its value as a truck route will likely increase with its connection north to I-25.
11. The demand on Milton Proby Parkway from the Colorado Springs Airport to I-25 is increasing as freight traffic chooses to use the interstate as the major transportation corridor in the region. On the East side of the airport more growth is anticipated and needs to have appropriate freight infrastructure.
12. Amazon Distribution Centers are located in Aurora, Thornton, Colorado Springs (2)
    - Intermodal distribution site is in Adams county for stocking Amazon fulfillment centers.
    - Prioritizes getting trucks off the public ROW and onto Amazon property.
    - Contracts 3rd party operators over the road, but amazon stays on top of them.
    - Considered Air freight delivery for COS, but airspace restrictions and not enough demand yet limit any near-term pursuit.
    - Acquiring land in Buena Vista and will transport freight via US-24.

13. Drone delivery not necessarily consideration for Peak Innovation Park because of airspace restrictions.
14. I-25 is the primary N-S corridor for truck movements in the region.

3.3.3 Resilience

Resiliency of the freight system was identified as a critical factor, particularly in maintaining operations when disruptions occur within the system. There is only one main line rail corridor in the region which travels through El Paso County. The regional highways of Interstate 25, US 24, and US 285 are key for the delivery of freight and include mission critical military routes. Communication is important when one of these corridors is closed and real time information of detours will save time and money.

Resilience Notes

1. In 2024 there was a military resiliency study on how Fort Carson, along with other garrisons, connect to the Port of Galveston (Power Projection Platform). This study should be reviewed for recommendations to be included in the Regional Freight Plan.
2. Train scheduling can see significant impacts if its main lines are closed to the BNSF and UP Railroads. Alternate routes have to take a large detour through Kansas affecting other ancillary freight operations.
3. Communication is an important element of rerouting trucks from closed routes and is a critical priority for the industry. An example is when the Town of Fairplay was overwhelmed with traffic when I-70 was unexpectedly shut down and traffic was rerouted to US 285 as the detour route.
4. Redundancy goes hand in hand with resiliency. The Powers Blvd South PEL study shows how improving and providing an appropriate alternative supports I-25 in the event of closure. Enhancing the infrastructure can also support incident management and evacuation.
5. The impacts on communities when I-25 (and US 24) are shut down are significant on their local roadways. HazMat freight can experience long detours since they are not allowed to operate on certain routes.

3.3.4 3.4 Military

The collaboration between PPACG, its member agencies, and the military installations is important to the stakeholders. The general sentiment with the military stakeholders was traffic congestion at the entrance to their installations was the largest concern. There is appreciation for the ongoing efforts to improve access to Peterson Space Force Base with the construction of the Powers Boulevard interchange. SH 94 access to Schriever Space Force Base is congested for its personnel but the freight delivery access from Irwin Drive operates fine. The United States Air Force Academy (USAFA) freight access is from its South Gate and generally operates fine.

3.3.5 Military Notes

1. Priority for the Fort Carson Army Post are the access points - to ensure the flow of traffic into and out of the installation is maintained. Most delays occur where the access points meet local infrastructure.

2. Anything going to/from Fort Carson to the A/DACG facility would already be moving through a designated route, so an appropriate freight route is already established. A contingency plan is in place.
3. Railroad bridging across I-25 to Fort Carson needs to be replaced and is being coordinated with CDOT. The project will need to maintain rail operations to the army post.
4. Freight must go through gate 3 with some exceptions to postal or other minor related movements
5. Buses are not limited to gate 3 for the 5 on-base schools.
6. Some freight deliveries will accidentally exit prematurely to Gate 4 where the delivery trucks go under the South Academy Blvd underpass and get locked into the traffic. For trucks to turn around, the gate needs to be closed for inbound and outbound traffic which can be time consuming. Installing wayfinding signage saying “Commercial Vehicles Gate 3, Use Exit #123” would go a long way in reducing this reoccurring problem.
7. The traffic in the morning between gates 3 and 4 (and in the early evening with low daylight in the winter) poses safety and congestion problems.
8. Mission oriented rail improvements are in the planning phase for the south entrance. This planning is a long-term item.
9. On the east side of Las Vegas Street, an old Fort Carson siding connects to the railroad mainline. The siding was at one time leased to Fort Carson and has now fallen into disrepair. Fort Carson is currently working with the UPRR to renew this lease but there is no estimated timeline for its reactivation. This would be used for staging and enhancing the Post’s rail operations efficiency.
10. Freight access is being improved for Peterson Space Force Base with the improvements at the North Gate at US 24 and the West Gate at Airport Road/Powers Boulevard. The Florida “T” signal at the East Gate and Marksheffel Road has improved safety.
11. Schriever Space Force Base has no rail or air freight service so access is highway dependent. The base footprint is a little smaller than some of the other installations so while the volume of freight is less than other installations it is still critical. Irwin Road, connected to Bradly Road and Curtis Road, is the key entry point. It is approximately 0.5 miles from the entry gate to Curtis/Bradley Rd, so backups aren’t as much of an issue. Deliveries are restricted to an access point for scanning prior to being allowed into the base.
12. Key regional roadways that connect Schriever to the broader network are SH-94, US-24, Bradley Road and Powers Boulevard to a lesser extent.
13. There are no major freight transport issues for US Air Force Academy to report - generally just regular traffic congestion at the south gate activity. Regular and Hazmat cargo must go through South Gate (outside of select considerations as necessary).
14. USAFA has only two access points, North Gate and South Gate, so if the base needs to evacuate it is limited to these two exits. There is a potential for evacuation delays because they offload to other regionally significant evacuation routes with the rest of the community.
15. There is a railroad running through the academy, but there are no logistic points on the base.
16. There is no intention of ever creating a rail stop within the USAFA Base.

17. The military installation personnel wanted to explicitly state that collaboration with PPACG has been excellent and wanted it to be conveyed in the comments. PPACG continues to prioritize military needs and projects, and the military stakeholders look forward to this partnership continuing

3.4 Plan Development

3.4.1 Integration into Goals and Objectives

Early stakeholder involvement established focus areas to consider while developing the Goals and Objectives of the Plan. Since the 2024 Freight Mobility Study was still valid being completed only two years prior, it made sense to combine the findings for the two efforts. Ultimately, the stakeholder information from the 2024 Freight Mobility Study and current findings were used to provide the most comprehensive stakeholder input possible.

With the blending of the two efforts, the consultant team was able to develop draft Goals and Objectives to present to the advisory committees of the study. As mentioned prior, the stakeholder input for this effort focused on Safety, Economic Development, Resilience, and Military aspects of the regional freight transportation system. Following are highlights of the findings for each focus area:

Safety- The safety impacts of Colorado snow is particularly burdensome on the private freight industry with the need for chaining stations, safe truck parking, priority snow removal, immediate reporting of roadway closures and detour routes. One of the benefits of moving freight by railroad is the low impact poor weather conditions have on delivery schedules although the length of railroad sidings being too short does present other safety and train scheduling issues. Substandard safety concerns such as height limitations, weight restrictions, turning radius, and steep roadway grades were identified as safety concerns in the previous plan and are still valid.

Economic Development- According to Transearch and as reported in the 2024 Freight Mobility Study, between the years 2015 and 2040 the region is expected to see a 39% increase in the tonnage and a 68% increase in the value of goods traded in the region. In 2015, 19 million tons of freight passed through the region which is projected to increase to 27 million in 2040. The value of freight is expected to increase from $15 billion to $25 billion over the same time period. These figures are in year 2020 dollars and do not reflect the potential rise in the price of goods but rather the higher value of goods being traded in the region.

Stakeholder input identified the need to continue to support freight dependent companies with safe, efficient freight infrastructure along with development of freight hub/transload facilities in the region. It is important for the Pikes Peak Region to continue its attractive business environment to support job growth and investment in the freight industries.

Resilience- Resilience of the freight transportation system refers to its ability to adapt, respond, and recover from disruptions in operations. This includes the availability and reliability of alternative routes, as well as clear communication of those options to drivers. Redundancies such as parallel facilities or adequately sized railroad sidings that support efficient train scheduling are critical to maintaining system performance when disruptions occur.

For all areas of the region the weather can be a major factor, and it has the ability to change roadway conditions very fast. It is important to have a freight system that can adapt to quickly changing roadway conditions be it with chain stations for trucks to chain-up/chain down, truck parking, rest areas, or real-time communications to changing conditions and notification of road closures. It is here where technology

and other roadway innovations to improve operations can make a difference with both safety and on-time delivery.

Military- Military collaboration and cooperation between the regions' military installations and the PPACG is a valuable partnership that stakeholders wanted to emphasize. It is important to maintain this relationship and collaboration.

The Strategic Highway Network (STRAHNET) and Strategic Rail Corridor Network (STRACNET) extend to and through the Pikes Peak Region connecting local priority military transportation corridors to the national network. Access from local military installations is improving with projects such as Charter Oak Ranch Road to Fort Carson and the interchange construction to the Peterson Space Force Base West Gate. The widening of US 94 to Schriever Space Force Base is still needed to address traffic congestion and the reliability of this primary access route to the base. Wayfinding can also be enhanced for the installations. Fort Carson identified the need to properly route trucks to Gate 3 as they are often mistakenly taking the exit to Gate 4 which creates delays at that gate to turn freight traffic around.

3.5 Outreach Summary

Stakeholder engagement—primarily through in-person outreach—identified key priorities for the regional freight system across four focus areas: **safety, economic development, resilience, and military coordination**. These findings reinforce and build upon the 2024 PPACG Regional Freight Mobility Study, including its SWOT analysis.

Safety:
The most consistent concern was rail crossing safety, particularly at locations where crossings are in close proximity to intersections, causing delays and incidents. Additional issues include substandard rail siding lengths, insufficient truck parking, poor roadway conditions (e.g., at high truck volume sites), and lack of infrastructure to support chain-up/chain-down requirements in mountain corridors. Improved communication, variable message signage, and consideration of passenger rail impacts on freight were also identified as priorities.

Economic Development:
Stakeholders emphasized growing freight demand across both urban and rural areas and the importance of supporting freight-intensive development. Key opportunities include expanding multimodal facilities such as the Southern Colorado Rail Park and Peak Innovation Park, improving access to industrial areas, leveraging underutilized rail spurs, and enhancing infrastructure along critical freight corridors (e.g., I-25, Powers Boulevard, Proby Parkway). Continued growth in warehousing, distribution, and e-commerce is increasing pressure on the freight network.

Resilience:
The freight system's ability to adapt to disruptions—particularly given reliance on key corridors such as I-25, US 24, US 285, and a single primary rail line—is a significant concern. Stakeholders highlighted the need for reliable alternate routes, real-time communication, and system redundancies (e.g., parallel corridors, longer rail sidings). Weather-related disruptions and limited detour capacity can significantly impact operations and surrounding communities.

Military Coordination:
Strong collaboration between PPACG and regional military installations was emphasized. Key concerns include congestion at base access points, the need for improved wayfinding (e.g., directing trucks to correct gates at Fort Carson), and maintaining reliable access via STRAHNET/STRACNET corridors.

Ongoing and planned infrastructure improvements are enhancing access, but continued coordination is critical to support military operations and freight mobility.

3.6 Additional Themes

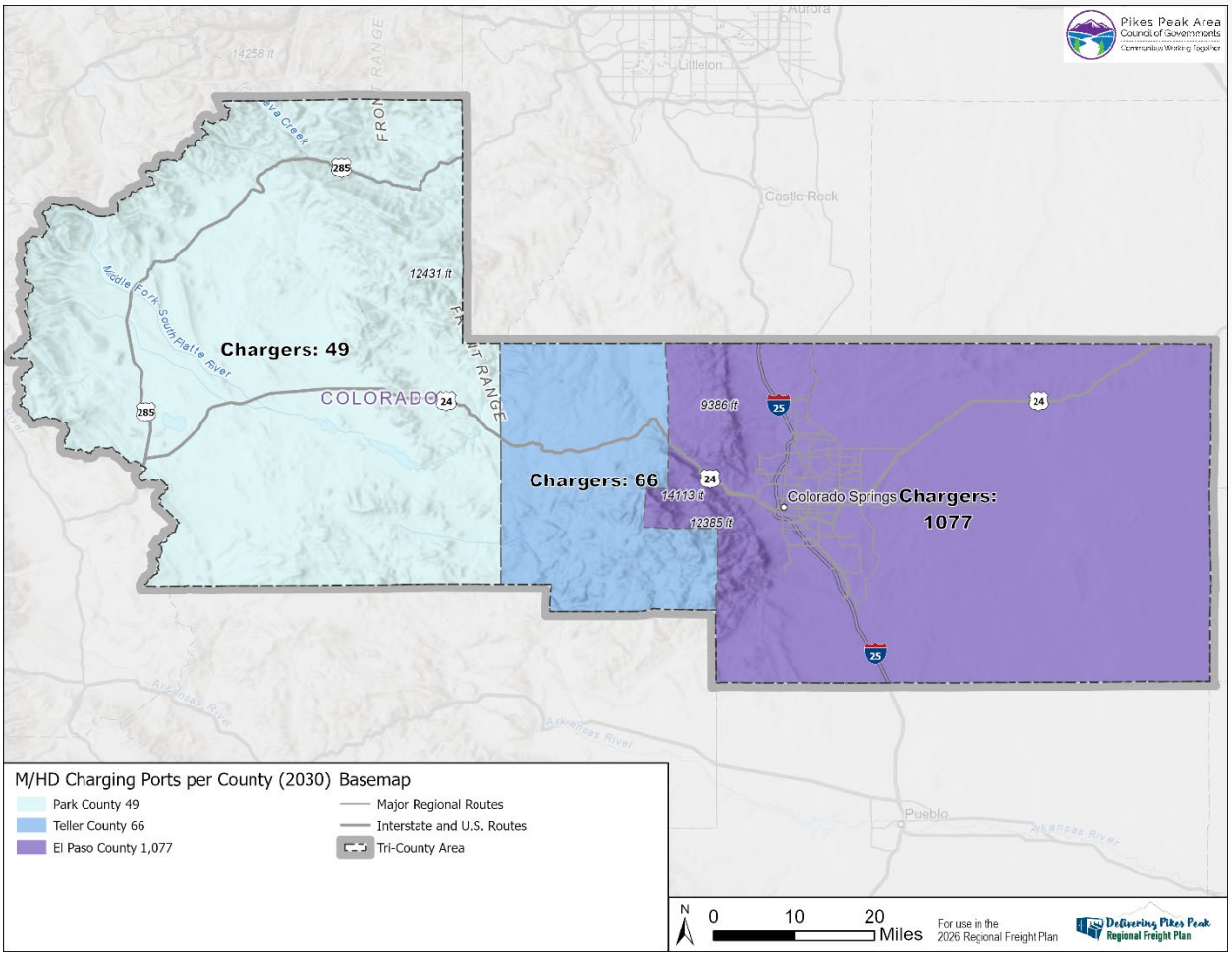
This section reviews some of the additional questions, concerns, ideas, and opportunities identified in the outreach process for the PPACG Regional Multimodal Freight Plan that are otherwise not directly responded to in the existing conditions, outreach, and projects and corridors sections of this plan. Additionally, this section provides best practices and planning considerations to PPACG Region stakeholders as planning and programming decisions are discussed, evaluated and enacted.

3.6.1 Electrification

Electrification of medium and heavy duty vehicles (M/HD) is a major trend in Colorado, among neighboring regions, and trade-partner states. In Colorado specifically, preliminary medium- and heavy-duty charging priority areas have been identified through Colorado's Medium/Heavy Duty Charging Infrastructure in the State of Colorado. The DRCOG Region is also pursuing electric vehicles initiatives, including among M/HD vehicles with a high level of focus on inter-regional and medium-distance inter-regional shipping where electrification is most immediately implementable. The PPACG Region, in recognition of these regionally relevant initiatives, supports private sector investment in these initiatives to align with industry trends and implementation to ensure sustainable and resilient supply chains in the rapidly changing electrification and automation landscapes.

The Colorado M/HD Corridors map identifies anticipated charging needs across and defines long-haul corridors and charging areas across the state. The PPACG region's only long-haul corridor is I-25 and the key long-haul charging areas coincide with DRCOG and Pueblo Area COG, reducing the need for PPACG to plan for long-haul level charging. The map also provides an anticipated 2030 charging port needs by county for conservative M/HD electric vehicles adoption, the results of which are presented in Figure 3-4. Based on the adoption rate, key utilities include Colorado Springs Utilities, Fountain Municipal, Black Hills Energy, Mount View Electric Association, and CORE Electric Cooperative.

FIGURE 3-4 M/HD CHARGING PORTS ANTICIPATED BY 2030



3.6.2 Curb Management

Curb management, while more of a local strategy, is an important element of urban freight distribution. As urban corridors densify curb space has become a constrained and highly competitive asset used by freight, passenger vehicles, transit, and micromobility. Effective strategies must balance these demands while improving safety, reducing congestion, and supporting local economic activity. Hearing from several City representatives, primarily in El Paso county, identifying strategies for curb management is increasingly more important and the Region's municipalities have a variety of policy and technology management practices that can be implemented.

Policy

Best practices from Colorado and peer regions emphasize transitioning from static regulations to dynamic, performance-based management.

- Curbside Access Plans (CAPs): Neighboring cities, such as Denver, use neighborhood-level curbside plans to align loading zones with land use, freight demand, and business needs.[1]
- Flexible, Time-Based Regulations: Policies that designate peak-hour loading zones or off-peak delivery windows improve freight efficiency while reducing conflicts with other users.
- Modernized Municipal Codes: Consider updating local ordinances to allow dynamic pricing, reservation systems, and adaptable curb uses where appropriate.[2]

Technology

Emerging technologies allow agencies to better understand and actively manage curb activity in real time.

- Smart Loading Zones (SLZs): Digital reservation systems allow freight vehicles to book curb space in advance, improving reliability and reducing illegal parking.[3]
- Curb Data Platforms: Tools such as the Curb Data Specification (CDS) enable agencies to map, manage, and communicate curb regulations digitally.[4]
- Sensors and Video Analytics: Pilot projects use camera and sensor data to monitor dwell times, violations, and curb utilization patterns. [5]
- Dynamic Pricing Systems: Demand-based pricing encourages turnover and reduces cruising for parking, which can account for significant delivery inefficiencies. [6]

Immediate next steps for regional partners considering implementing curb management strategies included: Inventorying and mapping concerns that currently exist or may exist in the near future based on utilization rates, zoning/land uses, and growth; Understanding what policies or technologies already exist in these areas to manage freight delivery and pick-up; Consider implementation of the above listed or other best practices strategies based on efficacy (actual impact on curb management) and efficiency (timeliness and costliness of implementation).

3.6.3 Rail Siding

One of the key concerns identified in outreach with rail stakeholders was the identification of the three rail sidings in the PPACG Region are sub-standard length. This presents logistical challenges that impact movement of freight rail in and through the region. Train operators must consider more deeply the number of train cars that can be included on a corridor that could face potential conflicting train movements, and my need to forego trip efficiency (number of train cars per trip) for safety and operational purposes This can reduce overall corridor capacity and reliability, potentially discouraging rail use for regional shippers. Documenting this concern is an important element of this plan because demonstration of coordination with private stakeholders in the region builds confidence in the prioritization and reliability

[1] Curbside & Parking Toolkit - City and County of Denver
[2] Curb Policy Guidance
[3] Curb-management innovations: Lessons from smart and zero-emission loading zone pilots | Smart Cities Dive
[4] SMART Curb Collaborative | Open Mobility Foundation
[5] Curb-Management Pilots Smooth the Flow of Traffic, Deliveries
[6] Parking & Curb Management Insights | Curb Institute

of freight in the region. Possible future solutions include working with rail operators to understand land use needs for expanding existing siding, supporting visibility of this concern as other uses for rail lines (such as regular passenger and military rail) emerge, and contextualized the need in conjunction with other rail-intermodal initiatives such as the Southern Colorado Rail Park.

3.6.4 Front Range Passenger Rail

The Colorado Front Range Passenger Rail (FRPR), branded as the Colorado Connector ("CoCo"), is a proposed intercity passenger rail service that will connect major population centers along the I-25 corridor from Fort Collins through Denver to Colorado Springs and Pueblo. The system is being advanced by the Front Range Passenger Rail District in partnership with CDOT and federal agencies, with an initial "starter service" anticipated by 2029 and full corridor buildout in the early 2030s.

For the PPACG region, which includes Colorado Springs and surrounding communities, the introduction of passenger rail service on freight-owned corridors presents both opportunities and challenges. As a benefit to the region, a project of this kind can improve regional mobility and support economic development near and around stations. On the other hand, shared corridor operations can create capacity constraints and operational conflicts with freight rail, especially on segments that are already single track or constrained by short sidings and limited passing opportunities. Freight trains—often longer and slower—may experience reduced scheduling flexibility, while passenger trains typically require higher reliability and priority dispatching.

Implementation of FRPR will, therefore, require targeted infrastructure and operational strategies to maintain freight efficiency. Key considerations include expanding passing sidings and, where feasible, adding double-track segments to increase corridor capacity (elements discussed for the rail sidings concerns raised by rail stakeholders); implementing advanced dispatching and scheduling agreements to balance passenger and freight movements; and negotiating long-term access agreements that protect freight rail performance. In some cases, peer regions have moved toward partial separation of passenger and freight operations through dedicated tracks or right-of-way acquisition to ensure reliability for both services. Additionally, early coordination with freight railroads and regional stakeholders will be essential to identify bottlenecks within the PPACG Region and prioritize improvements that benefit both passenger and freight mobility. While PPACG does not take a stance on advancing this service at this time, thoughtful integration with freight rail infrastructure and operations is critical to ensure that expanded passenger service does not adversely impact freight movement, reliability, or economic competitiveness. PPACG does not take a stance for advancing this service at this time

3.6.5 Interregional Freight Network Connectivity

The 2026 PPACG Regional Freight Mobility Plan coincides with the 2026 DRCOG Regional Freight Mobility Plan, and as such presents to opportunity to ensure continuity between freight transportation networks across the regions. Close partnership with the DRCOG Region is an important part of the economic foundation of the PPACG Region, and alignment between the two regions present opportunities for mutually beneficial growth and specialization.

Both the PPACG Region and the DRCOG Region have independently identified three key corridors connecting the two regions.

- The first, and most important from the standpoint of truck volumes, is I-25. The interstate is the most important freight transportation network in the country, and particularly along Colorado's Front Range where only a few alternatives exist for North-South aligned freight transportation. I-

25 is a key element of intra-regional, inter-regional, and interstate travel for both regions. Additionally, I-25 is the lone freight-priority corridor connecting the PPACG Region with the Pueblo Area COG Region further reenforcing it's importance.

- The second route is CO-83, connecting the southern portion of the DRCOG Region with the northern portion of the PPACG Region, similar to I-25. The route is the only other route connecting the two region along Colorado's Front Range, and provides important access to local agricultural areas between the regions.

- The last route is US-285 connecting Jefferson County in DRCOG to Park County in PPACG. This is the only mountain corridor connecting these two regions, but represents a critical route for connecting DRCOG with freight industries in Central Colorado. Additionally, it is a key corridor for connecting DRCOG industries and commodities with residents of not only Park County but also other communities in Central, South-Central and South West Colorado (and vice versa).

3.6.6 Drones and UAVs

FIGURE 3-5 UAV DELIVERY VEHICLE



A unique concern for the PPACG Region is drone and unmanned arial vehicles (UAVs) for last-mile delivery services, particularly as they relate to e-commerce. because the commercial air and military installations in the region, specifically in El Paso County where this technology would most imminently implemented, have strict air space controls and restrictions. Through the discussions with industry stakeholders in the engagement and outreach elements of this plan, due to broad restrictions around airspace control drones and UAVs are not being explored in the PPACG Region at this time. However, as this form of last-mile delivery continues to be explored and adopted the region should consider working with commercial and military airspace partners to explore incorporation of air-shipping corridors where e-commerce and other drone shipping businesses can freely use the airspace at designated altitudes for shipping purposes. This technology, though is likely several years to decades away from moves towards major adoption in the region

3.6.7 Other Last-Mile Considerations

While this plan does not deeply explore the to-home delivery there are notable relationships between last-mile delivery needs in the PPACG Region. The last-mile challenges for large shippers and distributors typically orient around delivery scheduling and reliability. Truck parking for warehousers and distributors is limited on the pick-up end of heavy duty trucking transportation. This corresponds to understanding how existing an new developments use technology or municipal guidance for providing adequate truck staging and parking to ensure congestion does not spill onto the pubic right of way and shipping is reliable and timely. On the receiver end of this transaction delivery windows for large businesses, retail stores, and shopping centers can be limited, particularly for circumstances where business collocated with other businesses in denser urban areas. The strategies for addressing these needs include exploring urban micro-hubs to consolidate goods before final delivery, off-peak delivery policies ensuring delivery vehicles avoid impacting peak-hour traffic, and curb management policies and technologies (several of which are discussed in the curb management subsection above) to reduce conflict, enhance navigation flexibility for drivers, and avoid congestion. These are important considerations for freight related policy making at the municipal level.

SECTION 4

PROJECTS AND CORRIDORS



4.1 Upcoming & Current PPACG Projects

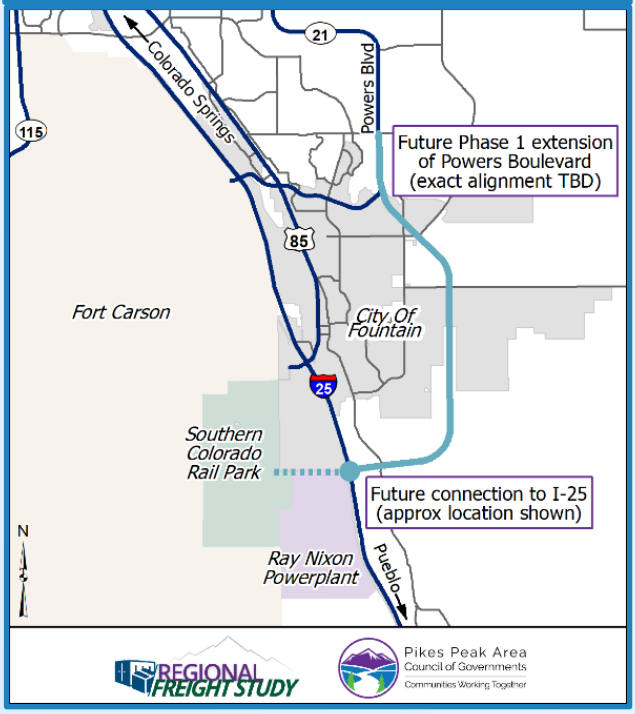
I-25 serves as a backbone of commercial freight movement for the Pikes Peak region, the state of Colorado and the extended CanAm Corridor (from Mexico to Canada). Additional freight corridors, including US 24, CO 94, CO16/CO 21, and CO 115, are key elements of the overall freight network, providing interregional freight movement connectivity to the broader national freight network and supporting mobility of residents of the Pikes Peak Region. Within the Pikes Peak region and beyond, all these corridors are essential to commercial freight movement, military access/deployment, and regional mobility.

Recognizing the importance of these critical corridors to economic stability, military access and mobility, the PPACG region has prioritized long range planning and strategic improvements targeted at improving and enhancing each of these corridors as well as strengthening the essential connections among these freight and military access routes. Recently completed, ongoing and programed projects include the multi-corridor Military Access, Mobility & Safety Improvement Project (MAMSIP), CO 115 safety improvements, I-25 ramp metering, the Southern Colorado Rail Park, I-25 Safety Improvements (Circle Drive to Academy Boulevard), and completion of a CO 21/Powers Boulevard I-25 bypass/loop freeway.

SOUTHERN COLORADO RAIL PARK

The Southern Colorado Rail Park (SCRP) is a significant upcoming freight project within the PPACG region. Shown in Figure 4-1, SCRP is a proposed industrial park and freight hub project that is currently progressing through the development review process. The SCRP industrial park site is currently located within El Paso County, Colorado, and a trackage agreement with the City of Colorado Springs was recorded May 30, 2023. The site is bordered by Fort Carson to the north, south, and west, City of Fountain property to the east, and the Ray Nixon powerplant to the southeast. The site is planned to be developed over four phases, with the first phase including only the exiting rail line into Fort Carson. The planned land use mix for the site will be primarily light and heavy industrial, with some retail and storage/warehousing uses also expected. The buildout of the site is expected to progress over a period of about 20 years.

FIGURE 4-1. SOUTHERN COLORADO RAIL PARK



Background

The planning, funding, and implementation process for the Southern Colorado Rail Park rail-served industrial complex began in 2014. The initiative by El Paso County and the City of Fountain was fueled by findings from a local Economic Development Assessment Team (EDAT) Report (October 2014) that was undertaken in response to a series of natural disasters in El Paso County in 2012 and 2013. Prominent among the findings cited by the report were: that while population was increasing, job creation was not, that while El Paso County was gaining jobs, the region was losing total jobs, and that El Paso County was losing manufacturing jobs at a rate that was well beyond the national trend. El Paso County funded a Proof of Concept Report (2015) for the El Paso County Office of Economic Development and gained transition with the U.S. Economic Development Agency (EDA) offices in Denver. The 2015 report validated the concept, lauded multijurisdictional collaboration and potential for regional multiplier effects, and identified a site for the proposed rail park adjacent to Colorado Springs Utilities Ray Nixon coal-fired power generation plant and immediately east of Fort Carson.

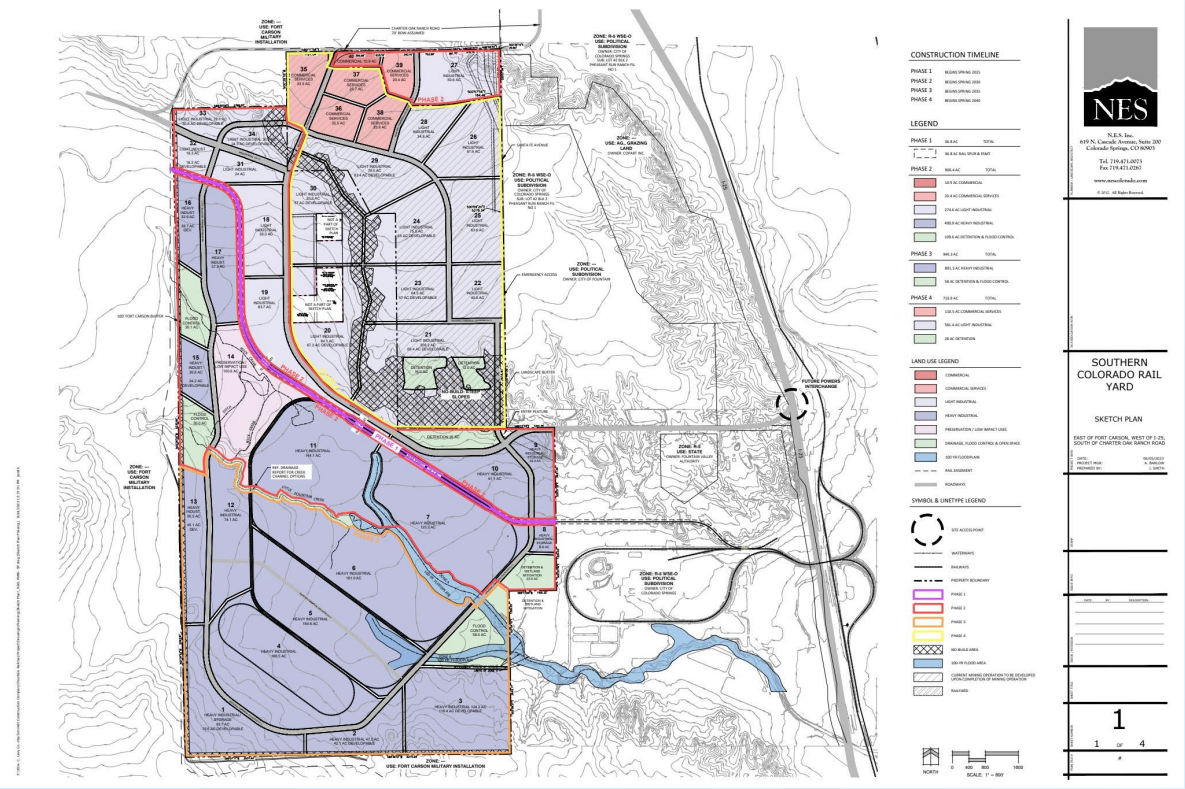
SOUTHERN COLORADO RAIL PARK (CONTINUED)

Background (Continued)

Over the next seven years, El Paso County and Fountain were joined by new partners, including Colorado Springs Chamber and Economic Development Corporation, the City of Colorado Springs, and the Edward C. Levy Corporation (owner of the vacant tract of land). The partners entered an MOU advance the rail park and collaboratively further supporting study the produced the Front Range Dual-Service Rail Park of Southern Colorado Project Feasibility Study in May (May 2022) prepared for the U.S. EDA and supported a public/private partnership to make the rail park a reality.

As shown in Figure 4-2, initially, access to the site will be to Charter Oak Ranch Road only. A planned future connection to Interstate 25 (I-25) near mile post (MP) 125.7 (or approximately 2.25 miles south of the US 85 interchange) will improve access to the site and provide the connectively to adequately serve full buildout of the development. The planned connection to I-25 would align with the proposed extension of Powers Boulevard, which will connect with I-25 from the east.

FIGURE 4-2. SOUTHERN COLORADO RAIL PARK SKETCH PLAN



Military Access, Mobility & Safety Improvement Project (MAMSIP)
Improvements to CO 94, South Academy Boulevard, I-25, and Charter Oak Ranch Road comprise the MAMSIP project, as discussed below and labeled in Figure 4-3. The $161 million project, funded by contributions from CDOT, El Paso County, Pikes Peak Rural Transportation Authority (PPRTA), and a federal BUILD grant, will improve safety, operational efficiency, and economic vitality of primary commercial freight routes, while reinforcing strategic mobility throughout west and south Colorado Springs.

- MAMSIP CO 94 Improvements Component **(1)**
  This $11 million project was completed in June 2023. Improvements to CO 94 included the addition of a westbound passing lane (between North Franceville Coal Mine Road and US 24), installation of fiber (from US 24 to Enoch Road), construction of a "jug handle" intersection at Blaney Road. Together these three project components, completed in summer 2023, will increase operational efficiency of westbound traffic and improve safety between North Franceville Coal Mine Road and US 24, enable future installation of ITS along the corridor as well as high speed communications for future development, and remove slow moving traffic from the passing lane at Blaney Road, thereby increase the operational efficiency of eastbound traffic.

- MAMSIP South Academy Boulevard Widening and Resiliency Component **(2)**
  Academy Boulevard is a key arterial roadway that runs north to south for approximately 15 miles through Colorado Springs and was formerly CO 85. Prior to expansion of the City far to the east of the historic urban core, Academy Boulevard was envisioned as a loop/beltway alternative route to I-25. The South Academy Boulevard project segment includes only the southern mile and a half of from the I-25 interchange, crossing US 85/ 87, and continuing to the road's approach to Milton Proby Parkway which connects to CO 21. The project segment is a key corridor for commuters and inter-regional travel, as well as critical defense access and haul route for military personnel and equipment travelling between Peterson Space Force Base and Fort Carson providing access to six of Fort Carson's entrances (Gates 1-6), including the primary freight access to the Post. Carrying an Annual Average Daily Traffic (AADT) traffic flow of approximately 57,500, this segment of I-25 is characterized by recurring congestion during peak hours.

  Improvements to the South Academy Boulevard project segment include widening to provide three dedicated travel lanes in each direction, scour protection to improve the resilience of bridges crossing Fountain Creek, widening of bridges crossing over Bradley Road and other corridor infrastructure to accommodate three travel lanes in each direction, noise abatement treatments, drainage improvements, and lighting improvements.

  Together, the South Academy Boulevard project segment improvements, to be completed in 2026, will provide enhanced safety and mobility for motorist, provide a smother surface and safer driving while extending life of the asphalt pavement, reduce the impact of highway noise on the surrounding environment, and improve bridge resiliency, ensuring no movement or settlement during major storm events thereby mitigating the need for bridge closure and delays for inspections.

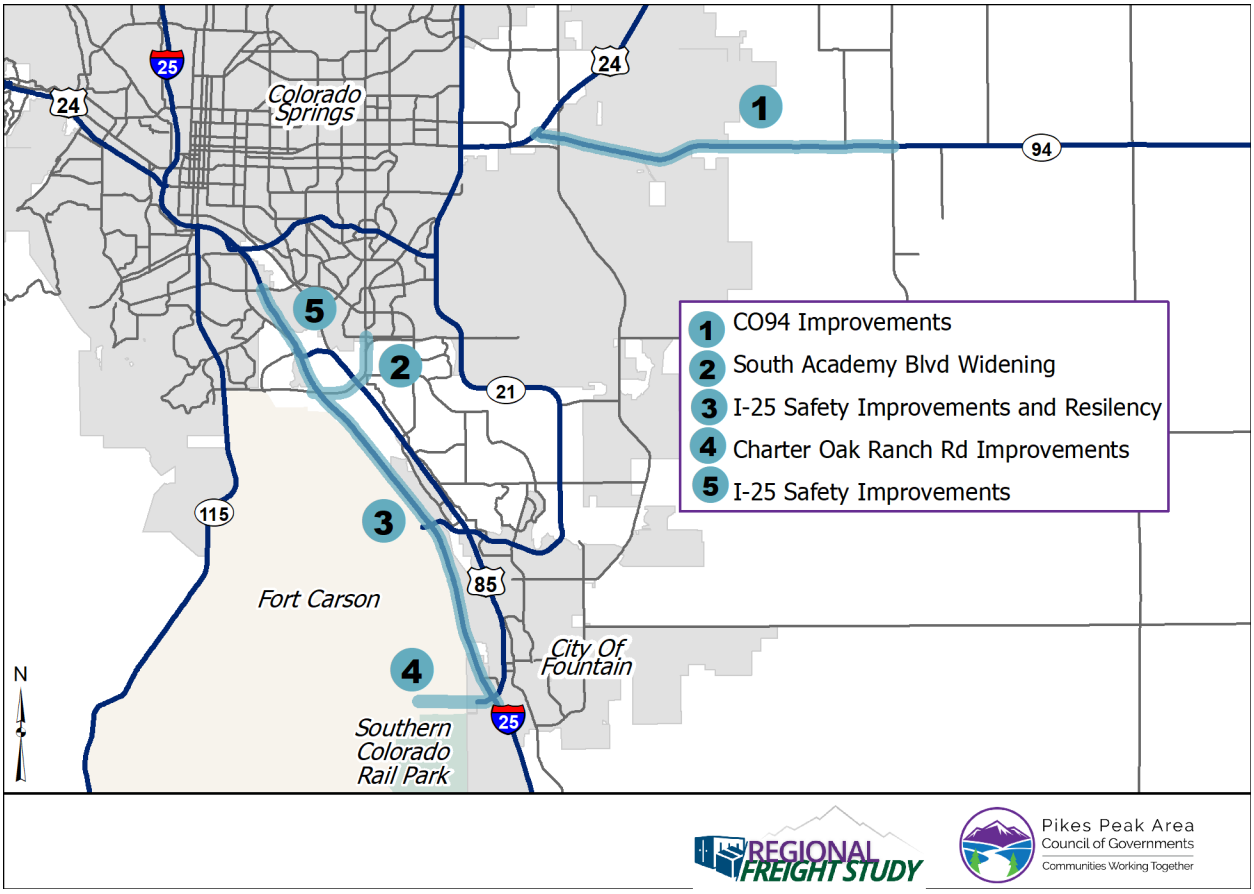
- MAMSIP I-25 Safety Improvements Component **(3)**
  I-25 is the spine of Colorado's vehicular mobility and freight movement as well as the major north to south transportation corridor in Colorado Springs. The 7.5-mile project segment extends from South Academy Boulevard to Santa Fe Avenue (US 85/87), the exit for Fort Carson Gate 19. Improvements to the project segment include replacement of two bridge crossings over South Academy Boulevard, widening of both inside and outside shoulders and installing safety improvements, a concrete surface treatment overlay, installation of median barriers for the entire length of the corridor, maintenance work of four bridges, and installation of a (SB) deceleration lane at the CO16 interchange.

Collectively, the work on the I-25 project segment will improve safety, resulting in reduction of accidents, injuries, and fatalities; and with improve mobility along one of the state's busiest instates while maintaining the economic vitality provided by this critical north to south route.

- Charter Oak Ranch Road Improvements Component **(4)**
  Charter Oak Ranch Road is accessible off I-25 via Santa Fe Avenue (US 85) and is the only access to Gate 19 of Fort Carson, the region's largest employer. In 2009, Charter Oak Ranch Road was designated by the U.S. Department of the Army as important to national defense. More than 40 percent of the traffic using Charter Oak Ranch Road is heavy vehicles, and the road is characterized by crumbling pavement, poor drainage, steep grade, narrow lanes, and no facilities for cyclists or pedestrians.

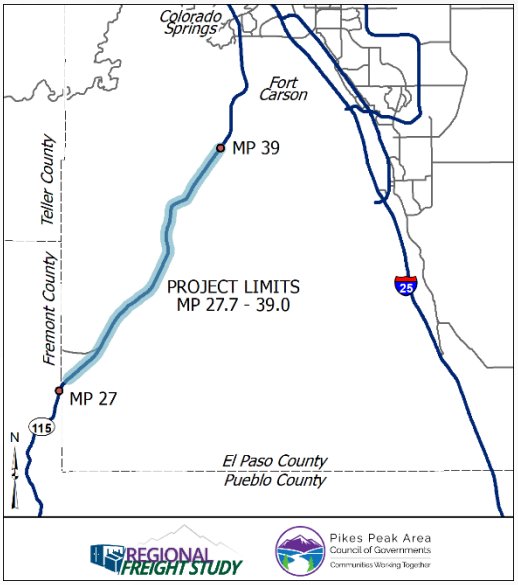
I-25 Safety Improvements (Circle Drive to South Academy Boulevard) (5)
CDOT recently awarded a contract to develop conceptual design for the I-25 segment located immediately to the north of the MAMSIP project segment. Improvements to the new segment will include the types of improvements underway for the MAMSIP segment and will also focus on key connections to this segment including operational improvements to the southbound weaving section between the southbound Circle Drive on-ramp and South Academy Boulevard off-ramp.

FIGURE 4-3. MILITARY ACCESS, MOBILITY & SAFETY IMPROVEMENT PROJECT (MAMSIP) PROJECTS



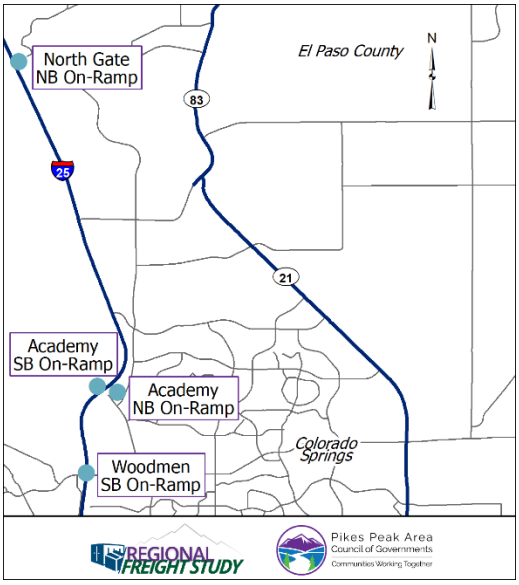
CO 115 Safety Improvements (MP 27.7 to MP 39)
Shown in Figure 4-4, this $40 million project includes addition of passing lanes and right turn lanes to the CO 115 project segment as well as rehabilitation or reconstruction of cracked and distressed pavement between and Rock Creek Canyon Road and one mile south of Barrett Road. These improvements, completed in late 2024, improve roadway and bridge safety, and enhance corridor mobility by adding turning lanes and passing lanes. Reconstruction of this CO 155 project segment also provides a smoother driving surface and increased the longevity of the highway.

FIGURE 4-4. CO 115 SAFETY IMPROVEMENTS (MP 27.7 TO MP 39)



I-25 Ramp Metering in Southeast Colorado
Shown in Figure 4-5, I-25 on-ramp widening and ramp metering improvements at Woodmen Road (SB on-ramp), North Academy Boulevard (NB and SB on-ramps) and North Gate Boulevard (NB on-ramp) has been completed since 2023. Intelligent Transportation Systems (ITS) will use automated vehicle/queue detection to monitor, trigger and time vehicle release to adjust meter timing and mitigate any traffic backups. Ramp metering at these locations will enhance roadway safety and improve I-25 congestion through spacing and pacing vehicle entry onto the interstate.

FIGURE 4-5. I-25 RAMP METERING IN SOUTHEAST COLORADO



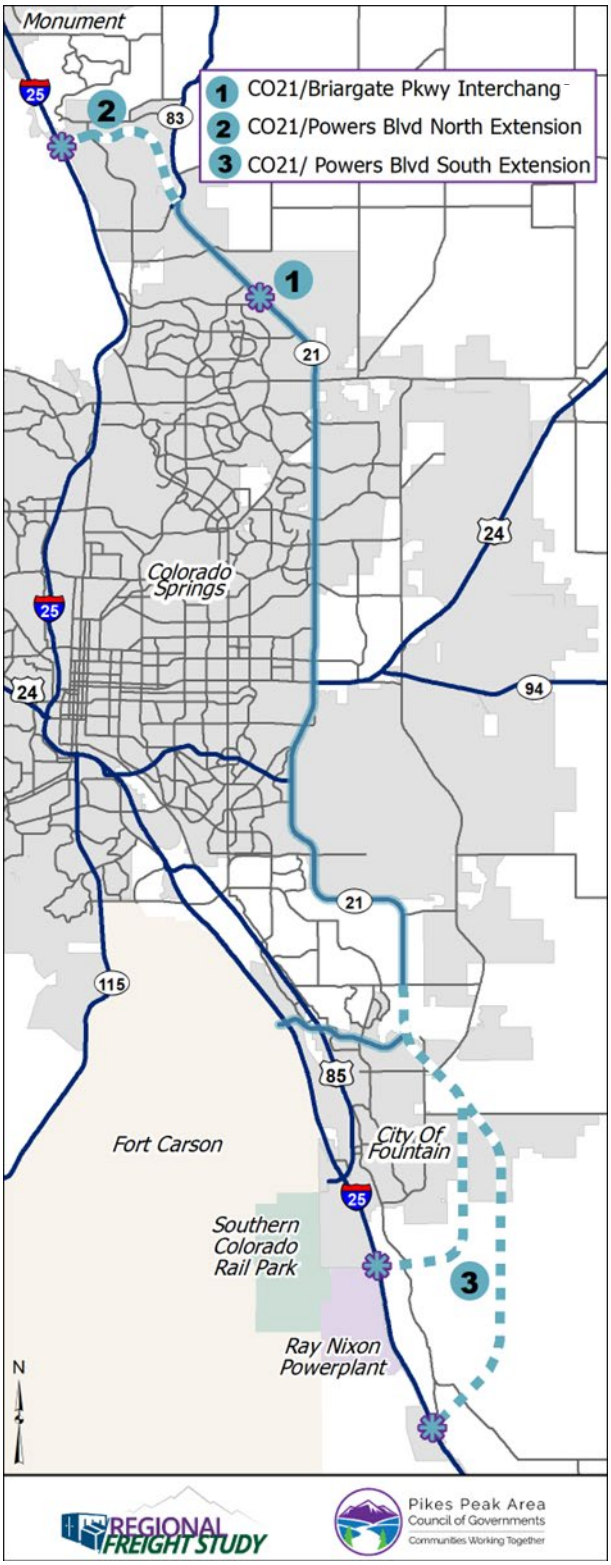
CO 21/Powers Boulevard

- There are three planned projects along CO 21 and Powers Boulevard, listed below and shown in Figure 4-6. These projects will enhance the regional freight network by providing an additional north to south route parallel to I-25. This improved route will also serve as a connection between east to west routes, such as US 24 and CO 94. CO 21 currently ends at a signalized T-intersection at CO 83/Interquest Parkway. With planned extension of CO 21 to a connection with I-25 at the Voyager Parkway interchange, this intersection will be upgraded to a full interchange.

- North Powers Connection to I-25 **(2)**
  This project will extend CO 21 north from the current terminus at CO 83 to a north connection to I-25. Design for the extension is underway and rough grading of dedicated right-of-way has been completed.

- South Powers Extension **(3)**
  An ongoing Planning and Environmental Linkage (PEL) Study for extension of Powers Boulevard/CO 21 south from CO16 has identified recommended alignments for phased extension of Powers Boulevard to the south. The recommended alignment for the initial phase of the project would connect to I-25 at a new interchange located approximately 1.7 miles south of the existing Santa Fe Avenue/CO 85/87 interchange. A future phase of the project would take off from the initial alignment to extend further south to connect to I-25 at an upgraded PPIR interchange (located approximately 6.2 miles south of the existing Santa Fe Avenue/CO 85/87 interchange).

FIGURE 4-6. CO21/POWERS BOULEVARD



4.2 Potential Future Freight Projects

Through PPACG's comprehensive, continuing, and collaborative planning process potential future projects for support commercial freight movement within the region were identified and prioritized. Projects are described below and are labeled to correspond with Figure 4-7, following this section, and only corresponds to the locations of the projects and does not imply any level of prioritization among them. Potential future projects include improvements to primary commercial freight movement corridors as well as to key network connectors as well as the addition of new connectors and freight hubs.

Primary Freight Corridor Improvements

1. US 24 W Operational & Safety Improvements (I-25 to Manitou Avenue)
   Recommended improvements from the Environmental Assessment (May 2012) include both capacity/operational improvements and safety improvements. While selected improvements have been completed, implementation of the remaining recommended improvements is needed to serve the commercial freight movement and mobility needs of the "pinch point" corridor segment.
2. US 24 W Operational & Safety Improvements (Manitou Avenue to Green Mountain Falls Road)
   The steep grades and sharp curves that characterize this segment of the corridor cause differential travel speeds and backups. Where feasible, the addition of climbing lanes and wider lanes or shoulders would be beneficial from both safety and operational perspectives. speeds, congestion. The feasibility of implementing widening though the Ute Pass segment of this corridor is limited due to the proximity to the travel lanes of the Fountain Creek and steep rock cropping.
3. US 24 E Operational & Safety Improvements – CO 21 to Ramah Road
   A Planning and Environmental Linkage (PEL) Study for US 24 E, from Powers Boulevard/CO 21 to the Town of Ramah was completed in 2018. The recommended alternative includes widening and addition of passing lanes as well as intersection and access improvements.
4. CO-94 E Operational & Safety Improvements – Mile Post 0 to US287
   The MAMSIP project included improvement to CO94 west of North Franceville Coal Mine Road. Similar improvements continuing east are needed, including passing lanes, safety improvements and selected intersection improvements. This extended upgrade of CO 94 will result in a connection to the Ports to Plain Corridor (US287/US40 at Kit Carson).
5. CO 16/CO 21 at Mesa Ridge Parkway Interchange Improvements
   Fort Carson Gate 20, that processes the highest level of entries/departure from the Post, is accessed from Mesa Ridge Parkway (CO 16/CO 21). Mesa Ridge Parkway is the final leg of CO 21 that provides connectivity to I-25. CO 16 operates at capacity, providing poor levels of service. Improvements to the interchange could optimize ramp and cross street processing of high volumes.

Network Connector Improvements

6. Bradley Road to CO 21 Connector
   Bradley Road currently ends to the east of Grinnell Boulevard. To improve freight network connectivity, Bradley Road should be extended to Powers Boulevard/CO 21.
7. Bradley Road Improvements (CO 21 to Drennan Road)
   East of CO 21, Bradley Road exists between CO 21 and Drennan Road. Safety and operational improvements to this segment of Bradley Road would enhance its function as a freight network connector to Marksheffel Road and the future Briargate Stapleton Loop Road/Beltway.
8. Curtis Road (US 24 to Drennan Rd)
   Supporting the Briargate/Stapleton Loop Road/Beltway, this project would bring this section of Curtis

Road up to current freight standards, as the rural road has no shoulders and needs intersection safety improvements, as well as drainage improvements.

9. Blaney Road/Davis Road Improvements – CO94 to Curtis Road
   This project supports the regional use of the landfill on Blaney Road. These connector roads are gravel and have too many truck trips to safely function for freight. The gravel roads need to be paved and brought up to current standards including shoulders, safety improvements, and drainage improvements.
10. Woodmen Rd (US 24 to Golden Sage)
    Woodmen Road is a major east west connector from I25 to US24 East. While the Colorado Springs segment is currently 6 lanes, the El Paso County section needs to be widened to 6 lanes, along with intersection and drainage improvements and multimodal accommodations.
11. Eastonville Rd (Londonderry to Sweet Rd)
    As the Falcon area has grown and is now a major population center, the important north-south connection is a redundant road connection to Meridian Road and handles not only freight, but also serves schools and new development is already being planned. There are currently too many trips on this gravel road, which would be converted to pavement
12. Elbert Road (US 24 to County Line Improvements)
    Elbert Road makes an important connection from US24 East going to Douglas County and connects to SH86. This rural road needs to be brought up to current standards as the road has no shoulders, needs intersection safety improvements and drainage improvements.
13. South Powers Blvd Extension – I-25 to CO 21
    This project will serve as a redundant road for I25 and will serve freight from Powers north, COS airport and the Freight distribution centers around the airport and Powers south will make the southern connection back to I25..
14. South Academy Blvd
    The segment east I25 needs to be increased to 6 lanes and an interchange is potentially needed at the Pikes Peak State College (PPCC) /commercial area, which is important for military readiness, connection to rail, and the connection from Hancock Expressway, COS airport, and SH115.
15. US 285 Safety Improvement (Park County)
    A sharp curve on US 285 northeast of Fairplay afford limited sight distance and poor operational performance, both of which could be improved by flattening the curve and or reducing vertical obstruction at this location.
16. Hoosier Pass/CO 9 Safety Improvements (Park County)
    The Hoosier Pass segment of CO/9 is characterized by sweeping curves and deep drops. Safety improvements including wide shoulders and passing/climbing lanes are needed to support improved efficiency and safety performance.
17. CO 15/Elkhorn Road (Park County)
    Elkhorn Road is a local collector roadway that parallels CO 9, east of Hartzel and provides redundant connection between US 24 and US 285. This project would upgrade Elkhorn Road so that it could be used as a detour route for CO 9, a high volume freight route, for closures/incidents.

Resiliency/Incident Management Improvements

18. Briargate Extension to Meridian Road– Stapleton Loop Road/Beltway
    The Briargate-Stapleton Loop Road/Beltway, a redundant route for I-25, has been part of planning for El Paso County since 1987. Several segments have been constructed and planning to preserve the corridor and control access to the future loop road have been developed and adopted.

19. Hwy105 – I25 to CO83 Improvements
    This project is a northern connection from I25 to US83. It serves as an important redundancy project for incident management on both state highways.

Bridge Improvements

Identifying and improving low height bridges, as well as those with oversize/overweight restrictions is a vital step in improving regional freight mobility. These restrictions pose a challenge for oversize/overweight vehicles, leading to detours and increased travel times, in turn resulting in additional costs. Improvements such as raised bride clearances or structural reinforcements can mitigate these challenges, improving the economic competitiveness of the regional freight network by ensuring that the infrastructure can handle a range of freight vehicle. The list below provides the locations of bridges with load and height restrictions. There are currently 3 load restricted bridges in the region and 11 height restricted bridges.

Load Restriction Bridges

20. US-24 East of Manitou Springs
21. US-24 West of Peyton
22. US-24 East of Calhan

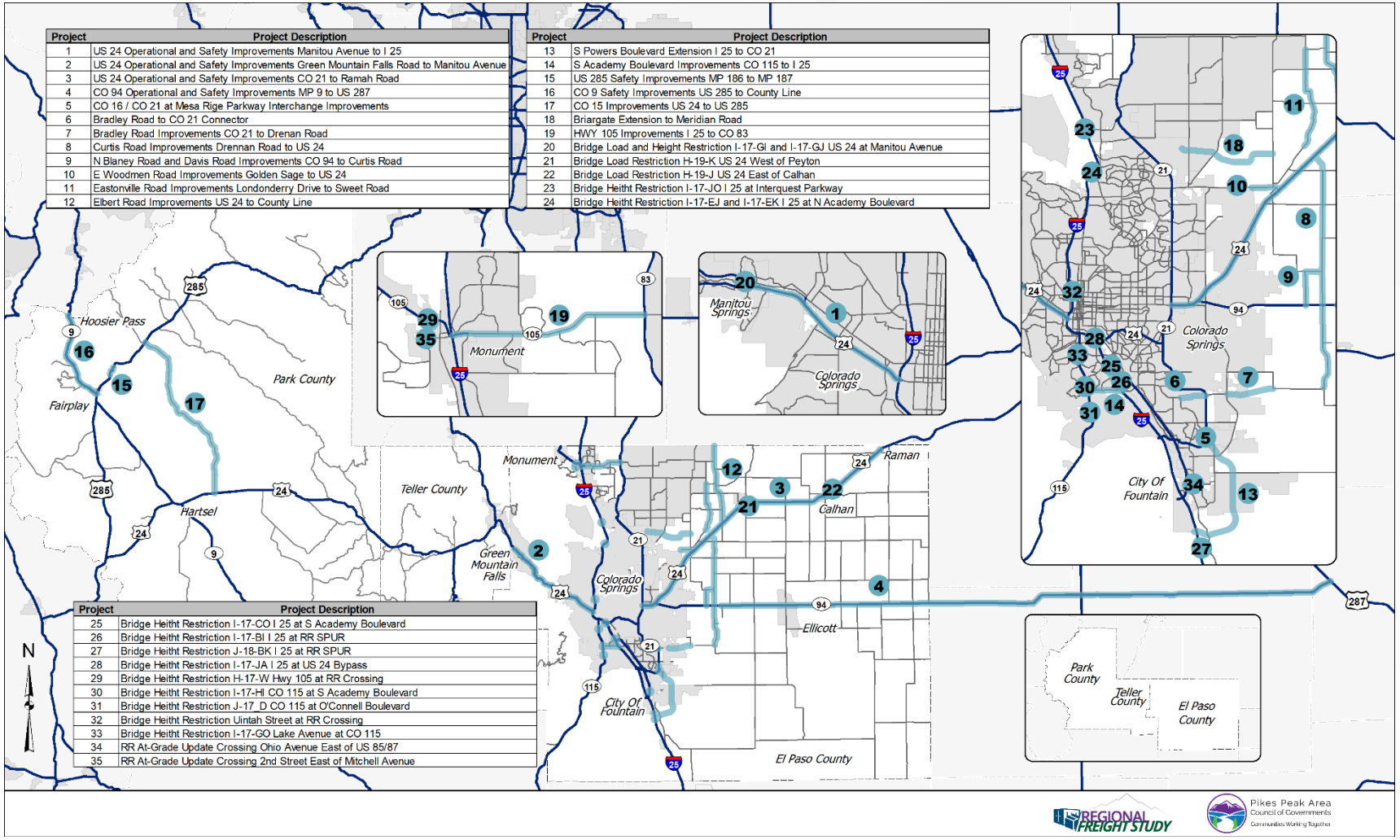
Height Restriction Bridges

23. I-25 at Interquest Pkwy
24. I-25 at N Academy Blvd
25. & 26. I-25 North of E Academy Blvd
27. US25 South of City of Fountain
28. US24 Bypass at I-25
29. US-24 East of Manitou Springs
30. SH 105 at Railroad Crossing in Monument
31. SH 115 at S Academy Blvd
32. SH115 East of Cheyenne Mountain AFB
33. Uintah Street at I-25
34. Nevada Ave at Lake Ave West of Stratton Meadows

Railroad Crossing Improvements

Improving railroad crossings is crucial for enhancing freight efficiency and reducing delays in the regional freight transportation network. Single and dual track rail lines bisect various communities within the PPACG region. Upgrading these crossings can lead to reduction in travel times and delays in freight shipments. For example, these cities include both Fountain and Monument. While the rail lines are at grade through the majority of the City of Fountain, the crossing at **(34)** Ohio Ave East of US 85/87 is a priority given its location along a higher volume corridor. The city of Monument contains one at-grade railroad crossing at **(35)** 2nd Street East of Mitchell Ave. Additional grade-separated crossings may be needed within the region at these types of crossings, that intersect communities or major freight corridors, to reduce delays and improve freight efficiency.

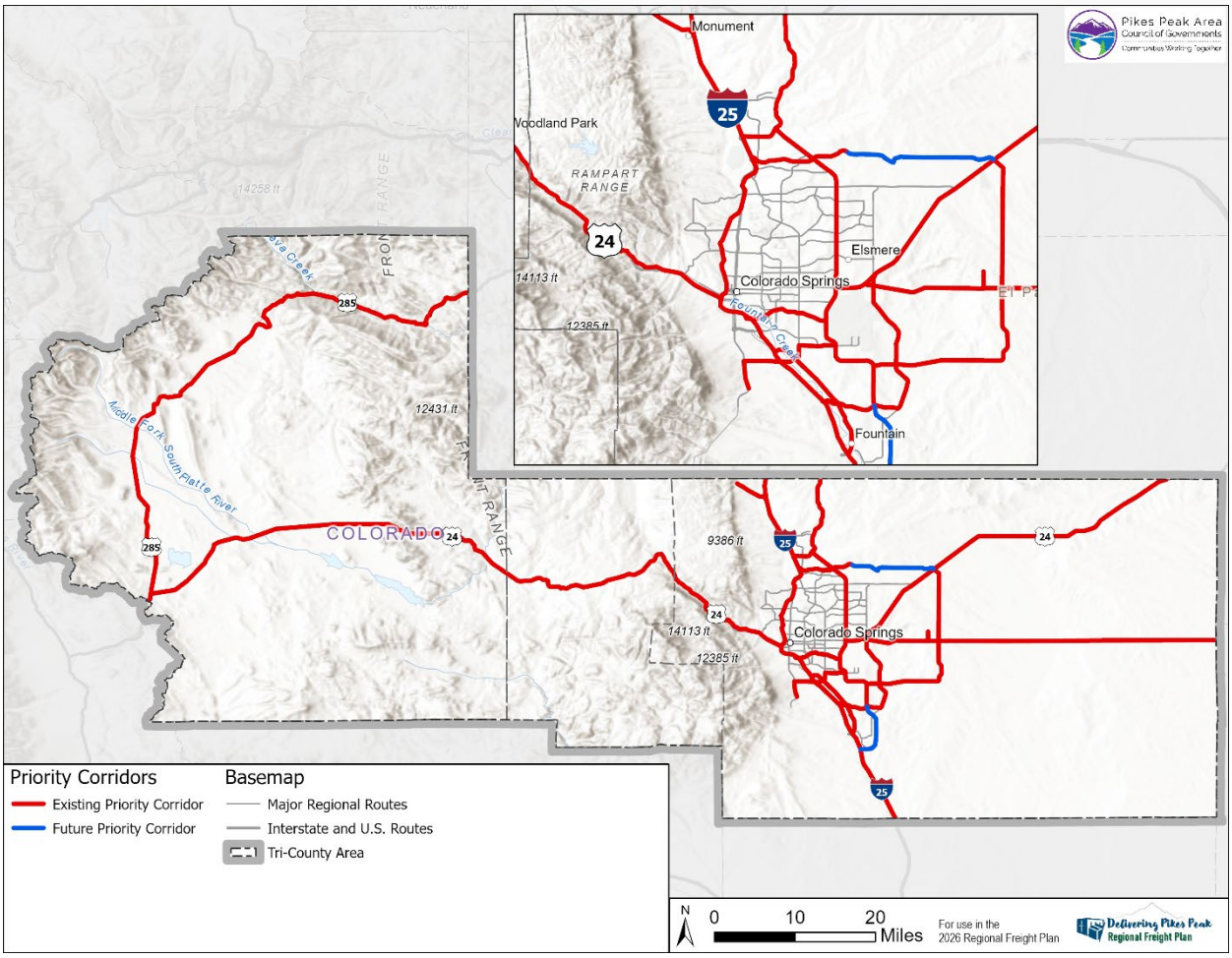
FIGURE 4-7. PPACG POTENTIAL FUTURE FREIGHT PROJECT LOCATIONS



4.3 Vision Freight Network

Building off the analysis of existing conditions and operations, as well as stakeholder engagement, the PPACG Regional Freight Study established a Vision Freight Network. Shown in Figure 4-8, this network consists of existing and future corridors that are regional priorities for freight infrastructure developments, some of which are part of upcoming and current PPACG projects. These corridors were identified based on high truck volumes, high percentages of trucks related to total volume, and additional corridors recommended by stakeholders. These corridors are vital to the transportation of goods in and through the PPACG region and, as such, is recognized again here in the Regional Freight Plan.

FIGURE 4-8. PPACG VISION FREIGHT NETWORK



SECTION 5

PRIORITIZATION FRAMEWORK

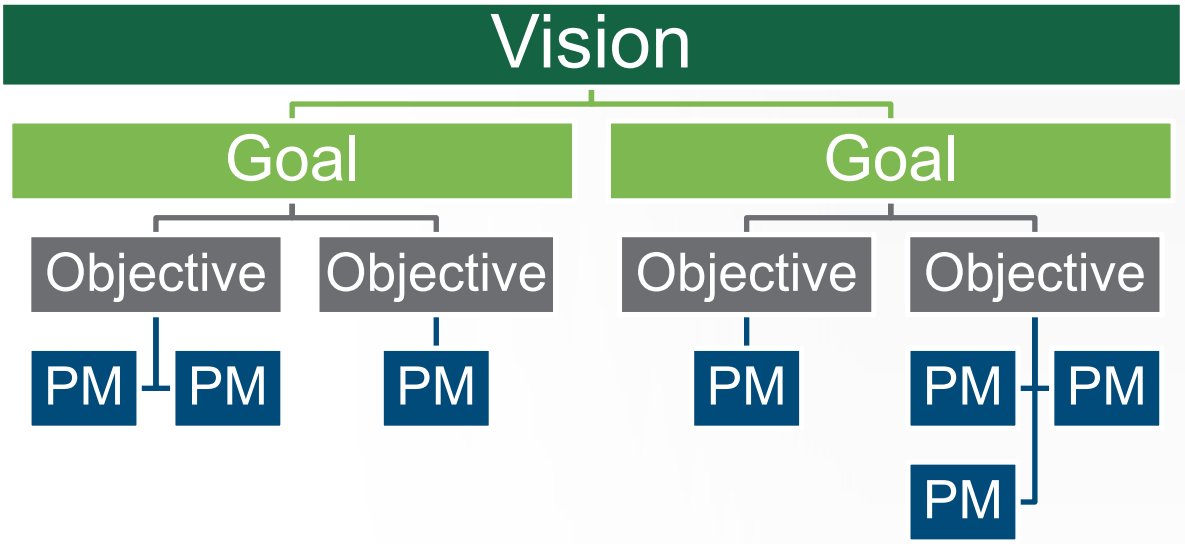


5.1 Prioritization Framework Introduction

This section provides a decision-making framework to allow the data, engagement, and analyses to become both implementable and informational. This section addresses the need for decision-making tools and resources by providing a composite Goal-Objective-Performance Measure synthesis that both informs decision makers of freight priorities and builds a system for measuring progress as the region grows and invests in itself. Additionally, this section provides guidance on freight funding sources by funding entity and applicable project types to support identification of funding for freight planning and programming as opportunities become available. Goals-Objectives-Performance Measures

The key outcome of this Regional Freight Plan is creating document that can serve as a guidepost for decision-making in the context of freight needs. To achieve this, the region has built a Goals-Objectives-Performance Measures framework that expands on the articulated vision for the region to identify goal areas for what the region would like to advance in freight planning, describes specific objectives that the region would like to achieve and support in the world of freight, and defines the data and information by which the performance of these objectives can be measured. Figure 5-1 describes the hierarchy of this approach and how each element is contained within the vision for freight in the region.

FIGURE 5-1. GOAL-OBEJCTIVE-PERFORMANCE MEASURE HIERARCHY



The Pikes Peak Area Region Vision is as follows:

Recognizing the importance of developing a deeper understanding of freight needs and opportunities as a fundamental part of growth in the region, this plan, being stakeholder inspired and data-driven, seeks to provide the planning framework for developing a safe, reliable, resilient, growth conscious and freight sensitive transportation system.

In pursuit of this vision, there were **four goal areas** selected, including **Safety**, **Economic Development**, **Resilience**, and **Military**, with each goal area including between three and six objectives. Each objective contains a **Priority** level for the objective, the **Performance Measure(s)** by which the objective will be compared, and the **Performance Description** detailing the desired outcome(s).

Priority: The priority levels are Low, Medium, and High and designate the level of additional consideration objectives should be given in the context of achieving the overall goal. Low implies that either the measure is relatively low priority in comparison to others within the goal area, and High implies the objective and it's performance measures are key elements of freight planning for the region.

Performance Measures: The performance measures detail the individual metrics that determine the success of achieving the objective. These are not comprehensive, but detail one or several key features to successful implementation of the objective.

Performance Description: The performance description simply describes the desired outcome as it relates to the performance measure. This is important to understanding the direction the measure should be moving and supporting decision makers in further understanding what the pursuit of the objective entails.

Table 5-1, and the breakdown that follows, detail the specific decision-making framework for this plan.

TABLE 5-1 PPACG GOALS, OBJECTIVES AND PERFORMANCE MEASURES

Goal	Objective	PM
Safety	Enhance safety for vulnerable road users, motorcycles and other road users.	Crash counts and rates by vehicle type
	Enhance safety for truck drivers while parked and advance awareness of, and encourage response to, human trafficking	Truck parking amenities; Extent of public outreach
	Reduce unsafe conditions created through undesignated truck parking.	Crash counts for trucks that are parked
	Enhance safety at, or eliminate where possible, at-grade highway-rail crossings.	At-Grade Crossing incident counts; Highway-rail at-grade crossing inventory
	Facilitate the safe transport of hazardous materials and oversize/overweight vehicles (OSOW) within and through the region.	Hazmat involved incident counts and impact
Economic Development	Create an attractive business environment in the region.	Total business count
	Understand the role of freight in the tri-county economy.	Freight businesses by industry and county
	Connect the workforce with regional freight employment.	Transit frequency in key industrial/commercial areas; Service in currently unserved areas
	Encourage freight workforce education, investment, and growth in the region.	Total employment; Fright employment
	Identify infrastructure investment opportunities to manage and facilitate growth.	Annual freight project impact
	Elevate a regional rail-freight hub (Southern Colorado Rail Park) and explore opportunities to maximize use of inner-city rail spurs.	Inventory of rail served parcels
Resilience	Ensure a resilient, reliable regional freight transportation system.	Travel time, Travel time reliability, Delay, Bottlenecks
	Support truck drivers through safe and dependable parking options.	Number of truck stops and parking slips
	Strategic use of technology and other innovations to improve operations, direct vehicle routing/rerouting, and keep freight operators informed.	Signage and changeable message signs (CMS) Count
	Understand supply chain vulnerabilities and strengthen primary and alternative truck routes.	Road condition index; Truck AADT on non - designated routes
Military	Continue collaboration between military installations and regional agencies/organizations.	Open invitation for discussion of freight related needs
	Enhance wayfinding on public roadways in coordination with installations.	Count of military designated CMS/Signage and truck base-access information
	Maintain and strengthen infrastructure in conjunction with military needs.	Road condition index and OSOW Bridge count on military routes

Safety

Enhance safety for vulnerable road users, motorcycles and other road users.

This objective encompasses the most immediately visible safety benefits impacting both the freight sector and the general road-using public. The region supports an independently hosted data dashboard that contains the full geospatial crash dataset necessary to monitor this kind of objective. The objective utilizes both crash count and crash rate performance measures to emphasize raw number of incidents as an important factor in determining where safety measures would be most effective while elevating locations where crashes are relatively high in comparison to truck traffic.

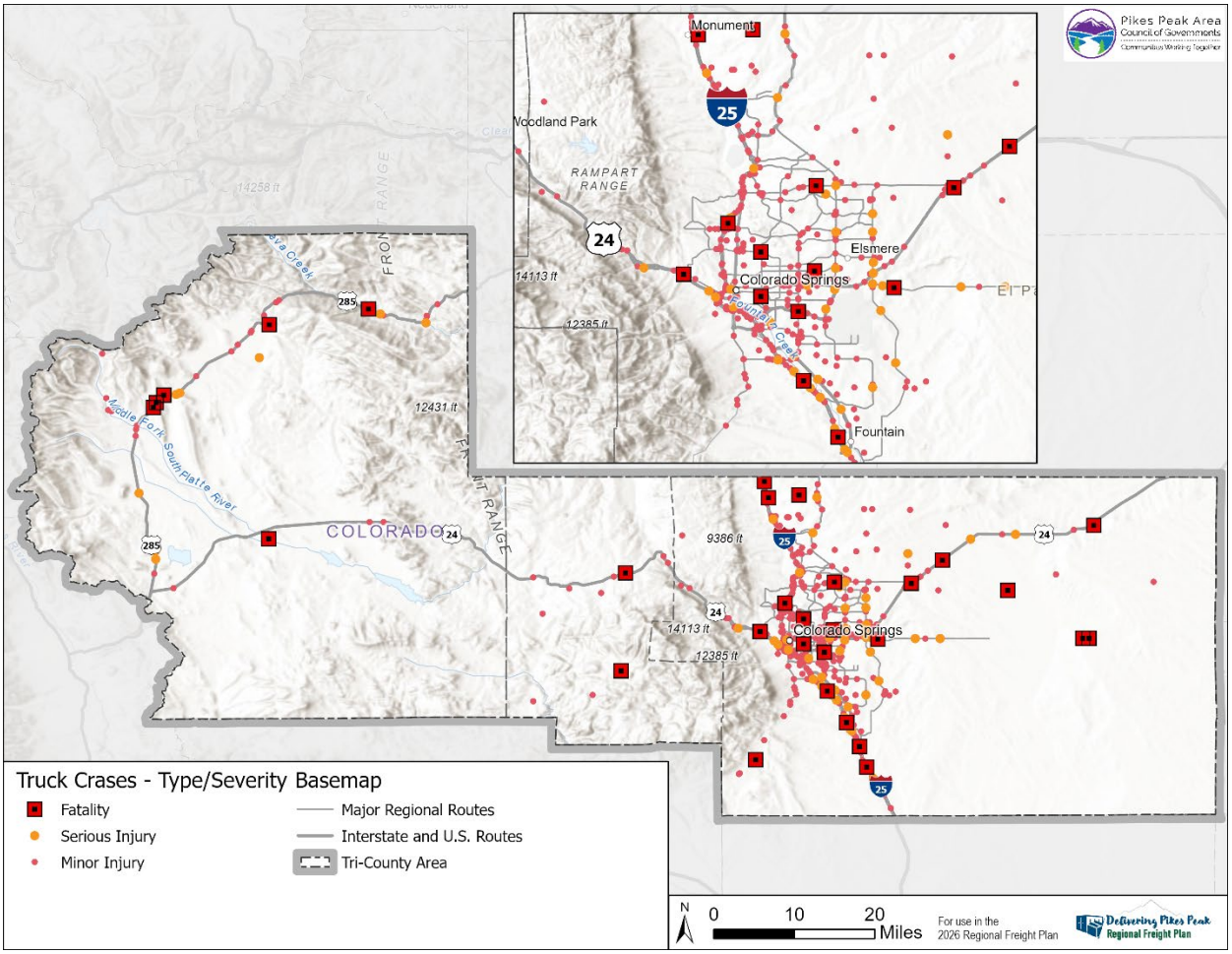
Priority Level: High

Performance Measure: Crash counts and rates by vehicle type.

Performance Description: Decrease incidents between trucks and other road users

Data Source: PPACG Traffic Crashes Dashboard

FIGURE 5-2 TRUCK CRASHES BY SEVERITY



Enhance safety for truck drivers at designated parking facilities and advance awareness of, and encourage response to, human trafficking.

This objective prioritizes the needs of drivers parked at designated truck parking facilities by itemizing the types of amenities they have access too. Long-haul driver in particular are in need of regular options for rest given federal requirements for consecutive hours of service. Even locally based drivers are susceptible to closures or disruptions that may require they use short-term parking alternatives. Both cases require parking alternatives with appropriate amenities to allow drivers safe, comfortable rest. Additionally, the Region seeks to elevate the issue of human trafficking to protect vulnerable individuals and truck operators are uniquely close to this issue at everything from the international to the intrastate level. While a specific metric with reliable, highly-accessible data is challenging to identify the Region still seeks to elevate this issue through public outreach and awareness campaigns, where feasible, including at truck parking facilities.

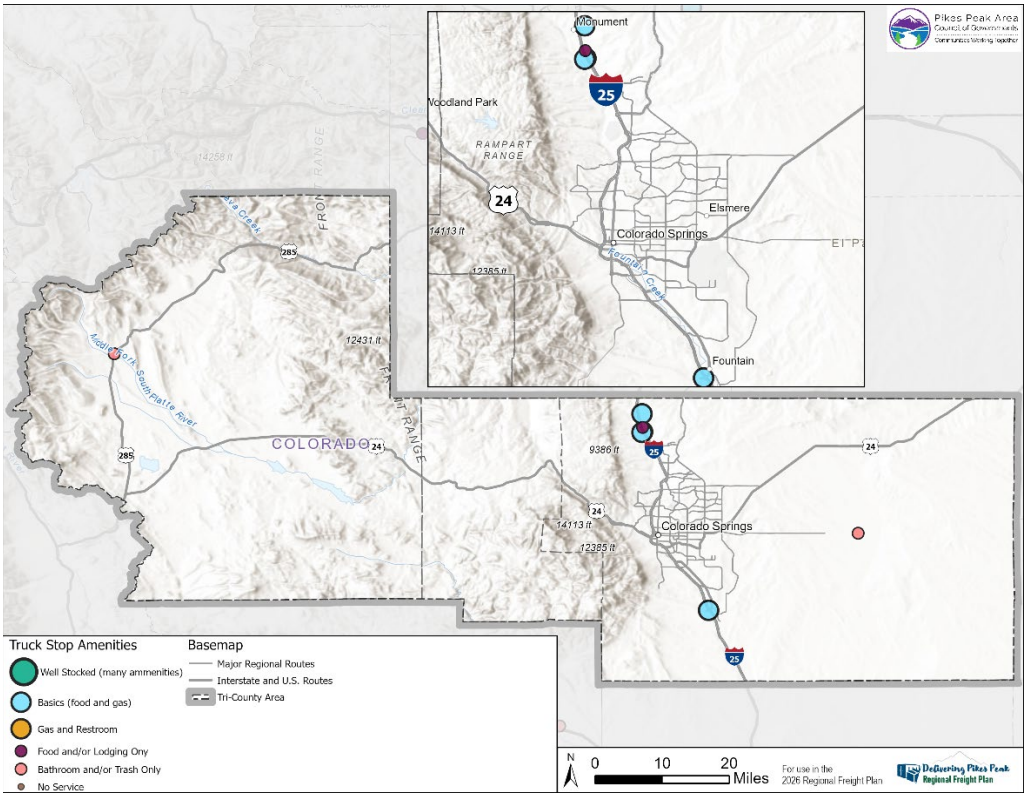
Priority Level: Medium

Performance Measure: Truck parking amenities; Extent of public outreach

Performance Description: Enhance extent of truck parking and the amenities offered; **Increase** public knowledge through awareness campaigns

Data Source: CDOT – Truck Stop Dataset (request through CDOT Freight Mobility and Safety Branch)

FIGURE 5-3 TRUCK PARKING LOCATIONS BY AMENITIES



Reduce unsafe conditions created through undesignated truck parking.

This objective is independent to the previous objective because where the first looks at driver safety at designated facilities, this one looks at reducing undesignated parking in the region which can be both a nuisance to the community and, more seriously, can create unsafe driving conditions. Trucks parked on shoulders of interstates and high-speed arterials, interstate ramps, roadways that obscure vision due to geometry, and others can result in rear-end collision of parked trucks and have the potential to be extremely serious and even fatal. This objective seeks to reduce the number of parked truck-related crashes by implementing parking supplies, enforcement, and other strategies.

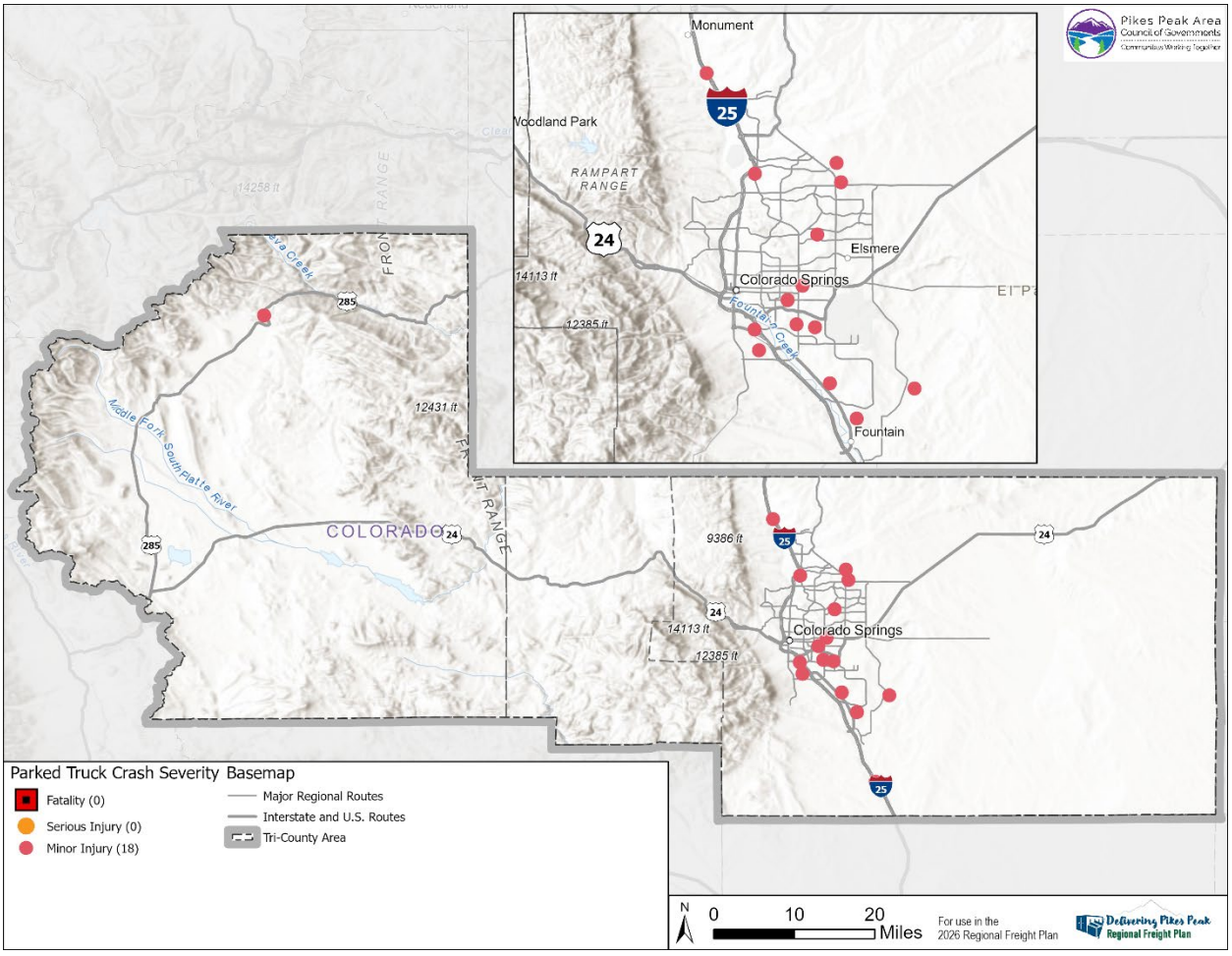
Priority Level: Low

Performance Measure: Crashes counts for trucks that are parked

Performance Description: Decrease parked truck crashes

Data Source: PPACG Traffic Crashes Dashboard

FIGURE 5-4 PARKED TRUCK CRASHES (2015-2020)



Enhance safety at, or eliminate where possible, at-grade highway-rail crossings.

This objective is the result of strategizing between both rail operators and regional stakeholders that support a mutually beneficial outcome. Rail operators have reduced highway related conflict and roadway owners enhance safety for road users while improving system signaling coordination and operational efficiencies. Using the number of at-grade highway-rail crossings and the number of incidents at these crossings provides the framework for addressing the immediate safety element of crashes while not distracting from the other element of the objective, eliminating crossings where feasible.

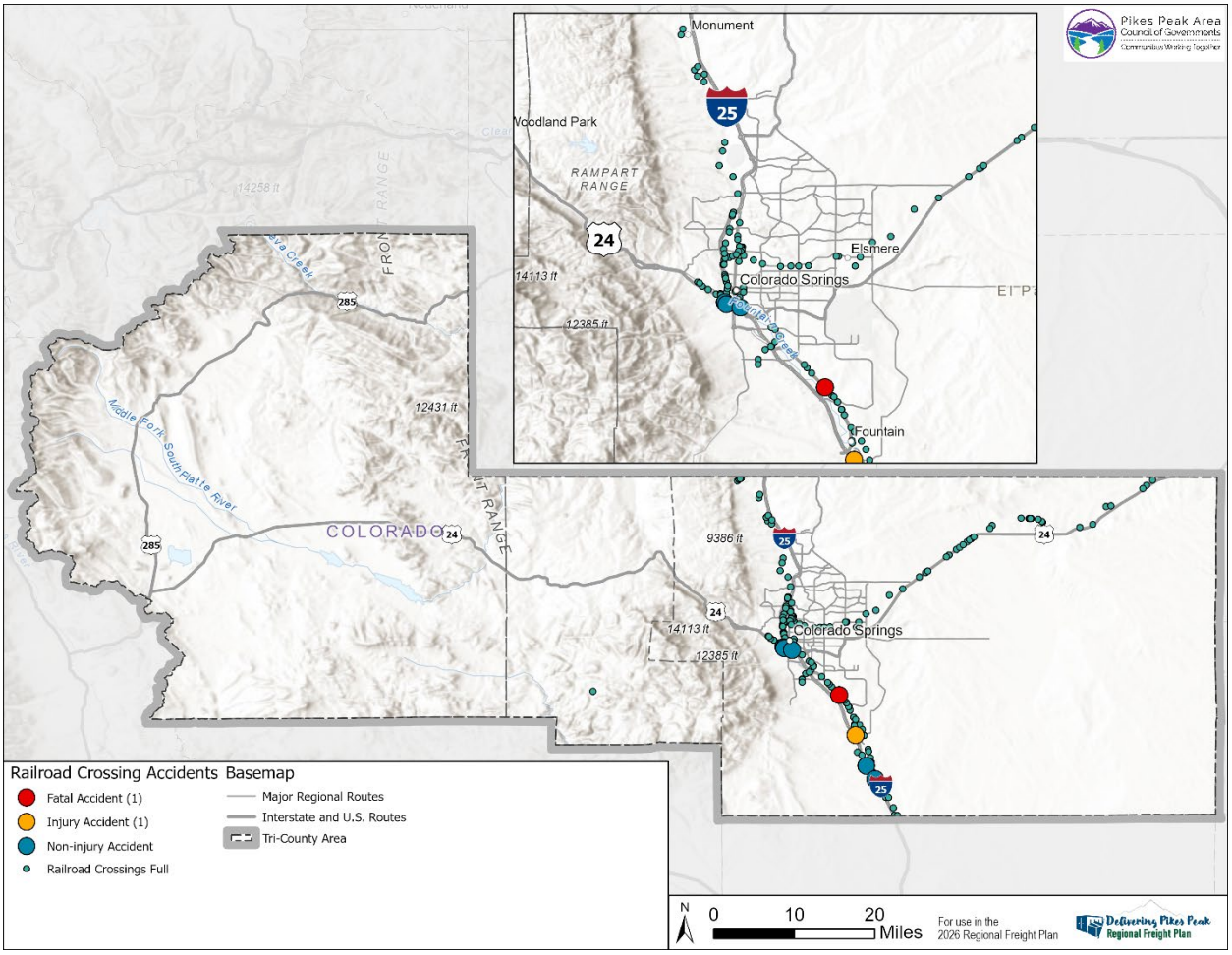
Priority Level: Moderate

Performance Measure: At-Grade Crossing incident counts; Highway-rail at-grade crossing inventory

Performance Description: Decrease incidents at crossings; **Reduce** number of at-grade crossings

Data Source: FRA Safety Data | FRA

FIGURE 5-5 RAIL CROSSINGS AND INCIDENTS (2000-2022)



Facilitate the safe transport of hazardous materials and oversize/overweight vehicles (OSOW) within and through the region.

Oversize and Overweight (OSOW) and hazardous materials (HazMat) truck transportation is an important element of statewide freight planning and understanding how the region fits into transportation of these commodities is a critical element of coordinating PPACG freight planning efforts with Colorado's state freight plan. This objective encompasses understanding where incidents involving overturned trucks occur to reduce the impact of HazMat and OSOW vehicle crashes and to enhance safety measures at these locations thereby elevating the need for safer routes and alternatives for HazMat and OSOW vehicles.

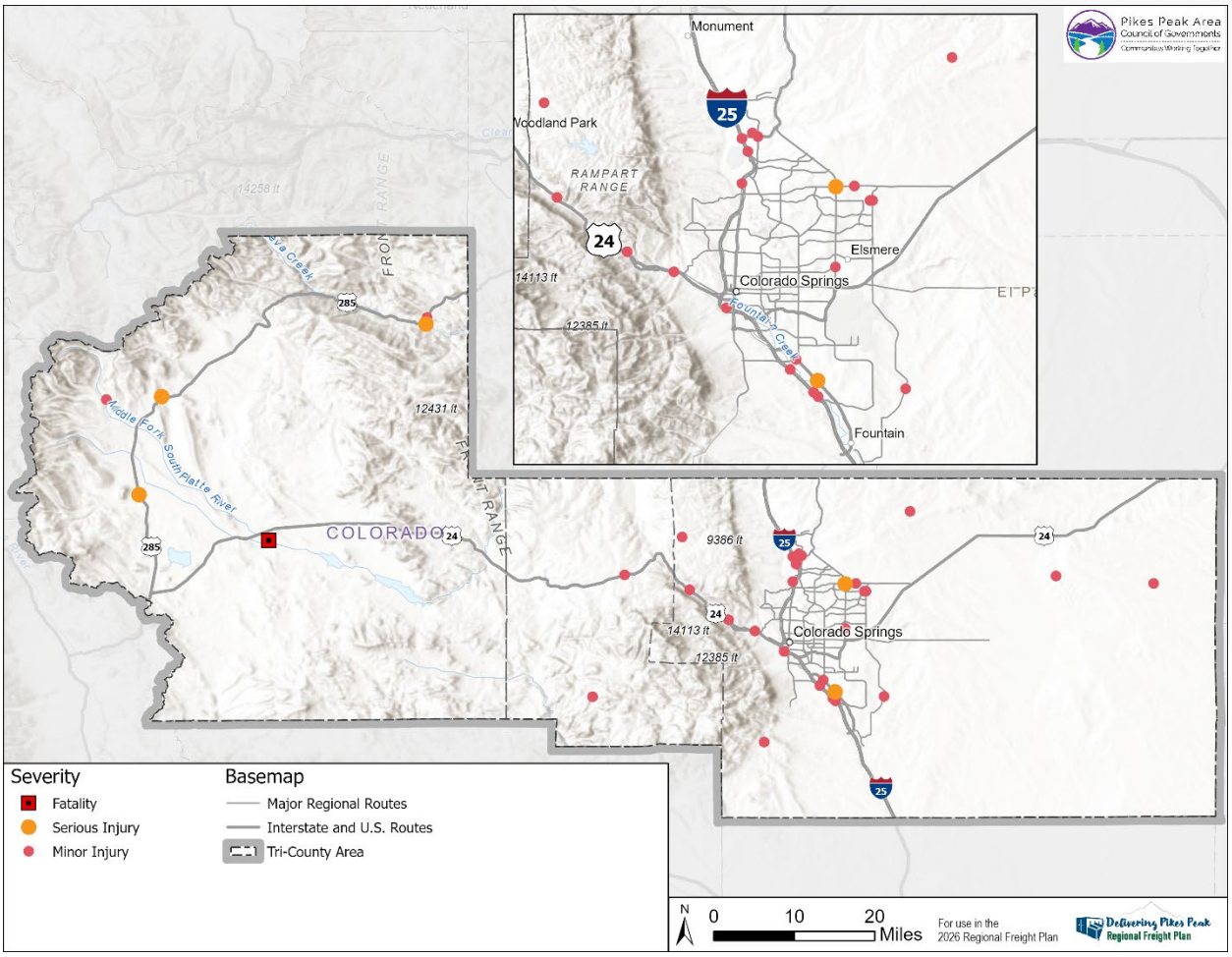
Priority Level: Low

Performance Measure: Overturn incident counts and severity

Performance Description: Decrease overturn incidents, particularly those involving HazMat/OSOW vehicles, counts and severity (OSOW and Hazmat is not an accessible characteristic now, but if available in the future should be included)

Data Source: PPACG Traffic Crashes Dashboard

FIGURE 5-6 OVERTURNING TRUCK CRASHES BY SEVERITY



Economic Development

Create an attractive business environment in the region.

Key elements of economic development are increasing the opportunities for employment, growing existing industries, and encouraging the entrance of emergent industries in the region. One of the underlying indicators for this is the number of businesses active in the PPACG Region. Freight transportation has a deep influence on the underlying economy despite the industry, so tracking the total number of businesses across Park, Teller, and El Paso Counties speaks to the broader economy, and by uplifting all industries the region provides opportunities for freight-related growth, employment, and economic diversity.

Priority Level: High

Performance Measure: Business count

Performance Description: Increase Business count

Data Source: Census Bureau - CB:ZBP Tables

Total Businesses (count) by Year
2023: 18,852
2022: 18,769
2021: 18,618
2020: 18,165

Understand the role of freight in the tri-county economy.

One of the important points discussed by PPACG private and public stakeholders broadly was understanding the independent needs of each county within the PPACG Region. Each county has unique economic profiles with distinct needs, so developing an understanding of what kinds of freight businesses are operating in each region and the driving factors for growth and any possible threats. Additionally, understanding the kinds of freight businesses describes the connections of the county to other economies both in and outside the region, which supports understanding the transportation system needs. The count of freight businesses by industry is the underlying indicator for understating the tri-county freight economy more deeply.

Priority Level: Medium

Performance Measure: Businesses by industry

Performance Description: Increase freight sector businesses

Data Source: Census Bureau - CB:ZBP Tables – OnTheMap

TABLE 5-2 BUSINESS COUNTY BY FREIGHT INDUSTRY

Year	Agriculture/ Forestry	Mining and Oil/Gas	Utilities	Const.	Manuf.	Whole-sale Trade	Transport and Ware -housing	All Freight
2020	42	18	22	1,223	305	607	853	3,070
2021	45	19	18	1,213	296	610	847	3,048
2022	46	16	18	1,342	316	676	861	3,275
2023	45	19	20	1,305	316	688	863	3,256

Connect the workforce with regional freight employment.

Workforce growth and opportunities were recognized as critically important in the how the region measures success in economic development and was split into two objectives. This objective looks at how the freight workforce gets connected to jobs through alternative modes of transportation. The primary mode for transportation, across industries both freight and non-freight, is personal vehicle, typically single occupant. Freight sector employment areas by nature of their footprint tend to lack the level of access to alternative modes of transportation to connect the workforce from home to workplace. In particular, major regional manufacturing facilities, industrial areas, and warehousing/distribution hubs lack the job density to warrant deep thought to connecting the workforce. This objective seeks to put that on the map, understanding that in the freight sector getting people to a physical location is paramount to maintaining operations.

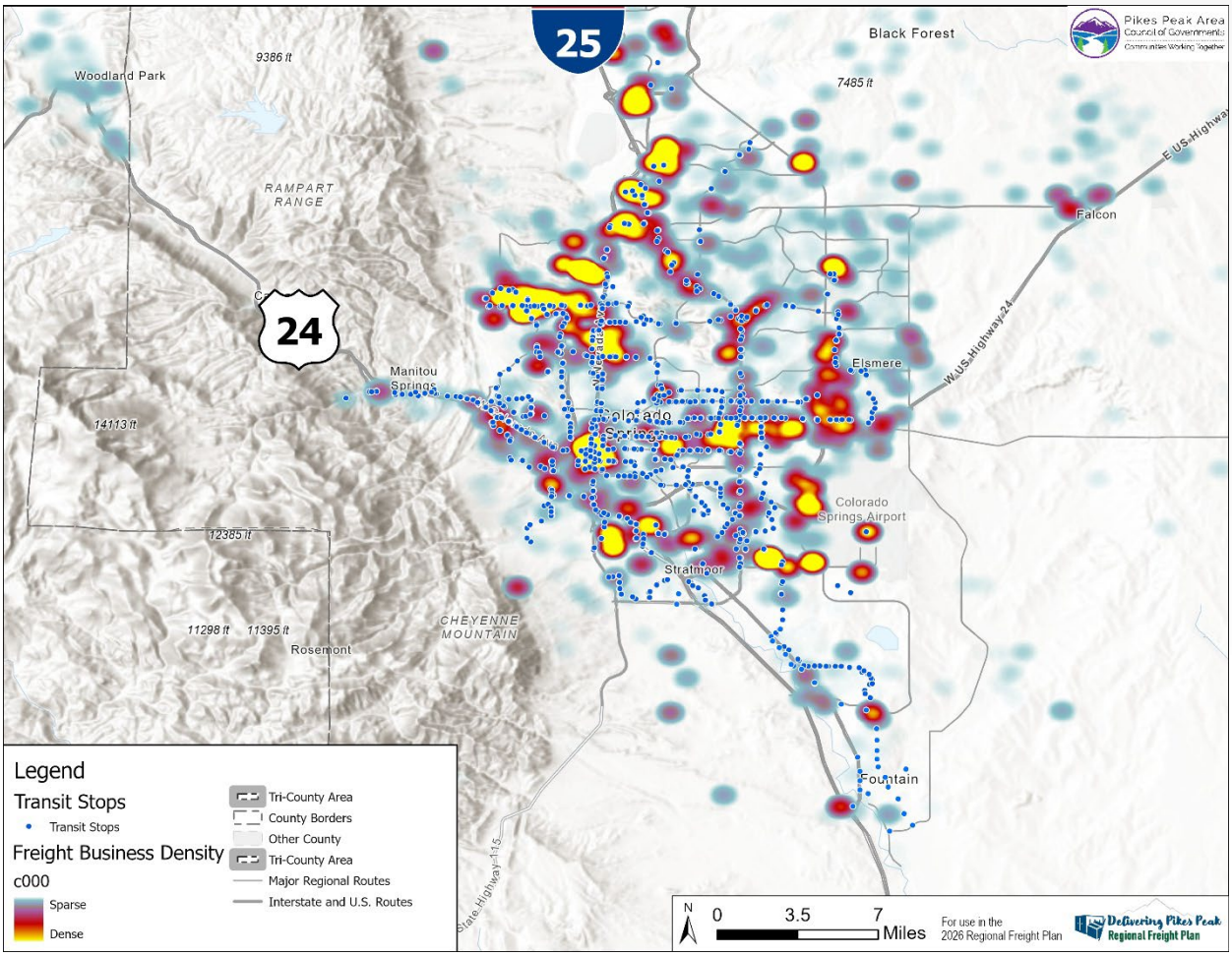
Priority Level: Low

Performance Measure: Transit frequency in key industrial/commercial areas; Service in currently unserved areas

Performance Description: Increase transit service to freight businesses; **Increase** service where service does not already exist

Data Source: National Transit Map Routes | Geospatial at the Bureau of Transportation Statistics
Colorado GTFS – Welcome to the download site for Colorado's GTFS data

FIGURE 5-7 TRANSIT STOPS AND FREIGHT BUSINESS DENSITY



Encourage freight workforce education, investment, and growth in the region.

The second objective relating to the workforce focuses on growing the freight workforce and providing opportunities for residents and newcomers to the region to find high-paying, stable, and career-advancing jobs in a core economic sector. Providing training, education, and placement opportunities reacts to a broader freight trend of workforce shortages and gives business that are currently in the tri-county area or looking to invest in the region the confidence that they will be able to grow with the PPACG community. While transportation projects may not have a direct impact on this objective, it is important to identify this as a priority in a Regional Freight Plan to highlight its importance for localities and member jurisdictions.

Priority Level: High

Performance Measure: Total employment, Fright employment

Performance Description: Increase total employment; **Increase** freight sector employment

Data Source: Longitudinal Employer-Household Dynamics (LEHD) - OnTheMap

TABLE 5-3 TOTAL PRIMARY JOBS BY FREIGHT INDUSTRY AND TOTAL

Year	Ag./ Forestry	Mining and Oil/Gas	Utilities	Const.	Manuf.	Whole-sale Trade	Transportation and Warehousing	All Freight	All Total
2020	626	704	17,482	580	12,175	5,884	4,354	41,805	218,575
2021	564	706	17,073	618	11,968	5,639	4,725	41,293	221,875
2022	5,787	5,787	5,787	5,787	5,787	5,787	5,787	40,509	237,799
2023	443	577	18,301	594	12,864	6,333	8,134	47,246	244,007

Identify infrastructure investment opportunities to manage and facilitate growth.

This objective comes from a desire among PPACG region stakeholders to not simply be reactive to planning freight in the region, but proactive and actively coordinating transportation investments. The region does a lot of work with private stakeholders in the freight-related industries to ensure when major investments are being made the necessary transportation system assets are coordinated, but as freight industries continue to grow in the region the public and community stakeholders would like transportation investment to enhance the ability of business to do operate and coordinate freight land-uses as a result of the transportation system fitting their needs.

Priority Level: Medium

Performance Measure: Annual freight project impact.

Performance Description: Track freight-positive project impacts

Data Source: Transportation Improvement Program – Pikes Peak Area Council of Governments

The table of projects is too large for this document, but is readily available at the following link: Public Website. The 2025-2029 TIP includes $446,114,510 worth of programmed projects.

Elevate a regional rail-freight hub (Southern Colorado Rail Park) and explore opportunities to maximize use of inner-city rail spurs.

This objective seeks to maximize the existing rail system, getting the most out of the assets the region already has, and create a regional rail-freight hub to better serve the growing population of the region in conjunction with the needs of the military installations in the region, namely Fort Carson. Identifying where the existing rail spurs are within the region and what coordinated land-uses make sense with those spurs allows the region to access immediate rail-highway fright intermodal opportunities with minimal investment. A rail-freight hub is of keen interest among PPACG stakeholders, both public and private,

because it creates a dedicated area for industrial, raw materials handling, and intermodal operations that does not compete with existing warehousing, manufacturing, and distribution in the region. It also supports some of the fright needs of regional military partners and in-sources efficiencies associated with rail freight shipping.

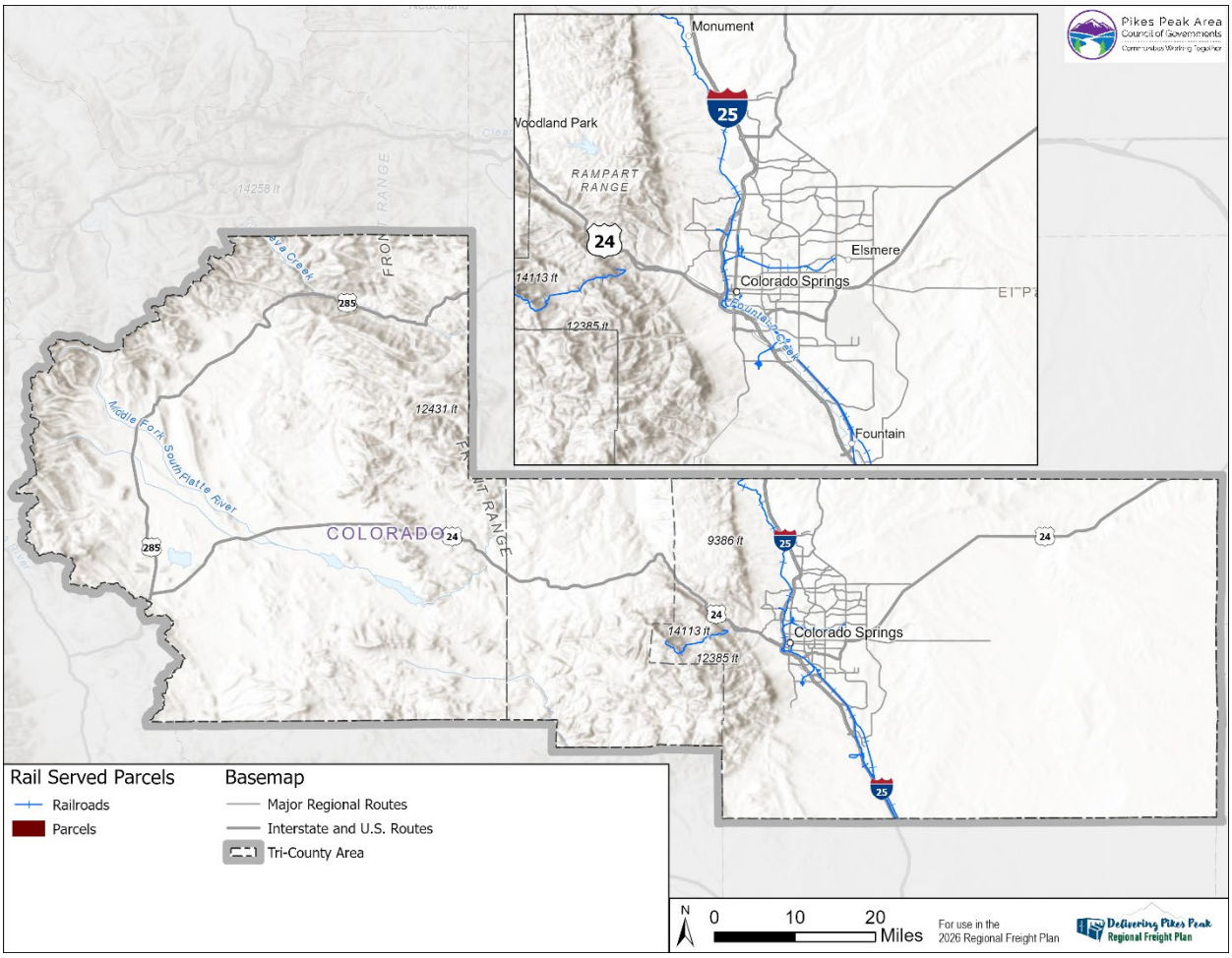
Priority Level: High

Performance Measure: Inventory of rail served parcels

Performance Description: Increase number of rail served parcels

Data Source: Parcel Layer: Parcels | El Paso County GIS Open Data Portal; Rail Layer: Railroads | El Paso County GIS Open Data Portal

FIGURE 5-8 RAIL SERVED PARCELS, 2026



Resilience

Ensure a resilient, reliable regional freight transportation system.

This objective is among the highest priority within the resilience goal area because it encompasses many of the NCHRP reliability measures that and indicative of the performance on transportation routes. Measures like travel time reliability and bottleneck locations help to identify targeted investment that has highly data-driven backing. This objective and it's performance measures should carry a higher weight within the resilience goal area, as indicated by the "high" priority rating.

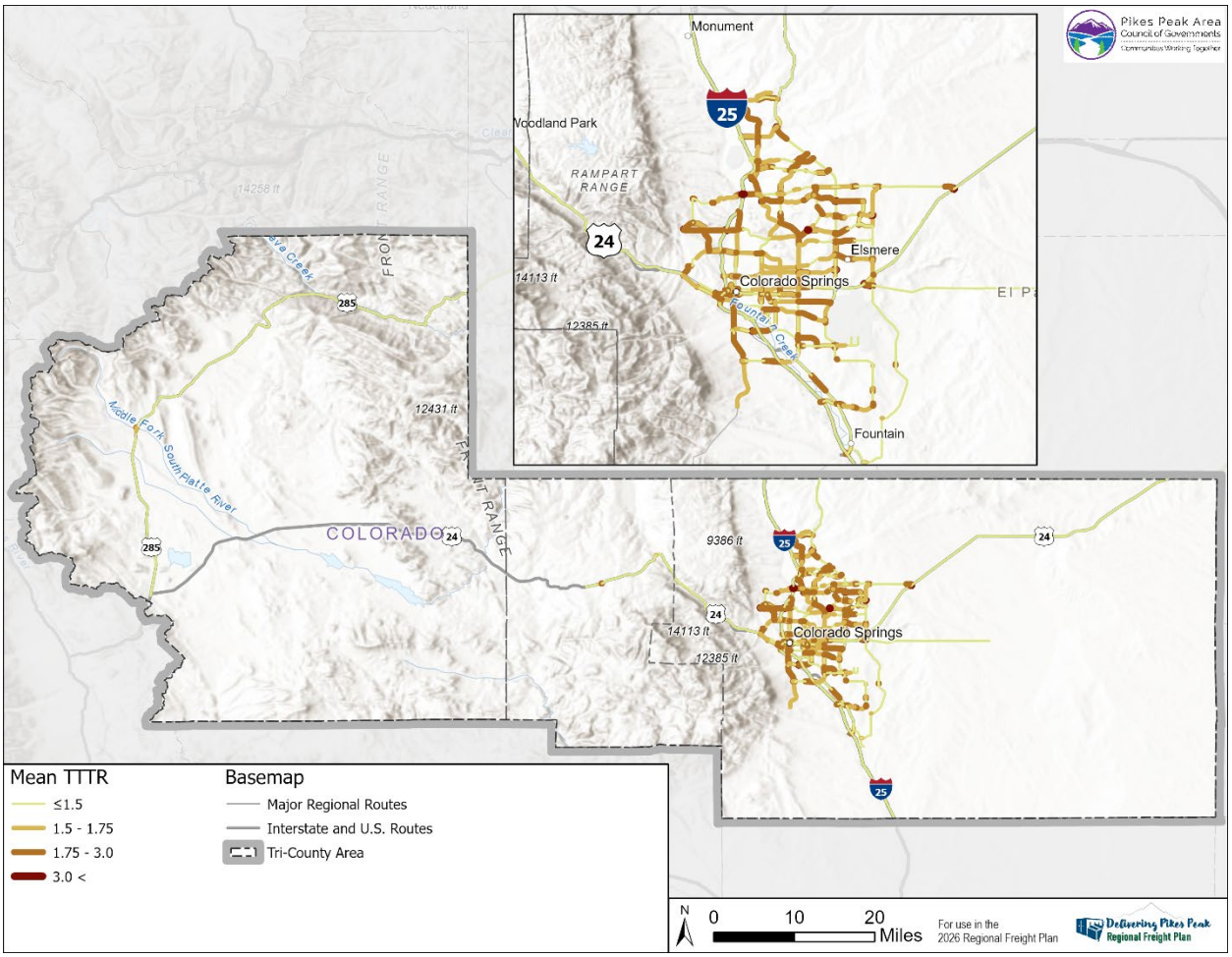
Priority Level: High

Performance Measure: Travel time, travel time reliability, delay and bottlenecks

Performance Description: Improve NPMRDS measures

Data Source: NPMRDS - RITIS

FIGURE 5-9 TRUCK TRAVEL TIME RELIABILITY (TTTR), 2025



Support truck drivers through safe and dependable parking options.

This goal looks at the availability of truck parking in the region, and recognizes the growing need for safe, dependable truck parking as the region continues to grow. This objective is also driven in part by the knowledge that the region has a wide range of geographic obstacles while supporting a number of key US routes alongside I-25. The regions mountains, mountain passes, valleys, eastern plains, and the Palmer Divide incorporate a dynamic landscape that is susceptible to weather related closures and other natural incidents like river flooding and rock slides. Providing a place for truck drivers to rest is essential for regional freight resilience.

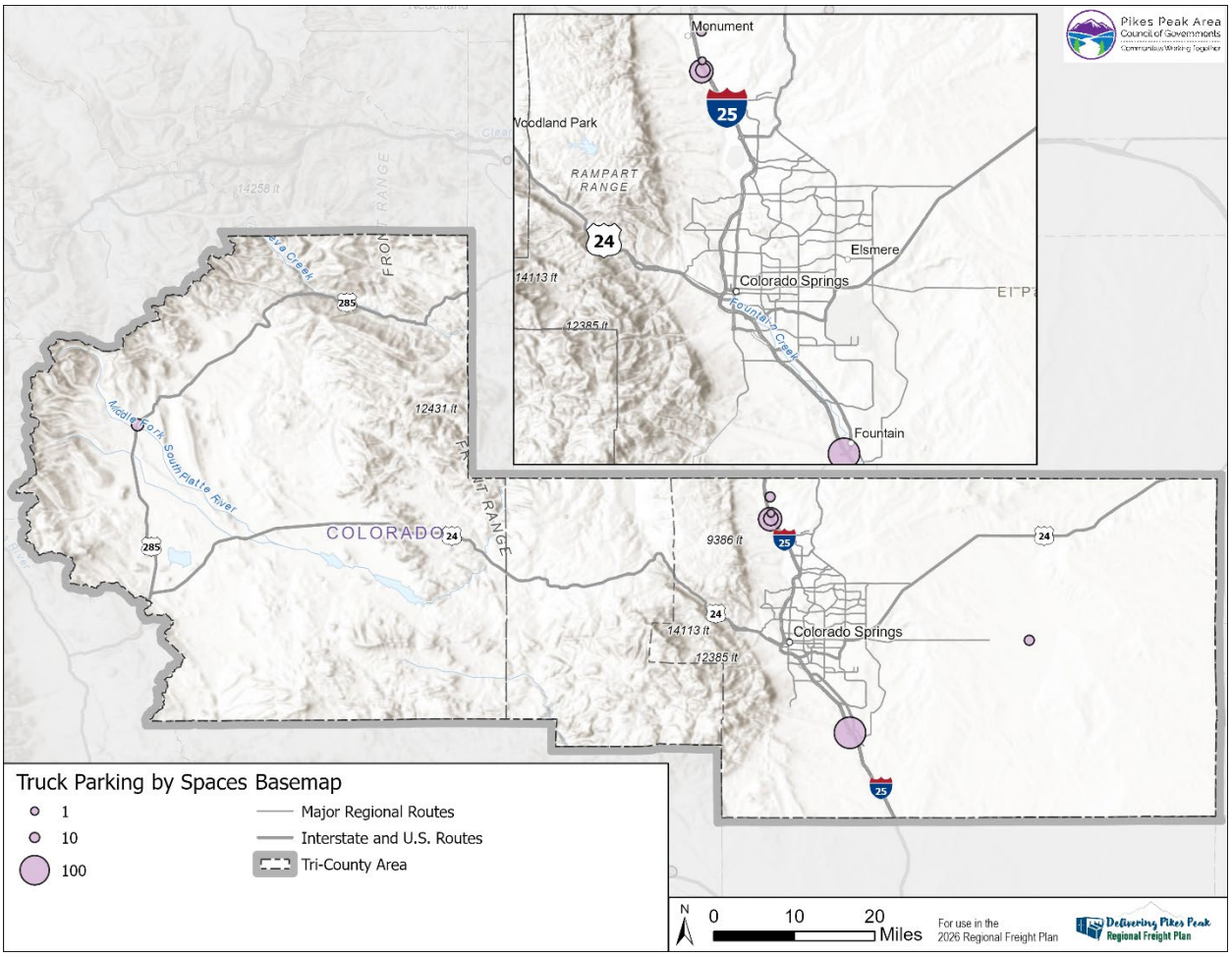
Priority Level: High

Performance Measure: Number of truck stops and parking slips

Performance Description: Increase truck parking availability

Data Source: CDOT – Truck Stop Dataset (request through CDOT Freight Mobility and Safety Branch)

FIGURE 5-10 TRUCK PARKING SPACES



Strategic use of technology and other innovations to improve operations, direct vehicle routing/rerouting, and keep freight operators informed.

One of the key elements discussed by truck drivers and truck driver advocates was timely communication of closures, expected slowdown, and other trip interruptions that would require either detouring or delays. This objective seeks to incorporate strategic vehicle routing technologies, such as changeable message signs and in-cab routing alerts, to provide up-to-the-minute information that might impact routing and shipping logistics. This relates particularly to many of the major arterials in the PPACG region supporting inter-regional shipping including I-25, US-24, US-285, and several state routes in the region.

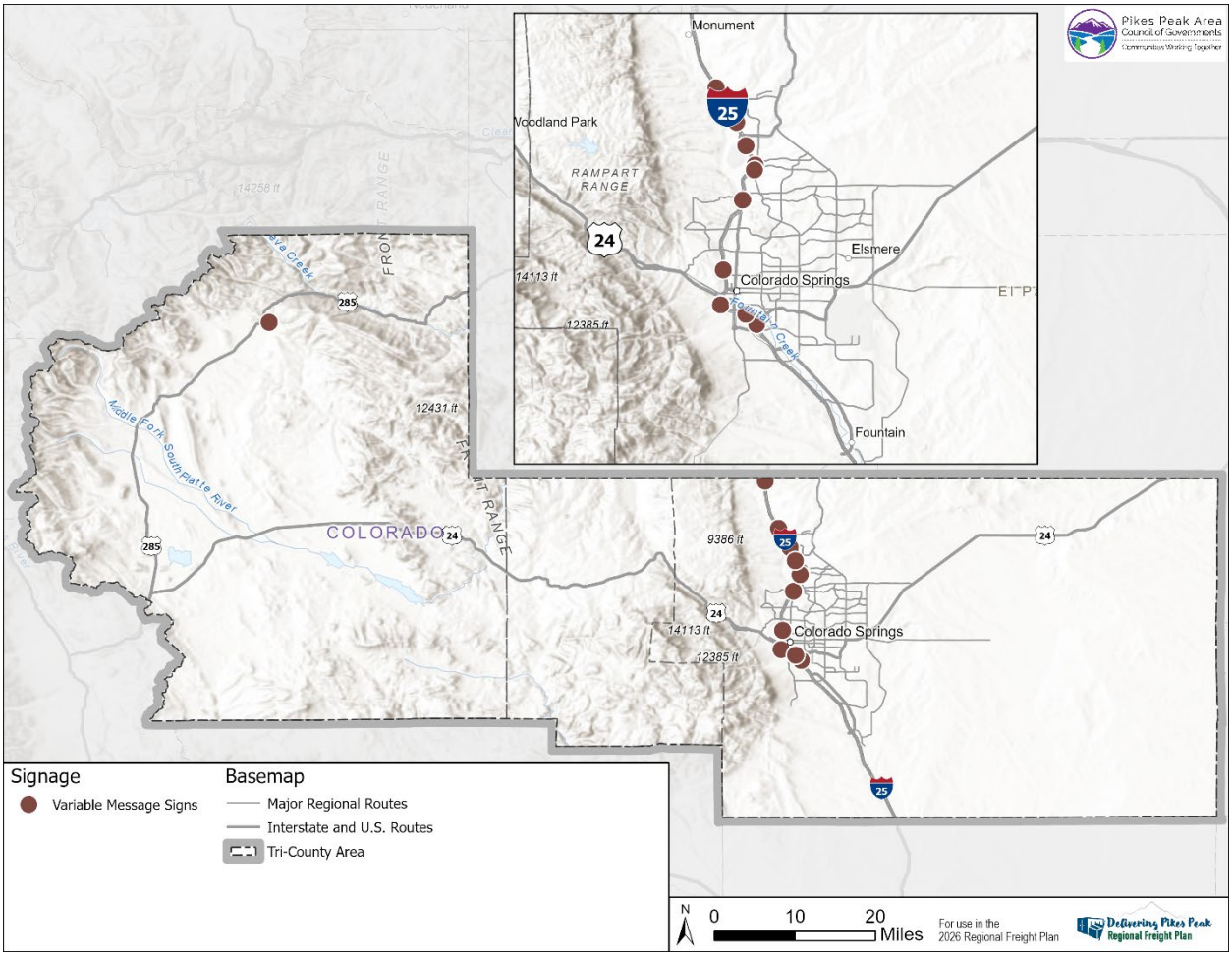
Priority Level: Medium

Performance Measure: Count of signage and changeable message signs (CMS)

Performance Description: Enhance truck wayfinding through signage and digital truck routing tools

Data Source: [Structures (all types) | CDOT Public Maps and Data]

FIGURE 5-11 VARIABLE MESSAGE SIGNS



Understand supply chain vulnerabilities and strengthen primary and alternative truck routes.

This objective looks at ensuring a robust and resilient freight transportation network in the event of route detouring requirements for inter-regional trips. Closures and re-routing is not an uncommon event for interregional trips, and strengthening roadway alternatives enhances the region's ability to remain flexible and responsive. The performance measures for this objective look at the routes where closures are common, what alternatives might be elected in the event of closures, and the road condition index of these alternatives.

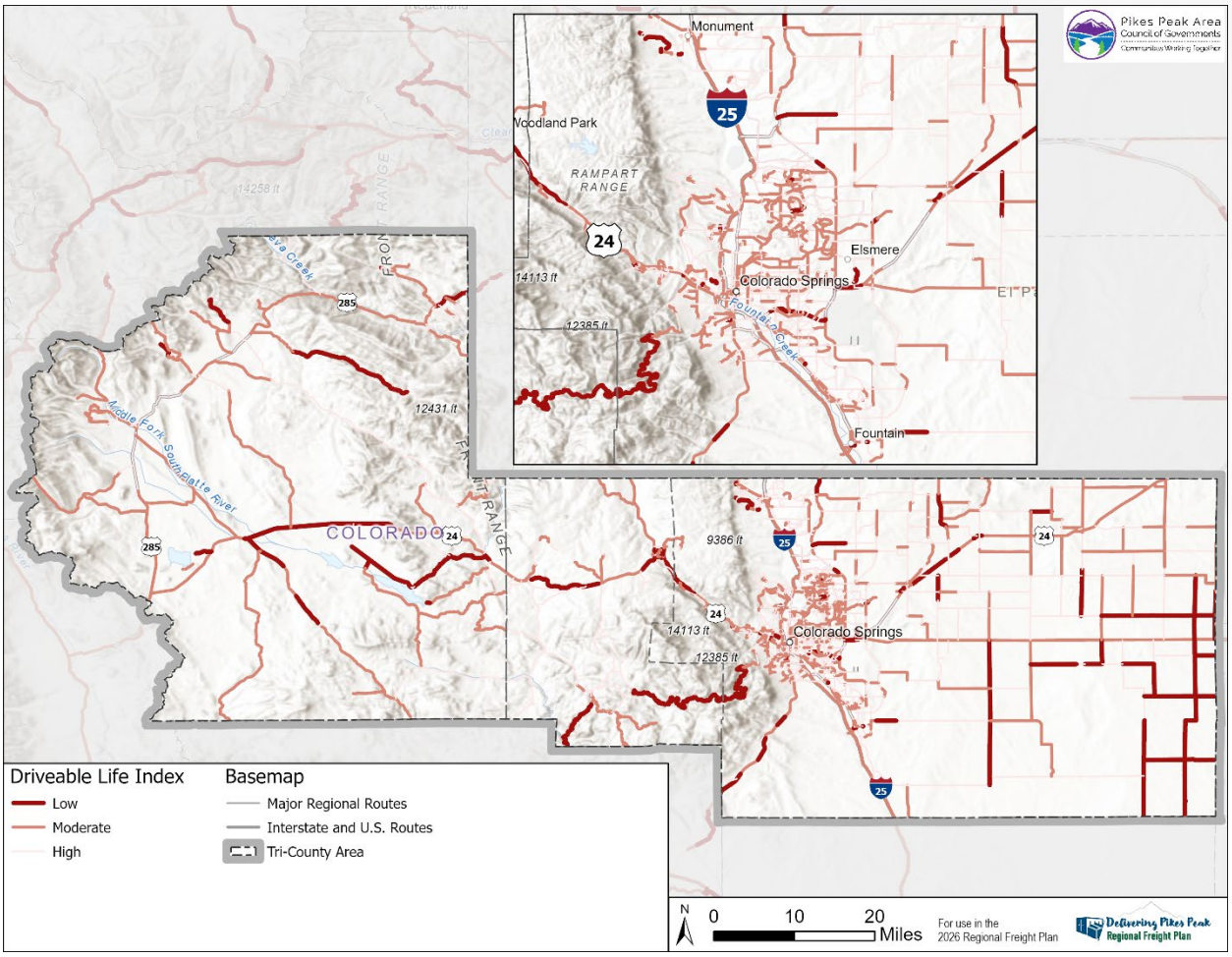
Priority Level: Low

Performance Measure: Road condition index on non -designated routes; Roadway closure counts

Performance Description: Improve road condition along primary and alternative truck routes; **Reduce** impact of road closures by identifying vulnerable routes

Data Source: Layer: Local Roads (ID: 14); Layer: Highways: Drivability Life (ID: 10);

FIGURE 5-12 DRIVEABLE LIFE INDEX



Military

Continue collaboration between military installations and regional agencies/organizations.

This objective is built on the unique presence and relationship that the region has with military personnel and installation. It is important to foster this relationship, and to the regions credit there has be a strong symbiotic connection with open discussion and coordinated growth and investment strategies. Military representatives are encouraged to continue to engage with the PPACG Region's planning stakeholders to identify freight opportunities and rectify freight weaknesses.

Priority Level: Low

Performance Measure: Open invitation for discussion of freight related needs with military stakeholders

Performance Description: Maintain military representation at regional meetings and forums

Data Source: Transportation Advisory Committee Meetings – Pikes Peak Area Council of Governments

Continue tracking to ensure Military Members are present at Transportation Advisory Committee Meetings.

Enhance wayfinding on public roadways in coordination with installations.

One of the key freight related issues identified in engagement efforts with military representatives was the need for improved wayfinding for truck freight. Trucks are required to enter through specific gates for security reasons, and when trucks navigate to improper gates, it can cause delays and back-ups not only for shipments but also for the general traffic navigating installation entry points. The region can support navigation by providing appropriate wayfinding infrastructure, such as signage, on public road right-of-way.

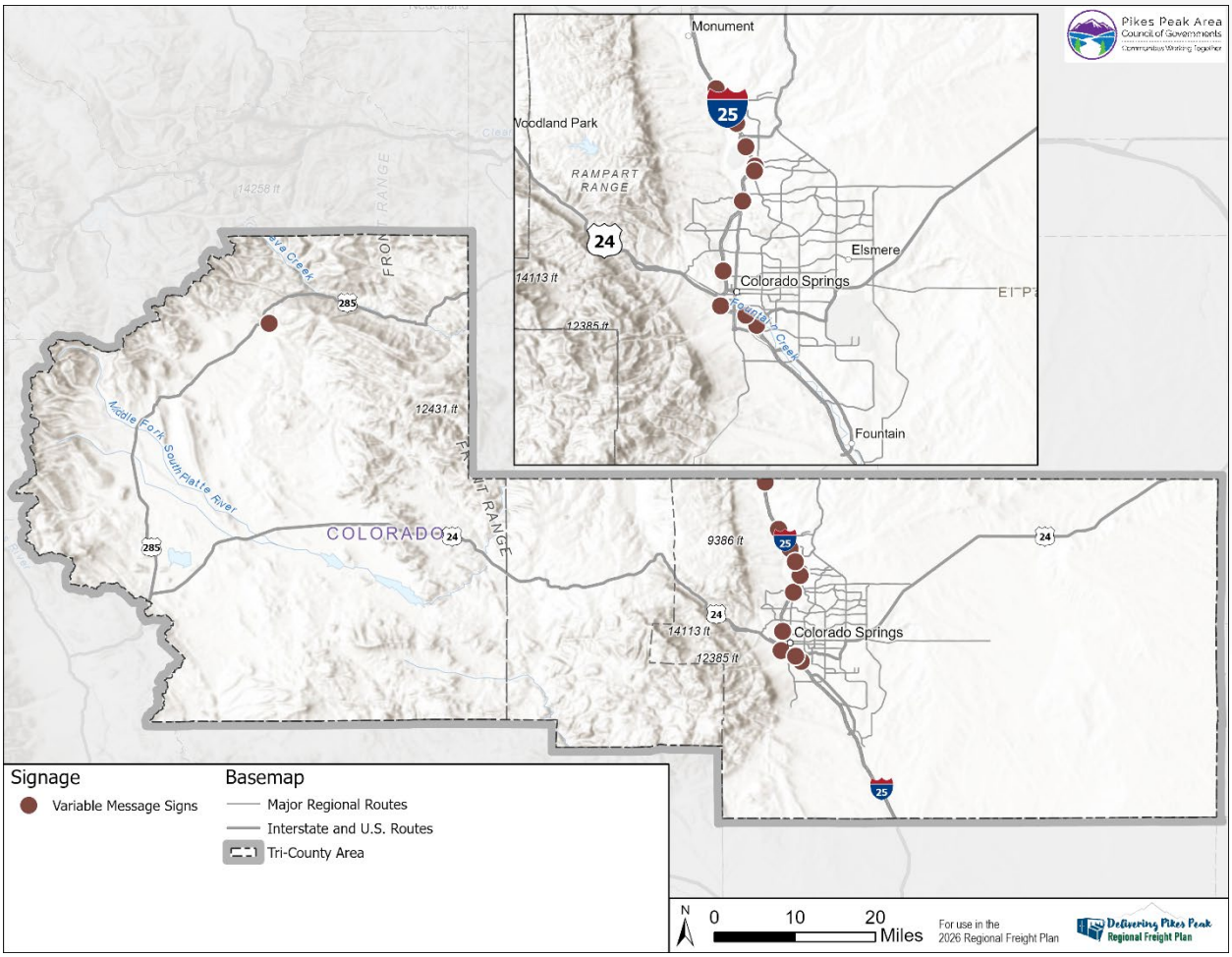
Priority Level: Medium

Performance Measure: Count of military designated CMS/Signage and truck base-access information

Performance Description: Increase strategically located CMS and interstate signage.

Data Source: Structures (all types) | CDOT Public Maps and Data;

FIGURE 5-13 LOCATIONS OF VARIABLE MESSAGE SIGNS



Maintain and strengthen infrastructure in conjunction with military needs.

The other key element of military freight is coordination with military routes, ensuring the transportation infrastructure can support load standards required by unique military shipments. This objective looks at roadway condition and bridge weight specifications specifically along designated military routes to ensure freight movements between installations within the region, and with installations outside of Colorado, are fully supported for both day-to-day and defensive requirements.

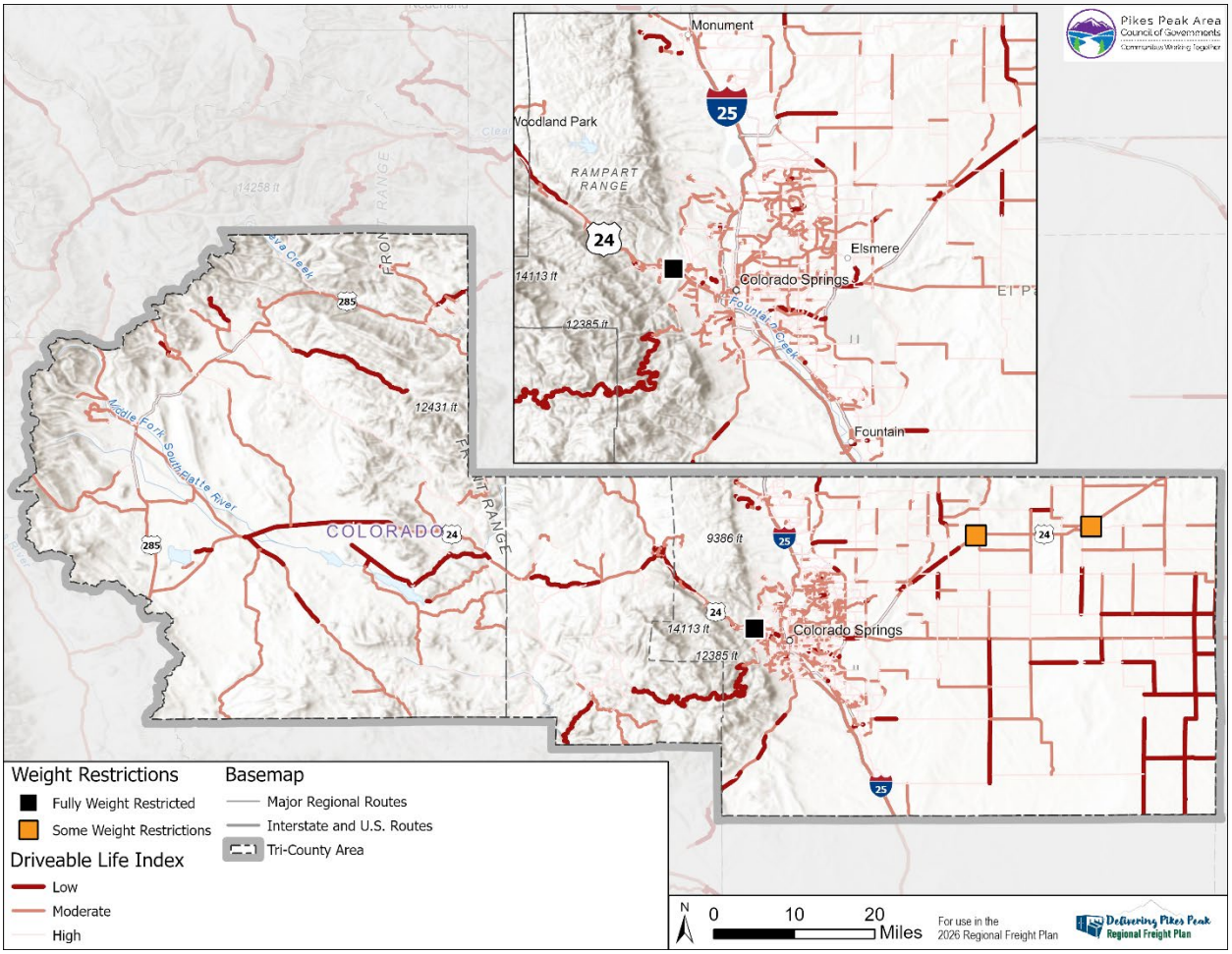
Priority Level: Medium

Performance Measure: Road condition index on military routes; OSOW bridge condition on military routes

Performance Description: Improve/Maintain road condition on strategic military routes; **Improve/Maintain** OSOW bridges on strategic military routes

Data Source: Layer: Local Roads (ID: 14); Layer: Highways: Drivability Life (ID: 10); National Bridge Inventory - Bridge Inspection, FHWA

FIGURE 5-14 WEIGHT RESTRICTIONS AND DRIVEABLE LIFE



5.2 Freight Grants and Funding Opportunities

Identifying and leveraging funding sources for freight projects is essential to advancing performance measures, improving freight safety, and implementing priority investments. The table below summarizes key federal and state funding programs that can support a wide range of freight improvements. These programs include both formula funds, administered through the Colorado Department of Transportation (CDOT) or other state agencies, and competitive discretionary grants, which can fund projects ranging from safety improvements and rail crossings to truck parking and corridor enhancements.

TABLE 5-4 FUNDING SOURCES FOR FREIGHT PROJECTS

Funding Source	Abbv.	Federal Formula	Federal Discretionary Grants	State	Typical Uses
National Highway Freight Program	NHFP	Yes	No	No	Freight corridors, truck parking, bottlenecks, multimodal freight-CDOT owned roadways-collaborate with CDOT regional staff with ideas on established freight routes
National Highway Performance Program	NHPP	Yes	No	No	NHS highways, capacity, pavement/bridge condition
Surface Transportation Block Grant	STBG	Yes	No	No	Flexible use: roads, bridges, freight, multimodal
Highway Safety Improvement Program	HSIP	Yes	No	No	Safety improvements, crash reduction
Congestion Mitigation and Air Quality Improvement Program	CMAQ	Yes	No	No	Emissions reduction, congestion relief
Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation	PROTECT	Yes	Yes	No	Resilience and climate adaptation
Carbon Reduction Program	CRP	Yes	No	No	GHG reduction, electrification
National Electric Vehicle Infrastructure Program	NEVI	Yes	No	No	EV charging infrastructure
Railway-Highway Crossings Program	RHCP	Yes	No	No	Rail crossing safety
Nationally Significant Multimodal Freight and Highway Projects Program	INFRA	No	Yes	No	Large freight projects, corridors, truck parking

Funding Source	Abbv.	Federal Formula	Federal Discretionary Grants	State	Typical Uses
National Infrastructure Project Assistance Grant Program	MEGA	No	Yes	No	Major infrastructure projects
Rural Surface Transportation Grant Program	RSTP	No	Yes	No	Rural freight, highways, bridges
Rebuilding American Infrastructure with Sustainability and Equity Program	RAISE	No	Yes	No	Multimodal, safety, equity
Railroad Crossing Elimination Grant Program	RCE	No	Yes	No	Grade separations, crossings
Innovative Technology Deployment Program	ITD	No	Yes	No	ITS, freight technology
Clean Ports Program	CPP	No	Yes	No	Port emissions, electrification
Charging and Fueling Infrastructure Grants	CFI	No	Yes	No	Alternative fuel and EV charging infrastructure
Clean Fleet Vehicle and Technology Grant Program		No	No	Yes	Low/zero-emission fleet vehicles
Colorado Clean Diesel Program / DERA		No	No	Yes	Diesel emissions reduction
DCFC Plazas Program		No	No	Yes	Fast charging infrastructure
Energy/Mineral Impact Assistance Fund (EIAF)		No	No	Yes	Community and infrastructure projects
Fleet-ZERO		No	No	Yes	Fleet electrification and charging
Innovative Motor Vehicle Tax Credits		No	No	Yes	EV purchase incentives
Reduction of Truck Emissions at Port Facilities		No	Yes	No	Reduce truck idling/emissions
Statewide Planning and Research (SPR)		No	No	Yes	Planning and coordination
Utility Rebates and Support		No	No	Yes	EVs and charging infrastructure
Wildlife Crossings Pilot Program		No	No	Yes	Wildlife safety and crossings

Effective use of these funding sources requires close coordination with CDOT to ensure that priority freight needs within the PPACG region are identified, advanced, and aligned with statewide priorities. In addition,

discretionary grant opportunities can be strategically pursued in coordination with CDOT to strengthen applications and improve competitiveness. Several federal programs also include dedicated set-asides or scoring advantages for rural areas, presenting additional opportunities for the PPACG region to secure funding for freight-related projects.

It is important to note that the current federal surface transportation authorization, the Infrastructure Investment and Jobs Act (IIJA), is set to expire on September 30, 2026. While freight is expected to remain a priority in future legislation, specific programs particularly discretionary grant opportunities may be modified, restructured, or replaced.

Another opportunity to advance freight improvements is to integrate freight considerations into MPO-funded projects. This plan provides a framework for ensuring that freight needs are consistently incorporated into regional project development and delivery. PPACG can play a key coordinating role by identifying freight-related needs early and incorporating them into project review processes and broader coordination efforts. Additionally, PPACG can facilitate collaboration by bringing together the appropriate stakeholders including freight industry representatives, local jurisdictions, and agency partners to ensure that freight considerations are effectively addressed throughout project planning and implementation.

5.3 Next Steps

The purpose of the Prioritization Framework is to be a resource for decision-making in the PPACG Region, so incorporating the elements of the Prioritization Framework section into **decision-making toolkit**, such as one-pagers, cheat-sheets, action summaries, and/or online maps, will make decision making with freight context easier. Additionally, where possible these performance measures can be updated on a regular basis to track the progress of regional freight objectives. The Goal-Objective-Performance Measure framework can continue to be used in future planning efforts, freight related or otherwise, to provide a vision for freight in the region and to understand how the vision can be achieved.

Pikes Peak Area Council of Governments
Communities Working Together

Date: July 29, 2026

To: Pikes Peak Area Council of Governments Community Advisory Committee

From: Angie Martell, Environmental Planner

Subject: Site Application for Peyton School District, Wastewater Alternatives Evaluation

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Action Requested: Review and Recommend

Previous Action

1) The Application was reviewed and recommended by the SARC on June 18, 2026.
2) The Application was reviewed and recommended by the Water Quality Management Committee on June 24, 2026.

Summary

As required by §22.12(1) of the Colorado Department of Public Health and Environment's Regulation 22 - Site Location and Design Regulations for Domestic Wastewater Treatment Works, the Peyton School District is providing the Pikes Peak Area Council of Governments CAC with the attached Site Application request for the Peyton School District's Wastewater Alternatives Evaluation to derate the system to under 2,000 gallons per day.

The current wastewater treatment system for Peyton Jr./Sr. High School is at end of life and experiencing operational challenges. The current system is an RBC biological treatment system sized for 8,800 gallons per day with a drainfield discharge. The actual flows to the wastewater system are significantly less than it is designed for, which causes additional challenges to the system. During a recent episode from November 7 to December 17, 2025, when the school district had to pump and haul flow from the high school, the flows averaged 1,021 gallons per day during a busy after-school event time. The flow per school day averaged 1,021 gallons.

The student population has been stagnant for the past 10 years and has declined for the 2025/26 school year. The student population is expected to continue to be stagnant or decline for the foreseeable future. Although population growth is expected at some point in the future, that growth is expected to occur between the Peyton School and Colorado Springs. It is reasonable to expect that students would go to schools closer to Colorado Springs and not Peyton Jr./Sr. High School. Therefore, the school expects that student population will continue to stagnate or decline for the next 20 years.

Based on these conditions, the Peyton School District requests that their wastewater system be derated to 1,990 gallons per day and permitted through El Paso County Public Health, rather than through the Colorado Department of Public Health and Environment. The Colorado Department of Public Health and Environment regulates wastewater treatment systems with a capacity over 2,000 gpd as Domestic Wastewater Treatment Works, requiring them to go through a rigorous state-level design review and facility approval process instead of relying strictly on local county permits. Smaller systems (2,000 gallons per day or less) are typically permitted directly by local public health agencies under Colorado Department of Public Health and Environment Regulation 43. Derating the system would present significant cost savings for the School District, while also providing the ability to develop a system more appropriate for the flows actually experienced by the Peyton School District.

The applicant has been working closely with El Paso County Public Health throughout this process to address and work together through any concerns.

The WQMC has identified no significant concerns with this application.

Proposed Motion

Recommend the Site Application request for the Peyton School District's Wastewater Alternatives Evaluation to derate the system to under 2,000 gallons per day to the Board of Directors for approval.

Attachments

1) Site Application for the Peyton School District
2) Water Quality Management Committee meeting minutes from June 24, 2026

Strategic Plan Goals

☐ Advocacy: Serve as an effective advocacy voice for common ground issues.
☒ Information Sharing: Serve as a significant resource for PPACG members to collect and share information with regional partners.
☐ Aging: Expand and extend senior access, awareness, education, and connectivity to support age-friendly communities and empower individual seniors.
☐Transportation: Maintain and improve a coordinated, validated plan for transportation needs across the PPACG region.
☒ Program Excellence: Continue to excel in the key fundamental areas of PPACG: Military support, Environmental programs, Transportation, Area Agency on Aging, and regional communication and collaboration.

COLORADO
Department of Public Health & Environment

Water Quality Control Division
Engineering Section

4300 Cherry Creek Drive South, B2
Denver, Colorado 80246-1530
CDPHE.WQEngReview@state.co.us
303-692-6298

Site Location- Fee Information Request Form

Regulation 22 - Site Location and Design Regulations for Domestic Wastewater Treatment Works

FEBRUARY 2025 INVOICING UPDATE: Wastewater invoicing will now take place when you submit your wastewater site location application and process design report application. After submitting your application and engineering report, you will receive an invoice. Please note that the invoice will expire 90 days after issuance.

Directions: Please submit site location or design review request via email to CDPHE.WQEngReview@state.co.us
All information with an asterisk (*) is required.

A. Project and System Information					
System Name*	Peyton High School				
Project Title*	Wastewater Alternatives Evaluation				
County*	EL Paso County				
For existing domestic wastewater treatment works, please indicate original site location approval number and date					
Send Invoice to:	Design Company	☐	Applicant	X	
Engineering Company Name	ERG				
Engineer	Theresa Connor		CO License Number	53090	
Address	1113 Washington Ave., Suite 200 Golden, CO 80401				
Email	Theresa.Connor@erg.com				
Phone	941-925-7891		Fax		
Applicant / Entity*	Peyton School District				
Representative Name/Title*	Greg Land, Director of Facilities				
Address (include City, State, Zip Code)*	13990 Bradshaw Road, Peyton, CO 80831				
Email*	gregland@peyton.k12.co.us				
Phone	719-749-0074		Fax		

B. Type of Review Requested (check all that apply)

Treatment Facility		***Lift Station***	
New Domestic Wastewater Treatment Plant (Section 22.6 of Regulation 22)		New Lift Station (Section 22.9 of Regulation 22)	☐
Increasing or Decreasing the Design Capacity of an Existing Domestic Wastewater Treatment Plant Where Construction Has Taken Place or Will Take Place (Section 22.7 of Regulation 22)	X	Expansion of Existing Lift Station (Section 22.10(3) of Regulation 22)	☐
Amendment to Existing Site Location Approval		***Interceptors***	
Amendment of an Existing Site Location Approval – Disinfection Changes Only (Section 22.10(2)(a)(ii) of Regulation 22)	☐	Interceptor Sewers Not Eligible for Certification (Section 22.8(3) of Regulation 22)	☐
Amendment of an Existing Site Location Approval – All other Amendment Requests (Section 22.10 Regulation 22)	☐	Certification for Eligible Interceptors (Section 22.8(1) of Regulation 22)	☐
Other Reviews and Special Cases			
New outfall for existing domestic wastewater treatment works (Section 22.10(1)(c)(xii) of Regulation 22)	☐		
Site Approval Extension (Section 22.4(9) of Regulation 22)	☐		
On-site Wastewater Treatment Systems (OWTS)	☐		

C. Project Information

Location (existing or proposed site)		*Proposed Project Capacity*	
Address (include City, State, Zip Code)*	13885 Bradshaw Road Peyton, CO 80831	Hydraulic Capacity: Maximum Month Average in million gallons per day (MGD)	0.00199 MGD
Legal Description (e.g., Township, Range)	SW4 Sec 6-12-63 TR LOCATED AS PORT OF SW4 SEC 6-12-63 DESC AS FOLS: COM AT W4 COR OF SD SEC 6; TH S 87<33'31" E 30.03 FT ALG E-W C/L OF SD SEC 6; TH CONT S 87<33'31" E 2273.33 FT ALG SD LN TO INTSEC WLY BDRY OF PEYTON CEMETERY AS DESC IN BK 764-436, S 00<09'46" E 275.26 FT ALG SD WLY BDRY, N 89<56'37" E 342.02 FT ALG SLY BDRY OF SD PEYTON CEMETERY TO A PT OF INTSEC WITH OLD BDRY FENCES, S 00<21'18" E 1146.99 FT TO INTSEC NLY LN OF PARCEL DESC BY BK 3336-231, S 89<51'02" W 149.43 FT ALG SD NLY LN TO NW COR OF SD PARCEL, N 00<21'18" W 145.88 FT, S 90<00'00" W 2471.32 FT TO INTSEC R/W EASEMENT LN FOR BRADSHAW RD, TH N 00<01'12" E 1373.24 FT TO POB	Hydraulic Capacity: Peak Hour in million gallons per day (MGD)	MGD
County	El Paso		
Latitude	39.031157	Organic Capacity (lbs. BOD_5/day) – Treatment Facility Only	7 lbs. BOD_5/day
Longitude	-104.49273		
Estimated Project Cost	$505,000		

Funding Process	Will a State or Federal grant or loan be sought to finance any portion of the project (e.g., State Revolving Fund)?	No	☐	Yes	X	If yes, please list project number	BEST Grant 1060-SG00003

D. Brief Project Summary and Major Project Work Description (e.g., new treatment facility, addition of a new aeration basin, request for re-rating of organic capacity where no construction is proposed, addition of larger pumps in an existing pump station)

The current wastewater treatment system for Peyton Jr./Sr. High School is at end of life and experiencing operational challenges. The current system is an RBC biological treatment system sized for 8,800 gallons per day (gpd) with a drainfield discharge. The actual flows to the wastewater system are significantly less than it is designed for, which causes additional challenges to the system. During a recent episode from November 7 to December 17, 2025, when the school district had to pump and haul flow from the high school, the flows average 1,021 gpd during a busy after-school event time. The flow per school day averaged 1,021 gallons. The student population has been stagnant for the past 10 years and has declined for the 2025/26 school year. The student population is expected to continue to be stagnant or decline for the foreseeable future. Although population growth is expected at some point in the future, that growth would occur between the Peyton School and Colorado Springs. It is reasonable to expect that students would go to schools closer to Colorado Springs and not Peyton Jr/Sr High School. Therefore, the school expects that student population will continue to be stagnant or decline for the next 20 years. Based on these conditions, the Peyton School District requests that their wastewater system be derated to 1,990 gallons per day and permitted through El Paso County Environmental Health Division.

FOR DIVISION USE ONLY

Treatment Facility		*Amendment to Existing Site Location Approval*	
New Domestic Wastewater Treatment Plant (Section 22.6 of Regulation 22)		Amendment of an Existing Site Location Approval – Disinfection Changes Only (Section 22.10(2)(a)(ii) of Regulation 22)	
Less than 100,000 gals/day (Subcategory I-AN & II-AN)	☐	*Less than 100,000 gals/day (Subcategory I-I & II-I)*	☐
100,000 gals/day to 999,999 gals/day (Subcategory I-BN & II-BN)	☐	*100,000 gals/day to 999,999 gals/day (Subcategory I-J & II-J)*	☐
1,000,000 gals/day to 9,999,999 gals/day (Subcategory I-CN & II-CN)	☐	*1,000,000 gals/day to 9,999,999 gals/day (Subcategory I-K & II-K)*	☐
10,000,000 gallons/day or more (Subcategory I-DN & II-DN)	☐	*10,000,000 gallons/day or more (Subcategory I-L & II-L)*	☐
Existing Domestic Wastewater Treatment Plant – Increasing or Decreasing Capacity Where Construction Has Taken Place or Will Take Place Including Decreasing the Design Capacity to 2,000 GPD or Less (Section 22.7 of Regulation 22)		Amendment of an Existing Site Location Approval – All Other Amendments (Section 22.10)	
Less than 100,000 gals/day (Subcategory I-AE & II-AE)	X	*Less than 100,000 gals/day (Subcategory I-M & II-M)*	☐
100,000 gals/day to 999,999 gals/day (Subcategory I-BE & II-BE)	☐	*100,000 gals/day to 999,999 gals/day (Subcategory I-N & II-N)*	☐
1,000,000 gals/day to 9,999,999 gals/day (Subcategory I-CE & II-CE)	☐	*1,000,000 gals/day to 9,999,999 gals/day (Subcategory I-O & II-O)*	☐
10,000,000 gallons/day or more (Subcategory I-DE & II-DE)	☐	*10,000,000 gallons/day or more (Subcategory I-P & II-P)*	☐
Lift Station		***Interceptors***	

New Lift Station (Section 22.9 of Regulation 22)		Interceptor Sewers Not Eligible for Certification (Section 22.8(3) of Regulation 22) (*Subcategory I-S & II-R)*	☐
Less than 100,000 gals/day (Subcategory I-EN & II-EN)	☐	Certification for Eligible Interceptors(Section 22.8(1) of Regulation 22) (*Subcategory I-T)*	☐
100,000 gals/day to 999,999 gals/day (Subcategory I-FN & II-FN)	☐	***Other Applications and/or Reviews***	
1,000,000 gals/day to 9,999,999 gals/day (Subcategory I-GN & II-GN)	☐	On-Site Wastewater Treatment System (*Subcategory I-Q & II-Q)*	☐
10,000,000 gallons/day or more (Subcategory I-HN & II-HN)	☐	Site Application Extension (*Subcategory I-R)*	☐
Expansion of Existing Lift Station (Section 22.10(3) of Regulation 22)		Outfall Sewers (*Subcategory I-U & II-S)*	☐
Less than 100,000 gals/day (Subcategory I-EE & II-EE)	☐		
100,000 gals/day to 999,999 gals/day (Subcategory I-FE & II-FE)	☐		
1,000,000 gals/day to 9,999,999 gals/day (Subcategory I-GE & II-GE)	☐		
10,000,000 gallons/day or more (Subcategory I-HE & II-HE)	☐		

Regulation 22 Site Location Application Form
Section 22.7 – Increasing or Decreasing the Design Capacity of an Existing Domestic Wastewater Treatment Plant

A. Project and System Information			
System Name	Peyton High School		
Project Title	Wastewater Alternatives Evaluation		
County	El Paso		
CDPS Permit No.	COX634032		
Date Fee Paid or payment attached		Invoice Number and Check Number	
Engineering Company Name	ERG		
Engineer	Theresa Connor	CO License Number	53090
Address	1113 Washington Ave., Suite 200 Golden, CO 80401		
Email	Theresa.Connor@erg.com	Phone	941-925-7891
Applicant/Entity	Peyton School District		
Representative Name	Greg Land, Director of Facilities		
Address	13990 Bradshaw Road Peyton, CO 80831		
Email	gregland@peyton.k12.co.us	Phone	719-749-0074

B. Project Information			
Location (existing or proposed site)		***Proposed Project Design Capacity***	
Brief location description	Located on the site of Peyton Jr./Sr. High School	Hydraulic Capacity Maximum Month Average	0.001999 MGD
Legal Description (e.g., Township, Range)	SW4 Sec 6-12-63	Peak Hour Hydraulic Capacity	MGD
County	El Paso		
Latitude	39.031157	Organic Loading Capacity – Treatment Plant Only (Maximum Month Average)	7 lbs. BOD_5/day
Longitude	-104.49723		

Funding Process	Will the State Revolving Fund (SRF) loan program be used to finance any portion of the project?	Yes	☐	No	X	If yes, please list project number	

Project Schedule and Cost Estimate	
Estimated Bid Opening Date	12/1/2026
Estimated Completion Date	Summer 2027
Estimated Project Cost	$505,000

Project and System Information	
Project Title	Peyton High School
System Name	Wastewater Alternatives Evaluation
County	El Paso
CDPS Permit No.	COX634032
CDPS Permit Expiration Date	6/30/2026
Original Site Location Approval Number and Date	ON0006589; 7/13/2005

Treatment Works Information

1. Existing Treatment Works Process Overview

a) Please describe the process(es) at the existing treatment works.

The current treatment system has two 8,000 gallon septic tanks, a rotating biological contact (RBC) biological treatment system with volcano sand filter and disinfection system sized for 8,000 gallons per day with a drainfield.

b) Existing Treatment Works Approved Capacities

Existing Hydraulic Capacity
- Maximum Month Average: 0.008 MGD
- Peak Hour: MGD

Existing Organic Capacity
- Maximum Month Average: 30 lbs of BOD_5/day

c) Existing Treatment Works – Current Flow and Loading

Current Flows
- Maximum Month Average: 0.0011 MGD
- Percent of Existing Capacity: 0.125 %
- Peak Hour: MGD
- Percent of Existing Capacity: %

Current Organic Load
- Maximum Month Average: 3.7 lbs of BOD_5/day
- Percent of Existing Capacity: 0.12%

2. Proposed Treatment Works Process Overview

Please describe the proposed treatment works process(es) and any existing treatment process(es) or equipment being retained.

The proposed treatment system will utilize the existing two 8,000 gallon septic tanks, modify the treatment to a recirculating filter to achieve Tier 1 treatment levels in Regulation 43 with disposal in the existing drainfield sized for 8,800 gallons per day.

Site Information

3. Vicinity maps of site location which includes the following:

a) 5-mile radius map: all treatment plant, lift stations and domestic water supply intakes

b) 1-mile radius map: habitable buildings (e.g., residences, schools, and commercial structures), location of public and private potable water wells, an approximate indication of the topography of the area, and neighboring land uses

Attachment A – Vicinity Maps

4. Site Location Zoning

a) Present zoning of the site location?

A-35 (School property)

b) Zoning within a one (1) mile radius of the site location?

Residential, Agricultural and Public

5. Floodplain or Natural Hazard Area

a) Is the site located in a 100-year floodplain or other natural hazard area? If so, what precautions are being taken?

The site is not located in the floodplain. No.

b) Has the floodplain been designated by the Colorado Water Conservation Board, Department of Natural Resources or other agency? If so, please list agency name and the designation.

Colorado Water Conservation Board through the Colorado Hazard Mapping Program. No floodplain on property.

6. Legal Arrangements Demonstrating Control of the Site

Please provide the legal arrangements showing control of the site or right-of-way for the project life or showing the ability of the entity to acquire the site or right-of-way and use it for the project life.

Site currently owned by applicant.

7. Nearby Facilities

Please list all municipalities and water and/or sanitation districts within 5-miles downstream of the proposed treatment works site.

There is no municipality, water or sanitation district within 5 miles downstream of the proposed treatment work site.

Treatment Works Effluent Information

8. Effluent disposal method (please check all that apply)

☐	Surface Discharge to watercourse (enter watercourse name below)
☐	Groundwater Discharge
☐	Land application
☐	Treated Effluent Reuse (Regulation 84)
☐	Evaporation
x	Other (describe below) - Drainfield

The existing drainfield is sized for 8,800 gallons per day.

9. Water Quality Planning Targets (please attach a copy in Engineering Report)

a) Identify the document to be used as the Water Quality Planning Targets:

El Paso County Environmental Health Requirements

b) If Preliminary Effluent Limits are required, please identify the date the document was received:

NA

10. Downstream Distances

a) Downstream distance from the discharge point to the nearest domestic water supply intake? Name of supply? Address of supply?

Distance: 6.4 miles
Name of Supply: Woodman Hills Public Facilities Leasing (1984 groundwater permit)
Address of Supply: Woodmen Hills Metro District, 8046 Eastonville Road, Falcon, CO 80831 (note slight name difference, assuming this is the contact information)

b) Downstream distance from the discharge point to the nearest other point of diversion? Name of user? Address of user?

Distance: 9.61 miles
Name of User: Bowman Springs on Fountain Creek
Address of User: Records are not available.

Project Information

11. What entity is financially responsible for the construction of the treatment works?

Peyton School District

12.	What entity has the financially responsibility for owning and long term operating expense of the proposed treatment works?
	Peyton School District

13.	What entity has the responsibility for managing and operating the proposed treatment works after construction?
	Peyton School District

Additional Factors

14.	Please identify any additional factors that might help the Division make an informed decision on your site location application.
	Peyton Jr./Sr. High School is located on a hill with a groundwater reported to be 65 to 85 feet deep. Soil sampling during a field visit indicated sandy loam soil in the drainfield area that is good for drainfield use. The current system has two 8,000-gallon septic tanks and a drainfield designed for 8,800 gallons that is in good condition but will need to be further characterized during the design process. The drinking water supply for the school is a well, pump and cistern without daily monitoring data. The wastewater treatment plant has a flow monitor at the end of the process. Some of the flow data for the last 12 months show a few high flow days during the year exceeding 5,000 gallons per day. The school's facility staff have to rinse the volcano sand filter often, and have at times left that rinse system running overnight. The rinse process uses 10 gallons per minute or 600 gallons an hour. If that system were left on for 10 hours, it would equate to 6,000 gallons of water use that would be captured in the flow meter. The project team checked the high flow days against the event calendar for the school and did not find any correlation between the high flow days and events at the school. Having good instrumentation with flow monitoring and alarms of higher flows will help the school mitigate high flow days.

COLORADO
Department of Public Health & Environment

Water Quality Control Division
Engineering Section

4300 Cherry Creek Drive South, B2
Denver, Colorado 80246-1530
CDPHE.WQEngReview@state.co.us
303-692-6298

Applicant Certification and Review Agencies Recommendation

A. Project and System Information	
System Name	Peyton High School
Project Title	Wastewater Alternatives Evaluation
County	El Paso
CDPS Permit No.	COX634032

1. Applicant Certification

I certify that I am familiar with the requirements of *Regulation 22 - Site Location and Design Regulations for Domestic Wastewater Treatment Works*. An engineering report, as described and required by the regulations, has been prepared and is enclosed.

Applicant Legal Representative			
Position/Title Facilities Director	Typed Name Greg Land	Signature	Date
Email gregland@peyton.k12.co.us		Phone 719-749-2330 x213	

The system legal representative is the legally responsible agent and decision-making authority (e.g. mayor, president of a board, public works director, owner). The Design Engineer is not the legal representative and cannot sign this form.

2. Recommendation of Review Agencies

As required in Section 22.7(2) and referencing the procedures specified in Section 22.6(2), the application and the engineering report must be submitted to all appropriate local governments, local health authority, 208 designated planning and management agencies and other state or federal agencies for review and comment prior to submittal to the Division. By signing below, the review agency: 1) acknowledges receipt of the proposed site location application, 2) has reviewed the proposed application and may elect to provide comments, and 3) has provided a recommendation concerning the application to the Division. The recommendation should be based on the factors outlined in Section 22.6(2); for example, on the consistency of the proposed site location application with the local comprehensive plan(s) as they relate to water quality and the approved regional water quality management plan(s). *Please note: Review agencies are encouraged to provide project comments; however, if a review agency does not recommend approval then the agency must attach a letter describing the reason for their decision or comment on the next page.*

Signature of designated Management Agency (i.e., Water Quality Authority, Watershed Association, Watershed Authority)					
Agency	Typed Name	Signature		Date	
Email		Phone	Recommend Approval?	*Yes* ☐ *No* ☐	
Signature of County, if the site is located in unincorporated areas of a county					
County El Paso	Typed Name	Signature		Date	
Email		Phone	Recommend Approval?	*Yes* ☐ *No* ☐	
Signature of City or Town, if the site is located within a City/Town boundary or within three miles of the City/Town boundary (if multiple, attach additional sheets as needed)					
City/Town	Typed Name	Signature		Date	
Email		Phone	Recommend Approval?	*Yes* ☐ *No* ☐	

Signature of Local Health Authority					
Agency	Typed Name	Signature		Date	
Email		Phone	Recommend Approval?	*Yes*	☐
				No	☐
Signature of 208 Designated Planning Agency					
Agency Pikes Peak Area Council of Governments (PPACG)	Typed Name Angie Martell	Signature		Date	
Email amartell@ppacg.org		Phone 719-471-7080 x116	Recommend Approval?	*Yes*	☐
				No	☐
Signature of other State or Federal Agencies, if treatment works is located on or adjacent to a site that is owned or managed by a federal or state agency.					
Agency	Typed Name	Signature		Date	
Email		Phone	Recommend Approval?	*Yes*	☐
				No	☐
Signature of other undesignated Basin Water Quality Authority, Watershed Association, Watershed Authority, etc.					
Agency	Typed Name	Signature		Date	
Email		Phone	Recommend Approval?	*Yes*	☐
				No	☐

Review Agency Comments:

Regulation 22, Section 22.7-Increaseing Or Decreasing The Design Capacity of an Existing WWTP

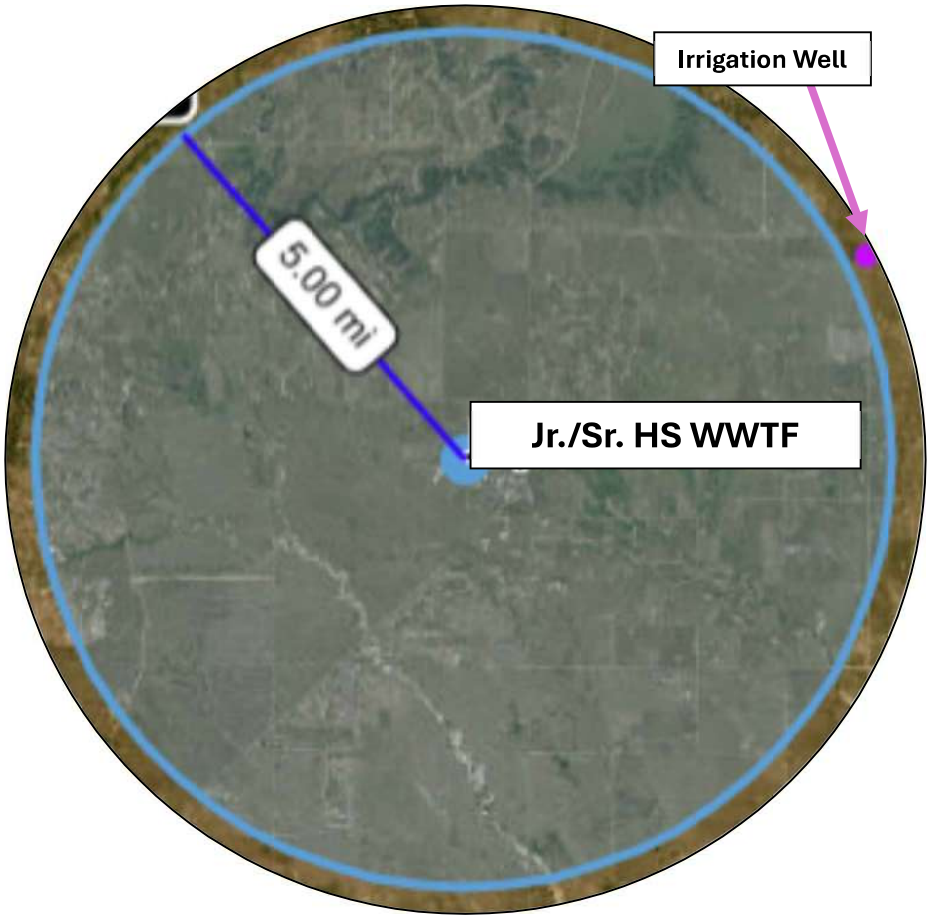
Peyton School District

ATTACHMENT A – VICINITY MAPS

5-Mile Radius Map: all treatment plant, lift stations and domestic water supply intakes

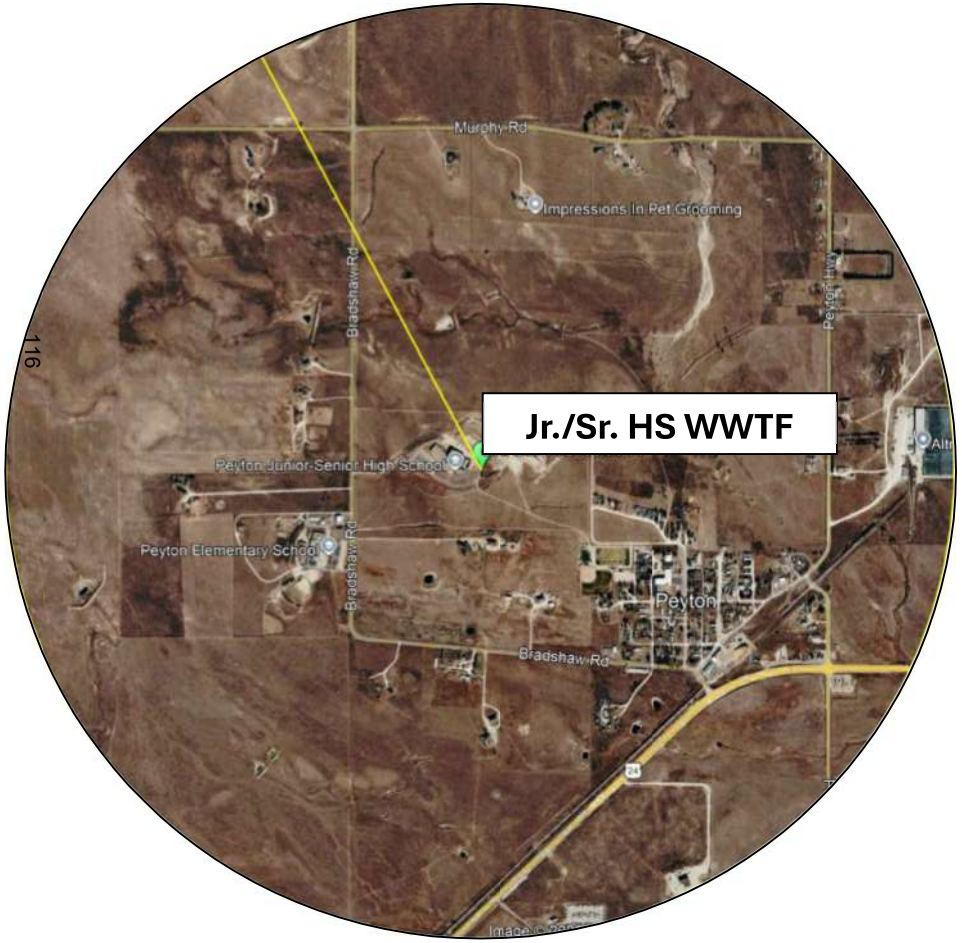
- No wastewater treatment plants
- No lift stations
- No domestic water supply intakes

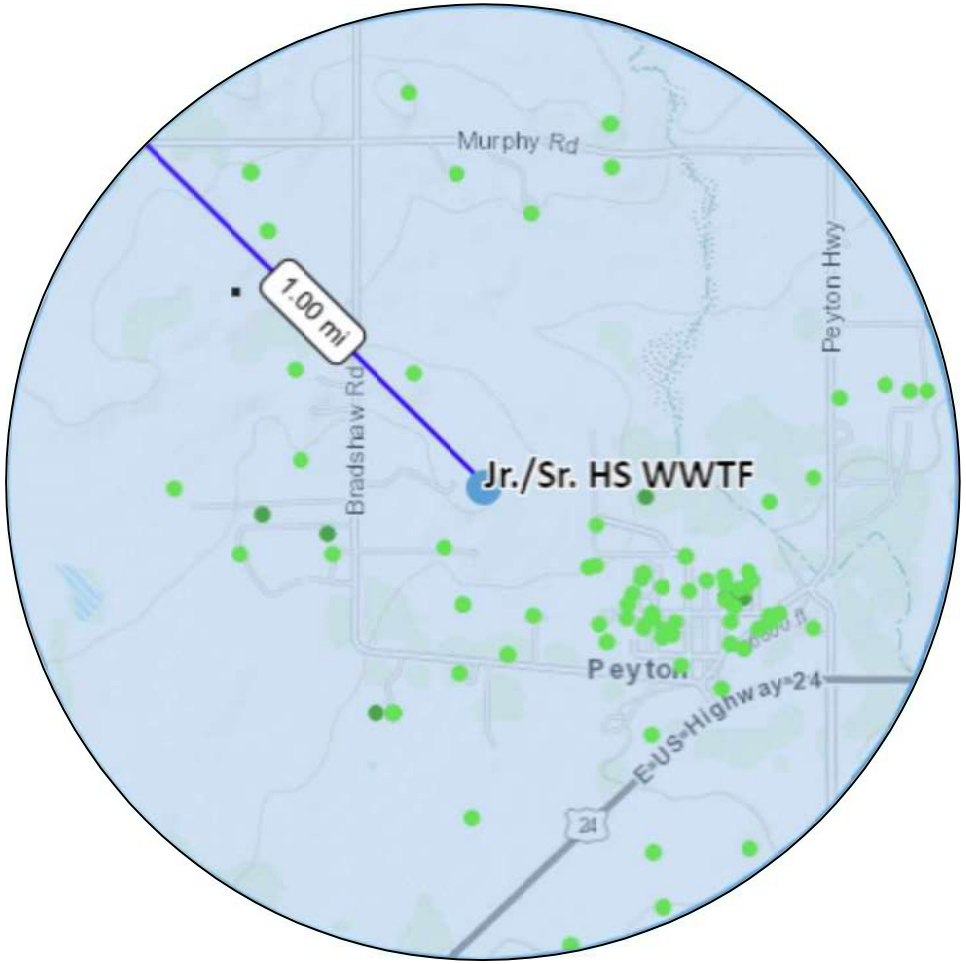




1-Mile Radius Map: habitable buildings, location of public and private potable water wells, approximate indication of topography, and neighboring land uses

- Habitable buildings shown
- Location of wells shown. Light green dots are constructed wells, and dark green dots are wells with permits issued.
- Indication of topography shown
- Land use is primarily agricultural and residential with some institutional (schools)






1.00 mi
Jr./Sr. HS WWTF
PEYTON SCHOOL DIST #23JT
Peyton
MURPHY
Cem
6834
6900
6770

Regulation 22, Section 22.7-Increaseing Or Decreasing The Design Capacity of an Existing WWTP

Peyton School District

ATTACHMENT B – Project Orientation PowerPoint

Project Overview
Peyton Jr/Sr High School
Wastewater Treatment System

Brief Project Orientation for Permit Review Agencies

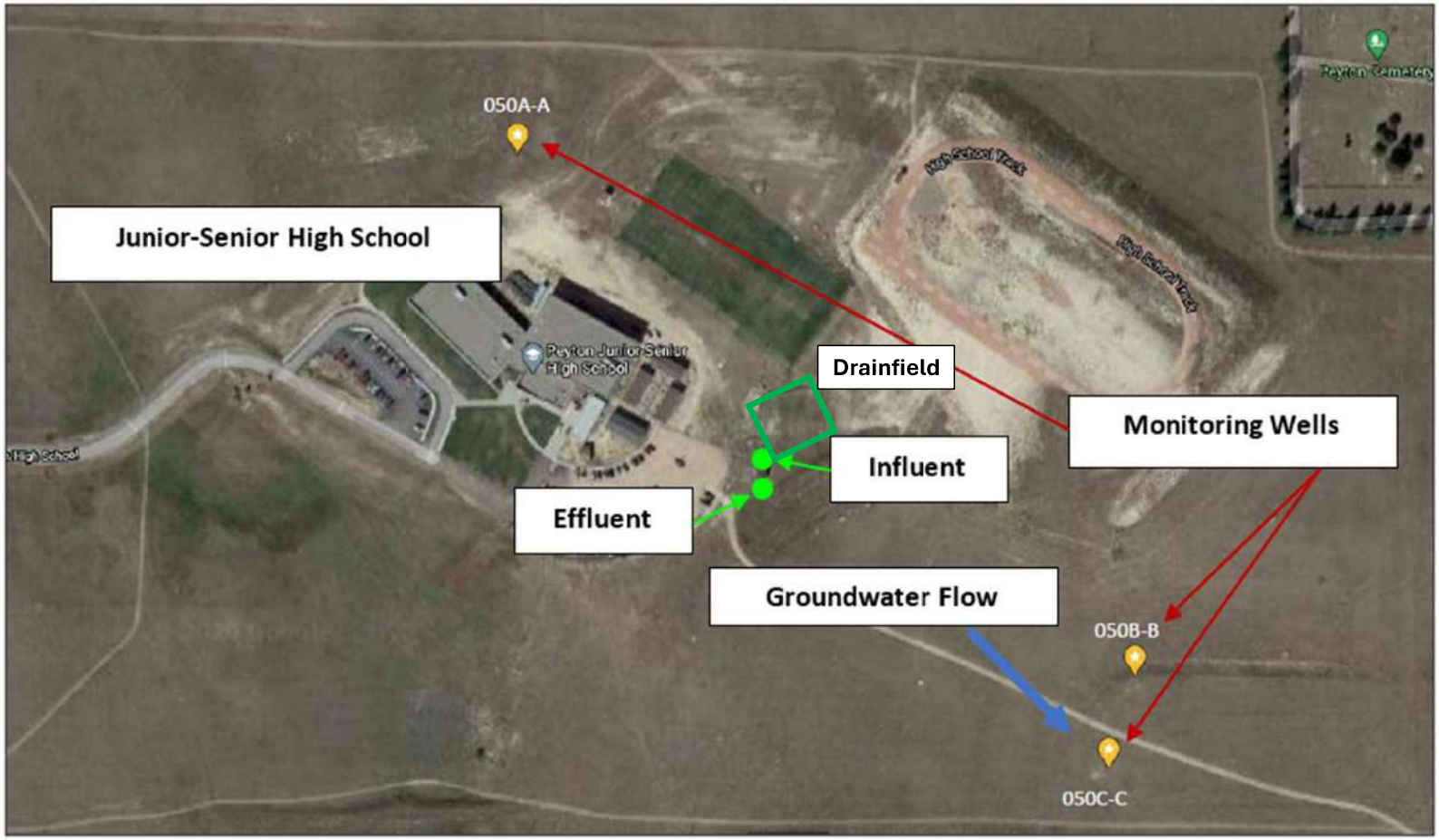
Permit Application Summary

Section 22.7 Increasing or Decreasing the Design Capacity of an Existing WWTP

- **Current System:** Regulation 22 (CDPHE) – Site Location and Design Regulations for Domestic Wastewater Treatment Works
- **Proposed System:** Regulation 43 (delegated to El Paso County) – Onsite Wastewater Treatment System Regulation

The existing wastewater treatment system is oversized for current flows and has experienced ongoing maintenance issues that create operational challenges. To improve reliability, reduce operational complexity, and better align treatment capacity with actual demand, the proposed solve is to replace the current system with a new, appropriately sized package treatment plant. The permit will transition from Reg 22 to Reg 43 with permitting through El Paso County Environmental Health.

Jr/Sr High School Wastewater Treatment System



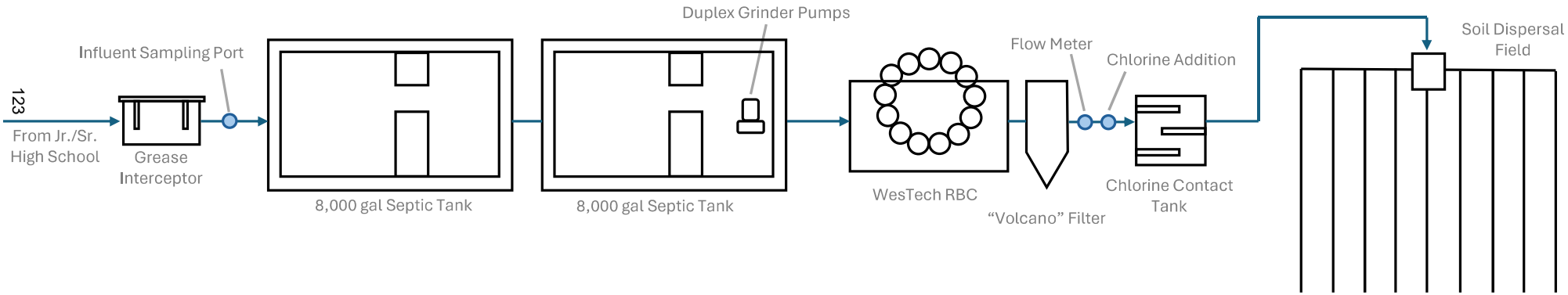
Jr/Sr High School Wastewater Treatment System





Jr/Sr High School Wastewater Treatment System Process Schematic

Existing System: 8,750 gpd design flow



Reason for WWTP Modifications: Aging Equipment

Existing Junior-Senior High School wastewater treatment system is difficult and costly to operate.

- **Aging Equipment:** The system was purchased used and is now more than 20 years old. The equipment must be replaced due to increasingly common mechanical failures, *most recently leading to emergency pump-and-haul operations*
  - WesTech rotating biological contactor (RBC) is outdated and specialized. Replacement parts no longer readily available though standard suppliers
  - Volcano sand filter requires frequent backwashing and ongoing mechanical attention, placing substantial burden on staff and skewing water usage estimates due to water used for backwashing

124

Aging Equipment: Rust-damaged tank walls







Aging Equipment: Rusted RBC drive motor





Portion of makeshift additional pump and piping required to accommodate failing system

Reason for WWTP Modifications: Design Capacity

Existing Junior-Senior High School wastewater treatment system is difficult and costly to operate.

- **Design Capacity:** System currently holds CDPHE Reg 22 permit based on design flow of existing second-hand WWTP. Based on operational data, system has average daily flow of 1,100-1,300 gpd *(below 2,000 gpd Regulation 22 threshold)*. Flow data falls well within Reg 43 requirements and El Paso County Environmental Health regulations.
  - Student population has remained consistent or decreased slightly over 10 years of data
  - Oversizing the system has caused operational challenges
  - Oversizing the redesigned system can lead to inflated capital costs and operation costs such as need to add carbon to the system for operations, operator certification requirements and monitoring requirements

Design Capacity: Effluent Flow Meter Data

2024 Effluent Flow Meter Data			
	All Days (gpd)	In-School Weeks (gpd)	School Days (gpd)
Average	1093	1261	1452
75th Percentile	1329	1630	1938
Days with flow between 2,000 - 3,000 gpd	27	27	24
Days with flow between 3,000 - 4,000 gpd	8	8	5
Days with flow between 4,000 - 5,000 gpd	2	2	2
Days with flow between 5,000 - 6,000 gpd	1	1	1
Days with flow greater than 6,000 gpd	1	1	1

Note: Days with flows exceeding 2,000 gallons are not correlated to days with extra-curricular activities or other crowded events. Facilities staff must conduct significant backwashing of the Volcano sand filter in the existing system, which runs at 10 gallons per minute. There have been times when the backwashing is left to run through the night. Staff believe the high flow days are associated with these backwashing events. Flow monitoring will be considered for any new system.

Design Capacity: Pump-and-Haul Data

- **Wastewater treatment system was offline 11/7/25 -12/17/25 due to operational issues with the system (19 school days)**
  - Total wastewater pumped and hauled: 19,400 gal
    - Note: approximately 2,700 gal is attributable to maintenance and testing activities of the system, but was not removed from this analysis
  - Wastewater hauling occurred over 19 full school days
    - **Average wastewater flow rate of 1,021 gpd per school day**
  - Activities during this time frame also included:
    - 4 school banquets, 7 home athletic events, 1 music and art performance event, 1 movie night, 1 overnight girls basketball lock-in, 1 all-day regional basketball tournament
  - Data supports that system operates at flows substantially below original design capacity. Justifies evaluating treatment alternatives based on flows less than 2,000 gpd

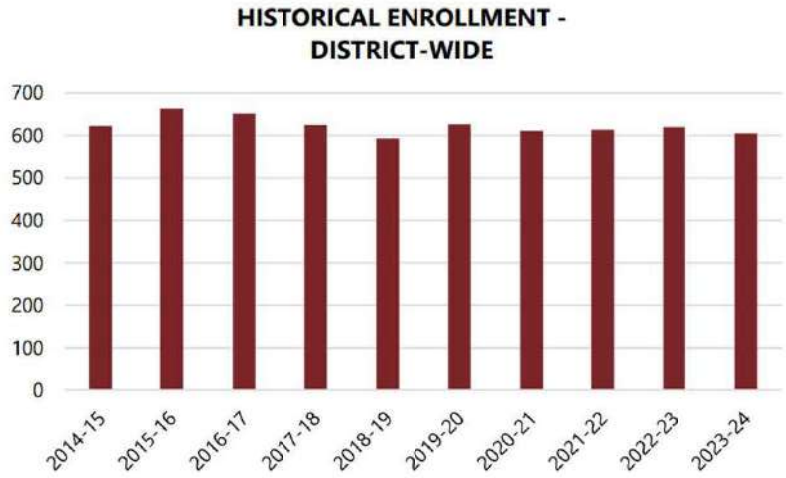
Design Capacity: Population Trends

- Jr/Sr High School Student enrollment
  - 2024-2025 school year: 307 students
  - 2025-2026 school year: 280 students
- Historically, enrollment between the elementary school and Jr/Sr High Schools has remained approximately 600 students for the past 10 years

2000, 2010, and 2020 population in the Peyton School District boundary area.

Population		Under 5 years	5 to 19 years	20 to 64 years	65 years and over	Total Population	Median Age
Peyton School District Boundary	2000**	-	-	-	-	-	-
	2010	207	974	2,463	390	4,034	42.3
	2020	165	984	2,503	712	4,280	46.3
	Trend						
El Paso County	2000	1,266	5,261	12,150	1,195	19,872	37.2
	2010	1,157	5,242	14,494	2,193	23,086	43.8
	2020	1,194	5,658	15,153	4,640	26,062	46.3
	Trend						
Peyton (Census Designated Place)	2000**	-	-	-	-	-	-
	2010	18	79	137	16	250	31.7
	2020	8	42	136	31	214	46.3
	Trend						

*Source: U.S. Census (**data not available)*

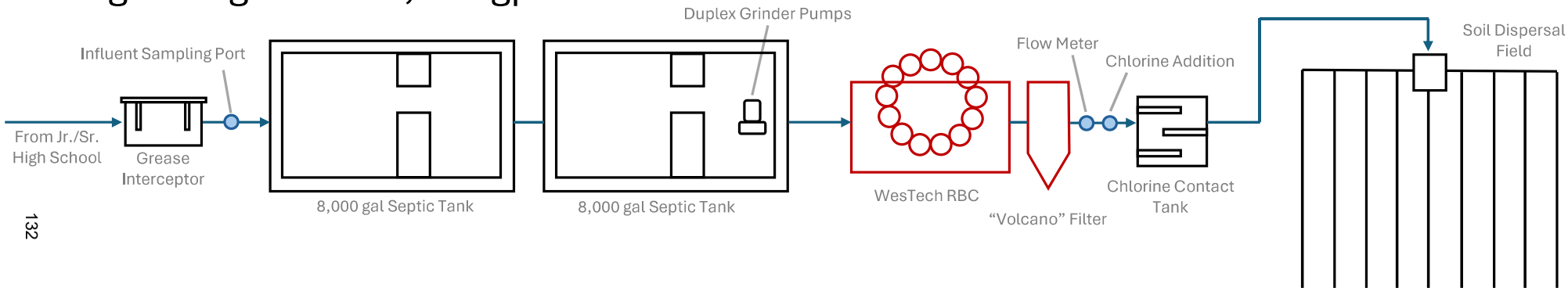


Proposed Solve: Right-Sized Onsite Treatment System

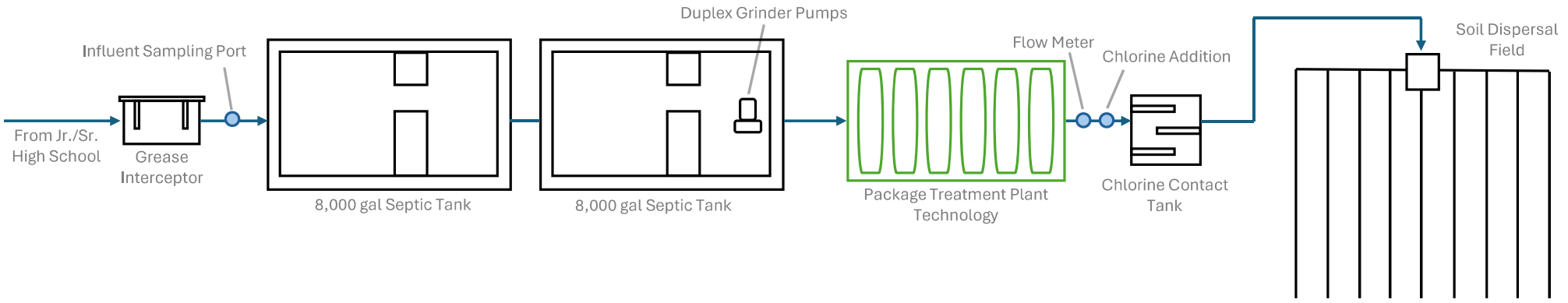
- Derate WWTP to meet requirements of El Paso County Environmental Health Regulations as opposed to current Reg 22 permit
- Replace failing RBC and Sand Filter with new package WWTP designed for 1,990 gpd average daily flows, which more closely matches operational average daily flows of Jr/Sr High School
  - Reuse existing septic tank and drainfield after verifying condition

Proposed Solve: Right-Sized Onsite Treatment System Process Schematic

Existing: Designed for 8,750 gpd



Proposed: Designed for 1,990 gpd



Next Steps

- Recommended alternative to derate the wastewater system to less than 2,000 gpd. This recommendation has been vetted with:
  - Peyton School Board
  - CDPHE
  - El Paso County Environmental Health
- Peyton School District has applied to the state's BEST grant for funding to complete new wastewater system. They expect to hear a decision in June.
- Submitted derating permit application to CDPHE, El Paso County and PPACOG
- RFP and Selection of Design Engineer and Construction Contractor
- Permitting, Design and Construction of new package WWTP

Closing America's Wastewater Access Gap Initiative

- This pre-design engineering work was funded through EPA's Closing America's Wastewater Access Gap Initiative
- The initiative is aimed at helping small, rural, and tribal communities address failing decentralized wastewater infrastructure
- The initiative supports communities with resources needed to submit funding applications for improved infrastructure including Preliminary Engineering Reports, Financial Analysis or other assistance
- If you know of any communities that could use assistance of this type, please have them apply on EPA's website search on key words "Technical Assistance"

Regulation 22, Section 22.7-Increaseing Or Decreasing The Design Capacity of an Existing WWTP

Peyton School District

ATTACHMENT C – CDPHE & El Paso County Meeting Minutes 12/15/2025

Closing America's Wastewater Access Gap
Peyton School District
Monthly Meeting
December 15, 2025

Attendees

- Greg Land – Facilities Director, Peyton School District
- Theresa Connor – Project Lead, ERG
- Andrea McFarland – Analyst, ERG
- Mark Gross – Technical Lead, MDB
- Kruttika Gopal –EPA HQ Lead
- Kat McGarvy – El Paso County
- Katie Hutcheson – El Paso County
- David Kurz – CDPHE
- Marty Quinn – CDPHE

Project Updates

- Have met and discussed options with the School Board in detail.
- PSD planning on applying to BEST for funding of project.
- The working recommended alternative in the PER draft is based on permitting decision
    - If derating application is approved, implement smaller system
    - If derating application is not approved, pursue a larger treatment system with reclaimed water component
    - Is PSD able to document that the days of flow over 2,000 gpd are from a non-event day?
        - Confirmed, all days with flow exceeding 2,000 gpd are not correlated with any events going on in the school

Questions

- When should PSD contact Pike's Peak Area Council of Governments?
    - Submit to 208 agency at same time as site application. Update CDPHE on comments or concerns from Pikes Peak.
    - Reach out to Andy Martell PPACG asap to inform them of the project amartell@ppacg.org
- How can the existing wastewater treatment system transition to a smaller system?
    - The soil adsorption area is not approaching its design capacity
    - El Paso County recently permitted a wastewater treatment system for a shopping center. The system is an Orenco system with a control panel that allows for direct flow monitoring. With the right equipment, flow monitoring is easy to accommodate.
    - In El Paso County, they have a more robust O&M department that requires increased monitoring. The PSD system would have consistent oversight.
    - The student population last year was 307. The student population this year is 280
    - On 11/7, PSD had to shut down the wastewater treatment system for emergency repairs
        - 11,400 gal pumped since 11/7
    - No major changes were made at the to accommodate the offline treatment system. No porta-potties, no "paper days" in kitchen.

- If an employee backwashes the sand filter and leaves it on overnight, Greg now records those events. Backwash runs 10gal/min.
- Greg is not going to get the plant back up and running for today. The truck will pull 3800 to 4000 gallons today.
    - Pumping trends indicate less than 1000 gal/day usage
    - The 2024 Effluent Flow meter data does not strongly support derating, but this pump-and-haul discussion is adding support.
    - CDPHE acknowledges and appreciates the cost of a larger system would be a burden to the school district.
    - Would have to verify though flow monitoring that PSD is seeing less than 2000 gpd on a regular basis.
- PER and permitting application inclusions
    - Include pump-and-haul flow data and student population data
    - Submit full PER with permit application
    - If derating is approved, CDPHE will work with El Paso county like a baton pass.
        - Marty: Would be good to look at the maximum potential occupancy of the building and how that is controlled or if there is a way to control occupancy. Also PER should confirm that student population has decreased.
            - Greg: PSD is required to accept any student within the district boundaries. PSD accepts many out-of-district kids as well. If capacity becomes an issue, PSD has the option of no longer accepting students out of district. If they did that today, the student population would decrease significantly.
        - Flow monitoring will be required.

Regulation 22, Section 22.7-Increaseing Or Decreasing The Design Capacity of an Existing WWTP

Peyton School District

ATTACHMENT D – Peyton School District Preliminary Engineering Report

Closing America's Wastewater Access Gap Initiative

Preliminary Engineering Report

Peyton School District

February 2026



Prepared for:
Peyton School District
Peyton, El Paso County, Colorado

Submitted by:
Eastern Research Group, Inc.
2677 Prosperity Ave, Suite 450
Fairfax, VA 22031

This document was prepared with support from Eastern Research Group, Inc., under U.S. EPA contract number 68HERC23D0001.

The U.S. Environmental Protection Agency (EPA) and its employees do not endorse any products, services, or enterprises. Mention of trade names or commercial products in this document does not constitute an endorsement.

The technical material and data contained in this document was prepared by or under the supervision of Theresa A. Connor, Colorado Professional Engineer #53090, whose seal is affixed below:

Theresa Connor



_____

Theresa Connor, P.E., #53090

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Abbreviations

BOD	Biological Oxygen Demand
CDPHE	Colorado Department of Public Health and Environment
DMR	Discharge Monitoring Report
GPD	Gallons per Day
GPM	Gallons per Minute
IIJA	Infrastructure Investment and Jobs Act
MLSS	Mixed Liquor Suspended Solids
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
NPV	Net Present Value
O&M	Operation and Maintenance
PER	Preliminary Engineering Report
TN	Total Nitrogen
TSS	Total Suspended Solids

Executive Summary

Peyton School District operates a wastewater treatment system serving the junior-senior high school that is oversized relative to actual wastewater flows and is presenting increasing operational and maintenance challenges. Although the system is currently meeting applicable permit requirements, recent mechanical failures and reliance on temporary pump-and-haul operations highlight the risk of continued operation without system replacement. Flow monitoring data from calendar year 2024, supplemented by independent pump-and-haul data collected during a treatment system outage, indicate that average daily wastewater flows are consistently below 2,000 gallons per day (gpd) even under conservative assumptions and during periods of elevated school activity. In addition, student enrollment has remained stable or declined slightly over the past decade, and no growth in student population is anticipated.

This report was prepared to evaluate feasible alternatives for replacing the existing wastewater treatment system to ensure long-term reliability, regulatory compliance, operational sustainability, and minimized capital and operating costs. The evaluation considered existing system conditions, measured wastewater flows, student population trends, regulatory requirements, capital, operating, and life-cycle costs, and environmental considerations. Three alternatives were evaluated to address the existing system deficiencies:

- **Alternative 1: No Improvements – Continue Operating Existing System**
  While this alternative requires no immediate capital investment, it does not address the increasing risk of equipment failure, emergency response actions, or escalating operation and maintenance costs and was not considered a viable long-term solution.

- **Alternative 2: Right-Sized Onsite Treatment System**
  This alternative proposes replacing the existing treatment components with a new, appropriately sized package wastewater treatment system designed for average daily flows of less than 2,000 gpd. This alternative will align treatment capacity with demonstrated wastewater flows and reduce long-term capital and operating costs.

- **Alternative 3: Replacement Treatment System Meeting Current Permit**
  This alternative proposes replacing the existing system with a new treatment plant designed to meet existing Regulation 22 permit requirements. While technically feasible, this alternative results in higher capital and operating costs than Alternative 2 and does not provide additional water resource benefits.

    - **Alternative 3A: Replacement Treatment System with Reclaimed Water**
      This alternative proposes replacing the existing system with a new treatment plant and incorporating reclaimed water in accordance with Regulation 84. Reclaimed water would be used for irrigating the school athletic fields. This alternative involves higher capital and operational costs.

The evaluation recommends Alternative 2: Right-Sized Onsite Treatment System (Regulation 43). This alternative replaces failing treatment components with a modern package treatment system while utilizing the existing septic tanks and drainfield. Alternative 2 recommends regulatory oversight to match actual system usage, improves operational reliability, reduces capital and operating costs, and provides a long-term wastewater management solution for Peyton School District.

Project Planning

Location

Peyton, Colorado is an unincorporated town and census-designated place located in and governed by El Paso County, Colorado. The census-designated place is part of the Colorado Springs Metropolitan Statistical Area. Peyton is a rural community in the central-eastern part of Colorado with an area of 2.3 square miles. The community's students are served by Peyton School District.

Peyton School District is a small, rural district that covers approximately 122 square miles and serves primarily the north central part of El Paso County. The district operates three school buildings on three separate campuses: the elementary school on a 40-acre property (also shared by the district transportation building and bus lot), the junior-senior high school on a 77-acre property, and the vocational school on a 10-acre property. This project work focuses on the existing junior-senior high school property. The elementary school wastewater management will remain unchanged. The vocational school staff and students may merge with the existing junior-senior high school site in the far future, but this potential merge is not expected to impact student population as the students only travel to the vocational school for an hour or two for course work.

Figure 1 shows the location of Peyton School District within El Paso County, and the location of the junior-senior high school within Peyton School District.

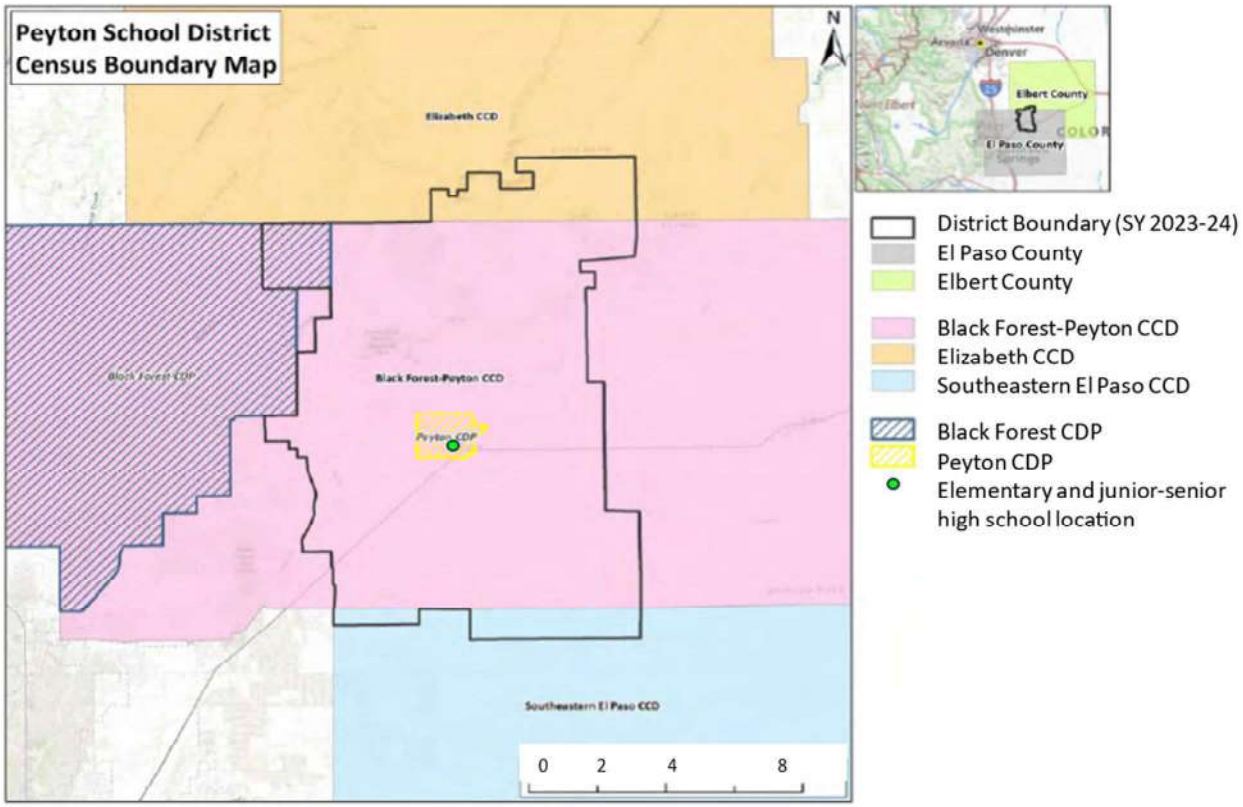


Figure 1. Peyton School District and the Census County Divisions (CCDs) and Census Designated Places (CDPs) it serves.

Source: Peyton School District Enrollment Projections Report

Approximately 280 students attend Peyton Junior-Senior High School. The junior-senior high school is located on a hill approximately 40 feet higher than the elementary school and athletic fields.

Figure 2 shows an aerial view of the project area.

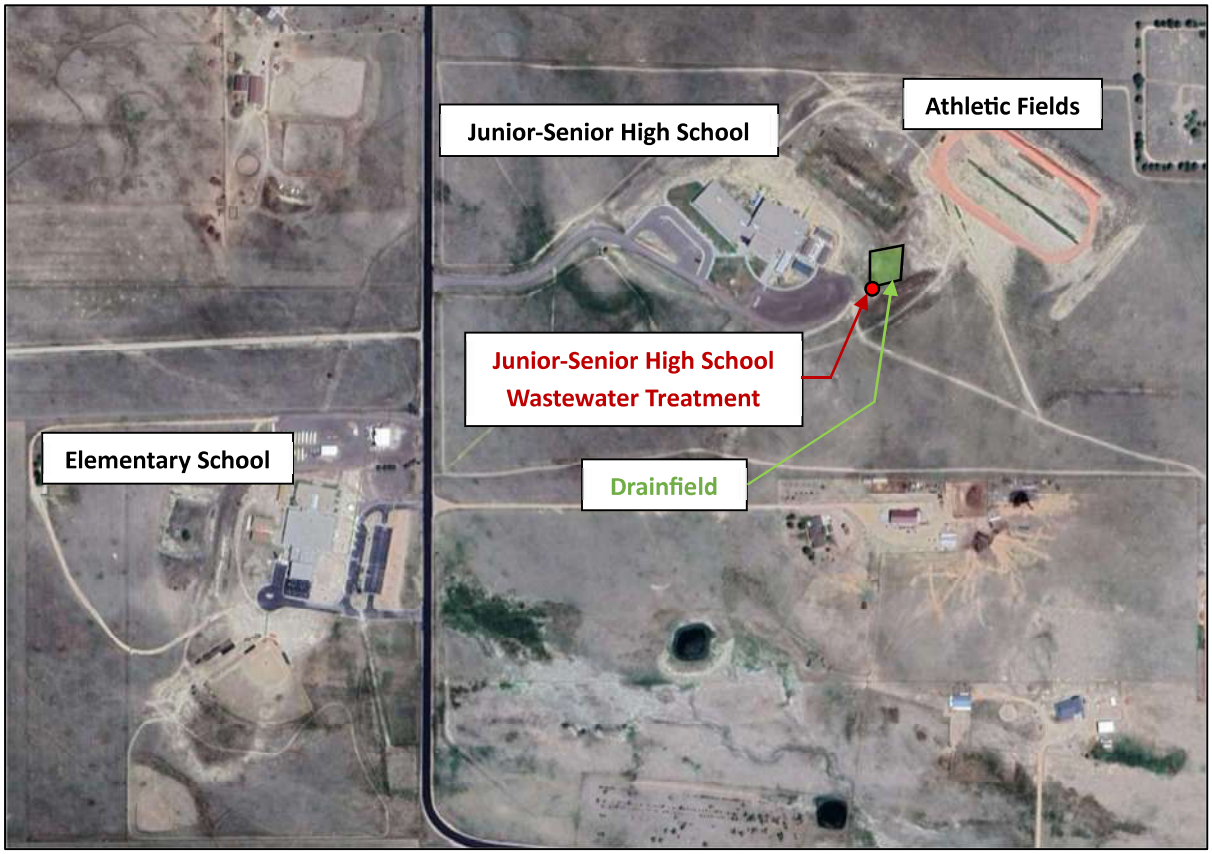


Figure 2. Elementary school and junior-senior high school location.

Source: Google Earth

The junior-senior high school is served by a pre-owned package treatment plant that was originally used on a hog farm. This system was designed as a secondary or tertiary treatment system in a continuous flow setting, not as a primary treatment system for the variable flow conditions of a school. This presents operational challenges, and substantial efforts are required to maintain the system, including fabricating custom parts due to failure. The proposed wastewater treatment system alternatives account for the intermittent flow conditions associated with a four-day school week and significantly reduced student population during summer break. The alternatives also account for the anticipated high organic loading rate associated with the lunch meal service the school offers.

Environmental Resources Present

Water Resources

The project area is in the Upper Bracket Creek subwatershed (HUC #110200040101) in the northernmost part of the Chico Creek watershed (State Waterbody ID COARMA04c_A). All lakes and reservoirs flow into 54-mile-long Chico Creek from an El Paso County source to the confluence with the

Arkansas River. From the most recent reporting year, 2024, the river has been listed as impaired. The "Aquatic Life" category has an "impaired" designation due to the presence of ammonia in the waterway. Evidence from reports in 2018, 2020 and 2022 all have the same "impaired" rating. Other metrics of "Agriculture" and "Recreation" have a rating of "good." The data source notes there is no specified plan in place to restore water quality. This waterway is 303(d) listed. Figure 3 shows a map of the watershed.

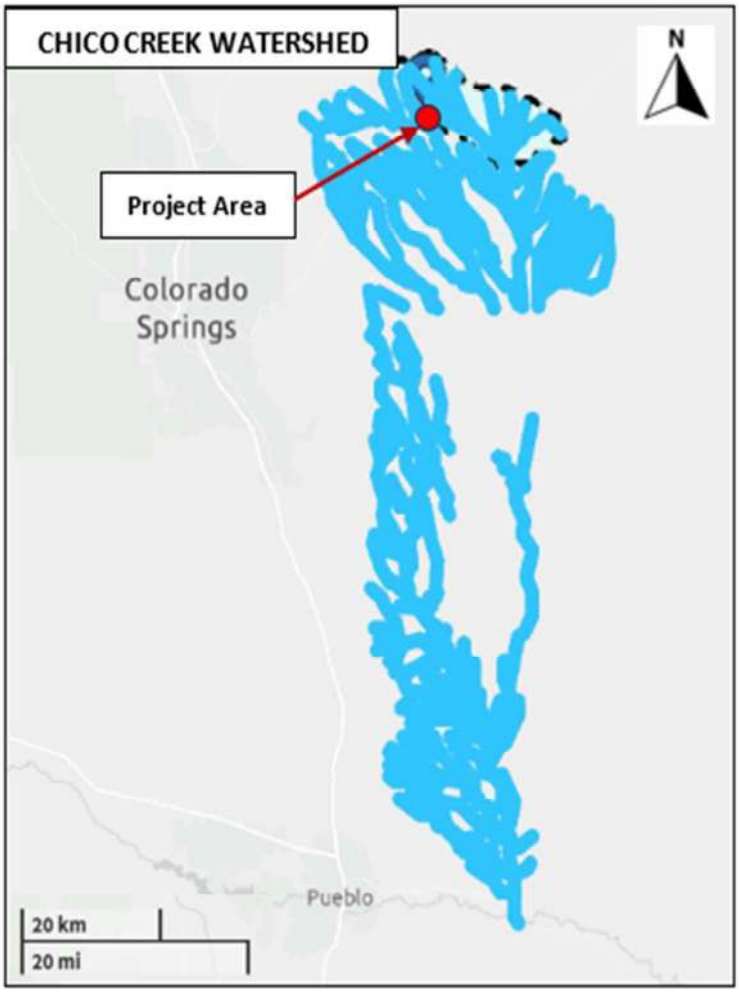


Figure 3. Peyton School District within the Chico Creek Watershed

Source: EPA How's My Waterway? Waterbody Report

The US Fish and Wildlife Service National Wetlands Inventory shows a 12.98-acre wetland area that is approximately 2,000 feet from the schools as shown in Figure 4 and Appendix A. This wetland is classified as R4SBA, meaning the wetland is a riverine system (R) with intermittent subsystem (4), streambed class (SB), and temporary flooded water regime (A). The *Survey of Critical Biological Resources of Pueblo County, Colorado*, published in 2003, presents information on wetlands, riparian areas, and plant and animal communities in both Pueblo and El Paso counties. There are no concerns of wetland interference or associated wetland conservation measures anticipated with this project work. Since any project would include replacement of existing equipment and there is no new or enlarged discharge, there should not be any environmental impact from a project. However, a wetland survey may be needed before construction commences to confirm sensitive wetland areas will not be disturbed by the project work.

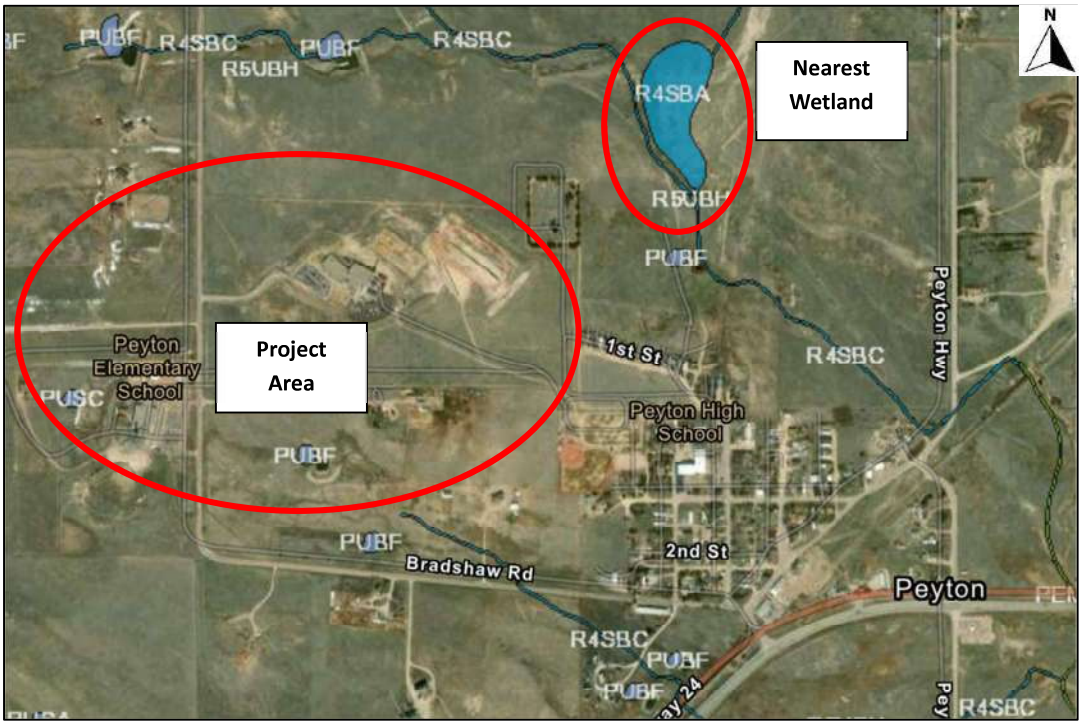


Figure 4. Peyton School District project area proximity to nearest wetland.

Source: US Fish and Wildlife Service National Wetlands Inventory

The Peyton Junior-Senior High School is served by a groundwater well that pumps drinking water to underground storage tanks with disinfection treatment. Individual wells also serve the Town of Peyton and its residents. Permitted groundwater well locations are shown in Figure 5. The Colorado Department of Natural Resources (DNR) keeps records of different well classifications and their operational status. The DNR database does not provide water quality data, but does provide location, well depth, permit number and status, and use type (household, domestic, irrigation, municipal). Data for local wells including their use, aquifer, well depth, and permit number is shown in Appendix B.

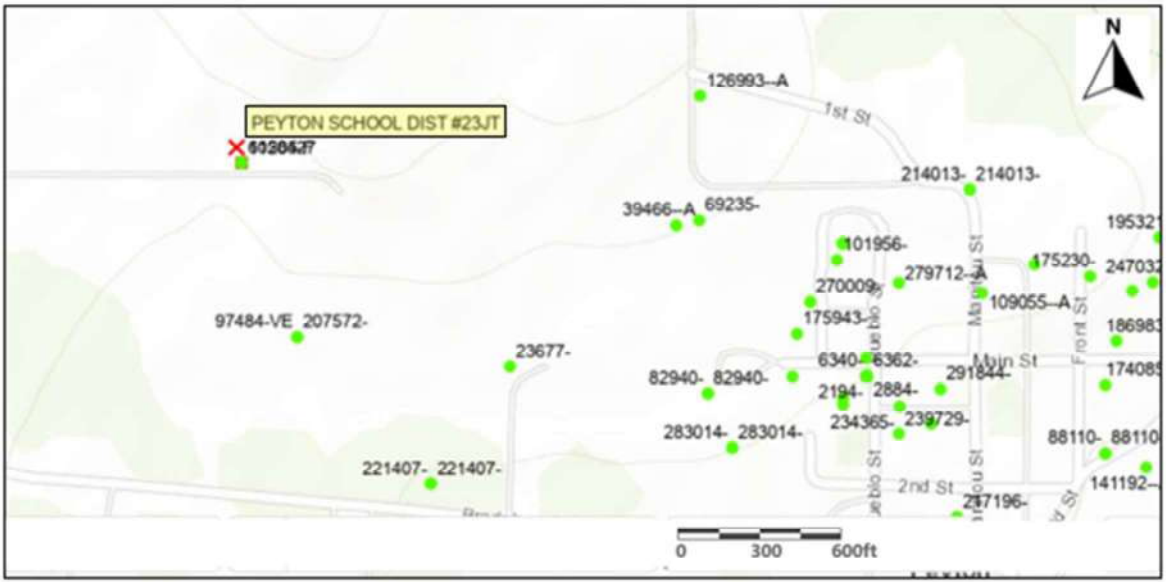


Figure 5. Permitted groundwater well locations near the project area.

Source: Colorado Division of Water Resources GIS & Maps

As a condition of the junior-senior high school's state discharge permit, COX634032, the school is required to sample and analyze one upgradient and two downgradient monitoring wells. The wells are sampled monthly and analyzed for total inorganic carbon, total dissolved solids, and static water elevation. Results of every discharge monitoring report (DMR) show that the wells have not had a violation at any time under the permit conditions. The permit also requires effluent sampling prior to discharge to the soil dispersal system. Five-day biochemical oxygen demand (BOD_5), Total Suspended Solids (TSS), pH, Oil and Grease, Chloride, Sulfate, and Total Coliform analyses are required monthly. The permit is shown in Appendix C. Recent monitoring well water quality data is shown in Appendix D.

Soil Conditions

The NRCS Web Soil Survey shows acceptable soil for onsite wastewater dispersal systems with loamy sand and sandy loam textures and no indication of shallow perched seasonal water. The Web Soil Survey Report is provided in Appendix E. During the site visit, the team conducted soil borings and confirmed sandy loam and loamy sand soil textures with no indicators of seasonal saturation to 48 inches below ground surface. Soil boring results are provided in Appendix F.

Population Trends

One alternative of this PER considers derating the junior-senior high school wastewater effluent permit for a flow of under 2,000 gpd. The process of derating the system according to guidance from the regulating agency, Colorado Department of Public Health and Environment (CDPHE), is dependent on the student population trend within the Peyton School District boundary.

Between the 2010 census data and 2020 census data, the total population increased within the Peyton School District boundary, but decreased or remained nearly constant within the student-aged population. Populations from 2000, 2010, and 2020 are shown in Table 1.

Using the most recent data available, junior-senior high school student enrollment during the 2024-2025 school year was 307 students. During the 2025-2026 school year, student enrollment decreased to 280 students. Historically, enrollment between the elementary school and junior-senior high schools has remained approximately 600 students for the past 10 years as shown in Figure 6.

Table 1. 2000, 2010, and 2020 population in the Peyton School District boundary area.

Population		Under 5 years	5 to 19 years	20 to 64 years	65 years and over	Total Population	Median Age
Peyton School District Boundary	2000**	-	-	-	-	-	-
	2010	207	974	2,463	390	4,034	42.3
	2020	165	984	2,503	712	4,280	46.3
	Trend						
El Paso County	2000	1,266	5,261	12,150	1,195	19,872	37.2
	2010	1,157	5,242	14,494	2,193	23,086	43.8
	2020	1,194	5,658	15,153	4,640	26,062	46.3
	Trend						
Peyton (Census Designated Place)	2000**	-	-	-	-	-	-
	2010	18	79	137	16	250	31.7
	2020	8	42	136	31	214	46.3
	Trend						

*Source: U.S. Census (**data not available)*

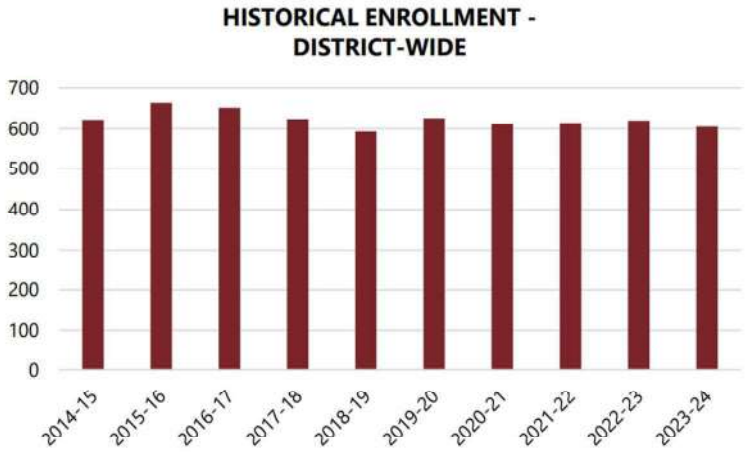


Figure 6. Peyton School District enrollment data from 2014 through 2024.

Source: Woolpert Peyton School District Enrollment Projections Report

A new subdivision within the existing boundary of Peyton School District, west of the school, is being discussed. Greg Land, the current Director of Facilities for Peyton School District, does not predict that the existing junior-senior high school's population will be impacted if the subdivision gets constructed due to the location of the subdivision between Colorado Springs and Peyton. He assumes students will attend schools in the direction of Colorado Springs rather than Peyton School District.

Community Engagement

Peyton School District recognizes that effective community engagement is necessary for the success of a wastewater system improvement project. The district is committed to involving key stakeholders throughout the project planning and development process. Primary objectives include:

- Educating stakeholders on existing conditions of wastewater systems within the school district.
- Building a shared understanding of health, environmental, operational, and financial risks associated with a no-action alternative.
- Communicating benefits of upgrading to a more efficient system that is specifically designed to meet wastewater treatment requirements and sized for the student population.
- Providing transparency regarding financial implications of the project, including potential funding sources, grants (e.g., from state or federal sources), and the use of district capital reserves or financing strategies.

To achieve these objectives, the following engagement strategies are proposed:

School Board Presentations and Approvals. The Facilities Director has regular updates with the Peyton School Board during public and private sessions, which include providing detailed information about system deficiencies and proposed solutions. Board meetings offer a transparent forum for questions, feedback, and decision-making.

Coordination with Local Agencies and Health Departments. Engagement with local public health officials and regulatory agencies will be maintained to ensure compliance and to help communicate public health considerations clearly to the school community.

Student Engagement. As an educational opportunity, the district may incorporate components of the project into classroom curriculum or school science projects, helping students understand sustainability, engineering, and water systems. Student engagement is not only beneficial from a learning perspective, but is also a funding requirement for some grant opportunities.

Existing Facilities

Location Map

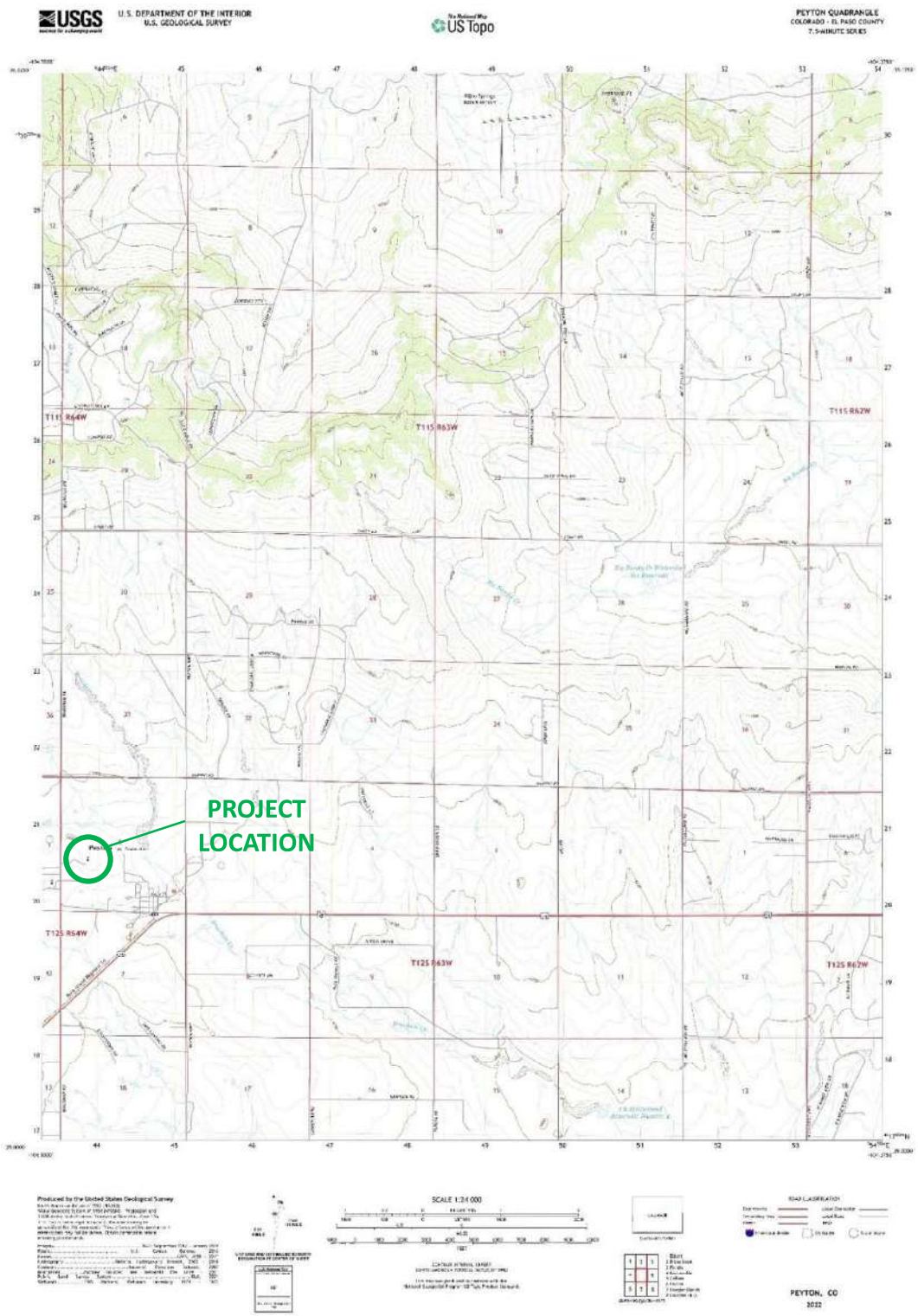


Figure 7. USGS project site location map.

History

Figure 7 shows the USGS project site location. The junior-senior high school wastewater treatment and dispersal system is permitted under CDPHE permit COX634032, last renewed in 2023. This permit is included in Appendix C. The treatment system is permitted for 8,750 gpd and requires sampling and analyzing wastewater from the following five locations shown in Figure 8:

- Influent
- Effluent, following the sand filter and prior to flow into the chlorine contact tank
- Groundwater from two (2) downgradient and one (1) upgradient monitoring wells

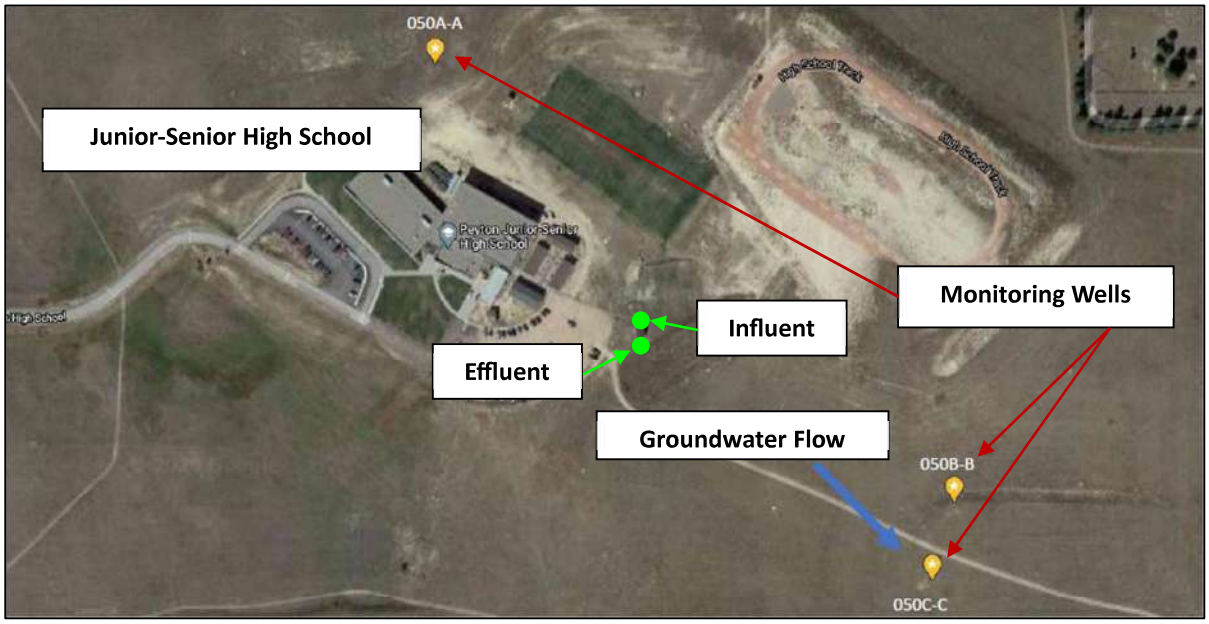


Figure 8. Junior-senior high school permit sample locations, including the three monitoring wells.

The junior-senior high school wastewater treatment process is as follows: wastewater flows from the junior-senior high school into an anaerobic/solids holding tank. It then flows to an anoxic/equalization tank and is pumped to a STM-Aerator biological nutrient removal system rotating biological contactor (RBC) with mixed liquor suspended solids (MLSS) overflowing to the final clarifier. Effluent flows through a "Volcano" sand filter and out through the effluent flow meter to a chlorine contact chamber and finally to the drainfield. A process schematic is shown below in Figure 9.

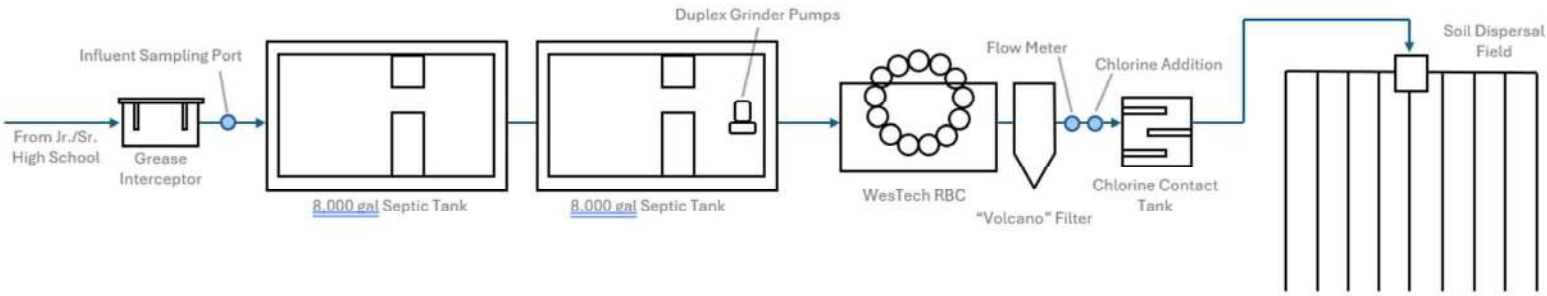


Figure 9. Process schematic for junior-senior high school wastewater treatment system.

Condition of Existing Facilities

This Preliminary Engineering Report (PER) evaluates the condition of the existing treatment facilities serving the junior-senior high school wastewater system. This PER focuses on the secondary treatment facilities, specifically the rotating biological contactor and the sand filter. The secondary treatment system has exceeded its anticipated useful service life, and its continued operation has resulted in recurring mechanical failures, increased maintenance demands, and growing operational risk. The septic tanks were constructed in the early 2000s and seem to be functioning well. They are pumped out every two years. They will continue to be used in a future design. Funding for inspection of recoating of the interior of the tanks has been included in all cost scenarios. The drainfield was also constructed in 2004 and appears to be functioning well. Soil testing of the drainfield will be needed for future permitting of the system.

The WesTech RBC is an outdated and specialized unit for which replacement parts are no longer readily available through standard suppliers. As a result, failed components must often be custom-fabricated, increasing both repair costs and system downtime. The age of the unit, combined with limited manufacturer support, presents a significant long-term reliability concern and increases the likelihood of future unplanned outages. The Volcano sand filter also requires a high level of operator involvement to remain functional. The unit necessitates frequent backwashing and ongoing mechanical attention, placing a substantial burden on operations and maintenance staff. These maintenance requirements are not consistent with modern treatment standards for small systems and further contribute to operational inefficiency and risk of failure.

While the secondary treatment system is currently operational, its condition has already resulted in a recent extended outage. In November 2025, the RBC unit was taken offline due to a failed axle shaft and bearing. To restore operations, the operations and maintenance team fabricated a temporary solution, including 3D-printing a custom bearing and installing stainless steel sleeves to repair the ends of the axle shaft. During the repair period, wastewater flows were temporarily pumped and trucked offsite from November 7 through December 17, 2025, to maintain compliance and continuity of service.

The significant effort required to keep the existing secondary treatment facilities operational, combined with their advanced age and recent failures, indicates that the system is at risk of total failure. These conditions underscore the need for evaluation of replacement or upgrade alternatives to ensure long-term reliability, regulatory compliance, and sustainable operation of the treatment system.

The following photos show an aerial shot of the wastewater treatment plant building and drainfield as well as a selection of condition concerns of the existing system:

Photo 1: High school, wastewater treatment plant building, and drainfield.



Photo 2: Rust-damaged clarifying tank walls.

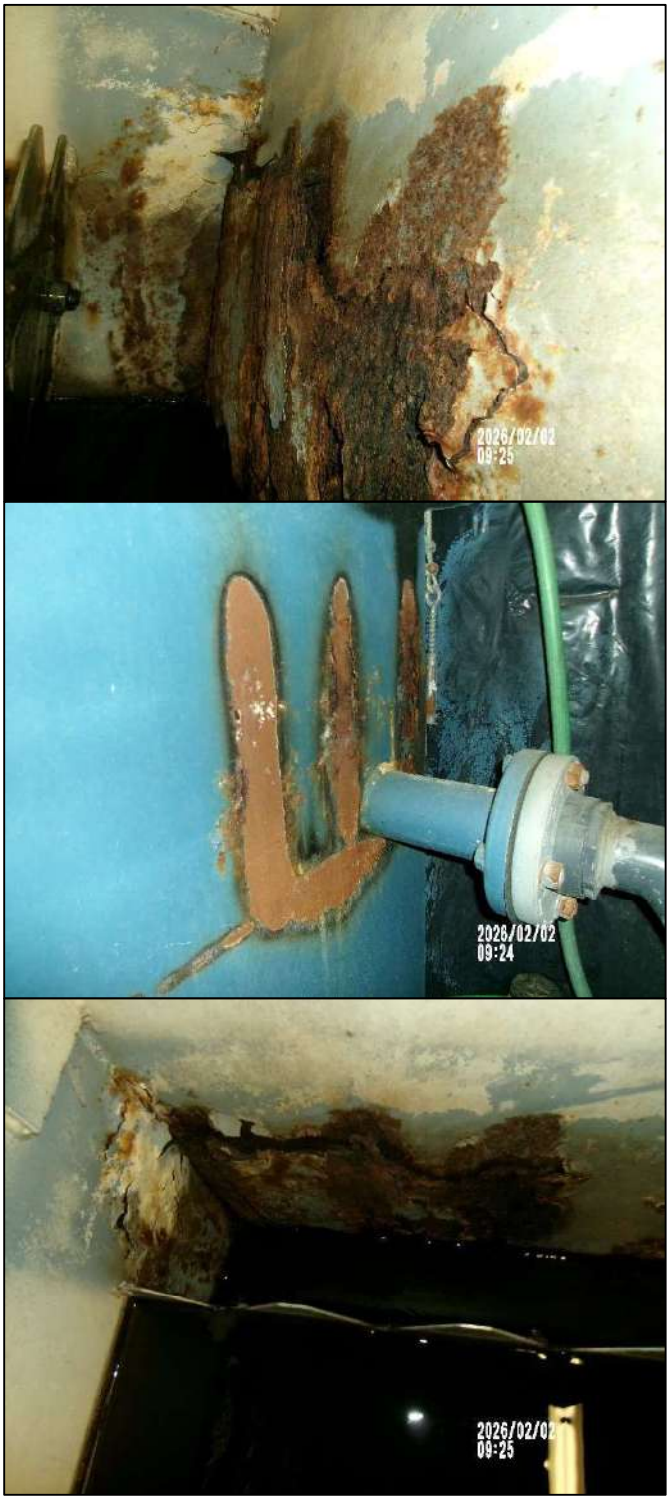


Photo 3: Rusted RBC drive motor cog and chain



Photo 4: RBC tank corrosion



Photo 5: Portion of makeshift additional pump and piping required to accommodate failing system



Photo 6: Corroded rails of grinder pumps and valves



Flow Analysis

2024-2025 Academic Year Flow Data Analysis

The evaluation and sizing of recommended alternatives were based on measured flow data from the existing treatment facility. The junior-senior high school wastewater treatment plant was originally designed for an average daily flow of 8,750 gpd; however, observed flows are substantially lower than

the original design capacity. To establish an appropriate design flow for system upgrades and to inform potential permit derating considerations, multiple flow scenarios were evaluated using 2024 effluent meter data.

Three average daily flow conditions were analyzed:

- **All Days:** the total metered effluent wastewater flow for all the 2024 monitoring period divided by 365 days.
- **In-School Weeks:** total metered effluent wastewater flow that occurred during the district's school year (excluding summer break) divided by the number of school-year calendar days.
- **School Days:** the total metered effluent wastewater flow for days when students were physically in the buildings (excluding weekends and district-observed holidays) divided by the number of in-session weekdays in 2024.

Evaluation of flows during School Days provides the most conservative and representative estimate of wastewater generation for this facility, as these days reflect full occupancy and normal operational conditions. This approach also provides a conservative basis for evaluating system capacity needs and potential derating of the permitted flow under Regulation 43.

Table 2 shows a summary of the flow data used in this analysis. Average daily flows ranged from approximately 1,093 gpd (All Days) to 1,452 gpd (School Days). The 75th percentile School Day flow was 1,938 gpd, remaining below the 2,000 gpd threshold. While isolated higher-flow days occurred, the frequency and magnitude of these events were limited and did not represent sustained operating conditions.

It is important to note that effluent flow data includes wastewater associated with frequent backwashing of the existing Volcano sand filter. To backwash, potable water is injected into the sand from the top and bottom of the filter. Then, compressed air is injected into the bottom of the filter. Due to the mechanical nature of this operation, staff report accidentally leaving the valve on overnight and over weekends. Data shows that an accidental 24-hour backwashing incident adds approximately 15,000 gpd of flow to the system. The high flow days were compared to events at the school such as sports tournaments or other extra-curricular activities and there was no correlation. The days of high flow are rather random. Although they track these events now, at the time, staff did not track days they left the potable water valve on overnight for backwashing. It is a reasonable explanation for high flows. As a result, recorded effluent flows overstate actual sanitary wastewater generation. Additionally, comparison with available influent water supply data indicates that effluent flows were generally 10 to 15 percent greater than water usage, which is not possible and a faulty effluent flow meter is the suspected culprit. These support the conclusion that measured effluent flows represent a conservative estimate of true sanitary demand. Improved monitoring and reconciliation of water use and wastewater flows is recommended as part of future improvements.

Table 2. 2024 effluent flow meter data with average flow for the full year (All Days), average flow for the school year (In-School Weeks) and average flow for days with students (School Days)

2024 Effluent Flow Meter Data			
	All Days (gpd)	In-School Weeks (gpd)	School Days (gpd)
Average	1093	1261	1452
75th Percentile	1329	1630	1938
Days with flow between 2,000 - 3,000 gpd	27	27	24
Days with flow between 3,000 - 4,000 gpd	8	8	5
Days with flow between 4,000 - 5,000 gpd	2	2	2
Days with flow between 5,000 - 6,000 gpd	1	1	1
Days with flow greater than 6,000 gpd	1	1	1

Pump-and-Haul Flow Data Analysis

Supplemental flow data was collected during a period when the junior-senior high school wastewater treatment plant was temporarily offline due to a mechanical failure of the RBC unit. From November 7 through December 17, 2025, wastewater flows were pumped and hauled offsite while repairs were completed. This period provided an independent means of quantifying wastewater generation under active school conditions without reliance on the effluent flow meter.

During the pump-and-haul period, a total of 19,400 gallons of wastewater was removed from the system. Of this volume, approximately 2,700 gallons were attributable to maintenance and testing activities associated with the treatment system itself, including cleaning and operational testing conducted as part of the repair process. This maintenance flow was not excluded from our analysis but should be noted as an additional conservative measure.

Wastewater hauling occurred over 19 full school days, resulting in an average wastewater flow rate of approximately 1,021 gpd per school day considering a 4-day school week. This period coincided with a particularly active portion of the academic calendar and included numerous events that increased building occupancy beyond typical classroom use. Activities during this timeframe included:

- **4** school banquets
- **1** combined junior-senior high school music and art performance event
- **7** home athletic events, including basketball and wrestling
- **1** student council-sponsored movie night
- **1** overnight high school girls' basketball lock-in, followed by a scrimmage the following day
- **1** all-day regional basketball tournament, hosting multiple age groups from surrounding communities

In addition to these scheduled events, the period reflected elevated seasonal activity associated with the conclusion of fall sports and the start of winter athletic programs. Despite these increased

occupancy and usage conditions, the measured average daily wastewater flow remained well below 2,000 gpd.

The pump-and-haul data provide an independent verification of wastewater flows and confirm that even under conservative assumptions and during periods of heightened activity, the wastewater treatment system consistently operates at average daily flows well below 2,000 gpd. This dataset further supports the conclusion that the system operates at flows substantially below its original design capacity and provides additional technical justification for evaluating treatment alternatives and regulatory oversight based on flows of less than 2,000 gpd.

Financial Status of Existing Facilities

The junior-senior high school wastewater treatment facilities are owned and operated by the School District. The system is funded through the District's general operating budget, maintained by District staff, and operated by a contractual certified wastewater operator. The District currently has no outstanding debt associated with the wastewater treatment facilities, and no revenue bonds or other long-term financing instruments are in place for the system.

Routine operations and maintenance activities, including contract operations, minor repairs and component replacements, are funded through annual budget appropriations. Recent maintenance activities have included unplanned repairs to aging equipment necessary to maintain system operation.

No dedicated capital reserve has been established specifically for wastewater treatment system replacement or major upgrades. Major capital improvements would require additional funding beyond typical annual operations and maintenance expenditures.

Need for Project

Health, Sanitation, and Security

The existing wastewater treatment system at Peyton Junior-Senior High School is meeting permit limits but is difficult to operate, and corrosion of the structural components of the system pose a threat to ongoing operations. The existing system is underloaded, with an average daily flow of 1,100 to 1,300 gpd during the school year compared to a design flow of 8,750 gpd. Moreover, the system's age and origin as an agricultural treatment unit raise concerns about the long-term structural integrity and efficacy of the equipment. The variable flow conditions of three-day weekends and low summer loading rates make operations of the plant difficult. Additional carbon needs to be added to the system during the low flow periods, which increases operating costs.

The age of the plant and corrosive nature of wastewater treatment is impacting the structural condition of the tanks and system overall. It is unknown how long the system will continue to operate. Contingency measures for equipment failure should be developed in the event that the system has a catastrophic failure. These measures can include pumping of the septic tanks on a daily basis and/or

working through an emergency permitting process to allow the septic tank effluent to go directly to the drainfield while replacement equipment is put in place. Managing a treatment system in an emergency situation is always more expensive than proactively replacing the equipment. Peyton School District may want to create an emergency fund to handle the expenses in the event the current system does fail prior to being replaced.

Any failure to meet effluent quality standards — particularly for biological oxygen demand (BOD), total suspended solids (TSS), and total nitrogen (TN) — could trigger Notice of Violation (NOV) proceedings or require immediate corrective action under regulatory authority. The system's dependency on manual chemical addition to meet effluent parameters further reduces its operational resilience and sustainability.

Aging Infrastructure

The RBC and Volcano filter have exceeded their anticipated useful service life. The RBC, originally designed for continuous animal agricultural waste environments, is suffering from age-related wear leading to part failures, diminished treatment performance, and increased maintenance demands. Replacement parts are no longer readily available. In many cases, components must be custom-fabricated, resulting in long lead times, increased repair costs, and system downtime risks. The Volcano sand filter has also become increasingly maintenance-intensive. It requires frequent backwashing as well as the operators having to stir the media bed to disturb it enough for adequate flow. Several efforts have been made to contact the "Volcano" filter manufacturer, and there has been no response. Most likely, the manufacturer is no longer in business.

These aging components not only pose operational reliability concerns but also introduce compliance risks related to effluent quality. The degraded condition of the treatment infrastructure underscores the need for a long-term, sustainable solution to ensure reliable treatment and continued regulatory compliance.

Reasonable Growth

The student population has remained stable over the last ten years, and the school district does not anticipate growth of the student population in the near future. Student enrollment for the junior-senior high school during the 2024-2025 school year was 307 students. During the 2025-2026 school year, student enrollment decreased to 280 students. See the "Population Trends" section for more detail.

Alternatives Considered

Alternative 1: No Improvements – Continue Operating Existing System

Description

This alternative assumes continued use of the existing pre-owned package wastewater treatment system originally designed for a hog farm. No new source, conveyance, treatment, or storage infrastructure would be added. Table 3 shows the current operation and maintenance costs not considering emergency actions needed if the system fails.

Table 3. Alternative 1 Estimated Annual O&M Costs

ALTERNATIVE 1: NO IMPROVEMENTS	
O&M Category	**Annual Cost**
Contract Operations and Laboratory	$17,000
School Staff time	$10,000
Energy and water	$4,000
Chemicals	$2,000
Sludge/Solids Handling	$800
Short-lived asset maintenance/replacement[a]	$5,000
Total	**$38,800**

[a] See Appendix G for a list of short-lived assets.

The energy calculation was based on the average cost of electricity in Colorado (16.35 cents per kilowatt hour) considering the power consumption provided by WesTech for the RBC unit as well as the 5hp air compressor that runs approximately 12 hours per day.

This alternative is not an option because the problems caused by Peyton School District continuing to use the existing wastewater treatment system would inevitably result in system failure. System failure would either necessitate emergency septic tank pumping and hauling, or bypassing the septic tank effluent directly to the drainfield. Pumping and hauling would be a costly temporary solution for the school district until a permanent treatment system could be installed. Emergency bypassing to the drainfield could be an interim solution, but may impact the ability to meet state or local regulations.

System failure would lead to emergency construction costs, regulatory violations, and possible disruptions in the school schedule. Peyton School District would continue to expend significant O&M resources to maintain the existing system until inevitable failure.

The advantages and disadvantages of Alternative 1 are as follows:

Advantages

- No immediate capital outlay required.

Disadvantages

- Existing conditions of wastewater system increase the risk of failure that would potentially result in sewage overflow. This concern extends beyond flooded parking lots - staff report events of sewage nearly overflowing into the school shower and floor drains due to the system's existing condition. This would force a school shut down to perform remediation measures.
- The RBC tank is operating past its useful service life and requires imminent replacement.
- The sand filter requires frequent attention and maintenance, requiring regular backwashing and mechanical operator intervention to function properly.
- The condition of the sand filter requires a significant demand for additional pumping to recycle material back to the septic tank with the grinder pump so that flow can pass through the failing sand filter.
- The extent of damaged fixtures across each component of the secondary treatment system, including visible rust across critical system components, damaged and missing metal from clarifying tanks, a pump rail system corroded beyond operability, and the amount of additional piping and pumps incorporated as patch fixes throughout the system will ultimately lead to full system failure.
- The existing system has a design flow of 8,750 gpd but an average daily flow of 1,100 to 1,300 gpd during the school year and low flow conditions during the three-day weekends and summer break. The oversized system leads to inefficient RBC operation, requiring the operator to provide carbon supplementation to maintain the biological population.
- Wastewater system failure will cause significant disruptions to the students, sporting schedule, and school schedule.
- Maintenance costs to keep the existing system functioning are high due to the deteriorating condition of the equipment.

Alternative 2: Right-Sized Onsite Treatment System (Regulation 43)

Description

This alternative proposes to derate the wastewater treatment system to meet requirements of Regulation 43 as opposed to the current permit, which falls under Regulation 22. The failing RBC and "Volcano" filter will be replaced with a new package wastewater treatment plant designed for 1,990 gpd average daily flows, which more closely matches operational average daily flows of the junior-senior high school. The existing septic tanks and drainfield will be utilized.

Regulatory Framework

Regulation 22 – Site Location and Design Regulations for Domestic Wastewater Treatment Works

Regulation 22 is administered by CDPHE, who is responsible for approving the site location and design of domestic wastewater treatment facilities at the state level. Regulation 22 applies to systems with an average daily flow greater than 2,000 gpd and carries National Pollutant Discharge Elimination System (NPDES) permitting requirements for certified operators to operate and maintain the system and more frequent monitoring requirements.

Key elements of Regulation 22 include:

- Average Daily Flow greater than 2,000 gpd.
- State-level oversight and approval for construction or modification of wastewater treatment facilities including an NPDES permit.
- Detailed design and engineering requirements.
- Applicable to systems requiring centralized or community-based treatment.

Regulation 43 – Onsite Wastewater Treatment System (OWTS) Regulation

Regulation 43 governs OWTS's in Colorado. These are decentralized systems designed to treat and dispose of domestic wastewater from individual properties, small developments, or schools. Responsibility for enforcement of Regulation 43 is primarily delegated to the county health departments, including El Paso County.

Key elements of Regulation 43 include:

- Average Daily Flow less than 2,000 gpd.
- El Paso County is delegated authority for permitting and management of the wastewater systems from CDPHE.
- Designed for residential, small, rural, or decentralized applications.

Transition from Regulation 22 to Regulation 43

The Peyton Junior-Senior High School facility currently holds a CDPHE permit under Regulation 22, based on the design flow of the existing wastewater treatment system which was procured second-hand from an agricultural site. However, based on conservative operational data, the system has an average daily flow of 1,100 to 1,300 gpd, which is below the 2,000 gpd threshold outlined in Regulation 22. The population of the student body has also remained consistent or decreased slightly over the past 10 years of data, with enrollment dropping from 307 to 280 students during the most recent school year. See the "Flow Analysis" section for more detail on the average daily wastewater flows.

By derating the system to below 2,000 gpd, the permit will transition from CDPHE jurisdiction (Regulation 22) to Regulation 43 with delegated authority to El Paso County. This change is appropriate for several reasons. Flow data falls well within the design and flow thresholds of Regulation 43, supporting compliance alignment as opposed to oversizing the system. Oversizing the system, as seen in the existing set up, can cause operational challenges. It can also lead to inflated capital costs for a

larger system that is not required to support the existing or anticipated school population. The scale and scope of the system are consistent with small-scale, decentralized treatment systems intended under Regulation 43. Derating also provides administrative efficiency through oversight by the County, which will streamline permitting, inspection, operation, and maintenance coordination. Regulation 43 has lower requirements for certified operators, monitoring, and testing because the smaller size of the system presents less risk to groundwater contamination than larger systems. The reduced need for certified operators and monitoring reduces operating cost of the system substantially. Monitoring and reporting of flows is still required, but quarterly water quality testing at five locations is not required.

There are several considerations to be aware of before pursuing deregulation. Derating to a lower capacity is best suited for the existing school population size, but there is always the potential of student population growth. Derating would imply a loss of capacity for future growth in student population. If student population did grow, this would most likely increase flows which could risk outgrowing the system, requiring upgrades or reapproval under Regulation 22. An analysis of the financial risk of this occurring was prepared and presented to school board members. Another consideration of derating is the potential monitoring requirements that may be placed on Peyton School District under Regulation 43. To demonstrate that flows stay below the derated threshold of 2,000 gpd, El Paso County Public Health will likely require ongoing flow metering, monitoring, and reporting.

Overall, derating is intended to right-size the regulatory framework according to the system's actual use, ensuring continued compliance while optimizing resources for Peyton School District, their WWTP operator, and regulatory agencies.

Treatment System Evaluation

The existing wastewater treatment system is oversized for current flows and has experienced ongoing maintenance issues that create operational challenges. To improve reliability, reduce operational complexity, and better align treatment capacity with actual demand, this alternative proposes replacing the current system with a new, appropriately sized package treatment plant. A variety of package wastewater treatment technologies are available that could effectively meet the needs of the junior-senior high school. While this alternative examines a preliminary evaluation of the BioMicrobics MicroFAST fixed-film activated sludge system, the Orenco Advantex recirculating media filter, and a conventional activated sludge package plant, these represent only a subset of the viable options that were considered based on operator familiarity and common implementation in the project area. Additional technologies should be considered as part of the final design process.

Biomicrobics MicroFAST Fixed-Film Activated Sludge System with subsurface disposal

The Biomicrobics MicroFAST system is a fixed-film aerobic treatment process that uses a submerged block of fixed media to support microbial growth. This system introduces air with an above-grade blower to recirculate oxygenated wastewater through the submerged media for treatment. The fixed-film environment promotes biological degradation of BOD and ammonia, providing secondary treatment in a compact footprint.

Orenco AdvanTex Recirculating Media Filter System with subsurface disposal

The Orenco AdvanTex system is a textile-based packed-bed filter system that provides treatment through a recirculating process. Wastewater from septic tanks is dosed intermittently over a highly absorbent synthetic textile media housed in treatment pods. Recirculation enhances treatment efficiency and effluent quality, particularly for nitrogen reduction.

Conventional Activated Sludge Package Plant with subsurface disposal

A conventional activated sludge package plant is similar to larger municipal treatment plants, but comes in modular components for ease of construction and designed for small flows. The system has an aeration tank that allows bacteria to break down the waste stream and a secondary clarifier with a pumping system to return the sludge to the aeration tank or waste the sludge as needed.

These three configurations are designed to treat average daily flows of up to 1,990 gpd, meeting the criteria for Regulation 43 (individual sewage disposal systems under 2,000 gpd) and allowing the junior-senior high school system to be permitted as such rather than under Regulation 22. This reduces capital and maintenance costs as well as long-term operation costs.

A proposed process schematic is shown in Figure 10.

Design Criteria

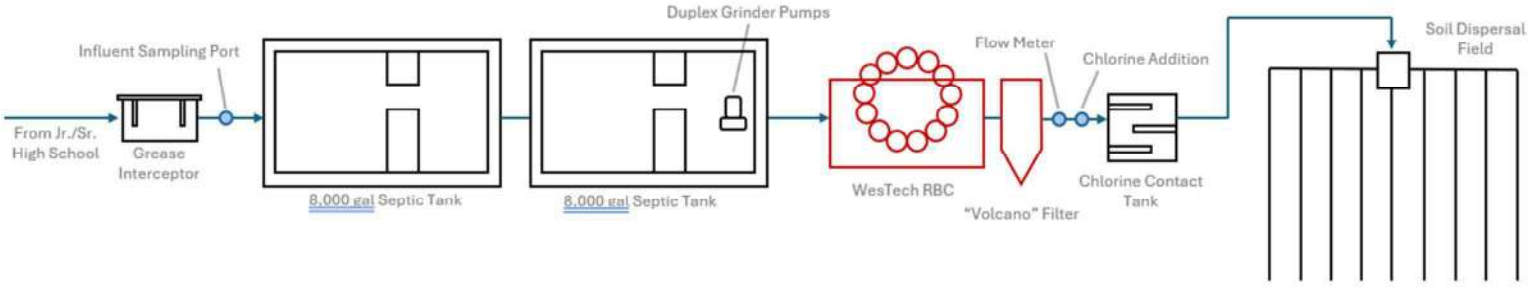
Design flow is a critical parameter in determining whether deregulating the system from Regulation 22 to Regulation 43 is an option for Peyton School District. Flow monitoring for calendar year 2024 was reviewed to establish a representative design flow for the wastewater system. Student enrollment has remained stable at approximately 600 students for the past decade, making the 2024 data an appropriate basis for design. Three averages were calculated from the dataset: (1) the annual average daily flow across the full calendar year, (2) the average daily flow limited to the school year, and (3) the average daily flow on days when students were in the building, with weekends and district holidays excluded. This data is shown in Table 2. Based on the flow analysis, this alternative considers a design flow of 1,990 gpd. The BOD_5, TSS, and TN are Regulation 43 permit requirements for water quality. The design criteria are shown in Table 4.

Table 4. Alternative 2 Design Criteria

Permit	Regulation 43
Flow	1,990 gpd
BOD_5	180 mg/L
TSS	80 mg/L
TN	60-80 mg/L

Process Schematic

Existing System: 8,750 gpd design flow



Proposed System: 1,990 gpd design flow

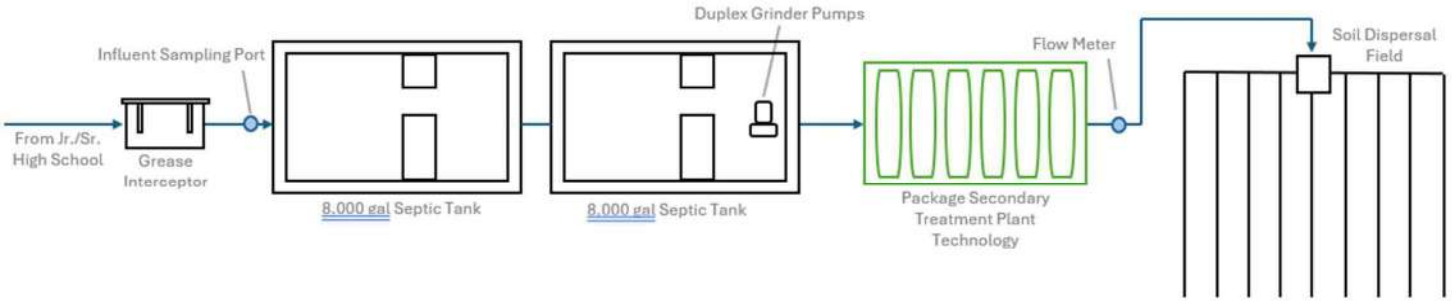


Figure 10. Existing Process Schematic and Proposed Alternative 2 Process Schematic

Environmental Impacts

Since any project would include replacement of existing equipment and there is no new or enlarged discharge, no adverse environmental impacts are anticipated on floodplains, wetlands, or other environmental habitat or historical and cultural resources.

Land Requirements

This alternative will not require additional land acquisition or expansion beyond the existing treatment system footprint. All new infrastructure components are planned to be constructed within the boundaries of the current wastewater treatment area.

A detailed site layout will be developed during the final design phase to confirm fit and ensure adequate access for maintenance, flow routing, and future serviceability. At this preliminary stage, no additional space requirements are anticipated to implement the proposed treatment improvements.

Potential Construction Problems

The wastewater treatment system is located on an active school property. Construction staging, equipment access, and material delivery must be planned to ensure minimal disruption to school operations, particularly during the academic year. Phasing, fencing, signage, and close coordination with district staff will be necessary to maintain a safe environment for students and staff throughout construction.

Temporary wastewater management during construction will be required. This may involve temporary bypassing, pumping and hauling to ensure uninterrupted service and regulatory compliance.

Sustainability Considerations

***Water and Energy Efficiency*.** A derated WWTP will use significantly less energy and water than the current system. An approximately 40 percent reduction in energy use is expected, from a current estimated use of 525 kw/month to an estimated use of 300 kw/month. In addition, the current sand filter process requires significant water use to backwash the system daily. A water use reduction of approximately 2,500 to 3,000 gallons per month is expected by removing the need to backflush the sand filter. The treatment provided as part of this system is not adequate to meet standards for reclaimed water, and therefore could not be used for irrigation water.

***Green Infrastructure*.** There are no green stormwater infrastructure components to this project, but soil treatment through a drainfield is considered a nature-based solution for wastewater treatment by some organizations.

***Other*.** The proposed derating of the system simplifies operation of the wastewater system for Peyton Junior-Senior High School. By allowing the soils to treat the wastewater, it reduces energy use, water use, and staffing needs. This site presents exceptional opportunities to use soil treatment as the groundwater is deep and the soils are productive for a drainfield.

Cost Estimate

Table 5 and Table 6 describe the construction, operation and maintenance cost estimates for Alternative 2.

Table 5. Alternative 2 Capital Cost Estimate

ALTERNATIVE 2: RIGHT-SIZE SYSTEM			
Item	**Biomicrobics Fixed Film Activated Sludge**	**Orenco Recirculating Media Filter**	**Conventional Activated Sludge**
WTTP, Constructed	$145,000	$240,000	$200,000
Building	$75,000	$0	$75,000
Tanks & Controls	$20,000	$22,200	$20,000
Drainfield Improvements	$50,000	$50,000	$50,000
Demolition	$25,000	$25,000	$25,000
Construction Subtotal	$315,000	$337,200	$370,000
Contingency (30%)	$94,500	$101,160	$111,000
Construction Total	*$409,500*	*$438,360*	*$481,000*
Engineering & Permitting (15%)	$61,425	$65,754	$72,120
Total	**$470,925**	**$504,114**	**$553,150**

Table 6. Alternative 2 O&M Cost Estimate

ALTERNATIVE 2: RIGHT-SIZE SYSTEM	
O&M Category	**Annual Cost**
Staffing – school staff	$3,000
Energy and water	$600
Chemicals	$500
Laboratory	$500
Sludge/Solids Handling	$800
Short-lived asset maintenance/replacement[a]	$2,500
Total	**$7,900**

[a] See Appendix G for a list of short-lived assets.

Alternative 3: Replacement Treatment System Meeting Current Permit (Regulation 22)

Description

This alternative proposes replacing the existing wastewater treatment system with a new package wastewater treatment plant designed to meet Regulation 22 requirements. The proposed system will be sized to not only handle the current average daily flows of 1,100 to 1,300 gpd, but also accommodate future growth in student population and facility usage. Design flows for this alternative are 7,000 gpd, and the existing drainfield (designed for 8,750 gpd) will be utilized for subsurface disposal.

Regulatory Framework

Regulation 22 – Site Location and Design Regulations for Domestic Wastewater Treatment Works

In consideration of potential student population growth, this alternative does not propose derating the system. This alternative falls under the same regulatory framework as the existing system: Regulation 22. Regulation 22 applies to systems with an average daily flow greater than 2,000 gpd and requires a NPDES permit through CDPHE. The design criteria are shown in Table 7

Treatment System Evaluation

The existing system, including the RBC and "Volcano" sand filter, has surpassed its expected service life and presents increasing operational and maintenance challenges. Under this alternative, those components would be fully decommissioned and replaced with a new treatment system that improves reliability, reduces maintenance burdens, and ensures long-term compliance with water quality standards as defined by Regulation 22.

A variety of package wastewater treatment technologies are available that could effectively meet the needs of the junior-senior high school. While this alternative examines a preliminary evaluation of both the BioMicrobics MicroFAST fixed-film activated sludge system and the Orenco AdvanTex recirculating media filter system, these represent only a subset of the viable options. Additional technologies should be considered as part of the final design process.

Biomicrobics Activated Sludge with subsurface disposal

This treatment system incorporates an extended aeration activated sludge process to treat a design flow of 7,000 gpd. The system uses aerobic biological treatment with integrated clarifiers to produce high-quality effluent that meets Regulation 22 design criteria standards. Wastewater is introduced into an extended aeration tank, where air is diffused to support bacteria in the activated sludge. Treated water then flows to a clarifier where solids settle out by gravity. A portion of the settled sludge is returned to the aeration tank to maintain biological activity, while excess sludge is removed periodically for disposal. The system includes provisions for waste-activated sludge removal, typically handled through periodic pumping by a licensed hauler to an approved disposal facility.

Orenco AdvanTex Recirculating Filter with subsurface disposal

This treatment system uses a prefabricated recirculating packed-bed filter to treat primary septic tank effluent. The treated effluent is then disposed of via subsurface soil disposal in the existing drainfield, which was designed to accept 8,750 gpd effluent. The system uses a lightweight textile fabric media filter through which effluent is dosed in controlled amounts, allowing for the media to drain between doses which maintains high oxygen transfer. There is periodic recirculation of filter effluent back to the recirculation tank to improve contact, nitrification, and denitrification. This system offers consistent treatment under variable or peak flows due to the recirculation design. The energy demand is reduced due to the lack of traditional aeration requirements. Cleaning and replacing the filter media to prevent clogging is an important maintenance requirement.

A proposed process schematic is shown in Figure 11.

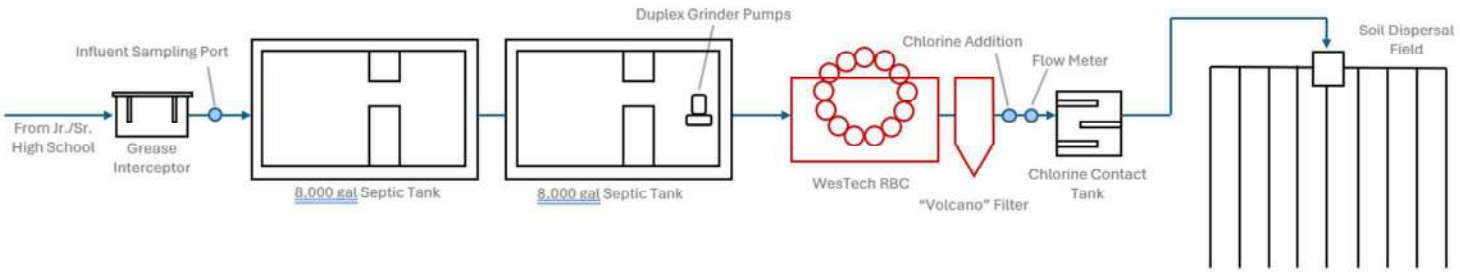
Design Criteria

Table 7. Alternative 3 Design Criteria

Permit	Regulation 22
Flow	**7,000 gpd**
BOD_5	**30 mg/L** average **30 mg/L** max
TSS	**30 mg/L** average **30 mg/L** max
TIN	**10 mg/L**
Total Coliform	**23 mg/L**

Process Schematic

Existing System: 8,750 gpd design flow



Proposed System: 7,000 gpd design flow

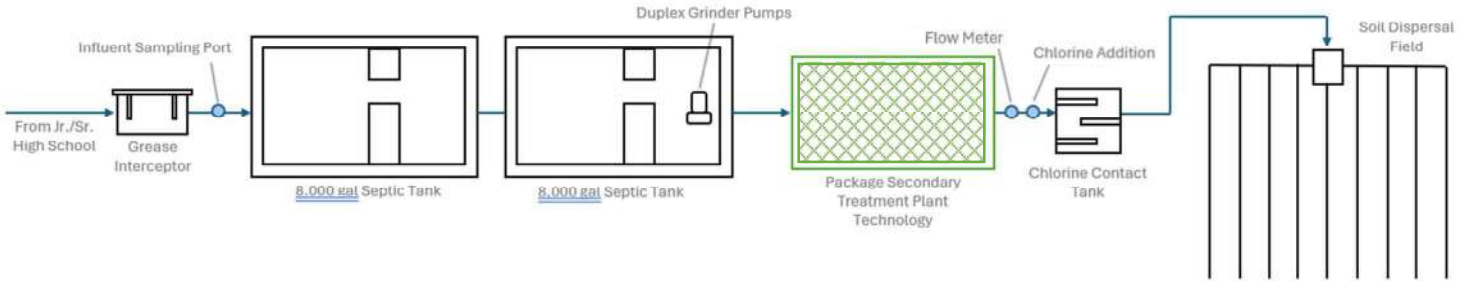


Figure 11. Existing Process Schematic and Proposed Alternative 3 Process Schematic

Environmental Impacts

Since any project would include replacement of existing equipment and there is no new or enlarged discharge, no adverse environmental impacts are anticipated on floodplains, wetlands, or other environmental habitat or historical and cultural resources.

Land Requirements

This alternative will not require additional land acquisition or expansion beyond the existing treatment system footprint. All new infrastructure components are planned to be constructed within the boundaries of the current wastewater treatment area.

A detailed site layout will be developed during the final design phase to confirm fit and ensure adequate access for maintenance, flow routing, and future serviceability. At this preliminary stage, no additional space requirements are anticipated to implement the proposed treatment improvements.

Potential Construction Problems

The wastewater treatment system is located on an active school property. Construction staging, equipment access, and material delivery must be planned to ensure minimal disruption to school operations, particularly during the academic year. Phasing, fencing, signage, and close coordination with district staff will be necessary to maintain a safe environment for students and staff throughout construction.

Temporary wastewater management during construction will be required. This may involve temporary bypassing, pumping and hauling to ensure uninterrupted service and regulatory compliance.

Sustainability Considerations

***Water and Energy Efficiency*.** A slight energy reduction as compared to current use is expected with Alternative 3. The current sand filter process requires significant water use to backwash the system daily. A water use reduction of approximately 2,500 to 3,000 gallons per month is expected by removing the need to backflush the sand filter.

***Green Infrastructure*.** There are no green stormwater infrastructure components to this project, but soil treatment through a drainfield is considered a nature-based solution for wastewater treatment by some organizations.

***Other*.** Other considerations for this alternative include the reliability of operations of upgrading the current system and being prepared for growth in student population if it happens.

Cost Estimate

Table 8 and Table 9 describe the construction, operation and maintenance cost estimates for Alternative 3.

Table 8. Alternative 3 Capital Cost Estimate

ALTERNATIVE 3: MEET CURRENT PERMIT		
Item	**Biomicrobics Activated Sludge**	**Orenco Recirculating Filter**
WTTP, Constructed	$370,000	$735,000
Building	$50,000	$20,000
Tanks & Controls	$62,000	$62,000
Demolition	$20,000	$20,000
Construction Subtotal	$502,000	$837,000
Contingency (30%)	$150,600	$251,100
Construction Total	*$652,600*	*$1,088,100*
Engineering & Permitting (15%)	$100,000	$165,000
Total	**$752,600**	**$1,253,100**

Table 9. Alternative 3 O&M Cost Estimate

ALTERNATIVE 3: MEET CURRENT PERMIT	
O&M Category	**Annual Cost**
Staffing, contract operations	$7,000
Energy and Water	$4,000
Chemicals	$1,500
Laboratory	$12,000
Sludge/Solids Handling	$800
Short-lived asset maintenance/replacement[a]	$3,000
Total	**$28,300**

[a] See Appendix G for a list of short-lived assets.

Alternative 3A: Replacement Treatment System with Reclaimed Water Reuse (Regulations 22 & 84)

Description

As a continuation of Alternative 3, this alternative proposes to replace the existing wastewater treatment system with a new package wastewater treatment plant designed to meet the current discharge permit requirements under Regulation 22 while also incorporating a reclaimed water system in accordance with Regulation 84. The proposed system will be designed for an average daily flow of 2,500 gpd and a peak daily flow of 7,000 gpd, accommodating both current needs and anticipated future increases in student enrollment and facility usage. The system will include disinfection to produce reclaimed water suitable for approved non-potable uses such as landscape irrigation on the school's athletic fields. This approach would reduce the volume of treated effluent requiring subsurface disposal in the existing drainfield.

Regulation 84 – Reclaimed Water Control

Regulation 84, administered by CDPHE, governs the treatment, distribution, and use of reclaimed water in the state of Colorado. The regulation establishes treatment standards, monitoring requirements, and allowable uses for reclaimed water to ensure the protection of public health and the environment.

Reclaimed water under Regulation 84 is treated wastewater that has undergone disinfection to meet specific quality standards for non-potable applications such as landscape and turf irrigation, dust control, street cleaning, and fire suppressant. To operate under Regulation 84, a facility must obtain a Notice of Authorization from CDPHE and develop a Reclaimed Water Use Plan that outlines treatment processes, monitoring protocols, and end uses.

Treatment System Evaluation

This alternative examines a preliminary evaluation of both the AquaPoint Moving Bed Biofilm Reactor (MBBR) and the Orenco Recirculating Filter.

AquaPoint Moving Bed Biofilm Reactor (MBBR) with equalization tank and reclaimed water subsurface disposal

The AquaPoint MBBR system is a modular, biological wastewater treatment technology that utilizes suspended, free-floating biofilm carriers within an aeration tank to promote microbial growth. The system is engineered to meet effluent requirements under Regulation 22, and with additional disinfection, can produce reclaimed water suitable for reuse under Regulation 84. This alternative includes a flow equalization tank to manage school-year variations in wastewater volume. Disinfection through UV or chlorination can meet reclaimed water standards for non-potable reuse such as athletic field irrigation. Subsurface disposal of excess treated effluent into the existing drainfield will be accessible when reuse demand is low. The MBBR system offers a compact footprint, robust performance, and low sludge production, making it well-suited for facilities with limited space and fluctuating flows like a school campus. MBBR technology is well tested and reliable for reuse applications.

Orenco AdvanTex Recirculating Filter with reclaimed water subsurface disposal

The Orenco AdvanTex Recirculating Filter system as described above is a fixed-film, packed-bed treatment system that uses lightweight textile media to biologically treat septic tank effluent through intermittent dosing and recirculation. The manufacturer has specified that this technology can achieve effluent quality capable of meeting Regulation 84 reuse standards with an additional disinfection step.

A proposed process schematic is shown in Figure 12.

Design Criteria

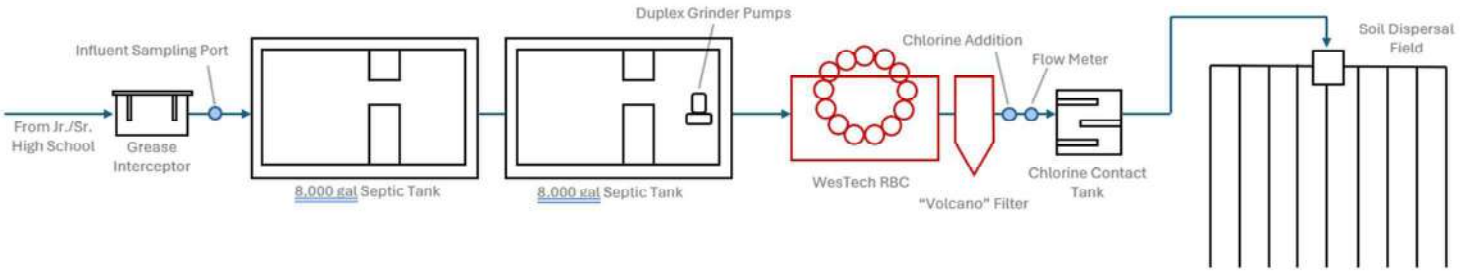
The wastewater treatment system will need to meet both Regulation 22 and Regulation 84 criteria since there may be timeframes when the irrigation water is not needed and the system will discharge to the existing drainfield. The design criteria are shown in Table 10.

Table 10. Alternative 3A Design Criteria

Permit	Regulation 22	Regulation 84
Flow	**2,500 gpd**	
BOD_5	**30 mg/L** average **30 mg/L** max	
TSS	**30 mg/L** average **30 mg/L** max	**30 mg/L**
TIN	**10 mg/L**	
Total Coliform	**23 CFU/100mL**	
Fecal Coliform		**126 CFU/100mL**

Process Schematic

Existing System: 8,750 gpd design flow



Proposed System: 2,500 gpd design flow

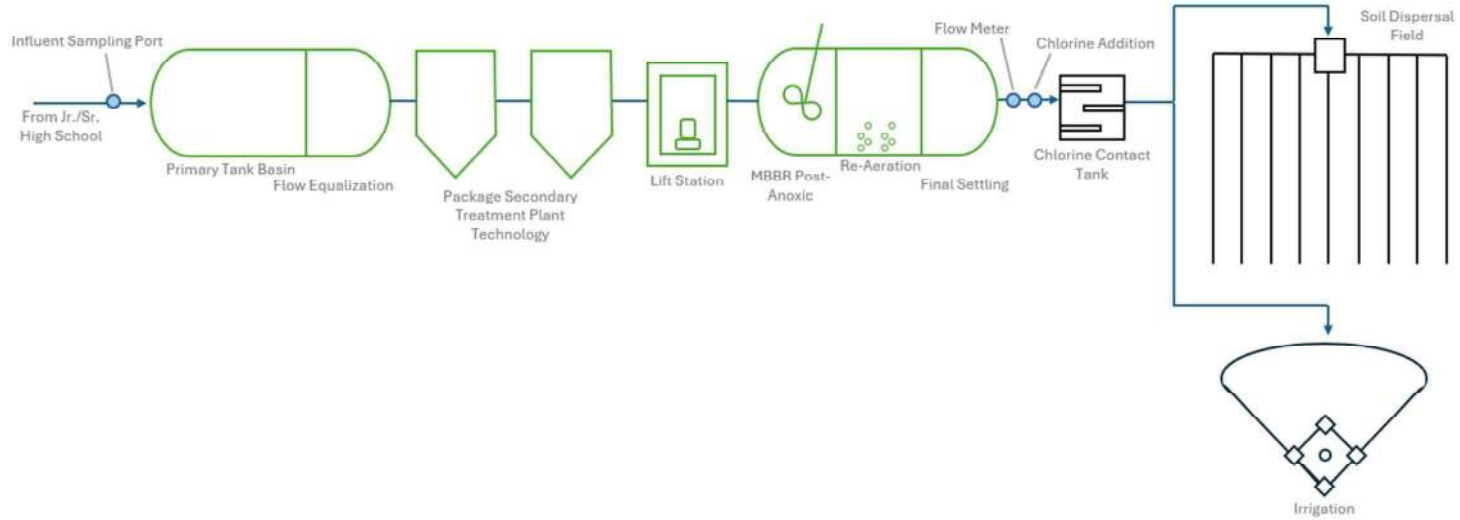


Figure 12. Existing Process Schematic and Proposed Alternative 3A Process Schematic

Sustainability Considerations

Water and Energy Efficiency. Alternative 3A provides the opportunity to incorporate approximately 1,400 gpd in reclaimed water flow for irrigation of athletic fields that currently use well water. In addition, the current sand filter process requires significant water use to backwash the system daily. A water use reduction of approximately 2,500 to 3,000 gallons per month is expected by removing the need to backflush the sand filter.

Green Infrastructure. There are no green stormwater infrastructure components to this project.

Other. Incorporating reclaimed water into school operations creates an opportunity for community engagement and education of water processes, including water use, wastewater treatment, and opportunities for reclaimed water use.

Cost Estimate

Table 11 and Table 12 describe the construction, operation and maintenance cost estimates for Alternative 3A.

Table 11. Alternative 3A Capital Cost Estimate

ALTERNATIVE 3A: RECLAIMED WATER		
Item	**AquaPoint MBBR**	**Orenco Recirculating Filter**
WWTP, Constructed	$690,000	$655,000
Building	$15,000	$20,000
Tanks & Controls	$20,000	$68,545
Demolition	$20,000	$20,000
Irrigation System[1]	TBD	TBD
Water Storage Tank[1]	TBD	TBD
Construction Subtotal	$745,000	$763,545
Contingency (30%)	$223,500	$229,064
Construction Total	*$968,500*	*$992,609*
Engineering & Permitting (20%)	$200,000	$200,000
Total	**$1,168,500**	**$1,192,609**

[1]An irrigation system and storage tank will need to be sized based on projected use if this alternative is selected. Options discussed include storage for additional fire flow among other uses.

Table 12. Alternative 3A O&M Cost Estimate

ALTERNATIVE 3A: RECLAIMED WATER	
O&M Category	**Annual Cost**
Staffing – contract operations	$7,000
Energy	$7,000
Chemicals	$400
Laboratory	$14,000
Sludge/Solids Handling	$800
Short-lived asset maintenance/replacement[a]	$3,000
Total	**$32,200**

[a] See Appendix G for a list of short-lived assets.

Selection of Alternative

Peyton School District has several factors to consider when making a decision on what wastewater system should serve the junior-senior high school into the future. One major consideration is growth of student population for the school. The school population has been fairly consistent over the last ten years of data and the elementary school population has slightly declined. The lack of growth in the school district area creates a financial challenge to add more capacity to a wastewater system due to a static tax base that will need to support the improvements. Peyton School District had a demographic analysis with growth projections completed for the school district in 2024. There is an anticipated no-

growth analysis for the school system. In addition, charter schools are reported to have an impact on public school enrollment in the Colorado Springs area. These forces may keep the student population at the current junior-senior high school static or cause it to decline. If so, Peyton School District needs to consider how to manage or reduce current operational costs to manage inflation and other pressures on the school operating budget.

Life Cycle Cost Analysis

The life-cycle analysis for 30 years of operation of the system at 2% discount rate is shown in Table 13. The salvage value of Alternative 2 was based upon an 8% discount rate. The other salvage values are placed at zero since 30 years is considered the life of the system. Interest costs of a 30-year loan at 3% interest are included because it is a significant cost associated with this project. Interest costs are generally not included in a life cycle cost analysis, but it was done for this project to note the overall impact on the total cost of a project.

Table 13. Life Cycle Cost Analysis of Alternatives

Alternative	Construction Cost	Interest Costs for Loan	Present Value O&M Cost	Salvage Value	Life Cycle Cost
Alternative 1	$0	$0	$800,000	$0	
Alternative 2	$500,000	$200,000	$180,000	$2,500	$877,500
Alternative 3	$753,000 to $1,253,000	$350,000 to $550,000	$600,000	$0	$1,703,000 to $2,403,000
Alternative 3A	$1,200,000	$550,000	$725,000	$0	$1,275,000

To better inform the School Board with selecting an alternative, a financial risk analysis of six growth scenarios was prepared over a 20-year and 50-year period. This analysis is shown in Appendix H.

Non-Monetary Factors

Table 14. Non-Monetary Factors for Each Alternative

Factor	Alternative 1: No Improvements	Alternative 2: Right-Sized System (Reg 43)	Alternative 3: Replacement System (Reg 22)	Alternative 3A: Reclaimed Water (Reg 22 & 84)
Address sanitation needs of the community	Current system could fail soon, leaving school without wastewater service	Will meet the current needs of the school but would limit growth of student population.	Yes, meets current and potential future needs.	Yes, it meets current and potential future needs as well as incorporating reclaimed water.
Ready to implement	Yes	Yes	Yes	Yes
School Board support	The school board understands that this is not an option.	There is support, but want to make sure that the decision makes sense for a 20-year timeframe.	Concern about the capital and operating costs of this system.	Concern about the capital and operating costs of this system.
Permitting concerns	Failure of the system will most likely cause a permit violation.	Limitations on growth of student population from permit conditions.	Likely the most straight-forward permitting option.	Start-up of the reuse system to meet permit conditions can be complicated.
Constructability	NA	No constructability issues expected.	No constructability issues expected.	Establishing reclaimed water and irrigation system will take some time.
Timeframe for implementation	NA	Approximately 2 years.	Approximately 2 years.	Approximately 3 years with startup of irrigation system.
Ongoing maintenance	High need for ongoing maintenance.	The easiest system to maintain in the future.	Need for a certified operator.	Need for a certified operator.

Alternative 1 (No Improvements) was eliminated from further consideration because it does not address the risk of system failure, increasing maintenance demands, or long-term compliance concerns. Alternatives 3 and 3A, which retain Regulation 22 permitting, were determined to be technically feasible but result in substantially higher capital costs, higher ongoing operation and maintenance requirements, and regulatory complexity that is not justified by actual system demand. Based on life-

cycle cost analysis and non-monetary factors, Alternative 2: Right-Sized Onsite Treatment System (Regulation 43) was selected as the recommended alternative.

Recommended Alternative

The recommended alternative is **Alternative 2: Right-Sized Onsite Treatment System.** The existing secondary treatment components will be replaced with package wastewater treatment system designed to meet current wastewater flows and applicable Regulation 43 requirements. This approach aligns system capacity with demonstrated demand, simplifies operation and maintenance, and reduces long-term capital and operating costs while maintaining protection of public health and the environment.

Preliminary Project Design

Under Alternative 2, the existing secondary treatment components including the rotating biological contactor and sand filter will be removed and replaced with a new package wastewater treatment system designed for an average daily flow of approximately 1,990 gpd. The existing septic tanks and subsurface drainfield will be retained and incorporated into the upgraded system, subject to confirmation of condition and regulatory approval during final design.

The replacement treatment system will be selected to reliably meet Regulation 43 effluent criteria and to accommodate the variable flow conditions associated with school operations, including reduced loading during weekends and summer months. Treatment technologies evaluated at the preliminary level include fixed-film and recirculating media systems commonly used for small-scale, decentralized applications. Final technology selection, equipment configuration, and site layout will be completed during the design phase in coordination with El Paso County Public Health. Improved metering of flow is needed for the school for reporting purposes in this alternative. Ideally a flow meter on the cistern that supplies water to the school could issue an alarm during high flow rates that could risk permit exceedances.

Project Schedule

Once funding is in place for the project, the permitting and construction will most likely take 6 to 12 months. Permitting through CDPHE and El Paso County should be conducted concurrently with design of the treatment system. An anticipated schedule is:

- Design & Permitting: 6 months
- Procurement of Construction Services: 2 months
- Construction of new WWTP: 3 months
- Start-up of new system: 1 month

Construction activities should be coordinated with the School District to minimize disruption to school operations. To the extent feasible, construction is anticipated to occur during summer months when school is not in session.

Permit Requirements

Implementation of Alternative 2 will require termination of the existing Regulation 22 permit and issuance of a new permit under Regulation 43, with oversight by El Paso County Public Health. Permitting will include review and approval of the final system design, confirmation of design flows, and evaluation of the existing septic tanks and subsurface disposal system. Ongoing flow monitoring will be required to demonstrate continued compliance with the derated flow. Coordination with CDPHE and El Paso County will be maintained throughout the permitting process to ensure all regulatory requirements are met prior to construction.

Total Project Cost Estimate

The project cost estimate shown in Table 15 was developed using vendor pricing, recent comparable projects, and best practices to determine contingency and design fees.

Table 15. Estimated Cost Estimate for Recommended Project

Component	Estimated Cost
WWTP with Ancillary Equipment and Building	$240,000
Tank Rehabilitation and Controls	$22,200
Drainfield Improvements	$50,000
Demolition	$25,000
Construction Subtotal	$337,200
Contingency (30%)	$101,160
Construction Total	*$438,360*
Engineering & Permitting (15%)	$65,754
Total	**$504,114**

Annual Operating Budget

Estimated annual operations and maintenance costs are shown in Table 16. Funding for these costs are expected to come from the school's operating budget funded generally through property taxes.

Table 16. Estimated Annual O&M Costs

Component	Estimated Annual Cost
Staffing	$3,000
Electric	$600
Chemicals	$500
Laboratory	$500
Solids Removal	$800
Replacement of Short Lived Assets[1]	$2,500
Total Annual Cost	**$7,900**
[1] – A list of Short-Lived Assets is included in Appendix G.	

Compared to the existing system and alternatives requiring Regulation 22 compliance, Alternative 2 represents a substantial reduction in long-term operating costs due to simplified treatment processes, reduced energy and water usage, and lower monitoring and operator certification requirements.

***Debt Repayments*.**

For purposes of this report, it is assumed that Peyton School District would borrow funding from USDA for the full capital cost of the improvement which includes design, permitting and construction costs. Assuming the loan is a 30-year term at USDA's current market interest rate of 5.25% interest, the annual debt service payment is $33,500 per year.

Conclusions and Recommendations

The existing wastewater treatment system serving the Peyton Junior-Senior High School has exceeded its anticipated useful service life and presents increasing operational and maintenance challenges. Although the system is currently operating in compliance with permit requirements, recent mechanical failures and the need for temporary pump-and-haul operations demonstrate an elevated risk of unplanned outages and increasing costs if the system is not replaced. Continued operation of the existing system without significant upgrades is not considered a sustainable long-term solution.

This PER evaluated three alternatives to address these concerns. Evaluation criteria included technical feasibility, regulatory compliance, measured wastewater flows, anticipated future conditions, capital and operating costs, and long-term operational sustainability. Based on this evaluation, Alternative 2: Right-Sized Onsite for Treatment System (Regulation 43) is recommended implementation. This alternative meets current and foreseeable wastewater treatment needs while minimizing regulatory and financial burden on Peyton School District.

Next steps include:

- **Regulatory coordination and derating approval.** Continue coordination with CDPHE and El Paso County Public Health to confirm derating of the permitted flow to less than 2,000 gpd and transition to Regulation 43.
- **Flow monitoring and documentation.** Continue routine flow monitoring to document ongoing compliance with the derated flow.
- **Final design.** Procure engineering services for final design including technology selection, site layout, and connection to existing septic tanks and drainfield.
- **Funding and financing.** Pursue funding through applicable state and federal funding programs, such as BEST funding.
- **Construction and implementation.** Coordinate construction scheduling to minimize disruption to school operations.

Appendix A: US Fish and Wildlife Services Wetlands Inventory

U.S. Fish and Wildlife Service

National Wetlands Inventory

Peyton Colorado Schools



October 16, 2024

Wetlands

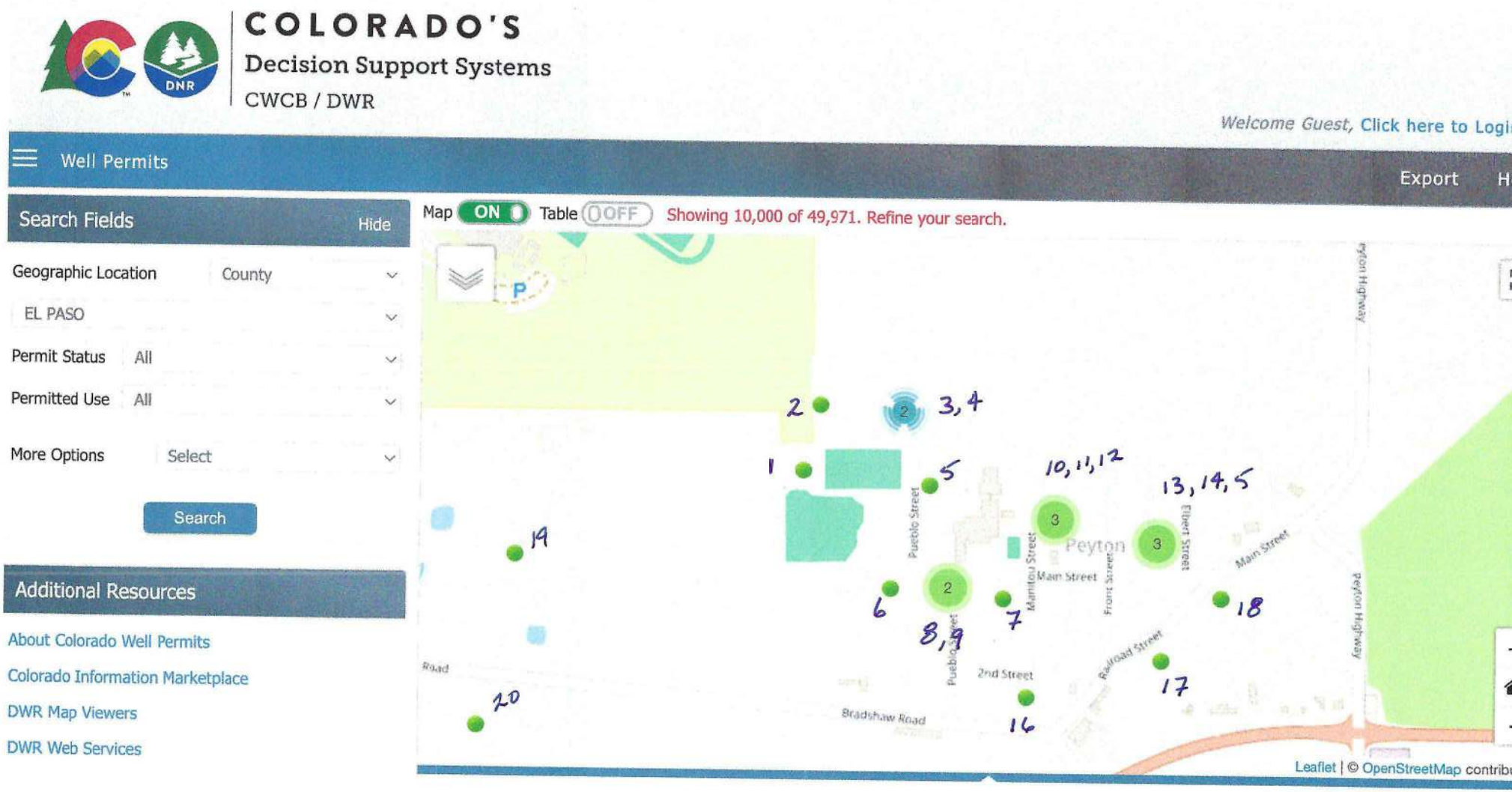
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)

Appendix B: Local Well Data

Use, Aquifer, Well Depth, and Permit Number


COLORADO'S
Decision Support Systems
CWCB / DWR
Welcome Guest, Click here to Logi
Well Permits
Export
Search Fields
Hide
Geographic Location
County
EL PASO
Permit Status
All
Permitted Use
All
More Options
Select
Search
Additional Resources
About Colorado Well Permits
Colorado Information Marketplace
DWR Map Viewers
DWR Web Services
Map ON Table OFF
Showing 10,000 of 49,971. Refine your search.
Peyton
Pueblo Street
Marshall Street
Main Street
Front Street
Elbert Street
Railroad Street
2nd Street
Bradshaw Road
Peyton Highway
Leaflet | © OpenStreetMap contrib

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JOB _____

JOB NO. _____

SHEET _____ OF _____ DATE _____

CALCULATED BY _____

Well #	Use	Aquifer	Well Depth	Permit #
1 Schulz, Mark & Desiree	Domestic	Dawson	125	39466-A
2 Weeks, Merril	Domestic, Stock	All unnamed Aquifers	?	100248-
3 Peyton School District	other	Denver	1120	30819-F
4 Peyton School District	other	Arapaho	?	30818-F
5 ~~Kim~~ Smith Larry & Joyce	?	All unnamed Aquifers	580	96440-VE
6 Angyle, Katherine	Domestic, Stock	Dawson	160	126803-
7 Hilton, Robert J	Domestic	All unnamed Aquifers	178	0236754
8 Norvell Rodney	Monitoring Sampling	All unnamed Aquifers		0031633
9 Zabel, Ethel	Domestic	All unnamed	62	00468●1A
10 Baily Davis & McKeever	Domestic	All unnamed	140	10955-A
11 Bailey Davis & McKeever	Household Only	All unnamed	84	10955 -

Permit

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JOB
JOB NO.
SHEET OF DATE
CALCULATED BY

Well #		Use	Aquifer	Depth	Permit #
12	Novell, Bernard	Domestic	All unnamed	120	131445
13	Peyton Baptist Church	Commercial	Lower Dawson	393	144786-
14	Brown, Frida	Domestic	Dawson	?	147234-
15	Brown, Frida	Domestic	Dawson	270	147234-A
16	Curns, K	Domestic	Dawson	230	34459-A
17	Noble, HH	Domestic	Dawson	140	141192-A
18	El Paso County	Monitoring/ Sampling	All unnamed	?	51536-MH
19	Bartlett, Laron	Domestic	All unnamed	196	97484-VE
20	Christianson David & Marianne	Domestic, Stock	All unnamed	422	103146

Appendix C: Junior-Senior High School Wastewater Discharge Permit

COLORADO
Department of Public Health & Environment

CERTIFICATION TO DISCHARGE UNDER CDPS GENERAL PERMIT COX634000
DOMESTIC WASTEWATER TREATMENT SYSTEMS DISCHARGING TO GROUNDWATER
WITH LAND TREATMENT OF EFFLUENT AND GROUNDWATER MONITORING

Certification Number: COX634032

This Certification to Discharge specifically authorizes:
Peyton School Dist 23JT
to discharge from the facility identified as
Peyton High School
to: Groundwater

Facility Located at: 13885 Bradshaw Road Peyton, CO 80525, El Paso County
Center Point Latitude 39.032444 Longitude -104.492003

Discharge Located at: The wastewater effluent will be discharge to groundwater via the absorption field located at approximately Latitude 39.032444 Longitude -104.492003

1. Influent Monitoring Location(s)

Permitted Feature Number	Latitude, Longitude	Permitted Feature Description
300-I	39.032409, -104.492179	Influent quality sampling will be conducted prior to flow into the septic tank at the head of the treatment system. The division has approved effluent-only flow monitoring at the facility. For reporting on DMRs, flow data collected for effluent location 001-A will also be reported for 300-I.

2. Effluent Monitoring Location(s)

Permitted Feature Number	Latitude, Longitude[1]	Permitted Feature Description
001-A	39.032208, -104.492071	Effluent flow monitoring will be conducted after the sand filter and prior to flow into the chlorine contact tank. Effluent quality sampling will be conducted after the chlorine contact tank and prior to discharge into the absorption field. Note that the previous permit certification included two permitted features for effluent monitoring (001-A – for flow monitoring, and 002-A – for effluent quality sampling). Through this renewed certification, all effluent monitoring results collected at these locations will now be reported under 001-A.

[1] *Provided coordinates indicate location of effluent quality sampling.*

4300 Cherry Creek Drive S., Denver, CO 80246-1530 P 303-692-2000 www.colorado.gov/cdphe/wqc

3. Groundwater Monitoring Location(s)

Permitted Feature Number	Latitude, Longitude	Permitted Feature Description
050A-A	39.03371, -104.49358	Groundwater monitoring well located up-gradient of the absorption field.
050B-B	39.03131, -104.48995	Groundwater monitoring well located down-gradient of the absorption field.
050C-C	39.03091, -104.49010	Groundwater monitoring well located down-gradient of the absorption field.

4. 300-I Influent Monitoring Requirements per Part I.B.2 of the Permit and the Fact Sheet

Parameter	Units	Discharge Limitations Maximum Concentrations			Monitoring Frequency	Sample Type
		30-Day Average	7-Day Average	Daily Max.		
Flow [1] 50050	MGD	0.00875	NA	Report	Continuous	Recorder
Plant Capacity 00180 P (Percent of Hydraulic Capacity)[2] 00180 P	%	Report	NA	NA	Monthly	Calculated [3]
BOD_5, 00310	mg/l	Report	NA	NA	Monthly	Composite [1]
BOD_5, 00310	lbs/day	30	NA	NA	Monthly	Calculated [1,3]
Plant Capacity 00180 Q (Percent of Organic Capacity) [2] 00180 Q	%	Report	NA	NA	Monthly	Calculated [3]
Total Suspended Solids, 00530	mg/l	Report	NA	NA	Monthly	Composite [1]

[1] Per the fact sheet, the division has approved effluent-only flow monitoring at this facility. The following applies:

a) For reporting on DMRs, flow data collected for effluent location 001-A will also be reported for 300-I.

b) Flow proportioning of influent composite samples is not required at this time. Composite influent samples are to be composed, at a minimum, of four equal aliquots collected at equally spaced two hour intervals.

c) BOD_5 (lbs/day) should be calculated using effluent flow data.

[2] Per Part I.C.3. of the permit, facilities are required to initiate planning for treatment system expansion whenever throughput and treatment reaches 80% of design capacity, and commence construction of such treatment system expansion whenever throughput and treatment reaches 95% of design capacity.

[3] For instructions on calculating this value see the division's Discharge Monitoring Report Guidance available at https://www.colorado.gov/pacific/cdphe/wq-guidance.

5. 001-A Effluent Monitoring Requirements per Part I.B.2 of the Permit and the Fact Sheet

Parameter	Units	Discharge Limitations Maximum Concentrations			Monitoring Frequency	Sample Type
		30-Day Average	7-Day Average	Daily Max.		
Flow, 50050	MGD	0.00875	NA	Report	Continuous	Recorder

BOD_5, 00310	mg/l	30	45	NA	Monthly	Composite
BOD_5, Percent Removal, 81010	%	85	NA	NA	Monthly	Calculated[1]
TSS, 00530	mg/l	30	45	NA	Monthly	Composite
TSS, Percent Removal, 81011	%	85	NA	NA	Monthly	Calculated[1]
pH, 00400	s.u.	NA	NA	6.5 – 8.5	Monthly	Grab
Oil and Grease, 84066	mg/l	NA	NA	NA	Monthly	Visual[2]
Oil and Grease, 03582	mg/l	NA	NA	10	Contingent	Grab[2]
Chloride 00940	mg/l	250	NA	NA	Monthly	Grab
Sulfate (SO4) 00945	mg/l	250	NA	NA	Monthly	Grab
Total Coliform 74056	org/ 100mL	2.2	NA	23	Monthly	Grab

[1] For instructions on calculating this value see the division's Discharge Monitoring Report Guidance available at https://www.colorado.gov/pacific/cdphe/wq-guidance.

[2] If a visible sheen is observed, a grab sample shall be collected and analyzed for oil and grease.

6. 050A-A Up-Gradient Groundwater Monitoring Requirements per Part I.B.2 of the Permit and the Fact Sheet

Parameter	Units	Discharge Limitations Maximum Concentrations			Monitoring Frequency	Sample Type
		30-Day Average	7-Day Average	Daily Max.		
Total Inorganic Nitrogen 00640	mg/l	NA	NA	Report	Monthly	Grab
Total Dissolved Solids (TDS) 70295	mg/l	Report	NA	NA	Monthly	Grab
Static Water Elevation in monitoring well, ft above mean sea level 82545	ft above mean sea level	Report	NA	NA	Monthly	Grab/ Calculated[1]

[1] The static water elevation is calculated by subtracting the measured depth to water from the surveyed reference elevation (e.g. top of casing elevation). Additional guidance regarding sampling and water level measurement are available at https://www.colorado.gov/pacific/cdphe/clean-water-sewage-systems-compliance-assistance.

7. 050B-B and 050C-C Down-Gradient Groundwater Monitoring Requirements per Part I.B.2 of the Permit and the Fact Sheet

Parameter	Units	Discharge Limitations Maximum Concentrations			Monitoring Frequency	Sample Type
		30-Day Average	7-Day Average	Daily Max.		
Total Inorganic Nitrogen 00640	mg/l	NA	NA	10	Monthly	Grab
Total Dissolved Solids (TDS) 70295	mg/l	400	NA	NA	Monthly	Grab
Static Water Elevation in monitoring well, ft above mean sea level 82545	ft above mean sea level	Report	NA	NA	Monthly	Grab/ Calculated[1]

[1] The static water elevation is calculated by subtracting the measured depth to water from the surveyed reference elevation (e.g. top of casing elevation). Additional guidance regarding sampling and water level measurement are available at https://www.colorado.gov/pacific/cdphe/clean-water-sewage-systems-compliance-assistance.

8. Compliance Schedules and Duty to Provide Information

Unless otherwise indicated, all documents required by the following schedules must be submitted to the division accompanied by a fully completed Permit Narrative Conditions Form available at https://www.colorado.gov/pacific/cdphe/wq-permit-forms.

These schedules do not affect the effectiveness of the effluent limits listed in the preceding parts of this certification. Violations of these effluent limits are subject to enforcement at any time regardless of compliance with below schedules. -- Failure to adhere to the following schedules, or failure to request a modification when applicable, may result in termination of this permit certification and/or referral to the Division's Clean Water Enforcement Unit. If formal enforcement action is deemed necessary, the facility may be issued a Notice of Violation / Cease and Desist Order that may include the assessment of penalties.

a. Groundwater Points of Compliance – A schedule is included in the permit certification to provide boring logs, well construction details, surveyed well elevations, and a groundwater flow and gradient map for groundwater monitoring locations (050A-A, 050B-B, and 050C-C).

Code	Event	Description	Due Date
CS011	Provide Documents	Submit a Permit Narrative Conditions Report Form to the division that includes, at a minimum, the following information for groundwater monitoring locations 050A-A, 050B-B, and 050C-C: 1) Boring logs, well construction details, and surveyed well elevations. 2) Groundwater flow and gradient map based on the most recent static water level elevation data collected at the facility.	10/1/2020

Certification issued: 4/2/2020 Effective: 5/01/2020 Expiration Date: 6/30/2023

This certification under the permit requires that specific actions be performed at designated times. The certification holder is legally obligated to comply with all terms and conditions of the permit.

This certification was approved by:
Margo Griffin, Work Group Lead
Permits Section, Water Quality Control Division

Appendix D: Junior-Senior High School Monitoring Well Water Quality

Colorado Analytical LABORATORIES, INC.

Analytical Results

TASK NO: 241202148

Report To: Richard Hopp
Company: RH Water & Wastewater
3324 Rio Grande Ave.
Evans CO 80620

Bill To: Richard Hopp
Company: RH Water & Wastewater
3324 Rio Grande Ave.
Evans CO 80620

Task No.: 241202148
Client PO: Peyton WW
Client Project: Peyton High School WWTP

Date Received: 12/2/24
Date Reported: 12/6/24
Matrix: Water

Customer Sample ID MW050A
Sample Date/Time: 12/2/24 12:20 PM
Lab Number: 241202148-01

Test	Result / Units	Method	RL	MDL	Date Analyzed	QC Batch ID	Analyzed By
Ammonia Nitrogen	**ND mg/L**	SM 4500-NH3-G	0.03	0.007	12/4/24	QC78008	KJP
Nitrate Nitrogen	**2.49 mg/L**	EPA 300.0	0.05	0.02	12/3/24	QC78070	NRP
Nitrate/ Nitrite Nitrogen	**2.49 mg/L**	Calculation	0.05	0.02	12/6/24	-	AMJ
Nitrite Nitrogen	**ND mg/L**	EPA 300.0	0.03	0.01	12/3/24	QC78071	NRP
Total Inorganic Nitrogen	**2.49 mg/L**	Calculation	0.05	0.02	12/6/24	-	MBN
Total Dissolved Solids	**184 mg/L**	SM 2540-C	5	2	12/4/24	QC77970	ISG

Abbreviations/ References:

RL = Reporting Limit = Minimum Level
MDL = Method Detection Limit
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 mls = Most Probable Number Index/ 100 mls
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.
(s) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

Colorado Analytical LABORATORIES, INC.

Analytical Results

TASK NO: 241202148

Report To: Richard Hopp
Company: RH Water & Wastewater
3324 Rio Grande Ave.
Evans CO 80620

Bill To: Richard Hopp
Company: RH Water & Wastewater
3324 Rio Grande Ave.
Evans CO 80620

Task No.: 241202148
Client PO: Peyton WW
Client Project: Peyton High School WWTP

Date Received: 12/2/24
Date Reported: 12/6/24
Matrix: Water

Customer Sample ID MW050B
Sample Date/Time: 12/2/24 12:30 PM
Lab Number: 241202148-02

Test	Result / Units	Method	RL	MDL	Date Analyzed	QC Batch ID	Analyzed By
Ammonia Nitrogen	**ND mg/L**	SM 4500-NH3-G	0.03	0.007	12/4/24	QC78008	KJP
Nitrate Nitrogen	**6.22 mg/L**	EPA 300.0	0.05	0.02	12/3/24	QC78070	NRP
Nitrate/ Nitrite Nitrogen	**6.22 mg/L**	Calculation	0.05	0.02	12/6/24	-	AMJ
Nitrite Nitrogen	**ND mg/L**	EPA 300.0	0.03	0.01	12/3/24	QC78071	NRP
Total Inorganic Nitrogen	**6.22 mg/L**	Calculation	0.05	0.02	12/6/24	-	MBN
Total Dissolved Solids	**182 mg/L**	SM 2540-C	5	2	12/4/24	QC77970	ISG

Abbreviations/ References:

RL = Reporting Limit = Minimum Level
MDL = Method Detection Limit
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 mls = Most Probable Number Index/ 100 mls
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.
(s) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

Colorado Analytical LABORATORIES, INC.

Analytical Results

TASK NO: 241202148

Report To: Richard Hopp
Company: RH Water & Wastewater
3324 Rio Grande Ave.
Evans CO 80620

Bill To: Richard Hopp
Company: RH Water & Wastewater
3324 Rio Grande Ave.
Evans CO 80620

Task No.: 241202148
Client PO: Peyton WW
Client Project: Peyton High School WWTP

Date Received: 12/2/24
Date Reported: 12/6/24
Matrix: Water

Customer Sample ID MW050C
Sample Date/Time: 12/2/24 12:45 PM
Lab Number: 241202148-03

Test	Result / Units	Method	RL	MDL	Date Analyzed	QC Batch ID	Analyzed By
Ammonia Nitrogen	**0.04 mg/L**	SM 4500-NH3-G	0.03	0.007	12/4/24	QC78008	KJP
Nitrate Nitrogen	**1.14 mg/L**	EPA 300.0	0.05	0.02	12/3/24	QC78070	NRP
Nitrate/ Nitrite Nitrogen	**1.14 mg/L**	Calculation	0.05	0.02	12/6/24	-	AMJ
Nitrite Nitrogen	**ND mg/L**	EPA 300.0	0.03	0.01	12/3/24	QC78071	NRP
Total Inorganic Nitrogen	**1.18 mg/L**	Calculation	0.05	0.02	12/6/24	-	MBN
Total Dissolved Solids	**227 mg/L**	SM 2540-C	5	2	12/4/24	QC77970	ISG

Abbreviations/ References:

RL = Reporting Limit = Minimum Level
MDL = Method Detection Limit
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 mls = Most Probable Number Index/ 100 mls
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.
(s) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

Colorado Analytical LABORATORIES, INC.

Analytical QC Summary

TASK NO: 241202148

Report To: Richard Hopp
Company: RH Water & Wastewater

Receive Date: 12/2/24
Project Name: Peyton High School WWTP

Test	QC Batch ID	QC Type	Result	Method	Prep Date
Ammonia Nitrogen	QC78008	Method Blank	ND	SM 4500-NH3-G	12/3/24
Nitrate Nitrogen	QC78070	Blank	ND	EPA 300.0	12/3/24
Nitrite Nitrogen	QC78071	Blank	ND	EPA 300.0	12/3/24
Total Dissolved Solids	QC77970	Blank	ND	SM 2540-C	12/3/24

Test	QC Batch ID	QC Type	Limits	% Rec	RPD	Method
Ammonia Nitrogen	QC78008	Duplicate -241126041-01	0 - 20	-	1.1	SM 4500-NH3-G
		LCS	90 - 110	97.3	-	
		MS -241126063-08	75 - 125	97.7	-	
Nitrate Nitrogen	QC78070	Duplicate -241202125-01	0 - 20	-	2.5	EPA 300.0
	Sample QC re-ran due to instrument interference. AMJ 12/6/24					
		LCS	90 - 110	106.7	-	
		MS -241202125-01	75 - 125	116.2	-	
Nitrite Nitrogen	QC78071	Duplicate -241202125-01	0 - 20	-	0.0	EPA 300.0
	Sample QC re-ran due to instrument interference. AMJ 12/6/24					
		LCS	90 - 110	107.4	-	
		MS -241202125-01	75 - 125	102.2	-	
Total Dissolved Solids	QC77970	Duplicate -241202004-01	0 - 10	-	0.5	SM 2540-C
		LCS	85 - 115	100.4	-	

All analyses were performed in accordance with approved methods under the latest revision to 40 CFR Part 136 unless otherwise identified. Based on my inquiry of the person or persons directly responsible for analyzing the wastewater samples and generating the report (s), the analyses, report, and information submitted are, to the best of my knowledge and belief, true, accurate, and complete.



DATA APPROVED FOR RELEASE BY

Abbreviations/ References:

RL = Reporting Limit = Minimum Level
MDL = Method Detection Limit
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 mls = Most Probable Number Index/ 100 mls
Date Analyzed = Date Test Completed

(d) RPD acceptable due to low duplicate and sample concentrations.
(s) The accuracy of the spike recovery value is reduced due to the analyte concentration in the sample being disproportionate to the spike level. The laboratory control sample recovery was acceptable

ND = Not Detected at Reporting Limit.

Chain of Custody Form

Colorado Analytical Laboratories, Inc.

Brighton Lab
240 South Main Street
Brighton, CO 80601
Lakewood Lab
12860 W. Cedar Dr, Suite 100A
Lakewood CO 80228

Phone: 303-659-2313
Fax: 303-659-2315

www.coloradolab.com

Report To Information	Bill To Information (If different from report to)	Project Name
Company Name:	Company Name: Same	Peyton High School
Contact Name: Richard Hopp	Contact Name: ____	____
Address: 3324 Rio Grande Ave ____ City Evans State CO Zip80620	Address: Same ____ City ____ State __ Zip ____	Task Number (Lab Use Only) CAL Task 241202148 JAK
Phone:970-371-0919 Fax:	Phone: Fax:	
Email: richard@rhww.net	Email:	Disposal Date(Lab Use Only)
Sample Collector: Rh	PO No.:	

Sample Matrix (Select One Only)

Waste Water ☐	Soil ☐	Plant Tissue ☐
Ground Water ☐	Sludge ☐	Other ☐
Surface Water ☐	Compost ☐	____

200

Date	Time	Sample ID	No. of Containers	Grab ☒	Composite ☐	TIN	TDS
12/2/24	12:20	MW050A	3	☒	☐	✓	✓
12/2/24	12:30	MW050B	3	☒	☐	✓	✓
12/2/24	12:45	MW050C	3	☒	☐	✓	✓
				☐	☐	☐	☐
				☐	☐	☐	☐
				☐	☐	☐	☐
				☐	☐	☐	☐
				☐	☐	☐	☐
				☐	☐	☐	☐
				☐	☐	☐	☐

Instructions: *gregland@peyton.k12.co.us*

C/S Info:

Deliver Via: FAND C/S Charge ☐

Seals Present Yes ☐ No ☑

Temp. 1 °C/Ice Y Sample Pres. Yes ☑ No ☐

Relinquished By:	Date/Time:	Received By:	Date/Time:	Relinquished By:	Date/Time:	Received By:	Date/Time:
	12/2/24 1515						12/2/24 1520

Appendix E: Web Soil Survey Report

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for El Paso County Area, Colorado

Peyton, CO schools (revised)

Oct. 17, 2024



October 16, 2024

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

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Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:6,240 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 300 600 1200 1800

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: El Paso County Area, Colorado
Survey Area Data: Version 22, Sep 3, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 9, 2021—Jun 12, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
8	Blakeland loamy sand, 1 to 9 percent slopes	51.5	53.4%
19	Columbine gravelly sandy loam, 0 to 3 percent slopes	14.8	15.4%
97	Truckton sandy loam, 3 to 9 percent slopes	30.2	31.3%
Totals for Area of Interest		**96.5**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or

landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

El Paso County Area, Colorado

8—Blakeland loamy sand, 1 to 9 percent slopes

Map Unit Setting

National map unit symbol: 369v
Elevation: 4,600 to 5,800 feet
Mean annual precipitation: 14 to 16 inches
Mean annual air temperature: 46 to 48 degrees F
Frost-free period: 125 to 145 days
Farmland classification: Not prime farmland

Map Unit Composition

Blakeland and similar soils: 98 percent
Minor components: 2 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Blakeland

Setting

Landform: Flats, hills
Landform position (three-dimensional): Side slope, talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from sedimentary rock and/or eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 11 inches: loamy sand
AC - 11 to 27 inches: loamy sand
C - 27 to 60 inches: sand

Properties and qualities

Slope: 1 to 9 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Available water supply, 0 to 60 inches: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: A
Ecological site: R049XB210CO - Sandy Foothill
Hydric soil rating: No

Minor Components

Other soils

Percent of map unit: 1 percent

Hydric soil rating: No

Pleasant

Percent of map unit: 1 percent
Landform: Depressions
Hydric soil rating: Yes

19—Columbine gravelly sandy loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 367p
Elevation: 6,500 to 7,300 feet
Mean annual precipitation: 14 to 16 inches
Mean annual air temperature: 46 to 50 degrees F
Frost-free period: 125 to 145 days
Farmland classification: Not prime farmland

Map Unit Composition

Columbine and similar soils: 97 percent
Minor components: 3 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Columbine

Setting

Landform: Fans, fan terraces, flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium

Typical profile

A - 0 to 14 inches: gravelly sandy loam
C - 14 to 60 inches: very gravelly loamy sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 2.5 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: A
Ecological site: R049XY214CO - Gravelly Foothill

Hydric soil rating: No

Minor Components

Fluvaquentic haplaquolls

Percent of map unit: 1 percent
Landform: Swales
Hydric soil rating: Yes

Other soils

Percent of map unit: 1 percent
Hydric soil rating: No

Pleasant

Percent of map unit: 1 percent
Landform: Depressions
Hydric soil rating: Yes

97—Truckton sandy loam, 3 to 9 percent slopes

Map Unit Setting

National map unit symbol: 2x0j2
Elevation: 5,300 to 6,850 feet
Mean annual precipitation: 14 to 19 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 85 to 155 days
Farmland classification: Not prime farmland

Map Unit Composition

Truckton and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Truckton

Setting

Landform: Hillslopes, interfluves
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Re-worked alluvium derived from arkose

Typical profile

A - 0 to 4 inches: sandy loam
Bt1 - 4 to 12 inches: sandy loam
Bt2 - 12 to 19 inches: sandy loam
C - 19 to 80 inches: sandy loam

Properties and qualities

Slope: 3 to 9 percent
Depth to restrictive feature: More than 80 inches

Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 1 percent
Maximum salinity: Nonsaline (0.1 to 1.9 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 6.6 inches)

Interpretive groups

Land capability classification (irrigated): 6e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: A
Ecological site: R049XB210CO - Sandy Foothill
Hydric soil rating: No

Minor Components

Blakeland

Percent of map unit: 8 percent
Landform: Hillslopes, interfluves
Landform position (two-dimensional): Shoulder, backslope, summit
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Convex, linear
Across-slope shape: Convex, linear
Ecological site: R049XB210CO - Sandy Foothill
Hydric soil rating: No

Bresser

Percent of map unit: 7 percent
Landform: Low hills, interfluves
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave, linear
Across-slope shape: Concave, linear
Ecological site: R049XB210CO - Sandy Foothill
Hydric soil rating: No

Appendix F: Junior-Senior High School Soil Boring Results

DATE DRILLED: 11/27/13

REMARKS:
MEASURED FOR WATER: 12/3/13
WATER AT 65'

SAND, SILTY, FINE TO MEDIUM GRAINED, LOOSE, LOW TO MODERATE MOISTURE, TAN

SAND, CLAYEY, FINE TO MEDIUM GRAINED, MEDIUM DENSE, MODERATE MOISTURE, LIGHT BROWNN TO GRAY

LENSATIC: WEATHERED CLAYEY SANDSTONE TO SANDY CLAYSTONE, FINE TO COARSE GRAINED, DENSE, MODERATE MOISTURE, GRAY TO GREEN

LENSATIC: WEATHERED CLAYEY SANDSTONE AND SANDY CLAYSTONE, FINE TO COARSE GRAINED, DENSE, MODERATE MOISTURE, GRAY TO RUST

LENSATIC: WEATHERED CLAYEY SANDSTONE AND SANDY CLAYSTONE, FINE TO COARSE GRAINED, DENSE, MODERATE MOISTURE, LIGHT GREEN

CONTINUED

LENSATIC: WEATHERED SANDY CLAYSTONE WITH SOME LENSES OF CLAYEY SANDSTONE, FINE TO MEDIUM GRAINED, HARD TO DENSE, MODERATE MOISTURE, GRAY

12/3/13

WEATHERED TO FORMATIONAL SANDY CLAYSTONE, HARD TO DENSE, SATURATED MOISTURE CONTENT, RUST TO BLUE GRAY

11/27/13

WEATHERED TO FORMATIONAL SANDY CLAYSTONE, VERY DENSE, SATURATED TO HIGH MOISTURE CONTENT, BLUE GRAY

DEPTH (ft)	SYMBOL	SAMPLES	BLOWS per foot	WATER CONTENT %	SOIL TYPE
5			GRAB		
10			GRAB		
15					
20			GRAB		
25			GRAB		
30					
35					
40			GRAB		
45					
50					

DEPTH (ft)	SYMBOL	SAMPLES	BLOWS per foot
55			
60			GRAB
65			
70			
75			GRAB
80			
85			GRAB
90			
95			
100			

TEST BORING LOGS

DRAWN	DATE	CHECKED	DATE
DM		LWC	

STE

SOIL TESTING & ENGINEERING INC.

TEST BORING MW050B
DATE DRILLED: 02/23/17

SOIL DESCRIPTION

SAND, CLEAN TO CLAYEY FINE TO COURSE GRAINED, LOOSE TO MEDIUM DENSE LOW TO MODERATE MOISTURE CONTENT, LIGHT BROWN TO TAN.

CLAY, SANDY, FINE TO MEDIUM GRAINED, MEDIUM DENSE, MODERATE MOISTURE, GREENISH GRAY TO GRAY

WEATHERED SANDSTONE SAND, CLEAN TO CLAYEY, FINE TO COURSE GRAINED, MEDIUM DENSE, MODERATE MOISTURE CONTENT, WITH LENSES OF WEATHERED CLAYSTONE, SANDY, FINE TO MEDIUM GRAINED DENSE, MODERATE MOISTURE, GREEN TO RUST

03/01/17

02/23/17

NOTE: NO SAMPLES TAKEN
WELL ELEVATION: 6867

CLAYSTONE, SANDY, FINE GRAINED, HARD, MODERATE MOISTURE, GREEN TO BLUE GRAY

DEPTH (ft)
SYMBOL
WATER CONTENT (%)
BLOW COUNT

10
20
30
40
50

TEST BORING MW050A
DATE DRILLED: 02/23/17

SOIL DESCRIPTION

CLAY, SANDY, FINE TO MEDIUM GRAINED, FIRM, MODERATE MOISTURE, LIGHT GREEN TO GREENISH GRAY.

WEATHERED SANDSTONE, SAND, CLEAN TO CLAYEY, FINE TO VERY COURSE GRAINED, WITH FINE GRAVEL, MEDIUM DENSE TO DENSE, MODERATE TO SATURATED MOISTURE CONTENT, THIN LENSES OF WEATHERED CLAYSTONE, FINE TO COURSE GRAINED DENSE, MODERATE TO HIGH MOISTURE CONTENT, GREENISH GRAY TO RUST

03/01/17

02/23/17

NOTE: NO SAMPLES TAKEN
WELL ELEVATION: 6891

CLAYSTONE, SANDY, FINE GRAINED, HARD, MODERATE MOISTURE, GREEN TO BLUE GRAY

DEPTH (ft)
SYMBOL
WATER

10
20
30
40
50

TEST BORING LOGS

J&K
Geological Services

Job
170
FIG

Appendix G: List of Short-Lived Assets

Alternative 2: Right-Sized Onsite Treatment System (Regulation 43)

Asset	Expect Life (Years)	Total Cost	Annualized Cost
Septic Tank Pump	5	$500	$100
Aeration Motor	7	$4,000	$400
Telemetry Panel	10	$15,000	$1,500
Flow Meter	10	$5,000	$500
Total Annualized Cost			$2,500

Alternative 3/3A: Replacement Treatment System Meeting Current Permit (Regulation 22) with optional Reclaimed Water Reuse (Regulation 84)

Asset	Expect Life (Years)	Total Cost	Annualized Cost
Pumps - 2	5	$500	$1,000
Motors	7	$4,000	$400,
Telemetry Panel	10	$15,000	$15,000
Flow Meter	10	$5,000	$5,000
Total Annualized Cost			$3,000

Appendix H: Financial Risk Analysis of Alternatives

Summary

Assumptions

Option	Capital Cost	Annual O&M	Expected Life
Derating	$ 240,000	$ 8,000	30
Larger System	$ 1,200,000	$ 28,000	20

Interest Rate	0.0525
Inflation	0.03
Depreciation	0.08
Loan Term	20 years

Analysis Summary

Scenario	Description	20 year cost	50 year cost
1	No growth - 50 years of small system	$608,334	$2,333,372
2	Larger system in Year 1	$2,719,225	$12,185,870
3	Small system for 30 years, Larger system year 31	$608,334	$7,735,701
4	Small system for 20 years, Larger system year 21, sell small system	$608,334	$10,068,095
5	Small system for 10 years, Larger system year 11, sell small system	$2,227,454	$11,079,912
6	Small system for 10 years, Larger system year 11, don't sell small system	$2,238,108	$11,101,220

Assumptions

Option	Capital Cost	Annual O&M	Expected Life
Derating	$ 240,000	$ 8,000	30
Larger System	$ 1,200,000	$ 28,000	20

Interest Rate	0.0525
Inflation	0.03
Depreciation	0.08
Loan Term	20 years

20 year sum	$608,334	$ 2,719,225	$608,334	$608,334	$2,227,454	$2,238,108
50 year sum	$2,333,372	$12,185,870	$7,735,701	$10,068,095	$11,079,912	$11,101,220

	1 - Derate System				2 - Larger System				3 - Derate System with Larger System @ 30 years				4 - Derate System with Larger System @ 20 years				5 - Derate System with Larger System @ 10 years - sell small system				6 - Derate System with Larger System @ 10 years - don't sell small system			
Year	Capital	Debt Service	O&M	Total	Capital	Debt Service	O&M	Total	Capital	Debt Service	O&M	Total	Capital	Debt Service	O&M	Total	Capital	Debt Service	O&M	Total	Capital	Debt Service	O&M	Total
1	240,000	$19,669	$ 8,000	$27,669	$ 1,200,000	$98,343	$ 28,000	$ 126,343	$ 240,000	$19,669	$ 8,000	$27,669	$ 240,000	$19,669	$ 8,000	$ 27,669	$ 240,000	$19,669	$ 8,000	$ 27,669	$ 240,000	$19,669	$ 8,000	$ 27,669
2		$19,669	$ 8,240	$27,909		$98,343	$ 28,840	$ 127,183		$19,669	$ 8,240	$27,909		$19,669	$ 8,240	$ 27,909		$19,669	$ 8,240	$ 27,909		$19,669	$ 8,240	$ 27,909
3		$19,669	$ 8,487	$28,156		$98,343	$ 29,705	$ 128,048		$19,669	$ 8,487	$28,156		$19,669	$ 8,487	$ 28,156		$19,669	$ 8,487	$ 28,156		$19,669	$ 8,487	$ 28,156
4		$19,669	$ 8,742	$28,410		$98,343	$ 30,596	$ 128,939		$19,669	$ 8,742	$28,410		$19,669	$ 8,742	$ 28,410		$19,669	$ 8,742	$ 28,410		$19,669	$ 8,742	$ 28,410
5		$19,669	$ 9,004	$28,673		$98,343	$ 31,514	$ 129,857		$19,669	$ 9,004	$28,673		$19,669	$ 9,004	$ 28,673		$19,669	$ 9,004	$ 28,673		$19,669	$ 9,004	$ 28,673
6		$19,669	$ 9,274	$28,943		$98,343	$ 32,460	$ 130,802		$19,669	$ 9,274	$28,943		$19,669	$ 9,274	$ 28,943		$19,669	$ 9,274	$ 28,943		$19,669	$ 9,274	$ 28,943
7		$19,669	$ 9,552	$29,221		$98,343	$ 33,433	$ 131,776		$19,669	$ 9,552	$29,221		$19,669	$ 9,552	$ 29,221		$19,669	$ 9,552	$ 29,221		$19,669	$ 9,552	$ 29,221
8		$19,669	$ 9,839	$29,508		$98,343	$ 34,436	$ 132,779		$19,669	$ 9,839	$29,508		$19,669	$ 9,839	$ 29,508		$19,669	$ 9,839	$ 29,508		$19,669	$ 9,839	$ 29,508
9		$19,669	$ 10,134	$29,803		$98,343	$ 35,470	$ 133,812		$19,669	$ 10,134	$29,803		$19,669	$ 10,134	$ 29,803		$19,669	$ 10,134	$ 29,803		$19,669	$ 10,134	$ 29,803
10		$19,669	$ 10,438	$30,107		$98,343	$ 36,534	$ 134,876		$19,669	$ 10,438	$30,107		$19,669	$ 10,438	$ 30,107	$ (13,000)	$19,669	$ 10,438	$ 30,107		$19,669	$ 10,438	$ 30,107
11		$19,669	$ 10,751	$30,420		$98,343	$ 37,630	$ 135,972		$19,669	$ 10,751	$30,420		$19,669	$ 10,751	$ 30,420	$1,612,700	$150,768	$ 37,630	$ 188,397	$1,612,700	$151,833	$ 37,630	$ 189,463
12		$19,669	$ 11,074	$30,742		$98,343	$ 38,759	$ 137,101		$19,669	$ 11,074	$30,742		$19,669	$ 11,074	$ 30,742		$150,768	$ 38,759	$ 189,526		$151,833	$ 38,759	$ 190,592
13		$19,669	$ 11,406	$31,075		$98,343	$ 39,921	$ 138,264		$19,669	$ 11,406	$31,075		$19,669	$ 11,406	$ 31,075		$150,768	$ 39,921	$ 190,689		$151,833	$ 39,921	$ 191,754
14		$19,669	$ 11,748	$31,417		$98,343	$ 41,119	$ 139,462		$19,669	$ 11,748	$31,417		$19,669	$ 11,748	$ 31,417		$150,768	$ 41,119	$ 191,887		$151,833	$ 41,119	$ 192,952
15		$19,669	$ 12,101	$31,769		$98,343	$ 42,353	$ 140,695		$19,669	$ 12,101	$31,769		$19,669	$ 12,101	$ 31,769		$150,768	$ 42,353	$ 193,120		$151,833	$ 42,353	$ 194,185
16		$19,669	$ 12,464	$32,132		$98,343	$ 43,623	$ 141,966		$19,669	$ 12,464	$32,132		$19,669	$ 12,464	$ 32,132		$150,768	$ 43,623	$ 194,391		$151,833	$ 43,623	$ 195,456
17		$19,669	$ 12,838	$32,506		$98,343	$ 44,932	$ 143,275		$19,669	$ 12,838	$32,506		$19,669	$ 12,838	$ 32,506		$150,768	$ 44,932	$ 195,699		$151,833	$ 44,932	$ 196,765
18		$19,669	$ 13,223	$32,891		$98,343	$ 46,280	$ 144,622		$19,669	$ 13,223	$32,891		$19,669	$ 13,223	$ 32,891		$150,768	$ 46,280	$ 197,047		$151,833	$ 46,280	$ 198,113
19		$19,669	$ 13,619	$33,288		$98,343	$ 47,668	$ 146,011		$19,669	$ 13,619	$33,288		$19,669	$ 13,619	$ 33,288		$150,768	$ 47,668	$ 198,436		$151,833	$ 47,668	$ 199,501
20		$19,669	$ 14,028	$33,697		$98,343	$ 49,098	$ 147,441		$19,669	$ 14,028	$33,697	$ (4,000)	$19,669	$ 14,028	$ 33,697		$150,768	$ 49,098	$ 199,866		$151,833	$ 49,098	$ 200,931
21		0	$ 14,449	$14,449	$2,167,333	$177,618	$ 50,571	$ 228,189		0	$ 14,449	$14,449	$2,167,333	$177,290	$ 50,571	$ 227,861		$131,099	$ 50,571	$ 181,670		$132,164	$ 50,571	$ 182,736
22		0	$ 14,882	$14,882		$177,618	$ 52,088	$ 229,706		0	$ 14,882	$14,882		$177,290	$ 52,088	$ 229,378		$131,099	$ 52,088	$ 183,187		$132,164	$ 52,088	$ 184,253
23		0	$ 15,329	$15,329		$177,618	$ 53,651	$ 231,269		0	$ 15,329	$15,329		$177,290	$ 53,651	$ 230,941		$131,099	$ 53,651	$ 184,750		$132,164	$ 53,651	$ 185,815
24		0	$ 15,789	$15,789		$177,618	$ 55,260	$ 232,878		0	$ 15,789	$15,789		$177,290	$ 55,260	$ 232,551		$131,099	$ 55,260	$ 186,359		$132,164	$ 55,260	$ 187,425
25		0	$ 16,262	$16,262		$177,618	$ 56,918	$ 234,536		0	$ 16,262	$16,262		$177,290	$ 56,918	$ 234,208		$131,099	$ 56,918	$ 188,017		$132,164	$ 56,918	$ 189,083
26		0	$ 16,750	$16,750		$177,618	$ 58,626	$ 236,244		0	$ 16,750	$16,750		$177,290	$ 58,626	$ 235,916		$131,099	$ 58,626	$ 189,725		$132,164	$ 58,626	$ 190,790
27		0	$ 17,253	$17,253		$177,618	$ 60,385	$ 238,002		0	$ 17,253	$17,253		$177,290	$ 60,385	$ 237,675		$131,099	$ 60,385	$ 191,484		$132,164	$ 60,385	$ 192,549
28		0	$ 17,770	$17,770		$177,618	$ 62,196	$ 239,814		0	$ 17,770	$17,770		$177,290	$ 62,196	$ 239,486		$131,099	$ 62,196	$ 193,295		$132,164	$ 62,196	$ 194,361
29		0	$ 18,303	$18,303		$177,618	$ 64,062	$ 241,680		0	$ 18,303	$18,303		$177,290	$ 64,062	$ 241,352		$131,099	$ 64,062	$ 195,161		$132,164	$ 64,062	$ 196,226
30		0	$ 18,853	$18,853		$177,618	$ 65,984	$ 243,602		0	$ 18,853	$18,853		$177,290	$ 65,984	$ 243,274		$131,099	$ 65,984	$ 197,083		$132,164	$ 65,984	$ 198,148
31	$582,543	$47,741	$ 19,418	$67,159		$177,618	$ 67,963	$ 245,581	$2,912,715	$238,704	$ 67,963	$306,667		$177,290	$ 67,963	$ 245,253	$2,912,715	$238,704	$ 67,963	$ 306,667	$2,912,715	$238,704	$ 67,963	$ 306,667
32		$47,741	$ 20,001	$67,741		$177,618	$ 70,002	$ 247,620		$238,704	$ 70,002	$308,706		$177,290	$ 70,002	$ 247,292		$238,704	$ 70,002	$ 308,706		$238,704	$ 70,002	$ 308,706
33		$47,741	$ 20,601	$68,341		$177,618	$ 72,102	$ 249,720		$238,704	$ 72,102	$310,806		$177,290	$ 72,102	$ 249,392		$238,704	$ 72,102	$ 310,806		$238,704	$ 72,102	$ 310,806
34		$47,741	$ 21,219	$68,959		$177,618	$ 74,265	$ 251,883		$238,704	$ 74,265	$312,969		$177,290	$ 74,265	$ 251,556		$238,704	$ 74,265	$ 312,969		$238,704	$ 74,265	$ 312,969
35		$47,741	$ 21,855	$69,596		$177,618	$ 76,493	$ 254,111		$238,704	$ 76,493	$315,197		$177,290	$ 76,493	$ 253,783		$238,704	$ 76,493	$ 315,197		$238,704	$ 76,493	$ 315,197
36		$47,741	$ 22,511	$70,252		$177,618	$ 78,788	$ 256,406		$238,704	$ 78,788	$317,492		$177,290	$ 78,788	$ 256,078		$238,704	$ 78,788	$ 317,492		$238,704	$ 78,788	$ 317,492
37		$47,741	$ 23,186	$70,927		$177,618	$ 81,152	$ 258,770		$238,704	$ 81,152	$319,855		$177,290	$ 81,152	$ 258,442		$238,704	$ 81,152	$ 319,855		$238,704	$ 81,152	$ 319,855
38		$47,741	$ 23,882	$71,623		$177,618	$ 83,586	$ 261,204		$238,704	$ 83,586	$322,290		$177,290	$ 83,586	$ 260,876		$238,704	$ 83,586	$ 322,290		$238,704	$ 83,586	$ 322,290
39		$47,741	$ 24,598	$72,339		$177,618	$ 86,094	$ 263,712		$238,704	$ 86,094	$324,798		$177,290	$ 86,094	$ 263,384		$238,704	$ 86,094	$ 324,798		$238,704	$ 86,094	$ 324,798
40		$47,741	$ 25,336	$73,077		$177,618	$ 88,677	$ 266,295		$238,704	$ 88,677	$327,380		$177,290	$ 88,677	$ 265,967		$238,704	$ 88,677	$ 327,380		$238,704	$ 88,677	$ 327,380
41		$47,741	$ 26,096	$73,837		$177,618	$ 91,337	$ 268,955		$238,704	$ 91,337	$330,041		$177,290	$ 91,337	$ 268,627		$238,704	$ 91,337	$ 330,041		$238,704	$ 91,337	$ 330,041
42		$47,741	$ 26,879	$74,620	$3,914,445	$320,798	$ 94,077	$ 414,875		$238,704	$ 94,077	$332,781	$3,914,445	$320,798	$ 94,077	$ 414,875		$238,704	$ 94,077	$ 332,781		$238,704	$ 94,077	$ 332,781
43		$47,741	$ 27,686	$75,426		$320,798	$ 96,899	$ 417,697		$238,704	$ 96,899	$335,603		$320,798	$ 96,899	$ 417,697		$238,704	$ 96,899	$ 335,603		$238,704	$ 96,899	$ 335,603
44		$47,741	$ 28,516	$76,257		$320,798	$ 99,806	$ 420,604		$238,704	$ 99,806	$338,510		$320,798	$ 99,806	$ 420,604		$238,704	$ 99,806	$ 338,510		$238,704	$ 99,806	$ 338,510
45		$47,741	$ 29,372	$77,112		$320,798	$ 102,801	$ 423,598		$238,704	$ 102,801	$341,504		$320,798	$ 102,801	$ 423,598		$238,704	$ 102,801	$ 341,504		$238,704	$ 102,801	$ 341,504
46		$47,741	$ 30,253	$77,993		$320,798	$ 105,885	$ 426,682		$238,704	$ 105,885	$344,588		$320,798	$ 105,885	$ 426,682		$238,704	$ 105,885	$ 344,588		$238,704	$ 105,885	$ 344,588
47		$47,741	$ 31,160	$78,901		$320,798	$ 109,061	$ 429,859		$238,704	$ 109,061	$347,765		$320,798	$ 109,061	$ 429,859		$238,704	$ 109,061	$ 347,765		$238,704	$ 109,061	$ 347,765
48		$47,741	$ 32,095	$79,836		$320,798	$ 112,333	$ 433,131		$238,704	$ 112,333	$351,037		$320,798	$ 112,333	$ 433,131		$238,704	$ 112,333	$ 351,037		$238,704	$ 112,333	$ 351,037
49		$47,741	$ 33,058	$80,799		$320,798	$ 115,703	$ 436,501		$238,704	$ 115,703	$354,407		$320,798	$ 115,703	$ 436,501		$238,704	$ 115,703	$ 354,407		$238,704	$ 115,703	$ 354,407
50		$47,741	$ 34,050	$81,790		$320,798	$ 119,174	$ 439,972		$238,704	$ 119,174	$357,878		$320,798	$ 119,174	$ 439,972		$238,704	$ 119,174	$ 357,878		$238,704	$ 119,174	$ 357,878
51		$47,741	$ 35,071	$82,812		$320,798	$ 122,749	$ 443,547		$238,704	$ 122,749	$361,453		$320,798	$ 122,749	$ 443,547		$238,704	$ 122,749	$ 361,453		$238,704	$ 122,749	$ 361,453
Sums				$2,333,372				$12,185,870				$7,735,701				$10,068,095				$11,079,912				$11,101,220

Pikes Peak Area Council of Governments
Communities Working Together

Meeting Minutes
Water Quality Management Committee
Wednesday, June 24, 2026, 9:00 AM

1. **Call to Order / Establish a Quorum:** Called to order 9:00am, quorum established.
2. **Agenda Approval:** Motion to approve by Jonathan Moore, seconded by Joshua Watkins, unanimously approved.
3. **Approval of Minutes from April 22, 2026:** Motion to approve by Jonathan Moore, seconded by Wally Eaves, unanimously approved.
4. **Public Comments / Presentations**
   None.
5. **Discussion Items**
   A. None.
6. **Action Items**
   A. Site Application: Peyton School District – Greg Land, Peyton School District, and Theresa Connor, ERG
      i. Greg Land of Peyton School District, and Theresa Connor of ERG, provided an overview of the Site Application. 20 Years ago Peyton School District purchased a used WWTF from a hog farm many years ago, not knowing how old it was at the time. It has been a consistent challenge since. Current permit is at 9,000 GPD, would like to derate the facility under Reg. 43 to under 2,000 GPD to better match their needs. This plant is very old and is rated significantly over capacity for what the district needs, is designed to have a consistent flow but there is nothing consistent in the school district's flow. The District is seeing declining population and enrollment. They are around 1,000 – 1,100 GPD. The technology of the proposed facility is more suited to the flows the school district actually sees, and would significantly decrease costs for the school district as well as reduced utilities use. The school district is working through the EPA Closing America's Wastewater Access Gap, and working with ERG to design a more appropriate facility and system. Current flows are well below design capacity. Current system is significantly beyond its life expectancy. They have had to 3D print new parts for the facility because they cannot find replacement parts for the old system. There are a few days of high flows occurring at random times, likely associated with maintenance of the old system. Peyton School District has also received funding to move forward with the BEST grant.
      ii. Questions:

1. Paintbrush Hills MD – can wastewater operators come by and check out the plant just for information purposes? Yes, Greg would like to give a tour of the existing plant and the new plant, as an educational experience.
2. The goal is not to have this ready by the new school year. Construction is anticipated for next summer but may happen sooner during the school year with little to no impact on students.

iii. Motion to move the application to the CAC made by Jonathan Moore, seconded by Joshua Watkins, unanimously approved.

B. Site Application Review Process (Appendix A) Edit – Angie Martell, Environmental Planner
   i. Incorporate a few sentences that acknowledge site applications that only require notification to the 208 Agency, according to the Reg. 22 Implementation Policy. This would be consistent with other procedures that PPACG already coordinates. There may be some back and forth emailing to get everyone on the same page and in agreement with any proposed comments. Overall the edit would be more consistent with the requirements of Regulation 22 and the Implementation Policy.
      1. A motion was made to approve the edit by Jonathan Moore, seconded by Wally Eaves, unanimously approved.

C. Draft 208 Plan Review, Regional Policies – Angie Martell, Environmental Planner
   i. The group discussed a few comments to add into the draft document. These edits will be incorporated into the draft.
   ii. Section 3.10 need to include more recent updates to Reg 41 and Reg 42. Patti has emailed language for this.
   iii. Need to include definitions in the regional policies sections.
   iv. Patti emailed links for El Paso County waste and land disposal information in their comprehensive plan.
   v. Not sure where in the plan but it would be good to mention those areas that are subject to MS4 permits, Pikes Peak State College has one, City of Colorado Springs, etc. These have a lot of regulatory control.
   vi. Ready to move on to the CAC. Motion to move this section to the CAC with inclusion of edits made by Joshua Watkins, seconded by Roger Sams, unanimously approved.

7. Information Items

A. State Revolving Fund annual eligibility survey deadline is June 30, 2026
   i. We encourage everyone to fill out the survey. It is important to complete the survey, whether or not you intend to apply for SRF funding, as it captures the financial need of the region for wastewater treatment and allows us to advocate for continued and increased funding.

8. Member Entity Announcements

A. none

9. **Meeting Schedule**
10. **Adjournment** motion to adjourn made by Wally Eaves, seconded by Jonathan Moore, unanimously approved. Meeting adjourned at 9:45 am.

The Pikes Peak Area Council of Governments will not discriminate against qualified individuals with disabilities. Meetings are available to join remotely via Microsoft Teams, and meetings include live transcription for remote and in-person attendees using automated software. Should you require any additional auxiliary aids or services to participate, please contact ppacg@ppacg.org or (719) 471-7080 x139 as soon as possible so that we can do our best to accommodate your needs.

Si necesita ayuda con traducción, llame por favor al (719) 471-7080 x139 o ppacg@ppacg.org.

Pikes Peak Area Council of Governments
Communities Working Together

Date: July 29, 2026

To: Pikes Peak Area Council of Governments Community Advisory Committee

From: William Mast, GIS and Modeling Manager

Subject: Regional Traffic Data Service

Action Requested: Review and Recommend

Summary

Pikes Peak Area Council of Governments and member governments currently utilize the StreetLight traffic data service to support transportation planning through a variety of operational workflows, including congestion metrics, origin-destination traffic routes, and corridor path/time profiling. Members of the Transportation Advisory Committee and Pikes Peak Area Council of Governments staff have recognized this service can enhance the effective planning and modeling of the region's transportation network.

Pikes Peak Area Council of Governments staff seek approval from the Transportation Advisory Committee to continue the StreetLight regional traffic data service that utilizes Surface Transportation Block Grant program funding and requires a dedicated local match of $49,736.90. The Surface Transportation Block Grant funding for this service is included in the Transportation Improvement Program. The City of Colorado Springs has confirmed to provide the local match requirement for this regional service. 2027 will be the final renewal year of the contract with StreetLight; a new Request for Proposal, will be issued next year to secure a traffic data service contract.

Proposed Motion

Recommend renewal of the current traffic data service with StreetLight for the last contract year, 2027.

Attachments

N/A

Strategic Plan Goals

☐ Advocacy: Serve as an effective advocacy voice for common ground issues.
☒ Information Sharing: Serve as a significant resource for PPACG members to collect and share information with regional partners.

☐ Aging: Expand and extend senior access, awareness, education, and connectivity to support age-friendly communities and empower individual seniors.
☒ Transportation: Maintain and improve a coordinated, validated plan for transportation needs across the PPACG region.
☒ Program Excellence: Continue to excel in the key fundamental areas of PPACG: Military support, Environmental programs, Transportation, Area Agency on Aging, and regional communication and collaboration.

Pikes Peak Area Council of Governments
Communities Working Together

Date: July 29, 2026

To: Pikes Peak Area Council of Governments Community Advisory Committee

From: Lisa Gagnon, Transit Planner

Subject: Federal Transit Administration Section 5310 Introduction

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Action Requested: Information Only

Summary

The Pikes Peak Area Council of Governments is preparing the Notice of Funding Availability for the Federal Transit Administration Section 5310: Enhanced Mobility of Older Adults and Individuals with Disabilities Program. This funding is for programs and projects that serve older adults and individuals with disabilities within the Metropolitan Planning Organization urbanized area. Selected projects will be eligible for funding from January 1 to December 31, 2027.

The Pikes Peak Area Council of Governments will provide information on this topic and is seeking guidance on the formation of the Technical Review Subcommittee. Sharing this information in advance is intended to improve transparency and ensure a more equitable review process for applications and recipients.

Attached Documents

None

Proposed Motion

Information Only

Strategic Plan Goals

☐ Advocacy: Serve as an effective advocacy voice for common ground issues.
☒ Information Sharing: Serve as a significant resource for PPACG members to collect and share information with regional partners.
☐ Aging: Expand and extend senior access, awareness, education, and connectivity to support age-friendly communities and empower individual seniors.
☒ Transportation: Maintain and improve a coordinated, validated plan for transportation needs across the PPACG region.

☒ Program Excellence: Continue to excel in the key fundamental areas of PPACG: Military support, Environmental programs, Transportation, Area Agency on Aging, and regional communication and collaboration.

Pikes Peak Area Council of Governments
Communities Working Together

Upcoming Meeting Schedule

Date	Time	Meeting
July 29	3 p.m.	Community Advisory Committee
August 5	9 a.m.	Commission on Aging – Executive Committee
August 5	11 a.m.	Regional Advisory Council – Executive Committee
August 7	9 a.m.	Board of Directors Workshop
August 12	9 a.m.	Board of Directors
August 14	10 a.m.	Regional Advisory Council – Strategic Review Subcommittee
August 19	3 p.m.	Commission on Aging
August 20	1:30 p.m.	Transportation Advisory Committee
August 20	2 p.m.	Commission on Aging – Caregiving
August 25	9:30 a.m.	Mobility Coordinating Work Group
August 26	9 a.m.	Water Quality Management Committee
August 26	3 p.m.	Community Advisory Committee
September 2	9 a.m.	Commission on Aging – Executive Committee
September 2	11 a.m.	Regional Advisory Council – Executive Committee
September 4	9 a.m.	Board of Directors Workshop
September 9	9 a.m.	Board of Directors
September 11	10 a.m.	Regional Advisory Council – Strategic Review Subcommittee
September 16	3 p.m.	Commission on Aging
September 17	1:30 p.m.	Transportation Advisory Committee
September 17	2 p.m.	Commission on Aging – Caregiving
September 23	9 a.m.	Water Quality Management Committee
September 23	1 p.m.	Air Quality Work Group
September 24	10 a.m.	Regional Advisory Council
September 24	3 p.m.	Commission on Aging – Social Engagement
September 30	3 p.m.	Community Advisory Committee

Schedule as of July 22, 2026
Meetings may be added, changed or cancelled as needed. Current meeting schedule is available at ppacg.org.