



5
**TRANSPORTATION
SAFETY AND
SECURITY**

5.0 Transportation Safety and Security

5.1 Safety and Security in the Context of the Long Range Plan

5.1.1 Introduction

In this section both safety and security in the context of the Pueblo Area Council of Governments (PACOG) Long Range Transportation Plan (LRTP) will be discussed.

- Safety can be defined as relative freedom from danger, risk, or threat of harm, injury, or loss to personnel and/or property, whether caused deliberately or by accident. In the context of highway transportation, it is typically assessed using crash data to tabulate where safety issues are likely to exist and condition reporting which identifies infrastructure needs.
- Security can be defined as the state of being free from danger or threat in a given geographic area – a nation, state, county, region or city. This definition can be expanded to include focused preparation for coordinated response to potential threats or disasters, whether natural or caused by humans.

The maintenance and operation of a safe and secure transportation system is of utmost importance to all regions, beginning with the primary focus of the protection of human life. Almost 500 fatalities occurred on Colorado roadways in 2014. Preventing these fatalities is a first priority in Colorado as it is in every state. Investments that maintain or move the system closer to a “state of good repair”, as highlighted in the Existing Conditions (Section 2) make the system safer for all users. Available funds should be allocated first to maintaining the transportation system at a safe and adequate level before other projects involving modernization, enhancements, or major capital investment are considered. Similarly, increased attention to the wide range of transportation security issues in the Pueblo planning area is an important part of long range planning. Roads, bridges, rail and airport facilities can profit from

a “hardening” of the layer that protects them from harm.

5.1.2 Outline of this Section

Two related topics will be addressed in this section: transportation safety and transportation security. Each will be presented in a similar format: discussion and analysis at the (1) Moving Ahead for Progress in the 21st Century (MAP-21) or federal level, (2) Colorado state level and (3) from the viewpoint of PACOG.

5.2 Transportation System Safety

5.2.1 Introduction

Highway safety is a critical element of transportation planning and policy. Reducing highway-related fatalities and injuries improves the overall quality of life for all Colorado residents, workers, and visitors. Deaths and injuries resulting from traffic crashes have serious public health, quality of life, and economic consequences. A safer transportation system will not only reduce the tragic human costs from the loss of lives or life altering injuries, it reduces significant economic losses. The economic costs of highway crashes include medical, insurance, emergency service, legal, lost wages, and personal property damage. Improving traffic safety is not only the right thing to do; it is also the smart thing to do.

With respect to transportation safety, the PACOG goals include working to:

- Preserve the existing transportation systems to ensure safe, convenient, and efficient transportation.
- Maintain the performance of the Colorado state transportation system at a high level to ensure the safety of all users, including transportation operators, passengers, shippers, bicyclists and pedestrians.
- Continue to improve system safety by instituting and supporting safety programs to lower the number of fatalities and life-altering injuries.
- Promote the identification of specific emphasis areas to improve transportation safety through a statewide evaluation of safety problems and multi-stakeholder input.

- Continue to develop comprehensive, coordinated, and communicative safety strategies that focus on engineering, education, enforcement, and emergency medical services for all emphasis areas.
- Promote the development of improved and new transportation system design, engineering, and operating technologies to increase system safety.
- Promote safe and convenient travel facilities for vulnerable users.
- Provide a continuing program of public information and education to promote safety awareness and implementation of safety practices.
- Cooperate with other agencies to ensure prompt response to crashes on the transportation system and timely resolution of environmental and other problems, such as hazardous waste sites, encountered when improving transportation facilities.

5.2.2 Federal Guidance

The MAP-21 transportation bill was enacted in 2012. The safety related planning requirements are addressed largely to state Departments of Transportation. MAP-21 retains the Highway Safety Improvement Program (HSIP) as one of the core efforts intended to reduce injuries and fatalities on all public roads, pathways and trails. MAP-21 provides a new emphasis on enhanced data collection and performance. The combination of the renewed HSIP program and the new emphasis on data lays the framework for more effective spending of safety dollars on projects that make roads safer for all users.

The work conducted by PACOG will thus fold into safety investment and strategies at the state level led by the Colorado Department of Transportation (CDOT). The means by which the state supports national safety goals, such as maintaining road performance, improving the system safety, and providing better education and outreach, are echoed by PACOG. As an example, improving system safety on I-25 along its entire extent is important to the nation, the state of Colorado and PACOG.

5.2.3 Colorado Transportation Safety Statistics

The State of Colorado maintains comprehensive records on fatalities by transportation mode in Colorado. **Table 5.1** shows this information tabulating fatalities by five travel modes: driver, passenger, motorcycle, pedestrian and bicycle. **Table 5.2** shows this information in percentage form. And finally, **Figure 5.1** shows it in graphic form. In the five year interval of 2009-2013, Colorado fatalities related to the five transportation modes have remained generally static. Auto driver leads the categories with around 50% of the total share. Auto passengers and motorcycle mode are each about 20% of the total. 10% of transportation related fatalities in the state are of pedestrians with bicycle contributing about 2-3%.

Table 5.1 Fatalities by Travel Mode in Colorado 2009-2013

Year	Travel Mode				
	Driver	Passenger	Motorcycle	Pedestrian	Bicycle
2009	234	82	88	51	10
2010	222	98	82	40	8
2011	228	86	78	47	8
2012	213	91	79	78	13
2013	235	95	87	52	12

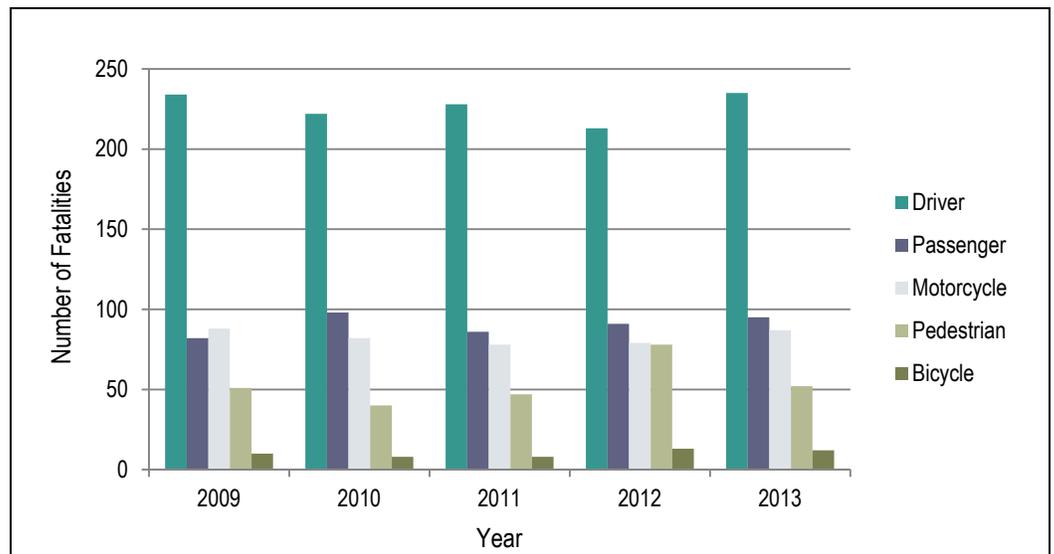
Source: CDOT

Table 5.2 Fatality Percentages by Travel Mode in Colorado 2009-2013

Year	Travel Mode				
	Driver	Passenger	Motorcyclist	Pedestrian	Bicyclist
2009	50%	18%	19%	11%	2%
2010	49%	22%	18%	9%	2%
2011	51%	19%	17%	11%	2%
2012	45%	19%	17%	16%	3%
2013	49%	20%	18%	11%	2%

Source: CDOT

Figure 5.1 Fatalities by Transportation Mode in Colorado 2009-2013



Source: CDOT

5.2.4 Safety Statistics in the Pueblo Region

Safety statistics in Pueblo County are presented using the 2009-2013 county level crash data with emphasis on four ways of analyzing the data:

- Type of crash.
- Roadway functional classification of the crash.
- Intersection related component of the crash.
- Time of day of the crash.

Type of Crash

CDOT provided comprehensive data on the number and type of vehicle accidents in the county for the five year interval of 2009 to 2013. These were provided for Pueblo County and shown in **Table 5.3**. During the five year interval, fatal crashes in the county ranged from

14 to 23 annually. Crashes with injuries ranged from 980 to 1,142 per year during the same period. Crashes with Property Damage Only (PDO) ranged from 2,504 to 3,044 per year.

Figure 5.2 shows the same data in visual format. All categories of crashes experienced a general decline during the five year span. PDO crashes were the most likely to occur, followed by those with injuries and lastly those crashes that had fatalities.

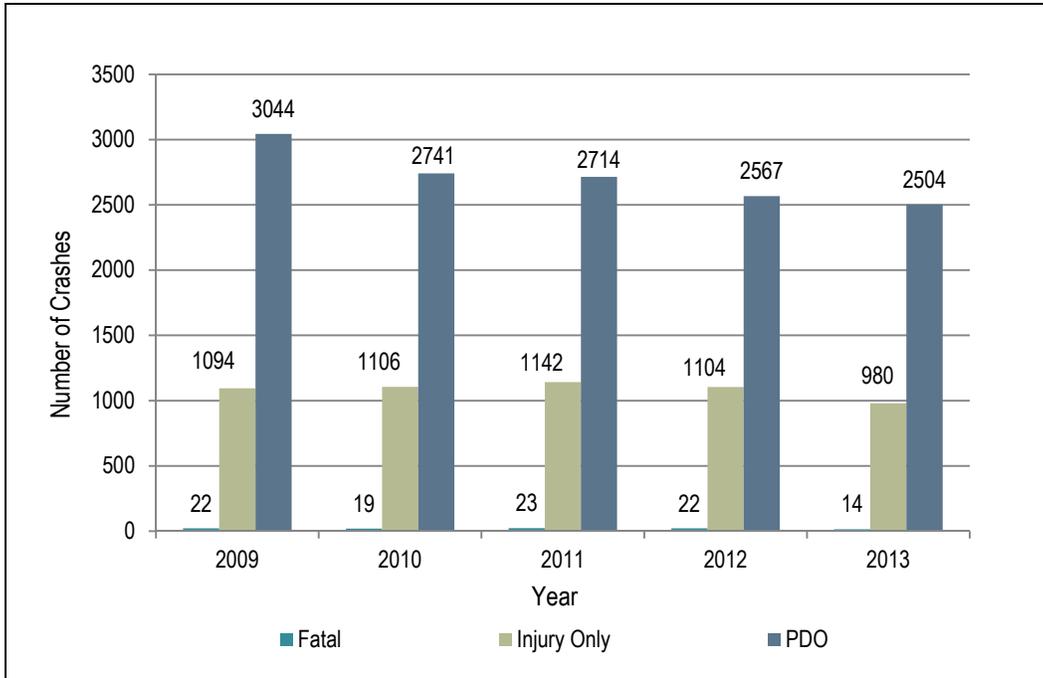
Alcohol or drugs are often correlated with fatal crashes. **Table 5.4** shows the number of fatal crashes for each recent year, the number of fatalities resulting, and the total fatalities where alcohol and/or drugs were a factor. Between 23% and 42% of crashes with fatalities in Pueblo County between 2009 and 2013 involved alcohol and/or drugs.

Table 5.3 Accidents by Type in Pueblo County 2009-2013

Accident Type	2009	2010	2011	2012	2013
Fatal Crash	22	19	23	22	14
Injury Crash	1094	1106	1142	1104	980
PDO Crash	3044	2741	2714	2567	2504

Source: CDOT

Figure 5.2 Accidents by Type in Pueblo County 2009-2013



Source: CDOT

Roadway Functional Classification of the Crash

The crash data provided to PACOG allowed tabulation of the locational types where crashes occurred during the five year interval 2009-2013. These five years are summarized in **Table 5.5** and **Table 5.6**. **Table 5.5** provides the totals for years 2009-2013. **Table 5.6** presents the same information using the percentages of crash occurrence by roadway functional classification.

Table 5.5 echoes the findings shown in earlier tables: property damage crashes are the most prevalent, followed by those with injuries and lastly those with fatalities. Looking at the data in percentage format, as shown in **Table 5.6**, and using the total of five years of data allows additional information to emerge. State highways are the most likely locations (41%) for fatal

crashes to occur, followed by interstates (24%). City and county roads follow with 19% and 15% respectively.

- For injury-only crashes, almost half (47%) occur on city streets. State highways follow with 36% and interstates with 12% of the total.
- PDO crashes are also most likely to occur on city streets (53%), again with state highways (30%) and interstates (12%) following.

The locational information of crashes shows overall that fatalities have occurred most often on higher classification / higher speed roadway facilities, in particular State highways.

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Intersection Related Component of the Crash

Similar crash data tabulation can be conducted to determine if the crash occurred at an intersection or a non-intersection location. Again all five years were tabulated for this summary and shown in percentage format in **Table 5.7**.

Table 5.4: Alcohol/Drugs Indicator in Fatal Crashes 2009-2013 in Pueblo County

Year	Fatal Crashes	Deaths	Alcohol or Drugs Involved	% Alcohol or Drug Related
2009	22	22	5	23%
2010	19	20	6	30%
2011	23	24	10	42%
2012	22	25	7	28%
2013	14	15	6	40%

Source:: CDOT

Table 5.5: Locational Indicator of Crashes by Severity 2009-2013 in Pueblo County

Type of Roadway	Location of Crash (Total 2009-2013)		
	Fatal	Injury Only	PDO
Interstate	24	658	1,604
State Highway	41	1,977	4,104
City Street	19	2,526	7,176
County Road	15	247	640
Frontage Road	1	18	46
Total	100	5,426	13,570

Source: CDOT



Table 5.6: Roadway Class Percentages by Crash Severity - 2009-2013

Type of Roadway	Location of Crash (Total 2009-2013)		
	Fatal	Injury Only	PDO
Interstate	24%	12%	12%
State Highway	41%	36%	30%
City Street	19%	47%	53%
County Road	15%	5%	5%
Frontage Road	1%	0%	0%
Total	100%	100%	100%

Source: CDOT

Table 5.7: Locational Percentages by Crash Severity - 2009-2013

Road Type	Severity of Crash		
	Fatal	Injury	PDO
At Intersection or Intersection Related	32%	57%	45%
Non-Intersection	65%	36%	45%
At Driveway Access	1%	5%	7%
Ramp	1%	2%	2%
All Other	1%	1%	1%
Total	100%	100%	100%

Source: CDOT

Looking at the data in **Table 5.7**, and using the total of five years of data, allows the contribution of the intersection to emerge in crash events. In this table, the category “All Other” includes “In Alley”, “Parking Lot”, “Roundabout” and “Unknown”.

- Intersections contribute to the occurrence of fatal crashes in 32% of instances over the last five years. These events are far more likely (65%) to occur in non-intersection locations.
- The reverse is true for crashes with injuries where 57% of these occurrences are related to intersections and 36% at non-intersections.
- PDO events are split between intersection and non-intersection locations (45% each). Driveway access is a major contributor to the balance of the road type present when PDO crashes take place.

In summary, fatal crashes are twice as likely to occur on the travel lane (non-intersection) than at or near an intersection. Crashes with injuries only are more likely to take place at an intersection though the travel lane still contributes strongly to the total, and PDO

crashes are equally spread at intersection and non-intersection locations with driveway access playing a significant role.

Time of Day of Crashes by Severity

An overview can be conducted on the data to understand the time of day during which crashes occurred in Pueblo County. Again all five years were tabulated for this summary and presented in both percentage and graphic form below.

Table 5.8 divides the crashes into 24 categories, each representing the hour in a 24-hour day during which the crash occurred and then sorts for the severity of the crash. Each hour category contains all crashes that occurred during any part of that hour.

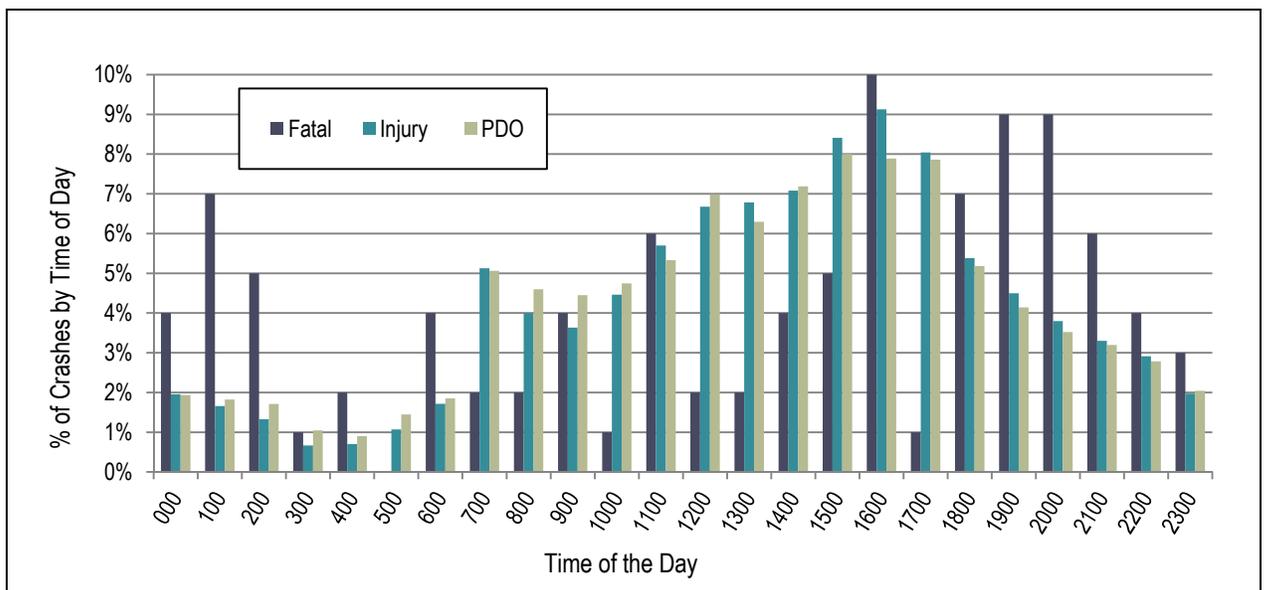
Table 5.8 and **Figure 5.3** communicate the same findings. Crashes with fatal outcomes are most likely to occur during one of two time intervals: (1) in the early morning hours (midnight to 3 am) or (2) during the late afternoon and evening. Injury or PDO events, however, generally occur between 7 am and 6 pm with a peak during the hour starting at 4 pm.

Table 5.8 Time of Day of Crashes 2009-2013 in Pueblo County

Hour	Severity		
	Fatal	Injury	PDO
0000	4%	2%	2%
0100	7%	2%	2%
0200	5%	1%	2%
0300	1%	1%	1%
0400	2%	1%	1%
0500	0%	1%	1%
0600	4%	2%	2%
0700	2%	5%	5%
0800	2%	4%	5%
0900	4%	4%	4%
1000	1%	4%	5%
1100	6%	6%	5%
1200	2%	7%	7%
1300	2%	7%	6%
1400	4%	7%	7%
1500	5%	8%	8%
1600	10%	9%	8%
1700	1%	8%	8%
1800	7%	5%	5%
1900	9%	4%	4%
2000	9%	4%	4%
2100	6%	3%	3%
2200	4%	3%	3%
2300	3%	2%	2%

Source: CDOT

Figure 5.3 Time of Day of Crashes 2009-2013 in Pueblo County



Source: CDOT

5.2.5 Summary

Crash data provided by CDOT for Pueblo County serves to frame existing conditions for a safety overview as well as provide information on which potential areas to address. All types of crashes, fatal, injury and PDO, have been diminishing in number between 2009 and 2013 in the county which is good news for PACOG. Drugs and/or alcohol are a factor in between 23% and 42% of fatal crashes in the county pointing to the need for education and/or punishment aimed at reducing this type of activity. Crashes take place at both intersection and non-intersection locations fairly equally, but fatal crashes are associated with higher speed facilities pointing to a need to focus on any known locations on I-25 and U.S. Highway 50 for investment in safety to save lives. And finally, the time of day of crashes provides some guidance on where to invest. The pm peak is a problem area for all three categories of crashes. It is possible that a renewed focus on intersection safety, improved signal timing, and education on both common courtesy and acknowledging fatigue at the end of the working day could address the temporal aspect of crashes in the county.

5.3 Security

Since September 11, 2001, there has been growing awareness of the need for emergency preparedness and attention to Homeland Security issues. Title 23 in the Code of Federal Regulations, in Section 450.322(f), states: “The metropolitan transportation plan should include appropriate emergency relief and disaster preparedness plans and strategies and policies that support homeland security as appropriate and safeguard the personal security of all motorized and non-motorized users.” The context of transportation security as a planning factor is also linked to the U.S. Department of Homeland Security and the 2006 implementation of the National Incident Management System (NIMS)⁹. The NIMS was issued in 2004 to provide a comprehensive and consistent national approach to all-hazard

incident management at all jurisdictional levels and across functional disciplines. Full compliance with the NIMS certification process was required by September 2006. Beginning in 2007, NIMS compliance is a condition for jurisdictions to receive federal preparedness funding assistance.

From a transportation planning perspective, security is an emerging area of concern, and each MPO will have different security priorities. A first cut tabulation of what the transportation plan should reflect with respect to security includes:

- Defining the role of the MPO and public transportation operators in promoting security, which may in part be defined elsewhere in state or local legislation related to emergency management responsibilities.
- Identification of critical facilities and transportation system elements and the risk to assets such as highways, transit systems, or rail lines critical to national defense or economic security, and infrastructure intricately related to potential high-value security targets.
- Identification of appropriate security goals and strategies.
- Reflection of projects and strategies that will increase the security of transportation system users in the LRTP and the Transportation Improvement Program (TIP).

PACOG understands that the focus of the multi-jurisdiction security planning efforts is to minimize the direct or indirect disruptions caused either by natural or human actions. These disruptions can occur in any season of the year and cover a limited or a wide-ranging area in the Pueblo MPO region. Examples of the types of events are:

- Natural events – Tornado, blizzard, flood or wildfire.
- Human-caused events – Hazardous material incident, power outage, act of terrorism, civil disturbance.

The events that requires a security response have in common that they are unexpected, that lives are in jeopardy and that emergency personal may not be available due to a high demand for their services.

⁹ <https://www.fema.gov/national-incident-management-system>

5.3.1 Security Goals – National

The U.S. Department of Transportation (USDOT) has adopted a conceptual level security, preparedness and response goal as part of its strategic plan. This goal is to “balance transportation security requirements with the safety, mobility and economic needs of the nation and be prepared to respond to emergencies that affect the viability of the transportation sector”.

The main federal objectives for security are:

- Developing/obtaining expert transportation sector intelligence.
- Building preparedness for emergencies affecting the transportation sector.
- Planning for effective response to emergencies affecting the transportation sector.

PACOG is addressing security issues by cataloging available emergency management resources and documenting actions that the area has already undertaken, at both the state and local levels.

5.3.2 Security Goals – State of Colorado

State of Colorado Emergency Operations Plan

The purpose of the Colorado State Emergency Operations Plan (SEOP) is to identify the roles, responsibilities, and actions of state government in disasters. Emergency operation plans address the ability to direct, control, coordinate, and manage emergency operations. Each level of government should respond to an incident using its available resources, to include the use of mutual aid, and may request assistance from the next higher level of government, if required. When local government capabilities are overtaxed, state government has resources and expertise available to provide emergency or disaster assistance. The state will modify normal operations and redirect resources to assist and support local governments in saving lives, relieving human suffering, sustaining survivors, protecting property, and reestablishing essential services. Federal government resources and expertise can be mobilized to augment

emergency or disaster efforts beyond the capabilities of state government.

The SEOP identifies fifteen Emergency Support Functions (ESFs) that list the types of assistance activities that local government may need regardless of the nature of the disaster or emergency. CDOT emergency support activities include:

1. Processing and coordinating requests for state, local, and civil transportation support as directed under the SEOP.
2. Reporting damage to transportation infrastructure as a result of the incident.
3. Coordinating alternate transportation services.
4. Coordinating the restoration and recovery of the transportation infrastructure.
5. Coordinating and supporting prevention, preparedness, and mitigation among transportation infrastructure stakeholders at the state and local levels.

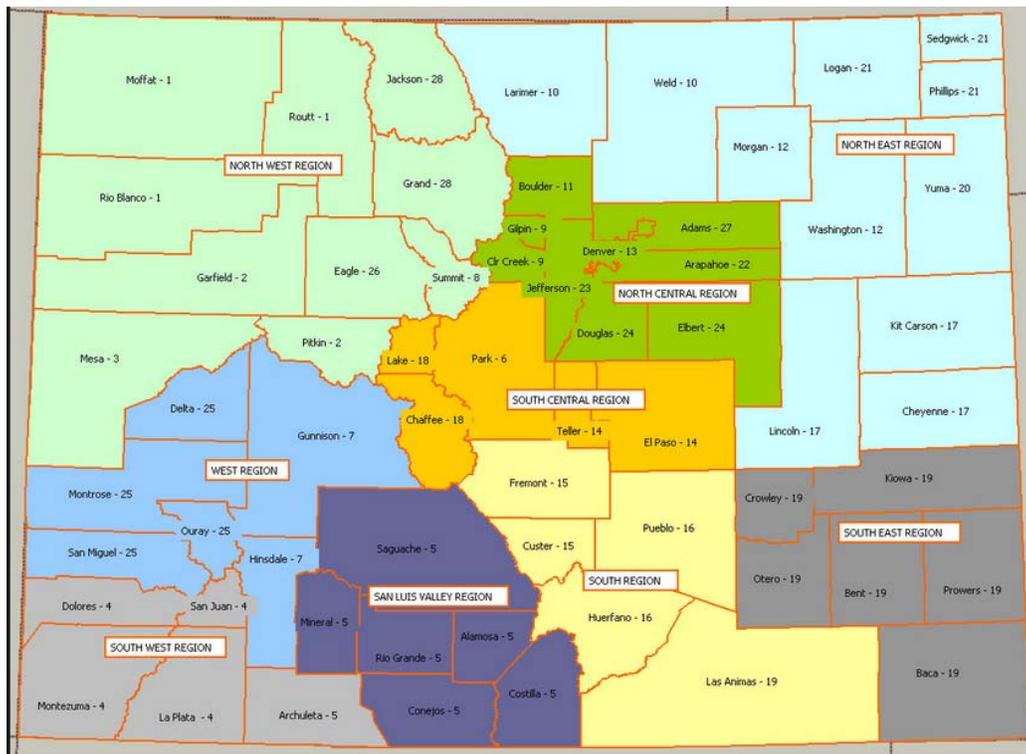
The Colorado Division of Emergency Management (CDEM) provides financial and technical support to local governments throughout the state with both out-stationed and in-house staff. Pueblo is in the South Region of this Division as shown in **Figure 5.4**.

State of Colorado Homeland Security Strategy

The State of Colorado Homeland Security Strategy was prepared by the Colorado Department of Local Affairs with extensive cooperation and input from the Governor’s Office, the Colorado Department of Public Safety, the state’s county emergency managers, the regional Homeland Security coordinators, and the Center for the Study and Prevention of Violence at the University of Colorado-Boulder.

Colorado’s Homeland Security Strategy provides a framework for enhancing the state’s ability to prevent, respond to, and recover from an act of terrorism. The plan furnishes state and local officials with the means to develop interlocking and mutually supporting emergency preparedness programs.

Figure 5.4: Pueblo within the Homeland Security Region System



Source: Colorado Department of Local Affairs

The plan focuses on preparedness for acts of terrorism and addresses disaster planning that is supplemented by local strategic and operations plans. This coordinated effort by federal, state, and local governments identifies needed resources, develops strategies, and creates partnerships throughout the public and private sector that serve as a foundation for homeland security efforts now and in the future.

State Homeland Security/Emergency Management

Colorado's Multi-Agency Coordination Center (MACC) offers the ability for state, federal, and local agencies to come together in a central location to coordinate the response to emergencies and disasters throughout the state. The MACC is a state-of-the-art center developed specifically to help Colorado respond to any type of disaster or emergency it may face in today's world. The center is housed with South Metro Fire and Rescue in Centennial, Colorado. The Colorado Information Analysis Center (CIAC) was added to the center with the disaster

prevention focus and strong links to federal and local agencies. The MACC is linked to CDOT's Transportation Operations Center (TOC) which provides highway surveillance camera displays to monitor state roadways and weather throughout Colorado. The center also provides general intelligence on all transportation systems including railroads and airports. The TOC has command and control over all state road systems, bridges, and underpasses, provides avalanche analysis and control, and acts as the command and control center in the event of an emergency.

Colorado Department of Transportation

CDOT's role in emergency management consists primarily of safeguarding and maintaining the state transportation system in the affected area and facilitating and coordinating evacuation routes that utilize the state transportation system. CDOT maintenance staff comprises the primary responders for both damage to CDOT infrastructure and assistance to others, but staff from other areas may be utilized as needed.

Colorado State Patrol

The CIAC is designed to be a cross-jurisdictional partnership between local, state, and federal agencies, including private sector participation when appropriate. This center provides one central point in Colorado for the collection, analysis, and timely dissemination of terrorism-related information. Information is distributed from the CIAC in the form of daily reports, special reports, and bulletins to numerous agencies representing a multitude of disciplines, including the Colorado State Patrol.

5.3.3 PACOG’s Role in Security and Emergency Management

MPOs also have a role in security and emergency management efforts. This role varies based upon the political and institutional context of the region. Clearly, emergency management, public safety, and transportation operating agencies have the primary responsibility for responding to disasters. However, outside of the immediate urgency of response, there are opportunities to support coordinated responses to potential incidents and to assist in developing strategies for how to handle demands on the transportation system, before or after an incident, in which the MPO can play an important role. As a facilitator of collaboration, the MPO can assist in multiple ways. The MPO can serve as a forum for cooperative decision making, or as an advocate for funding of regional transportation strategies. At the technical level, the MPO can provide transportation network-based technical analyses to assess both the impacts of and needs related to security and emergency management efforts.

The Public Works Departments of the City of Pueblo and of Pueblo County are important partners in the PACOG security planning process. They are also the stewards, with CDOT, of the key portions of the existing roadway network as noted in the existing conditions section. Note that in this particular section of the RTP, safety and security are blended in how they deliver value to the residents of the PACOG region. Specific roles and responsibilities of the regional leadership include:

- Inspection of bridges, roads, signs, lighting, airports, and sidewalks for damage.

- Coordination and repair of damaged transportation structures, including roads, traffic control systems, and signage.
- Maintaining rights-of-way for emergency vehicles.
- Assisting in traffic management during incidents.
- Helping secure geographic areas with roadblocks or other physical measures.
- Establishing short-term and long-term detours and signage.
- Removing debris and cleaning streets and roadways.
- Setting priorities for restoration of transportation systems.

5.3.4 PACOG’s Policy Goals for Security

The current 2040 PACOG RTP formalizes the security goal of the MPO by citing it specifically:

To increase the security of the transportation system by implementing secure transportation improvements and securing existing transportation facilities

The intent of this goal is to move towards providing enhanced transportation system and personal security for both residents of and visitors to the region. This goal would include securing high-value targets through measures including access control, monitoring/surveillance, standoffs, and “hardened” construction. The measures utilized would vary based on the threats posed (e.g., earthquake, hurricane, wildfire, or terrorist attack). Personal security measures would include emergency call phones, improved lighting and surveillance. It is anticipated that performance measures would be identified in more detail as security goals nationwide are better defined. They may include the percentage of identified high-value targets secured, the percentage of identified redundant evacuation routes implemented, or the percentage of identified transportation facilities secured for the traveling public.

The first step in the security realm is the cataloging of PACOG transportation assets. It is anticipated that a baseline year can then be set in the near future and that all transportation assets will be subjected to a deadline for a full security audit.

5.3.5 Key PACOG Transportation Assets

Key transportation system assets in the PACOG Planning Area include:

- Interstate Highway System.
- National Highway System Routes (NHS).
- Strategic Highway Network Routes (STRAHNET) –The STRAHNET is the road system deemed necessary for emergency mobilization and peacetime movement of heavy armor, fuel, ammunition, repair parts, food, and other commodities to support U.S. military operations of the five installations in the region.
- Transit System – The transit system is particularly important relative to its potential contribution to the evacuation of areas.
- Pueblo Memorial Airport.
- The Burlington Northern Santa Fe (BNSF) and Union Pacific (UP) Rail Line Corridors.

Most of these facilities are linear in nature, and while risks exist across these networks due to a potential incident, there is built-in redundancy from the supporting network of state, county, and city roadways that can serve, if necessary, as alternative routes for the movement of vehicles in the case of an incident. However, there are elements of these networks, such as key bridges, that, if damaged would have a more significant effect on the operation of the system.

Using guidelines developed in the report, *National Needs Assessment for Ensuring Infrastructure Security* (SAIC/Parsons Brinkerhoff, October 2002), an assessment to identify potentially important bridge facilities should be carried out. The key criteria for this analysis include:

- Casualty risk.
- Economic disruption.
- Military support.
- Emergency relief.

Agencies primarily responsible for major highway security in the Pueblo planning area include the Colorado State Patrol and local law enforcement. Effective coordination and communication among these agencies is crucial during emergency situations. Security is provided through the following techniques: routine road patrols, maintaining the traffic

management/operations center, flight patrols, and crash and criminal investigations.

5.3.6 Freight Security

Truck Freight Security

The Colorado State Patrol and the county sheriff are primarily responsible for providing security on the Pueblo region's truck freight network which generally implies the interstate and U.S. Highway system. Truck freight security initiatives include:

- Mandatory roadside freight check-points.
- State permitting for haulers.
- Commercial vehicle requirements.
- Restricted travel times.
- Specific restrictions for hazardous material haulers.
- Background checks.
- Carrier safety ratings and assessments.
- Preferred hazardous material routing.
- Safety audits and surveys.
- A security training program.

The Transportation Security Administration (TSA) has been working closely with a number of chemical shippers to develop a series of baseline security standards for both Toxic Inhalation Hazard and hazardous chemicals of concern. Those standards will address specific areas such as vehicle tracking, vehicle attendance, vehicle alarm systems, truck cab access controls, locking fifth wheel on tank trailers, and security route and stop areas.

Rail Security

In the United States, a large percentage of hazardous material is transported over rail. The rail lines through the Pueblo region are potential routes for many types of hazardous material from chemicals to radioactive waste.

Freight rail does not offer terrorists the high densities of passenger targets, but it does provide terrorists with some opportunities that passenger rail does not afford. In particular, freight rail is used to transport hazardous materials and dangerous cargoes. An estimated 40% of inter-city freight transport occurs by rail, including half of the nation's hazardous materials.

In the aftermath of the September 11, 2001 terrorism events, the leadership of the freight rail industry generated more than 100 action items, a multi-stage alert system, and around-the-clock communications with homeland security and national defense officials. These action items were based on the results of a strategic review of the transportation of hazardous materials; the security of the industry's information infrastructure, freight rail operations, and infrastructure; and military needs relating to the rail network. The critical action items included the need to:

- Integrate protective housings, valves, and fittings into hazardous transport infrastructure to prevent tampering and facilitate emergency response.
- Increase surveillance of freight equipment through training of staff on observation and installation of video surveillance equipment. Improve operations by monitoring for signal tampering, requiring crews and dispatchers to verify communications for train movements and dispatches, and locking locomotive doors to prevent hijackings.
- Secure the information infrastructure that terrorists could use to enhance attacks or cause systemic shutdowns. Collaborate with the Department of Defense to ensure the viability of STRACNET (Strategic Rail Corridor Network)-designated rail lines that are capable of meeting unique Department of Defense (DOD) requirements, such as the ability to handle heavy, high, or wide loads.

It is not clear how much should be spent on rail security relative to security at other potential targets. The rail corridor that travels through the Pueblo region is heavily used and suffers from a lack of alternative routes. Attacks on critical freight nodes or functions could, therefore, create substantial bottlenecks and throughput pressures. The freight rail system is in the hands of the private sector; and the BNSF and UP have comprehensive security programs in place at this time. A collaborative effort between the railroads and PACOG may be valuable.

Aviation Security

The Pueblo Memorial Airport (IATA: PUB, ICAO: KPUB, FAA LID: PUB) is a public airport that is owned and operated by the City of Pueblo. It is used for general aviation and by one airline, subsidized by the Essential Air Service program. Federal Aviation Administration (FAA) records say the airport had 4,345 passenger boardings (enplanements) in calendar year 2008, 5,192 in 2009 and 11,641 in 2010. The FAA's National Plan of Integrated Airport Systems for 2011–2015 called it a non-primary commercial service airport based on enplanements in 2008/2009 (between 2,500 and 10,000 per year). It is used for commercial passenger flights, charter, military, business, and passenger service by based and visiting aircraft, recreational and general aviation flight, and flight training. Security measures installed at the Pueblo Memorial Airport include monitored surveillance of airport property by airport security, video surveillance cameras, fenced grounds, and luggage and passenger screening by TSA personnel.

5.3.7 Recommended Future Activities for PACOG

The Pueblo MPO has identified a small set of tasks to better integrate security into the LRTP. The MPO understands that much of the response framework is in place and that PACOG's offers the ability to coordinate activities and to prepare technical analysis to support resource allocation. It is anticipated that the efforts listed below will be addressed on an ongoing basis.

Begin the process to identify state and local agency efforts and/or private sector efforts to enhance security planning for the PACOG transportation system.

Work to provide safe and secure facilities and transportation infrastructure for residents, visitors, and commerce in the PACOG planning area through efforts to reduce injuries, fatalities, and property damage for all modes of transportation, and to minimize security risks at airports, rest areas, and public transportation facilities and on roadways and bikeways.

Start the process of:

- Completing a risk and vulnerability assessment of transportation assets.
- Assisting in the identification of key evacuation routes from activity areas in Pueblo.
- Preparing demographic profile information and a geographic inventory of transportation-disadvantaged populations that may need assistance during a disaster to evacuate.