4.01 INTRODUCTION

Because of the number of communities and military installations involved in the Colorado Springs Regional Joint Land Use Study (JLUS), addressing compatibility issues often requires a regional approach involving multiple partners: residents, local decision-makers, and military installation representatives. This chapter provides background at a regional scale on the relationships among compatibility issues, mission operations, and community stakeholders. Compatibility issues specific to each installation are described in their respective chapters (Chapters 5-9).

Source: PPACG
1. **Regional Coordination** – Working to maximize the effectiveness of coordination across multiple military installations, local jurisdictions, community organizations, and residents is crucial to effectively address all other JLUS challenges.

2. **Transportation** – Adequate transportation will affect development and services for military installations and drive adjacent land uses that can affect their missions.

3. **Stormwater** – Stormwater management can exacerbate runoff, degrade stream stability and water quality, and increase flood risks.

4. **Water Supply** – Water plans at the state and regional level have identified future water supply gaps, efficiencies that can be achieved, and planning efforts to encourage best practices.

5. **Wildfire** – Fires affect buildings and infrastructure and damage watersheds and other natural areas. This can also result in flash flooding and mudslides.

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<th>Issue</th>
<th>Air Force Academy</th>
<th>Fort Carson</th>
<th>Peterson AFB</th>
<th>Cheyenne Mountain AFS</th>
<th>Schriever AFB</th>
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*Note: x indicates issue studied related to this installation.*
REGIONAL COORDINATION
Because of the presence of five military installations in the region, effectively communicating with and gathering feedback from the public can be a challenge. Information relating to deployments, flight operations, and public events is regularly distributed via broadcast and print media, as well as online sources, including social media. In some cases, residents can contact military installations directly to obtain information.

As discussed by stakeholders in the Communication Working Group, effective communication is based on what the installation or organization wants to communicate, what information the public is most interested in knowing, and how the public is commonly receiving information.

Public communication around JLUS issues occurs through four distinct exchanges between:

1. Military representatives and residents
2. Military representatives and local governments
3. Military representatives and local private organizations or businesses
4. Local governments and residents

In the past, military installations have utilized existing and new methods for communicating with the public and listening to public concerns even if there were no updates on the issue. Regularly checking in with political representatives, attending and providing updates at city or town council meetings, and keeping local civilian leaders and their staff informed has created effective conduits to communicate information to the public in addition to dissemination through online tools and media outlets.

In addition to general coordination and communication that takes place between the regional military installations and the community, coordination is required to address specific areas relevant to this JLUS, most notably relating to land use regulation and wildfire management.

State Tools
The Colorado House of Representatives and state Senate each have a State, Veterans, and Military Affairs Committee that considers matters concerning elections, campaign finance, military and veterans affairs, and other subject areas related to state government. In addition, the committee has legislative oversight responsibility for the Department of Military and Veterans Affairs (DMVA). The Executive Director of the DMVA, the Adjutant General, is a member of the Governor’s Cabinet.

Colorado Revised Statutes (CRS) 43-1-1103 (5) (b.5) requires that state transportation plans shall be developed in “coordination with federal military installations in the state to identify the transportation infrastructure needs of the installations and ensure that those needs are given full consideration during the formation of the state plan.”

Colorado House Bill 10-1205 modifies law relating to land use planning by county and municipal governments to address the impacts of military installations in close proximity to local governments. Previously, a local government with a military installation, or a portion of a military installation within its territory, was required to submit to the commanding officer of the installation information about proposed changes to the local government’s zoning plan or land development regulations within two miles of the installation. The act alters this provision by applying the information submission requirements to local governments within two miles of military installations and requiring local governments to also submit the information to installations flying mission commanding officers. Under the act, a military installation now has 14 business days to review the information and submit comments to the local government; previously, there was no set deadline for comments in state law. {Emphasis added}
HB 17-1054 was passed pursuant to the 2013 National Defense Authorization Act, 10 U.S. Code sec. 2679, which created an intergovernmental support agreement program between the federal DOD and state and local entities to support cooperative agreements between military installations and their host communities. The state legislation directs the Department of Local Affairs to support cooperative intergovernmental agreements between military installations and local governments within existing programs, resources, and technical expertise.

The Colorado Thirty Group is a nonprofit with over 150 distinguished participants from across the state. Participation is by invitation only and participants are entrusted with communicating between local Colorado communities and the military to ensure good relations and provide a supportive environment for all.

Other state programs that support the military families beyond the JLUS scope:

- Spousal licensure: The Colorado Department of Regulatory Agencies has implemented a distinctive program to support the mobility and transportability of a military spouse's professional license in instances when a military spouse has been relocated to Colorado by military orders and has an active license in good standing from another state.
- In-state tuition is available for military children even if the parents are deployed elsewhere.

Local Tools

- Pikes Peak Area Council of Governments: includes all installation military leadership as non-voting members of the Board of Directors, and installation planning representatives as non-voting members of the Transportation Advisory Committee.
- Chamber of Commerce and Economic Development Corporation (Chamber/EDC)-Military Affairs Council (MAC): Established in 1941 and meets monthly in Colorado Springs. Honorary members include all levels of local, state, and federal delegation as well as active duty in command positions and their senior enlisted leaders.
- Area Chiefs of Staff: The group meets monthly and is hosted by the Chamber/EDC, the MAC, and includes representatives from local governments.
- Defense Mission Task Force (DMTF): This task force was established in 1995 and meets bimonthly in Colorado Springs. The group includes installation leadership, congressional delegation representatives, and other stakeholders brought together when their input is needed on a specific issue. Task organizers work through issues as they arise.
- Community Relations (ComRel): This group consists of the Chamber of Commerce and Economic Development Corporation, Military Affairs Council, and Public Information Officers from each installation. ComRel meets monthly to discuss and deconflict upcoming events.
- Senior Enlisted Breakfast: This group meets bimonthly. At these meetings, the MAC and Chamber/EDC leadership meet with the most senior enlisted members, major commands, and other representatives from each of the five installations in the Pikes Peak region.
- Informal Professional Networks: This consortium general consists of the leadership of local chapters of national organizations associated with military and defense issues. As needed, these organizations are called together to rally around a particular issue requiring broad-based support.

There are many other notable local military partners that provide additional support that are outside the scope of the JLUS but important to acknowledge, including:

- El Pomar Foundation: This is a local non-profit with strong military ties that is a foundation for Colorado with the mission that is dictated by the values of Spencer and Julie Penrose, prominent early residents of Colorado Springs. The organization operates in the areas of arts...
and culture, civic and community initiatives, education, health, and human services.

- **Homefront Cares**: A non-profit that helps with supporting local military through providing emergency financial assistance and responsive support to Colorado’s military members, veterans and their families.

- **Warrior Family Community Partnership**: This partnership is associated with Fort Carson and is an extension of the Army Community Covenant, an Army program that partners units and installations with local communities to improve the quality of life for soldiers and their families.

- **Peak Military Care Network**: This previous planning effort that began in PPACG as the Fort Carson Growth Plan generated the creation of a network that connects military service members, veterans and their families in the study region to 44 partner agencies (at the time of this study) who are committed to understanding military and veteran culture and the unique needs of service members, veterans and their families.

**Informing the Public**

Multiple working groups had discussions about how to help homebuyers access publicly available information that would help them understand the experience of living in an area where military operations occur. Residents living near an airfield and/or military installation experience periodic noise, transportation impacts, and irregular or seasonal flight activity. These impacts, which may not have been present when the homebuyer was considering neighborhood qualities, can cause strained relations with the installation. Figure 4.1, Regional Growth Map, shows structures built before and after the first military installations were established in the area in the 1940s in preparation for World War II.

Residential development in accident potential zones (APZs) or beneath flight patterns need specific resources associated with those areas. Plat notes, information provided by developers and real estate professionals, zoning regulations, websites, and informational handouts can help potential residents understand that daily life near an installation will include the sights and sound of aircraft, artillery, or other weapon systems.

Input gathered as part of a resident survey in 2016 indicated that most interest in military operations is simply curiosity about what aircraft are flying overhead and what military events or operations may affect residents’ daily lives. The community is generally supportive of military operations and related impacts because they are seen as a necessary part of fulfilling the installations’ respective missions and a core element of the community’s collective identity.

However, several residents also expressed concerns about potential negative safety impacts or noise disturbances.

**Wildfire Coordination**

Military and civilian fire departments have developed integrated communication networks to jointly share resources when a wildfire occurs. This protects the region regardless of where the fire takes place. Media outlets are also well integrated into this effort to communicate with the public during wildfires.

In addition, coordination prior to wildfire emergencies has taken place on many fronts. PPACG transportation planners worked with the City of Colorado Springs to identify optimal evacuation routes. Fire departments and fire prevention agencies have created educational materials and conducted public outreach to help residents protect their properties from fire.

There are additional opportunities where focused efforts could occur within neighborhoods along installation boundaries, including Cheyenne Mountain Air Force Station (AFS), Fort Carson, and the Air Force Academy. Working with residents to create defensible space on their properties on or near installation boundaries is a proactive measure to protect private property that also reduces the chance that fire will spread.
Land Use and Development Review
The basis of land use planning is to protect the public’s health, safety, and welfare by ensuring that the use of one property does not negatively impact the use of another. Land use is governed by local zoning ordinances and guided by comprehensive plans developed and administered by local jurisdictions. The military also has a vested interest in land use planning and maintaining compatible land uses to sustain military missions.

To evaluate development projects within the context of these requirements, military and civilian land use planners have a review process for land use development applications. Development applications are typically submitted to a local government office and include, but are not limited to, site plans, grading plans, landscape plans, lighting plans, utility plans, geological hazard reports, soil reports, traffic studies, and/or fire flow plans. One of the unique factors in the review process is the Colorado State Statutes that require civilian agencies to submit development applications to military installations when those developments are located within two miles of the installation boundary. Each jurisdiction has its own system of communication and review deadlines for the development application process. Generally, the review process works well between civilian agencies and the military, but historically, there have been challenges with resolving compatibility issues within this process. Both civilian and military land use review groups have internal protocols that can conflict with review timelines and deadlines which have caused certain types of development and land uses that are in direct conflict with or impact military missions. The JLUS process identified opportunities for improvement, some of which have been resolved through the connections made as part of the JLUS working group efforts. Other development review process challenges will be worked on through the implementation process, set to begin in January 2019. The review process – including meeting deadlines, holding application meetings, and collaborating between civilian and military planners – was among the topics that were discussed by the Land Use and Development Review Working Group throughout this study.

Colorado House Bill 10-1205 created requirements (C.R.S. 29-20-105.6) for local governments to “provide to the installation commanding officer and the flying mission commanding officer, or their designees, information relating to proposed zoning changes, and amendments to the local government’s comprehensive plan, or land development regulations that, if approved, would affect the use of any area within two miles of the military installation.”

Public Lands
Recreational opportunities on public lands are a primary draw of new population to this region. It also serves as an essential military training asset due to the topography, varied environments, and undeveloped land under flight training routes. However, public land management also impacts wildfire severity, watersheds, and wildlife and ecosystem health. As shown in Figure 4.2, The Bureau of Land Management, National Park Service, U.S. Forest Service, U.S. Fish & Wildlife, Non-Government Owned Land, and State Land Trusts, and other entities, illustrate the abundance and diversity of public lands and stakeholders in the region.
Figure 4.1
REGIONAL GROWTH MAP

Data Source: Pikes Peak Regional Building Department, PPACG
Figure 4.2

REGIONAL FEDERAL LANDS

Data Source: PPACG

Data source: Colorado State Land Board website. The areas represented in blue indicate lands managed or owned by the Colorado State Land Board. Within these lands is the 50,000 acre Chico Basin Preservation Area (not depicted): 22,000 acres in Pueblo County; 28,000 in El Paso county.
VERTICAL OBSTRUCTIONS
Wind energy provides 17 percent of the total electric energy produced in Colorado. The wind energy generation potential represented on Figure 4.4, Regional Wind Power Classifications, indicates that additional future wind energy generation projects could be proposed within the study area. Effective coordination with the military installations, the Federal Aviation Administration (FAA), and National Oceanic and Atmospheric Administration (NOAA) radar operations are essential for compatible wind energy generation development.

Source: https://www.awea.org/resources/free-use-wind-energy-image-gallery
Figure 4.4
REGIONAL WIND POWER CLASSIFICATIONS

Data Source: National Renewable Energy Labs (NREL), PPACG; 2016 data

Map Terms: m: meter; W/m²: watt per square meter; m/s: meters per second; mph: miles per hour
TRANSPORTATION

Military planners and civilian transportation planning officials have been using the TAC at PPACG to address regional transportation needs. This committee coordinates various transportation stakeholder groups at a regional level to discuss transportation needs for both the community and the military installations. It is a valuable resource for newly elected officials to access institutional knowledge related to regional transportation.

While the community's transportation interests are far reaching, installations are primarily concerned with the interface with the community and whether traffic/transportation needs are met for their personnel. Adequate transportation will affect development and services for military members and drive adjacent land uses that can affect military missions.

Rail lines in the region such as Burlington Northern & Santa Fe, Pikes Peak Cog Railway, Amtrak, among others, illustrate the regional railroad transportation network. As shown in Figure 4.5, Regional Railroad Network, railroad freight corridors are active in this region and utilized by Fort Carson to transport equipment.

Source: PPACG
Figure 4.5
REGIONAL RAILROAD NETWORK

Data Source: PPAC
STORMWATER
As shown in Figure 4.6, Regional Water Basins, the Pikes Peak region is home to several stormwater basins, many of which originate within Pike National Forest. The JLUS region contains the Fountain Creek Watershed, which extends 927 square miles from Palmer Lake to Pueblo and is one of the more complex watersheds in the nation for several reasons, including:

- the natural settling of decomposing Pikes Peak granite
- a 9,500-foot elevation change over 60 miles
- more than 50 intermittently flowing creeks
- rapid development of the City of Colorado Springs and surrounding region
- Expansion of impervious surfaces
- two major fires in the last 5 years and subsequent flooding

The regional stormwater system has its own network of piping/conveyance infrastructure. Additional water basins, including the Upper Arkansas, Upper South Platte, Fountain, and Chico water basins are important components to the water supplies for the region. Stormwater runoff does not go into the wastewater collection system or treatment plants. Instead, it flows directly into local waterways, ultimately ending up primarily in the Fountain Creek drainage basin, along with any pollutants it collects along the way.

Watersheds in the Pikes Peak region are characterized by a variety of land uses, including areas of rapid urban and suburban development. This has the potential to exacerbate runoff and undermining the natural geomorphic protection and stream stability. This can in turn impact water quality and flood risks. The communities and installations in this region have a shared interest in managing water, from how it flows as stormwater to how it is managed as part of the region’s water supplies for urban and agricultural uses.

The JLUS recognizes there are multiple segments of Fountain Creek, but for the purposes of this study, the Southern Stormwater Working Group focused on those segments on Fountain Creek that affect or are affected by military missions.
Figure 4.6
REGIONAL WATER BASINS

Data Source: PPACG
AIRSPACE
As shown in Figure 4.7, Regional Airfields and Training Areas, airspace within the study area is active with civilian and military flight. Many of the region's civilian airports are utilized by military aircraft for training purposes. Peterson Air Force Base (AFB) and Colorado Springs Airport share an airfield that is experiencing increasing civilian flight and residential development on adjacent lands. The AFA Airfield is one of the busiest in the Air Force. Encroachment from development and civilian airspace use have had adverse impacts on the Air Force Academy's flight training operations causing a need to reconfigure airspace and flight routes. This issue became a core rationale for performing the Joint Land Use Study, and the related noise study (Appendix E). Discussion of installation-specific concerns on airspace use can be found within each installation chapter.

In May 2016, the JLUS Policy Committee established a Regional Airspace Committee to discuss and address common regional airspace issues of concern for the military installations, local airports, and airspace users. Discussions included topics such as collaboration between planners and airspace professionals, incompatible development around airfields, Unmanned Aerial Systems (UAS/drones), communication with citizens, real estate disclosures, military training operations, and potential community-military partnerships (see Appendix B for more information on this working group).
Data Source: PPACG, DOD; Acronyms: AAF: Army Airfield
WATER SUPPLY

Colorado has eight major river basins and several aquifers (see Figure 4.6, Regional Water Basins). Most of the water supply falls as snow in the Rocky Mountains. Because of weather patterns, more snow falls in the Colorado River Basin west of the Continental Divide. To deliver this water to the populated areas along the Front Range, transmountain diversions, such as the Colorado-Big Thompson Project and Fryingpan-Arkansas Project have been developed.

Though originally designed primarily for agricultural water supply, both projects have been increasingly supplying Colorado’s growing municipalities. Because of river compacts, Colorado doesn’t control all the water originating within its borders, and out-of-state players have their own interests, particularly for the “big four” Colorado rivers: the Arkansas, Colorado, South Platte, and Rio Grande.

Colorado’s Water Plan has identified a substantial gap for the Pikes Peak region between the future demand for water compared to the current supply. El Paso County’s Water Master Plan has helped develop further understanding of current water supply and demand conditions, has identified efficiencies that can be achieved, and has taken steps through the comprehensive planning and development review process to encourage best practices for water demand management, water efficiency, and water conservation.

The City of Colorado Springs’ largest enterprise, Colorado Springs Utilities, is the primary water supplier for the region’s military installations, except for Schriever AFB. Colorado Springs Utilities recently finalized its integrated water resource plan (IWRP), for which members of the military were seated on the committee. Modeling within the IWRP took the potential for increased military personnel into consideration. Colorado Springs Utilities is confident that this plan incorporates water supply needs for future military missions.

Schriever AFB receives water and sanitary sewer services from the Cherokee Metropolitan District (CMD), a not-for-profit, quasi-municipal governmental entity originally established in 1957. They primarily provide water and sanitary sewer operations for Cimarron Hills customers, as well as maintenance of street lighting. CMD lies outside the city limits of Colorado Springs and is located east of and adjacent to the city in El Paso County. CMD’s service area includes Peterson AFB (not served by CMD) on the south; Powers Boulevard on the west; a northern boundary approximately 2 miles north of Constitution Avenue to Barnes Road; and the

Data Source: State of Colorado, Department of Natural Resources, Division of Water Resources
eastern boundary follows Highway 24 approximately one mile east of Marksheffel Road to Constitution Avenue. This district is roughly 6,300 acres and serves some 17,945 customers including Schriever AFB, which is technically outside of the CMD boundary. As the installation grows, it will be important for CMD to understand its anticipated infrastructure and usage needs to accommodate future mission growth and avoid water and sewer capacity issues

Communities within this region experienced groundwater issues that were beyond the scope of this study due to the urgent nature of contamination related to past use of firefighting substances (PFOA/PFCs). However, it is important to note that continued monitoring and coordination with the military on water quality management fits within the scope of coordination and communication surrounding water supplies.

**WILDFIRE**
As urban and suburban development expands into natural areas – such as forests, grasslands, or prairies – homes and businesses may be situated in or near areas susceptible to wildfires, known as the wildland-urban interface (WUI). Wildfire potential is greatest during periods with little or no rainfall and high winds, and most are human-caused.

Fires affect transportation, gas, power, communications, and other services. Flying embers can set fire to buildings more than a mile away from the wildfire itself. Extensive acreage can be burned, damaging watersheds and critical natural areas. Flash flooding and mudslides often occur in the aftermath of a fire, and the negative effects on the land can last for many years.
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