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The Flint Hills Joint Land Use Study (JLUS) is the outcome of a collaborative planning effort among the local governments of Clay, Geary, and Riley counties; the cities of Grandview Plaza, Junction City, Manhattan, Milford, Ogden, Wakefield, and Riley; and Fort Riley representatives.

The military has been a long-standing presence in the Flint Hills with Fort Riley beginning as a 24,000-acre cavalry outpost in 1853 to protect westward travelers. Today, the post is home to the 24<sup>th</sup> Infantry Division (Mech), some 11,000 assigned military personnel, almost 5,000 civilian employees, and nearly one billion dollars in annual regional economic activity. Similarly, the cities and counties around Fort Riley have grown over the years, reinforcing the close relationship between the military and the nearby community. This interdependence, however, raises the challenge that is central to the JLUS effort. The presence of civilian uses in proximity to the post puts more people near the noise and accident risks generated by military installations and can, in turn, place pressure on installations to modify their operations, possibly compromising the overall military mission.

The Flint Hills JLUS is the outcome of the public, private and military sectors acting together to achieve the primary goals of minimizing the conflict between Fort Riley interests and adjacent residents/land owners; educating the public and maintaining open communication; and promoting an understanding of the mutual benefits of an area-wide approach to development and land use decisions.

Fort Riley, which consists of 100,656 acres, provides year-round support for live-fire exercises, maneuver training for mechanized/armored vehicles, attack helicopter gunnery, small arms firing, mortar, artillery and tank firing exercises, and maneuver training. Fort Riley generates operational impacts that are typical of Army installations with noise being the most common effect. Most of the noise associated with Fort Riley results from small arms firing, large arms firing, and demolitions. Currently, aircraft are not a major component of the post's noise environment.

Small arms noise contours are contained on post lands and maneuver areas and, therefore, generally do not pose compatibility issues with surrounding civilian uses. Noise caused by the firing of large arms (large arms weapons 20 mm and greater), such as the main guns on the Bradley Fighting Vehicle and the Abrams Tank at the Multi-purpose Range Complex and around the Impact Area, however, affect noise levels experienced on off-post lands. The Land Use Planning Zone associated with large arms firing covers approximately 36,000 acres off post primarily to the north and east. Land within this zone, particularly during periods of more intense activity, can be subject to noise high enough to trigger annoyance. The more severe Noise Zone II caused by heavy weapons firing covers about 2,400 acres to the north of the post, including portions of the City of Riley. Noise exposure in this zone is sufficient to raise compatibility issues with sensitive uses. A proposed Automated Multi-purpose Training Range would further affect the noise setting around the post due to increased intensity of range use with noise contours extending farther to the north, the northeast, and west over Milford Lake.

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While the general character of adjacent communities is rural, a review of existing land use patterns around the post identifies three main areas of concern due to noise exposure from post operations: the City of Riley, the Keats area, and the City of Ogden and areas east of the post. Two regional growth trends could also raise compatibility issues with post operations in the foreseeable future—the spread of Manhattan’s expanding population along the West Anderson corridor toward the post and the emergence of dispersed residential uses within rural areas north of the post.

The JLUS reviewed both current Army policy and local government policy to determine what additional tools might be available to reduce the impacts of post activity, such as noise on surrounding lands, and to promote more compatible land use patterns around the post.

The Technical, Steering, and Policy Committees met on a regular basis throughout the JLUS planning process to evaluate a full range of available compatibility tools and develop a set of options that balances diverse interests. All of the entities participating in the JLUS, including the Army and each local government, retain the prerogative of adopting those tools that most effectively balance compatibility goals with community and military interests.

The report identifies conservation (voluntary purchase of development rights), communication (enhanced web site capabilities and informational brochures) and coordination strategies (formation of a JLUS Regional Coordinating Committee) as options for all participating jurisdictions within the region. The findings also include compatibility tools for the Army, such as the purchase of development rights to conserve affected lands; continued research into noise data collection and mapping technologies; technically feasible increases in opportunities to limit firing during weather conditions that propagate noise and to coordinate firing times and/or to reduce the number of rounds fired at critical times; and participation in the Regional Coordinating Committee.

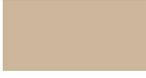
The report conducted a land use compatibility analysis to organize the study area into a series of land use categories that reflect operational and environmental issues, current growth patterns, and existing community boundaries. The analysis then identified those compatibility tools that are most effective for addressing specific operational impacts within each of the land use categories that comprise the study area.

The table below summarizes the tools identified for specific areas around the post. The land use color of each category corresponds with Figure 21 – Land Use Compatibility Map, which is included for the convenience of the reader both in Section 5 and at the end of the Executive Summary. Please see Section 5 of the report for the full detail.

## Summary Land Use Compatibility Categories and Tools

Category	Map Color	Possible Tools
Growth Opportunity Area		<ul style="list-style-type: none"> <li>▪ Comply with existing local policy</li> <li>▪ Encourage real estate disclosure in LUPZ</li> </ul>
Limited Growth Area (Noise Zone II)		<ul style="list-style-type: none"> <li>▪ Discourage noise sensitive uses (i.e. houses)</li> <li>▪ Encourage indoor sound and vibration attenuation</li> <li>▪ Encourage real estate disclosure</li> <li>▪ Encourage signing of a noise easement</li> <li>▪ Encourage compatible uses</li> <li>▪ Discourage centralized infrastructure</li> <li>▪ Target area for conservation</li> </ul>
Primary Protection Area (communities inside Noise Zone II)		<ul style="list-style-type: none"> <li>▪ Continue residential infill</li> <li>▪ Encourage indoor sound and vibration attenuation</li> <li>▪ Encourage real estate disclosure</li> <li>▪ Encourage the signing of a noise easements</li> </ul>
Secondary Protection Area (communities inside LUPZ)		<ul style="list-style-type: none"> <li>▪ Continue residential infill</li> <li>▪ Encourage real estate disclosure</li> </ul>
Air Safety and Air Approach Zones for airports	 	<ul style="list-style-type: none"> <li>▪ Comply with FAA regulations</li> <li>▪ Discourage high density activities inside the safety zone (orange)</li> <li>▪ Encourage real estate disclosure inside the safety zone (orange)</li> </ul>
Land Use Planning Zone		<ul style="list-style-type: none"> <li>▪ Encourage compatible new growth</li> <li>▪ Encourage new residential development not to exceed 1 DU/10 acres</li> <li>▪ Encourage real estate disclosure</li> <li>▪ Discourage expansion of centralized water and sewer</li> </ul>



Installation Influence Area (one-mile buffer around the installation boundary)		<ul style="list-style-type: none"><li>▪ Encourage compatible new growth</li><li>▪ Discourage high density activities</li><li>▪ Encourage real estate disclosure</li></ul>
Limited Influence Area (areas within the JLUS boundary that do not have operational impacts)		<ul style="list-style-type: none"><li>▪ Comply with local zoning and comprehensive plan</li></ul>
Conservation Opportunity Area (areas of environmental interest)		<ul style="list-style-type: none"><li>▪ Target as secondary conservation opportunities</li></ul>

# Land Use Compatibility Map

