

## What is a Joint Land Use Study?

A Joint Land Use Study (JLUS) is a cooperative land use planning effort conducted as a joint venture between an active military installation, surrounding jurisdictions, state and federal agencies, and other affected stakeholders. The Naval Support Activity (NSA) Crane JLUS is funded by a grant from the Department of Defense Office of Economic Adjustment (OEA) and contributions by Daviess County, Greene County, Lawrence County, Martin County, and Sullivan County. The JLUS effort can directly benefit both NSA Crane and the surrounding region by:

- ◆ Protecting the health and safety of surrounding residents and workers;
- ◆ Preserving long-term land use compatibility between NSA Crane and the surrounding communities;
- ◆ Promoting community planning; and
- ◆ Encouraging cooperation between the military installation and community officials.



## JLUS Objectives

The goal of a JLUS is to reduce potential conflicts between military installations and surrounding areas while accommodating new growth and economic development, sustaining economic vitality, protecting public health and safety, and protecting the operational missions of the installation. Joint Land Use programs have three core objectives:

**UNDERSTANDING.** Increase communication between the military, local jurisdictions, and stakeholders to promote an understanding of the strong economic and physical relationship between NSA Crane and its neighbors.

**COLLABORATION.** Promote collaborative planning between the military, local jurisdictions and stakeholders in order to ensure a consistent approach in addressing compatibility issues.

**ACTIONS.** Develop and implement strategies for reducing the impacts of incompatible activities on the community and military operations. Design tools to support compatibility in the future.

## Who will guide the JLUS development?

Two committees (comprised of city, county, military, and other stakeholders), together with the public, will guide the development of the JLUS. Each group has an important role to play:

**Policy Committee (PC).** The PC is responsible for leading the direction of the JLUS and monitoring the implementation and adoption of policies and strategies.

**Technical Working Group (TWG).** The TWG is made up of representatives from different agencies and the planning and development community who possess the technical knowledge needed to guide and assist the JLUS process. The TWG identifies and addresses technical issues, provides feedback on report development, and assists in the development and evaluation of implementation strategies and tools.

**Public.** The public can be involved in the development of the JLUS by providing input and guidance to the process, by informing PC representatives of their concerns and recommendations, by submitting comments and feedback online at through the project website, and by attending public workshops.

## Why is it important to partner with Naval Support Activity Crane?

Naval Support Activity Crane, operational since 1941, is the third largest United States Navy installation by area and a key Department of Defense asset providing innovative, technical, and full lifecycle solutions in the areas of nuclear deterrence, munitions and missile defense, electronic warfare, counter-terrorism, and special missions. The installation is home to the Naval Surface Warfare Center Crane Division (NSWCCD) and the Crane Army Ammunition Activity (CAAA). These commands directly support national defense through their research, development, testing, engineering, and production missions.

Naval Support Activity Crane is the region's largest employer contributing more than \$2 million daily to the Indiana economy, an additional \$1+ billion in procurements of products and services, and more than \$325 million in annual salaries and benefits. People working at NSA Crane invest in community outreach and support, participating in community causes and educational programs throughout surrounding areas.

It is important to partner with NSA Crane on relevant and long-range planning projects to protect the viability and sustainability of the installation economic impact and community benefit provided to the region. The JLUS process strives to deepen the understanding of the mutual benefit shared between NSA Crane and the surrounding region.

## What Is Compatibility?

Compatibility, in relationship to military readiness, can be defined as the balance and / or compromise between community and military needs and interests. The goal of compatibility planning is to promote an environment where both entities can coexist successfully. Study area data on existing conditions obtained from the PC, TWG, and public workshops will be analyzed to identify current and future compatibility issues. This analysis will also identify the influence of regulatory measures on land use decisions and will consider existing and projected development trends within the study area. The JLUS will study the following set of 25 potential compatibility factors to determine all pertinent issues.

## AQ Air Quality

Air quality is defined by numerous components that are regulated at the federal and state level. For compatibility, the primary concerns are pollutants that limit visibility (such as particulates, ozone, etc.) and potential non-attainment of air quality standards that may limit future changes in operations at the installation or in the area.



## AT Anti Terrorism/ Force Protection

Anti-Terrorism / Force Protection (AT / FP) relates to the safety of personnel, facilities, and information on an installation from outside threats. Methods to protect the installation and its supportive facilities can impact off-installation uses.

## BIO Biological Resources

Biological resources include federal and state listed species (threatened and endangered species) and the habitats they live in or utilize. These resources may also include areas such as wetlands and migratory corridors that support these species. The presence of sensitive biological resources may require special development considerations and should be included early in the planning process.

## CA Climate Adaptation

Climate adaptation is the effort to prepare for future climate changes resulting from natural factors and human activities that influence long-term atmospheric conditions. The effects may include fluctuations in sea levels, storm and tidal surges, and changes in flood potential which can present operational and planning challenges for the military and communities.



## COM Communication/ Coordination

Communication / coordination relates to the level of interaction on compatibility issues among military installations, jurisdictions, land and resource management agencies, and conservation authorities.

## CR Cultural Resources

Cultural resources may prevent development, apply development constraints, or require special access by Native American tribes, other groups, or governmental regulatory authorities.



## DSS Dust/Smoke/Steam

Dust results from the suspension of particulate matter in the air. Dust (and smoke) can be created by fire (controlled burns, agricultural burning, and artillery exercises), ground disturbance (agricultural activities, military operations, grading), industrial activities, or other similar processes. Dust, smoke, and steam are compatibility issues if sufficient in quantity to impact flight operations (such as reduced visibility or cause equipment damage).

## ED Energy Development

Development of energy sources, including alternative energy sources (such as solar, wind, or biofuels) could pose compatibility issues related to glare (solar energy), vertical obstruction (wind generation), or water quality / quantity.

## FSC Frequency Spectrum Capacity

In a defined area, the frequency spectrum is limited. Frequency spectrum capacity is critical for maintaining existing and future missions and communications on installations. This is also addressed from the standpoint of consumer electronics.

## FSI Frequency Spectrum Impedance / Interference

Frequency spectrum impedance and interference refers to the interruption of electronic signals by a structure or object (impedance) or the inability to distribute / receive a particular frequency because of similar frequency competition (interference).

## HA Housing Availability

Housing availability addresses the supply and demand for housing in the region. It also identifies the competition for shelter that may result from changes in the number of military personnel and the supply of military family housing provided by the installation.

## IE Infrastructure Extensions

This factor covers the extension or provision of infrastructure (roads, sewer, water, etc.) in the vicinity of the installation. Infrastructure can enhance the operations of the installation by providing needed services, such as sanitary sewer treatment capacity and transportation systems. However, enhanced or expanded infrastructure could also encourage growth into areas near the installation that might not be compatible with current or future missions.



## LAS Land/Air Spaces

The military manages or uses land and air space to accomplish testing, training, and operational missions. These resources must be available and of a sufficient size, cohesiveness, and quality to accommodate effective training and testing. Military and civilian air operations can compete for limited air space, especially when the airfields are in close proximity to each other. Use of this shared resource can impact future growth in operations for all users.

## LU Land Use

The basis of land use planning relates to the government's role in protecting the public's health, safety, and welfare. County and local jurisdictions' growth policy/ general plans and zoning ordinances can be the most effective tools for avoiding, or resolving, land use compatibility issues. These tools ensure the separation of land uses that differ significantly in character. Land use separation also applies to properties where the use of one property may impact the use of another. For instance, industrial uses are often separated from residential uses to avoid impacts related to noise, odors, lighting.

## LEG Legislative Initiatives

Legislative initiatives are federal, state, or local laws and regulations that may have a direct or indirect effect on a military installation to conduct its current or future mission. They can also constrain development potential in areas surrounding the installation.



## LG Light and Glare

This factor refers to man-made lighting (street lights, airfield lighting, building lights) and glare (direct or reflected light) that disrupts vision.

Light sources from commercial, industrial, recreational, and residential uses at night can cause excessive glare and illumination, impacting the use of military night vision devices and air operations. Conversely, high intensity light sources generated from a military area (such as ramp lighting) may have a negative impact on the adjacent community.

## MAR Marine Environments

Regulatory or permit requirements protecting marine and ocean resources can cumulatively affect the military's ability to conduct operations, training exercises, or testing in a water-based environment.

## NOI Noise

From a technical perspective, sound is the mechanical energy transmitted by pressure waves in a compressible medium such as air. More simply stated, sound is what we hear. As sound reaches unwanted levels, this is referred to as noise. The central issue of noise is the impact, or perceived impact, on people, animals (wild and domestic), and general land use compatibility. Exposure to high noise levels can have a significant impact on human activity, health, and safety.

## PT Public Trespassing

This factor addresses public trespassing, either purposeful or unintentional, onto a military installation. The potential for trespassing increases when public use areas are in close proximity to the installation.



## RC Roadway Capacity

Roadway capacity relates to the ability of existing freeways, highways, arterials, and other local roads to provide adequate mobility and access between military installations and their surrounding communities.



## SA Safety Zones

Safety zones are areas in which development should be more restrictive due to the higher risks to public safety. Issues to consider include accident potential zones, weapons firing range safety zones, and explosive safety zones.

## SNR Scarce Natural Resources

Pressure to gain access to valuable natural resources (such as oil, natural gas, minerals, and water resources) located on military installations, within military training areas, or on public lands historically used for military operations can impact land utilization and military operations.



## VO Vertical Obstructions

Vertical obstructions are created by buildings, trees, structures, or other features that may encroach into the navigable airspace used for military operations (aircraft approach, transitional, inner horizontal, outer horizontal, and conical areas, as well as military training routes). These can present a safety hazard to both the public and military personnel.

## V Vibration

Vibration is an oscillation or motion that alternates in opposite directions and may occur as a result of an impact, explosion, noise, mechanical operation, or other change in the environment. Vibration may be caused by military and/or civilian activities.

## WQQ Water Quality/Quantity

Water quality / quantity concerns include the assurance that adequate water supplies of good quality are available for use by the installation and surrounding communities as the area develops. Water supply for agricultural and industrial use is also considered.

# NSA Crane Joint Land Use Study

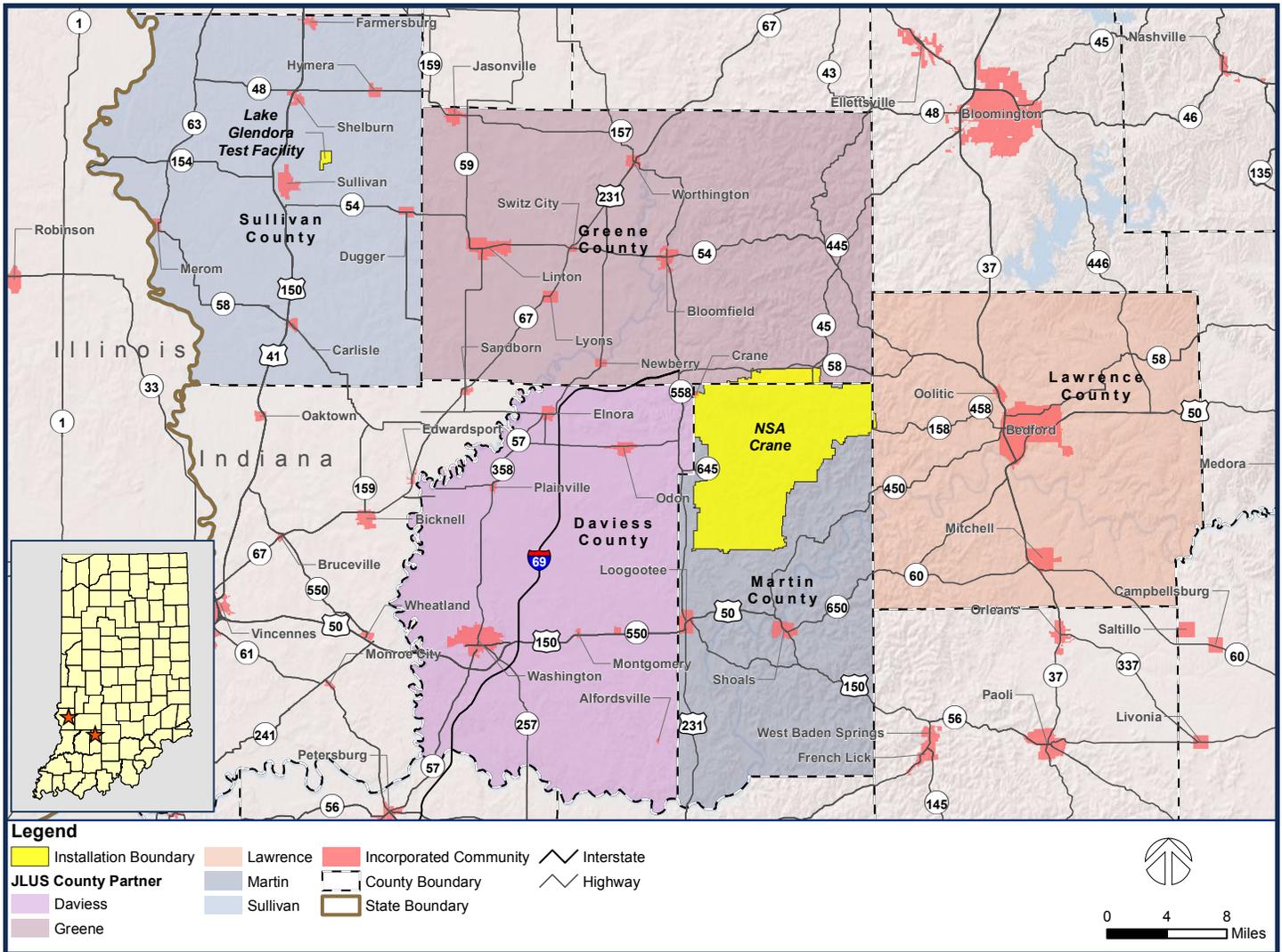
## What will the Naval Support Activity Crane JLUS Address?

The NSA Crane JLUS will provide all stakeholders:

- ◆ A detailed land use assessment for surrounding high growth areas.
- ◆ A baseline of existing incompatible land uses around the installation.
- ◆ An assessment of regional growth trends.
- ◆ A plan to assist surrounding communities with decision-making.

## What is the Naval Support Activity Crane JLUS Study Area?

Naval Support Activity Crane, covering more than 98 square miles, is located in southwestern Indiana, approximately 70 miles southwest of Indianapolis. Several Indiana jurisdictions are partners in this JLUS including: Daviess County, Greene County, Lawrence County, Martin County, and Sullivan County. Approximately 60,000 acres of the installation are situated in Martin County, with an additional 4,000 acres located in Greene County. The 450-acre NSA Crane Lake Glendora Test Facility operated by NSWCCD is located approximately 30 miles northwest of NSA Crane in nearby Sullivan County.



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