The NBVC Joint Land Use Study (JLUS) was conducted as a collaborative planning effort that included the following project partners:

- Ag Innovations Network
- California Air National Guard
- California Coastal Conservancy
- California State University Channel Islands (CSUCI)
- Camarillo Sustainable Growth
- Channel Islands Beach Communities Service District
- Channel Islands Harbor Department
- City of Camarillo
- City of Oxnard
- City of Port Hueneme
- County of Ventura
- County of Ventura, Department of Airports
- Economic Development Collaborative – Ventura County (EDC-VC)
- Environmental Coalition of Ventura County
- Environmental Defense Center
- Farm Bureau of Ventura County
- Naval Air Systems Command (NAVAIR)
- Naval Base Ventura County (NBVC)
- Oxnard Chamber of Commerce
- Oxnard Harbor District
- Pleasant Valley Recreation and Park District
- Regional Defense Partnership – 21st Century (RDP-21)
- Sierra Club
- Save Open Space and Agricultural Resources (SOAR)
- Ventura County Economic Development Association (VCEDA)
- Ventura County Local Agency Formation Commission (LAFCo)
- Ventura County Transportation Commission (VCTC)
- Ventura/Santa Barbara Counties Small Business Development Center
- Watershed Protection District
What Is a Joint Land Use Study?

A Joint Land Use Study (JLUS) is a cooperative planning effort conducted as a joint venture between an active military installation, surrounding cities and counties, state and federal agencies, organizations and the public. The Naval Base Ventura County (NBVC) JLUS was funded through a grant from the Department of Defense (DOD), Office of Economic Adjustment (OEA) and contributions by Ventura County Transportation Commission, the JLUS project manager.

The JLUS was developed under the guidance of three main objectives.

Understanding. Convene community and military representatives to identify, confirm, and understand the compatibility issues in an open forum, taking into consideration both community and NBVC perspectives and needs. This includes public awareness, education, and input as part of a cohesive outreach program.

Collaboration. Encourage cooperative land use and resource planning by NBVC, federal and state agencies, and neighboring jurisdictions so that future plans and development are compatible with the training and operational missions at NBVC. Concurrently, seek ways to reduce operational impacts on adjacent lands within the Study Area.

Actions. Provide a set of mutually supported tools, activities, and procedures (strategies) that local jurisdictions, federal and state agencies, and NBVC can implement in order to avoid and reduce compatibility issues. The strategies proposed include both operational measures to mitigate installation impacts on surrounding communities and local government and agency approaches to reduce community impacts on military operations. These strategies will help decision makers resolve compatibility issues and prioritize projects within the annual budgeting process of their respective agency / jurisdiction.

Collaborative Planning

The JLUS planning process was designed to create a locally relevant study that builds consensus and obtains support from the stakeholders involved. The public was instrumental in the development of this JLUS by providing their perspective and feedback, both in the JLUS public workshops and through the use of the interactive project website: [www.nbvcjlus.org](http://www.nbvcjlus.org).

The development of the project was also guided by two committees composed of community, agency, organizational and military representatives.

- **Policy Committee (PC).** This committee was made up of elected officials and leaders representing jurisdictions in the Study Area, federal and state agency officials, and military leadership. The PC is responsible for the ultimate direction and content of the JLUS.
- **Technical / Advisory Committee (TAC).** This committee was made up of staff representatives from local jurisdictions, agencies and organizations. The TAC helped identify and address technical issues, provide feedback on report development, and assist in the development and evaluation of the recommended strategies.

Compatibility Assessment

Compatibility, in relation to military readiness, can be defined as the balance or compromise between community needs and interests and military needs and interests. The goal of compatibility planning is to promote an environment where both community and military can coexist successfully. A number of factors influence whether community and military plans, programs, and activities are compatible or in conflict. To provide a comprehensive assessment of potential compatibility issues, the NBVC JLUS process looked at 25 compatibility factors (topics). These factors included topics such as land use, marine environments, noise and vibration, safety, and vertical obstructions.

### COMPATIBILITY FACTORS

<table>
<thead>
<tr>
<th>AQ</th>
<th>Air Quality</th>
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<tbody>
<tr>
<td>AT</td>
<td>Anti-Terrorism / Force Protection</td>
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<tr>
<td>BIO</td>
<td>Biological Resources</td>
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<tr>
<td>CA</td>
<td>Climate Adaptation</td>
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<tr>
<td>CDM</td>
<td>Coordination / Communication</td>
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<td>CR</td>
<td>Cultural Resources</td>
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<td>DSS</td>
<td>Dust / Smoke / Steam</td>
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<tr>
<td>ED</td>
<td>Energy Development</td>
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<tr>
<td>FSC</td>
<td>Frequency Spectrum Capacity</td>
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<td>FSI</td>
<td>Frequency Spectrum Impedance / Interference</td>
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<td>HA</td>
<td>Housing Availability</td>
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<tr>
<td>IE</td>
<td>Infrastructure Extensions</td>
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<tr>
<td>LAS</td>
<td>Land / Air / Sea Spaces</td>
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<tr>
<td>LU</td>
<td>Land Use</td>
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<tr>
<td>LEG</td>
<td>Legislative Initiatives</td>
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<tr>
<td>LG</td>
<td>Light and Glare</td>
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<tr>
<td>MAR</td>
<td>Marine Environments</td>
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<td>NOI</td>
<td>Noise</td>
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<td>PT</td>
<td>Public Trespassing</td>
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<tr>
<td>RC</td>
<td>Roadway Capacity</td>
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<tr>
<td>SA</td>
<td>Safety Zones</td>
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<tr>
<td>SNR</td>
<td>Scenic Natural Resources</td>
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<tr>
<td>VO</td>
<td>Vertical Obstructions</td>
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<tr>
<td>V</td>
<td>Vibration</td>
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<tr>
<td>WQQ</td>
<td>Water Quality / Quantity</td>
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</table>
The NBVC JLUS Study Area was designed to address all lands near NBVC that may impact current or future military operations or be impacted by these military operations. The Study Area covers portions of unincorporated Ventura County; the cities of Camarillo, Oxnard, and Port Hueneme; San Nicolas Island; and the Point Mugu Sea Range.

The primary characteristics evaluated to determine the Study Area included the 25 compatibility factors and their association with military mission readiness and community zoning and development functions, e.g. land uses, infrastructure extensions, safety, noise, and vibration.

Geographically, the JLUS Study Area encompasses an area primarily referred to as the Oxnard Plain, coastal locations in Ventura County from the county line north to about Channel Islands National Park, the western edge of the Santa Monica Mountains, and the Pacific Ocean.
The heart of the NBVC JLUS is the set of 139 recommended strategies that address the 82 compatibility issues identified. Since the NBVC JLUS is the result of a collaborative planning process, the strategies represent a true consensus plan — a realistic and coordinated approach to compatibility planning developed with the support of stakeholders involved throughout the process. The strategies developed are uniquely tailored for this JLUS and respect the local context.

The key to the implementation of the strategies is the establishment of a JLUS Coordination Committee to oversee the JLUS execution. Through this committee, local jurisdictions, NBVC, federal and state agencies, and other interested parties can continue their initial work together to establish procedures, recommend or refine specific actions for members, and make adjustments to strategies over time to ensure that the JLUS continues to resolve key compatibility issues into the future. Concurrent with the efforts of the JLUS Coordination Committee, each project partner is responsible for establishing their own course of action to implement the strategies unique to them through collaboration of their leadership, planners, and the public.

The strategies developed during the JLUS process are described in detail in Chapter 6 of the JLUS Report. The list on the following page provides a highlight of the key recommended strategies that were developed and agreed to by the JLUS partners.
## EXECUTIVE SUMMARY

### Air Quality
- Update Air Quality Management Plan
- Look into ways to reduce naval emissions

### Climate Change
- Develop climate change impact assessment

### Coordination / Communication
- Establish a JLUS Coordination Committee
- Develop memorandum of understanding (MOU) among JLUS Coordination Committee members
- Enhance and maintain a GIS data clearinghouse
- Develop and maintain Military Compatibility Areas (MCAs) with subzones
- Establish communication procedures for mission activities and changes
- Encourage use of media methods and existing websites to disseminate information

### Dust / Smoke / Steam
- Communication on visibility issues

### Energy Development
- Policies for military compatibility on location of renewable energy facilities
- Coordinate development plans with the Navy
- Coordinate with DOD Siting Clearinghouse

### Frequency Spectrum Impedance / Interference
- Identify and map areas of frequency concern
- Create frequency siting and review guidelines
- Develop informational brochure
- Conduct frequency interference assessment

### Infrastructure Extensions
- Coordination on infrastructure and storm water improvement planning
- Update Calleguas Creek Watershed Management Plan

### Land Use
- Update Airport Comprehensive Land Use Plan
- Update municipal service review process
- Update plans and amend regulations with AICUZ recommended land uses
- Support land use policies and laws that prevent encroachment
- Engage Readiness and Environmental Protection Integration funding
- Amend Conditional Use Permit / Special Use Permit regulations

### Land / Sea / Air Spaces
- Coordination on unmanned aerial systems

### Legislative Initiatives
- SOAR ordinance renewal process

### Light and Glare
- Dark skies ordinances (standard conditions of approval)

### Marine Environments
- Update tsunami information
- Create coastal regional sediment action committee

### Roadway Capacity
- Traffic modeling of areas adjacent to NBVC facilities

### Safety Zones
- Maintain and promote websites for information on safety concerns and areas

### Vertical Obstructions
- Amend plans and zoning ordinances for imaginary surfaces heights and slopes

### Common Strategies for the Entire Study Area
<table>
<thead>
<tr>
<th>NBVC Point Mugu Strategies</th>
<th>NBVC Port Hueneme Strategies</th>
<th>Point Mugu Sea Range Strategies</th>
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</thead>
<tbody>
<tr>
<td><strong>Biological Resources</strong></td>
<td>Anti-Terrorism / Force Protection</td>
<td><strong>Air Quality</strong></td>
</tr>
<tr>
<td>Update general plans within Calleguas Creek watershed</td>
<td>Perform a parking study</td>
<td>Monitor new commercial shipping regulations for military compatibility</td>
</tr>
<tr>
<td><strong>Dust / Smoke / Steam</strong></td>
<td>Update County Coastal Area Plan</td>
<td><strong>Energy Development</strong></td>
</tr>
<tr>
<td>Identify dust / smoke sensitive areas</td>
<td>Develop MOU to share resources for waterside security</td>
<td>Identify and map locations for off-shore renewable energy development</td>
</tr>
<tr>
<td><strong>Land Use</strong></td>
<td>Landscaping to provide visual barrier for base</td>
<td><strong>Coordination / Communication</strong></td>
</tr>
<tr>
<td>Update general plans and zoning ordinances with Air Installation Compatible Use Zone (AICUZ) recommendations</td>
<td></td>
<td><strong>Land Use</strong></td>
</tr>
<tr>
<td>Update California State University Channel Islands Master Plan</td>
<td>Maintain signage for commercial deliveries</td>
<td>Coordination on capital improvements</td>
</tr>
<tr>
<td>Amend nonconforming use regulations</td>
<td>Enhance communications for commercial deliveries</td>
<td><strong>Land / Sea / Air Spaces</strong></td>
</tr>
<tr>
<td><strong>Land / Sea / Air Spaces</strong></td>
<td><strong>Light and Glare</strong></td>
<td>Feasibility study for widening turning basin</td>
</tr>
<tr>
<td>Conduct an airspace study</td>
<td>Develop ordinances for renewable energy development</td>
<td>Capacity assessment of Wharves B and C</td>
</tr>
<tr>
<td>Amend the Ventura County Non-Coastal Zoning Ordinance</td>
<td><strong>Noise and Vibration</strong></td>
<td><strong>Marine Environments</strong></td>
</tr>
<tr>
<td><strong>Noise and Vibration</strong></td>
<td>Update general plans and amend zoning ordinances and municipal codes for noise attenuation standards</td>
<td>Continue wildlife / marine mammal strike hazard coordination</td>
</tr>
<tr>
<td>Monitor and track flight operations</td>
<td><strong>Roadway Capacity</strong></td>
<td>Conduct a marine mammal location study</td>
</tr>
<tr>
<td><strong>Safety Zones</strong></td>
<td>Update capital improvement plans to address circulation near Port Hueneme gates</td>
<td><strong>Roadway Capacity</strong></td>
</tr>
<tr>
<td>Update plans and amend zoning ordinances to incorporate Bird/Wildlife Aircraft Strike Hazard (BASH) and AICUZ recommendations for safety</td>
<td>Access planning for peak hours</td>
<td><strong>Land Use</strong></td>
</tr>
<tr>
<td></td>
<td>Update regional transportation plan and local general plan transportation elements</td>
<td><strong>Land / Sea / Air Spaces</strong></td>
</tr>
<tr>
<td><strong>Water Quality / Quantity</strong></td>
<td>Amend regulations for wildlife waste management</td>
<td><strong>Light and Glare</strong></td>
</tr>
<tr>
<td>Develop an integrated flood management plan</td>
<td></td>
<td>Develop ordinances for renewable energy development</td>
</tr>
</tbody>
</table>

- **NBVC Port Hueneme Strategies**
  - Anti-Terrorism / Force Protection
    - Perform a parking study
    - Update County Coastal Area Plan
    - Develop MOU to share resources for waterside security
    - Landscaping to provide visual barrier for base
  - Coordination / Communication
    - Maintain signage for commercial deliveries
    - Enhance communications for commercial deliveries
  - Land Use
    - Coordination on capital improvements
  - Land / Sea / Air Spaces
    - Feasibility study for widening turning basin
    - Capacity assessment of Wharves B and C
  - Marine Environments
    - Continue wildlife / marine mammal strike hazard coordination
    - Conduct a marine mammal location study
  - Roadway Capacity
    - Update capital improvement plans to address circulation near Port Hueneme gates
    - Access planning for peak hours
    - Update regional transportation plan and local general plan transportation elements
  - Water Quality / Quantity
    - Amend regulations for wildlife waste management

- **Point Mugu Sea Range Strategies**
  - **Air Quality**
    - Monitor new commercial shipping regulations for military compatibility
  - **Energy Development**
    - Identify and map locations for off-shore renewable energy development
Geographic Relevance

A key to guiding compatible development and activities without overregulation is the establishment of three Military Compatibility Areas (MCAs) and their associated subzones. The MCA maps and subzone maps (described below and on the following pages) illustrate the geographic areas where specific JLUS strategies are to be applied. This technique ensures that the strategies are applied to the appropriate areas, and that locations deemed not subject to a specific compatibility issue are not adversely impacted by regulations inappropriate for their location or circumstance.

The MCAs were designed to accomplish the following:
1. Promote an orderly transition between community and military land uses so that land uses remain compatible;
2. Protect public health, safety, and welfare;
3. Maintain operational capabilities of military installations and areas;
4. Promote an awareness of the size and scope of military training areas to protect areas separate from the actual military installation (e.g., critical air space) used for training purposes; and
5. Establish compatibility requirements within the designated area, such as requirements for sound attenuation and avigation easements.

The NBVC Point Mugu MCA encompasses four subzones: Bird / Wildlife Aircraft Strike Hazard (BASH), Safety, Noise, and Airfield Imaginary Surfaces.

The NBVC Point Mugu MCA boundary is marked with a dashed line. The subzones are illustrated with different types of lines and symbols, indicating their specific locations and boundaries. The maps provide a visual representation of the geographic areas where specific JLUS strategies are to be applied.
The BASH Subzone is characterized by areas that could be affected by bird and wildlife strikes due to the lower altitude of flight operations in this area. The BASH Subzone represents a five-mile statutory area from the center of the runway based on Federal Aviation Administration (FAA) recommendations. Land uses in this area may be subject to additional regulations, where appropriate, to prevent attractants of birds and wildlife that could increase the risk of safety to pilots and aircraft flying at lower speeds and altitudes. BASH concerns are explained in more detail in Section 5.19, Safety, in the Background Report.
The Safety Subzone would guide compatible land use types and densities / intensities within the Clear Zones (CZs) and Accident Potential Zones (APZs) I and II of Point Mugu’s runways. The current location of each Safety Subzone is based on the airfield layout and air operations identified by the Navy.

A Safety Subzone is needed to prevent the development of incompatible land uses in areas with the greatest potential for an incident (although a very low probability). These safety zones were identified as a result of the Navy’s guidance. The safety zones are explained in more detail in Section 5.19, Safety, in the Background Report.
Noise is often a concern to the public surrounding military installations with flying missions. The Noise Subzone includes all land located off-installation within the 60 dB CNEL noise contour for NBVC Point Mugu. Noise zones are explained in more detail in Section 5.16, Noise and Vibration, in the Background Report.
The purpose of the Imaginary Surfaces Subzones is to provide guidance on the height of structures and buildings within the area defined by FAA guidance and Navy instructions known as imaginary surfaces. The imaginary surfaces are a 3-D geographic area comprising approach and departure airspace corridors and safety buffers. Vertical obstruction heights are a major concern for flight operations due to the potential for a structure to extend into navigable airspace, which could impede safe flight operations and put both pilots and citizens on the ground at risk of an aircraft accident. Vertical obstructions that can affect flight safety include, but are not limited to, cell towers, power lines, wind turbines, buildings, and trees. Imaginary surfaces are explained in more detail in Section 5.21, Vertical Obstructions, in the Background Report.
The Point Mugu Sea Range MCA encompasses the entire Point Mugu Sea Range, San Nicolas Island, portions of the commercial shipping lane, restricted airspace, and military training routes. While the commercial shipping lane is not incorporated in the Sea Range, for the purpose of this JLUS, it is incorporated into the MCA due to its potential impact to the military compatibility area footprint. Guidance on compatibility of commercial shipping activities, vertical heights, and renewable energy development areas will apply in this MCA.
The NBVC Port Hueneme MCA covers the military operational components that make up the portion of training and logistics support activities performed at NBVC Port Hueneme. This area includes the Force Protection Unobstructed Clear Zone area (20 feet from the fence line of NBVC Port Hueneme) and the 500-foot clearance zone for mobilization corridors outside the fence line to connect to Highway 101 and Highway 1. This operational area not only interfaces with the surrounding community but also interfaces with commercial shipping and port operations. Guidance that will apply here includes requiring landscaping barriers, vertical height limits, and a safety area along the roadways to ensure the safety of mobilization of equipment and troops.
Three JLUS documents, each providing different levels of information, are available to the public, elected and appointed officials, and the military. These documents provide an overview of the JLUS process, detailed information on NBVC and the overall Study Area, an assessment of existing compatibility issues, and recommended strategies. These documents are as follows.

**Joint Land Use Study**

The JLUS report presents an overview of the JLUS planning process, purpose and objectives of the study and the recommended strategies. The report presents a concise description of the following:

- JLUS project Study Area;
- Population profile and economic overview of the communities in the JLUS Study Area;
- NBVC mission overview;
- Summary of the factors and compatibility issues identified during the JLUS process; and
- Set of recommended strategies to mitigate or prevent encroachment and proactively achieve land use compatibility.

**Background Report**

The JLUS Background Report provides the technical background and detailed assessment of the compatibility issues identified as part of the JLUS project.

**Executive Summary**

The JLUS Executive Summary serves as a quick reference describing the purpose of the JLUS and providing an overview of the key JLUS strategies and Military Compatibility Areas.