

## Scope of Work / Work Program

### Work Program – Detailed Task Components

The City of Lompoc is the program manager responsible for overseeing the definition and implementation of program tasks and deliverables, leading the Steering Committee and providing direction to the program consultant in completion of this work. It also will be responsible for all grant reporting, payments and administration. Its technical and professional staff representing specialized expertise will participate in Working Groups as appropriate. The City will use its existing consultant for support to complete the tasks listed below. The existing contract between the City of Lompoc and its consultant are provided as attachments.

The City's goals in creating this Work Program are to:

- Minimize encroachment on the mission of Vandenberg SFB
- Assure installation resiliency in light of identified environmental threats
- Identify complementary community benefits of compatibility and resiliency measures resulting from close collaboration with the installation

The program's progress in meeting these goals will be determined by the Steering Committee as part of the final Work Plan approval and will be reported quarterly.

### **TASK 1: OVERALL PROJECT INITIATION AND ADMINISTRATION**

The City's Project Team includes the City's consultant's professional staff to expand the Team's expertise in administrative support and grant management functions related to the overall project. The City, with the assistance of its consultant, will complete the following subtasks:

#### 1.1 Project Team organization, Work Plan Review & Steering Committee Formation

The City Project Team, led by the City's consultant, will define the membership of the Steering Committee and Working Groups, and finalize the program work plan and schedule.

#### 1.2 Kick-off Meeting, Steering Committee Work Plan Review

At the City kick-off meeting, abiding by applicable COVID-19 protocols, the Project Team will present its project management approach and the consultant will present the work plan to the Steering Committee for discussion and concurrence. This work plan will include the related draft Stakeholder and Public Involvement Plan developed in Task 2. The purpose and composition of the Working Groups will be established as well as the definition of their role in facilitating communications among the project team, consultants, stakeholders, and the public.

#### 1.3 Administration and Management

The consultant will work with the City to provide administrative support in carrying out the following project responsibilities:

- a. Managing and updating the work plan and milestone schedule as needed
- b. Coordinating communications between team members, governmental agencies and elected officials
- c. Managing the committee and public meeting schedule
- d. Preparing agendas and minutes, support materials, and presentations for Steering Committee, Working Group and public meetings
- e. Preparing monthly status reports detailing work in progress, work accomplished, and funds expended
- f. Preparing written work products and committee briefings at key points during the project

**Task 1 Output and Deliverables:** Consultant will prepare for the City the finalized work plan; project management and administration procedures summary, and monthly status reports. The City will provide this to OLDCC as a grant deliverable.

## **TASK 2: STAKEHOLDER AND PUBLIC INVOLVEMENT**

The consultant will draft a preliminary Stakeholder Involvement Strategy for review by the City project team, the Steering Committee and the Working Groups. This preliminary strategy will first identify the key stakeholders, including public agencies, community organizations, nonprofits and private sector companies and individuals.

The strategy will define stakeholder roles for participating in scoping and goal setting, assessing issues, and reviewing findings and strategies as work progresses. It will be a responsive participation program that is actively revised and updated to incorporate installation tour(s), public and elected official briefings, and public presentations at appropriate points in the project.

The City, with the assistance of its consultant, will complete the following subtasks:

- 2.1 The Stakeholder and Public Involvement Strategy will include:
  - a. Individuals and/or organizations who will be involved in the project and in what capacity
  - b. Outreach activity objectives, timing, participation techniques, and target groups
  - c. An initial schedule for public and elected officials' briefings

- d. A communications strategy for distributing information, meeting opportunities, work products, press releases, and major milestone updates
- e. A project website / webpage
- f. Updated project contact list

## 2.2 Installation Tour

To the extent allowable under VSFB COVID-19 protocols, the City Project Team and the Steering Committee will tour the installation, guided by VSFB staff who serve as stakeholders and collaborators in the City study effort. The purpose of the tour will be to familiarize participants with the installation and review installation mission and operations, future growth projections, planned projects and actions, and encroachment concerns.

## 2.3 Public meetings and presentations will be virtual for the foreseeable future, assuming continued COVID-19 protocols, but will be conducted face-to-face when allowable. They will include:

- a. Steering Committee: Quarterly meetings over the course of the 18-month study plus draft and final Deliverables review/approval meetings
- b. Working Groups: Meetings as determined by each Working Group, created for the five Project Focus areas of Water, Energy, Transportation, Land Use and Housing, and Environment
- c. Stakeholder and/or Public presentations TBD by the Steering Committee

**Task 2 Output:** Consultant will prepare for the City the Stakeholder and Public Involvement Strategy; targeted meeting and briefings schedule to be updated as project advances, meeting materials and summary memos.

### **TASK 3: DATA COLLECTION, INVENTORY, AND MAPPING**

This task includes the compilation of all relevant and available data from the Installation, the City, regional jurisdictions and other entities or sources to conduct the analysis and evaluation phase of the Military Installation Resiliency (MIR) and Compatible Use (CU) processes. Much of the collected data and mapping will be overlapping and contribute to both studies.

For the MIR study, the data, inventory and mapping will focus on environmental information relative to drought and wildfires, and on impacted emergency response systems, water supply, communications, installation access, and energy security.

For the CUS effort the data, inventory and mapping will primarily cover the transportation systems and installation access; water resources including water supply, reuse, and wastewater treatment; land use and planning; emergency response, energy systems (electric utilities and

generation, and natural gas systems); housing supply and demand; and other features related to both the civilian and military sectors. This task does not include the collection of original data or the creation of new GIS layers.

This task will define the local, state and federal regulatory framework. It also will identify existing local plans, codes, ordinances and regulations, if any, adopted by participating governments that control, contribute to, or reduce the potential conflicts between land uses and military operations.

### Resources

The project team will compile available plans, historic records, data and GIS layers from participating jurisdictions and other major landholders, as necessary. This includes, but is not limited to:

- Vandenberg SFB
- Cities of Lompoc and Santa Maria
- County of Santa Barbara (Public Works – Water Resource & Transportation Divisions)
- Santa Barbara County Local Agency Formation Commission (LAFCO)
- Santa Barbara County Association of Governments (SBCAG)
- Regional Water Quality Control Board (RWQCB)
- Central Coast Water Authority
- State of California
  - California Department of Transportation (Caltrans)
  - California Department of Forestry and Fire (CAL FIRE)
  - Governor’s Office of Planning & Research (OPR)
  - California Energy Commission (CEC)
  - California Public Utilities Commission (CPUC)
  - Dept. of Water Resources
- Federal agencies
  - Strategic Environmental Research and Development Program (SERDP)
  - National Oceanic and Atmospheric Administration (NOAA)
  - US Geologic Survey (USGS)
- Private & Nonprofit
  - Central Coast REACH (Regional Economic Action Coalition)
  - California Independent System Operator (Cal ISO)
  - Pacific Gas & Electric (PG&E)
  - Private space launch companies, such as SpaceX, Blue Origin and United Launch Alliance (ULA)

The Working Groups TBD (climate, energy, water, transportation, and housing and land use) will serve a critical role during Task 3 as the source of existing data, liaison to external sources, and

identification as to which data are most relevant. At the conclusion of Task 3, the project team will issue focus area summary reports that describes the most relevant existing conditions as they pertain to resiliency (MIR) and compatibility (CU).

#### Data Collection Task Components:

The objective of the data collection task is to aggregate installation and study area information including existing conditions, applicable planning documents, and mapping of transportation systems, land use, environmental conditions, water and energy supply, supportive public infrastructure, and housing. All work refers to existing conditions including known and available planning documents for expected future projects.

Data collection will include interviews with key installation and community stakeholders.

The City, with the assistance of its consultant, will complete the subtasks below, including identification, collection, compilation, and classification of the following specific data categories.

- 3.1 Installation and regional systems mapping, regional and environmental and on-base events history, and planning maps/information
- 3.2 Regional and local topography and geological data and past record of geological hazards including earthquakes, tsunamis, landslides, and debris flows
- 3.3 Climate studies and data from NOAA, as well as local climate storm and environmental data and downscaled Localized Constructed Analogs (LOCA) climate modeling output models of using Cal-Adapt to determine the potential impacts of environmental and extreme climate events on the installation
- 3.4 Regional and local electric transmission networks; distribution systems serving VSFB and local generation; natural gas service, transmission and distribution systems; and installation electrical and natural gas infrastructure monitoring and/or control systems, such as supervisory control and data acquisition (SCADA)
- 3.5 Local and regional domestic water sources, supply, treatment and distribution networks, and storage
- 3.6 Wastewater collection lines and treatment facilities, reuse water and discharge systems
- 3.7 Transportation roadway systems and traffic volume information, including functional classification, trip distribution, and interface with installation access points
- 3.8 Major military travel patterns based on interviews and data provided within existing planning documents
- 3.9 Access and control points that may be impacted by installation or regional traffic growth

- 3.10 Hazardous material transportation, truck and rail routes
- 3.11 Multimodal networks
- 3.12 Major emergency response services and mutual aid networks
- 3.13 Housing locations and availability (on the installation and in the study area), land use and zoning designations

**Task 3 Output:** The consultant will prepare for the City a consolidated summary report of existing conditions, key findings, and upcoming events, and a draft GIS database (which will ultimately be provided to OLDCC). The GIS layers are planned to be comprised of the following, pending availability of digital information. This database will be updated as the project advances.

- a. Climate event patterns (drought, wildfire, extreme heat, sea level rise, extreme storm events and wind)
- b. Water supply networks
- c. Wastewater collection/treatment networks
- d. Energy supply networks (electric and natural gas)
- e. Transportation networks and related features
- f. Emergency response networks
- g. Land use plan and/or zoning designations
- h. Proposed development, both military and civilian
- i. Proposed capital improvement plans
- j. Housing data
- k. Population forecasts and projected growth trends
- l. Installation asset vulnerabilities and operations threats

Final GIS layers will be provided as part of the final MIR and CU deliverables. All geospatial data used for CU analysis and/or map production will be submitted to OLDCC in Esri File Geodatabase format (\*.gdb). Regardless of the geospatial data format, all geospatial data will include metadata in either the ISO 19139 Metadata Implementation Specification style or the SDSFIE-M style. Metadata records for each dataset will include the minimum required information per metadata style written within the organization's preferred metadata editor software, e.g., Esri's ArcCatalog.

#### **TASK 4 - MIR: RESILIENCY IMPACTS AND RESPONSIBILITY ASSESSMENT**

Study area data from Task 3 on existing conditions and issues will be analyzed to identify current and future environmental and natural threats to installation operations. These include, but are not limited to, climate influences on the severity and extent of droughts, wildfires, extreme weather events, and unanticipated changes in environmental conditions. Because climate and environmental vulnerabilities do not respect jurisdictional boundaries, this task area will assess

the shared impacts on the installation and adjacent local civilian jurisdictions and communities.

The City, with the assistance of its consultant, will complete the subtasks below. Focus area teams will evaluate and prioritize installation environmental threats. They will then identify opportunities for cooperative risk reduction that will benefit both installation and community resiliency.

- 4.1 Determine the full extent of potential climate impacts, such as extreme storm events triggering debris flow, utilizing topography and geological data collected in subtask 3.3 in combination with the downscaled LOCA climate modeling output
- 4.2 Identify installation and community emergency response and support capabilities and responsibilities relative to environmental threats
- 4.3 Review local electrical system distribution, generation, and storage, and plans for VSFB facilities to isolate and run as a sustained micro-grid
- 4.4 Assess transportation system and access vulnerabilities, and installation ingress and egress options in the face of adverse regional environmental conditions
- 4.5 Determine extent of potential water supply and distribution vulnerabilities, as well as well as installation wastewater collection system vulnerabilities
- 4.6 Define responsibilities/capabilities of installation and surrounding communities to mitigate resiliency vulnerabilities

**Task 4 Output:** Consultant will prepare for the City a list of identified issues and areas of resiliency threats and vulnerabilities, maps of impacted areas as well as a summary of relationship of resiliency issues to existing and future compatibility issues.

#### **TASK 5 – COMPATIBLE USE: ANALYSIS**

Study area data from Task 3 on existing conditions and issues 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. Focus area teams will identify existing and potential compatible use issues relative to installation mission objectives, existing and potential land uses, transportation, energy and water/wastewater infrastructure housing, and commercial development.

Areas of concern will be considered from a physical planning and regulatory perspective, as well as a local and regional impact perspective. The project team will map conflict and impact areas, illustrated where appropriate, summarize community and regulatory issues. Results and findings will be reviewed with the Steering Committee for consideration, input and concurrence. The results of Task 4 will be used to identify preliminary compatibility issues and opportunities,

and related resolution alternatives.

The City, with the assistance of its consultant, will complete the following subtasks:

- 5.1 Identify areas of impact, both on base and in surrounding communities, due to anticipated installation mission growth resulting from increased private sector commercial space launch activity
- 5.2 Identify areas of installation water resources supply and availability as well as conflicts and opportunities for base/community cooperative systems
- 5.3 Assess impact of increased installation south base activity on community wastewater facilities and existing base/community treatment agreements
- 5.4 Identify regional roadway and base access constraints affected by installation mission growth resulting from increased private sector commercial space launch activity and opportunities for cooperative system improvements
- 5.5 Identify areas of current and future residential and commercial land use constraints and opportunities surrounding the installation affected by installation mission growth
- 5.4 Assess potential resource compatibility issues, to include but not limited to: energy security, water security, and the security of essential transportation resources, when the reliance upon these critical resources is located outside the installation, and may impair the continued operational utility of the installation
- 5.5 Identify conflicts and opportunities for cooperation with surrounding communities and installation facilities short term, long term and capital improvement plans.

**Task 5 Output:** Consultant will prepare for the City a report on the Identified areas of compatible use concern and current/potential conflict, and maps of conflict areas and opportunity zones (based on GIS data from Task 3). Also Focus Area Summaries of existing and future compatibility issues, jurisdictional impacts, and their impact on installation resilience.

#### **TASK 6 - MIR: INSTALLATION RESILIENCY SOLUTIONS AND STRATEGIES**

Focus area teams will consider and develop possible measures to address the identified resiliency challenges posed by potential environmental threats. Consideration also will be given to possible actions that complement and support the findings and strategies identified in the compatible use study analysis. These may include environmental, capital improvement, programmatic, regulatory, procedural, and operational measures.

Preliminary strategies and identified measures for implementation will be assessed for viability at a strategic level and incorporated into a draft Action Plan. The draft plan will be discussed and refined by the Steering Committee, Working Groups, key stakeholders and the public. The refined draft Action Plan from Task 6 will inform Tasks 7 and 8.



The City, with the assistance of its consultant, will complete the following subtasks:

- 6.1 Develop measures for potential water, energy, transportation, and land use infrastructure solutions on the installation and in surrounding communities to respond to environmental and climate-related vulnerabilities.
- 6.2 Develop recommended resolutions and implementation measures to inform military and civilian jurisdictions regarding current and future strategies to address and prevent threats to military installation resilience
- 6.3 Present to Steering Committee for consideration of recommended resolution strategies and Action Plan for incorporation into final Installation Resiliency Review

**Task 6 Output:** Consultant will prepare for the City an Action Plan for incorporation into final Installation Resiliency Review. Recommended actions will be based on NOAA data/models.

### **TASK 7 - COMPATIBLE USE CONFLICT SOLUTIONS AND STRATEGIES**

Focus area teams will assess possible measures to address the identified use and compatibility challenges considering installation and community plans and infrastructure constraints. These may include environmental, capital improvement, public service, regulatory, procedural, and operational measures. Recommendations also will be developed in response to private sector commercial and industrial demands for facilities and infrastructure in support of the planned growth in private space launch activity on base. Consideration will be given to complementary actions that support the findings and resolutions identified in the Task 6 installation resiliency analysis.

Preliminary compatibility solutions and identified measures for implementation will be assessed for viability at a strategic level and incorporated into a draft Compatible Use Strategies Summary Report. The draft report will be discussed and refined by the Steering Committee, Working Groups, key stakeholders and the public. This refined draft Strategies Summary will be supportive of Task 6 and will inform Task 8.

The City, with the assistance of its consultant, will complete the following subtasks:

- 7.1 Define potential measures to address use conflicts and compatibility challenges and considerations relative to water and energy supply, wastewater treatment, regional roadway capabilities, base access, commercial and residential land use, and installation infrastructure support
- 7.2 Develop resolution strategies on water, energy, and transportation infrastructure, and commercial and residential demand and supply deficiencies resulting from planned growth in private space launch activity on base and related to community requirements and development. Ensure these recommendations are coordinated with appropriate

local, regional and/or state transportation organizations responsible for services and infrastructure planning and funding.

- 7.3 Develop a business case, to include benefits and limitations, for major strategy or action recommendations
- 7.4 Solicit installation, local jurisdiction, community, Federal and State agency, and stakeholder response to potential solutions
- 7.5 Present installation and community strategy measures in a Compatible Use Summary for Steering Committee and Working Group consideration and concurrence of implementation actions

**Task 7 Output:** Consultant will prepare for the City a Compatible Use Summary for incorporation into the final Compatible Use Study.

#### **TASK 8: FINAL FINDINGS AND REPORTS**

The City, with the assistance of its consultant, will complete the following subtasks in the preparation of final findings and reports:

- 8.1 Incorporate the Task 6 Action Plan as the basis for the Draft Military Installation Resiliency Review for Steering Committee guidance (public meetings TBD). Recommended actions will be based on NOAA data/models.
- 8.2 Solicit installation, local jurisdiction, community, Federal and State agency, and stakeholder comments on draft Compatible Use Study.
- 8.3 Incorporate the Task 7 Summary as the basis for the Draft Compatible Use Study for Steering Committee guidance (public meetings TBD)
- 8.4 Solicit installation, local jurisdiction, community, Federal and State agency, and stakeholder comments on draft Resiliency Review.
- 8.5 Prepare final Military Installation Resiliency Review for Steering Committee approval and consideration by Installation and Local Jurisdiction(s) for implementation of action plans/strategies
- 8.6 Prepare final Compatible Use Study for Steering Committee approval and consideration by Installation and Local Jurisdiction(s) for implementation of action plans/strategies
- 8.7 Prepare Hybrid Project Executive Summary of MIR and CU interrelated study findings and implementation action recommendations

**Task 8 Output and Deliverables:** Consultant will prepare for the City the following:

- a. Final Compatible Use Study in digital format (and hard copy as requested). The City will provide a digital copy to OLDCC as a grant deliverable.
- b. Final Military Installation Resiliency Review in digital format (and hard copy as requested). The City will provide a digital copy to OLDCC as a grant deliverable.
- c. Final ESRI file of geospatial data collected. The City will provide to OLDCC as a grant deliverable in accordance with OLDCC format requirements (See Task 3).
- d. Final Hybrid Project Executive Summary of MIR and CU interrelated study findings and recommendations. The City will provide a digital copy to OLDCC as a grant deliverable.
- e. An "after action report" for OLDCC to assess effectiveness of MIR/CU hybrid study approach. The City will provide a digital copy to OLDCC as a grant deliverable.