



Introduction to Military Installation Resilience Review (MIRR)

Texas Compatible Use Forum ■ November 7, 2024



Joining You Today



Celeste Werner, FAICP
Chief of Strategic Development
Executive Vice President



Mike Hrapla
Director of Planning and Analytics
Senior Vice President



Janice Pokrant
Senior Planner



Rob Leonhard, P.E., MPA
Senior Associate



Agenda

- What is a MIRR
- Texas Resilience
- MIRR Opportunities
- Moving Ahead with MIRR
- Questions






What is a MIRR

MIRR

The MIRR program, under OLDCC, is a strategic assessment for enhancing resilience in military installations and surrounding communities.

- Identifies vulnerabilities impacting mission readiness and community stability.
- Focuses on natural climate and human-made threats, utility resilience, infrastructure, and collaboration with local communities.
- Aligns military and community priorities to support readiness.
- Cybersecurity Resilience: Texas installations prioritize cybersecurity to protect critical systems from evolving digital threats.
- Operational Continuity Planning: MIRR supports installations in achieving 14-day operational continuity, ensuring sustained mission support during disruptions.



Installation Resilience

A TOOL TO SUPPORT MILITARY MISSION SUSTAINMENT

Overview

The Office of Local Defense Community Cooperation's Installation Resilience program enables states and communities to partner with their local installations and the Military Departments to collectively, as "one community," respond to either the encroachment of a civilian community or threats to installation resilience that are likely to impair the continued operational utility of the military installation. Factors impacting an installation's resiliency may also impact the local defense industrial base so these program efforts can have far reaching benefits for the local mission. This program also merges previous installation resilience and compatible use (formerly the Joint Land Use Study, or JLUS) elements into one broader program continuum.

Program Goals

- A cooperative, community-driven planning effort that leverages the capabilities and strengths of state and local governments to address resilience and encroachment risks;
- Protect and enhance the public health, safety, and general welfare of those living and working near an active military installation, noting that, on average, up to 70 percent of an installation's force resides in the surrounding civilian communities – commuting to work on local roads occupying privately-owned housing, and attending local education facilities;
- Protect and enhance military readiness and defense capabilities while supporting continued community economic development; and,
- Enhance civilian and military communication and collaboration.

Program Activities

Installation Resilience program activities are designed to support the organizing, planning, and

implementation actions necessary to foster, protect, and enhance the sustainability of our military installations (including testing and training ranges, special use airspace, military operations areas, and/or military training routes) and related defense industrial base. Local civilian jurisdictions partner with their local installations as "one community" to identify man-made or natural threats across the community that are likely to impair the continued operational utility of local military installations, and then plan and carry out responses to enhance infrastructure and other resilience measures, as well as projects involving the protection, restoration, and maintenance of natural features. This may also include integrating installation and related defense industrial base vulnerabilities with local mitigation program and risk management program planning under the Federal Emergency Management Agency. It enables a "one community" response through a collaborative Federal, state, local, and private effort to optimize the capacities and resources each can bring to the effort and requires the civilian leaders and their military counterparts to not let an installation fence line distract or otherwise disrupt responses to vulnerabilities locally.

These program activities establish or reinforce an ongoing collaboration between civilian (public and private) and military equities that endures beyond the term of any project. Program activities encourage planning and collaboration to analyze options for the situation, adopt a strategy, and implement actions.

Projects may include the following:

- a comprehensive review of natural and man-made threats and vulnerabilities;
- targeted studies or plans concerning, but not limited to, transportation, land use/encroachment, utility services, housing, stormwater management, sewer, and communications; and,
- planning activities and table-top exercises to jointly identify resilience challenges with local installations and other key partners, including FEMA, CISA and the National Guard, to facilitate

threat-based scenarios to identify Defense Critical Infrastructure vulnerabilities and prioritize improvements.

Communities may also undertake compatible use studies to comprehensively understand the concerns of a military installation around encroachment, opportunities for civilian growth, and to develop actions that work in concert with the installation's mission.

Project managers with the Office of Local Defense Community Cooperation may work with potential applicants to provide guidance during the application process.

Examples of Resilience Factors

Flooding & Tidal Surge	Water Availability
Wind	Stormwater
Drought	Wastewater
Wildfire	Installation and Operational Energy
Seismic	Foreign Investment
Tornadic/Tropical Storm	Transportation
Community Infrastructure	Installation Access
Winter Storm	Communications
Air Space and Land Uses	Energy Siting Compatibility
Noise	Income-Based Housing
Urban Growth	Cultural Resources
Spectrum Encroachment	Marine Resources
Endangered Species	Security

End State

Through the community-driven planning process, adjacent communities and often the state, in partnership with the installation, identify and evaluate a wide range of existing and potential future resilience risks and impacts that may impair the operations of the Department of Defense. Installation resilience projects are expected to identify specific recommendations for stakeholder action, to include establishing, or continuing, a dialogue with the military installation so they can act as "one community" to ensure military installation resilience continues to be monitored and sustained.

Eligibility

States, counties, municipalities, other political subdivisions of a state; special purpose units of a state or local government; other instrumentalities of a state or local government; and tribal nations are eligible if the Office of Local Defense Community Cooperation determines there is a threat to military

For More Information

Sign up for email updates on Installation Resilience and other OLDCC programs by visiting [OLDCC.gov/contact-us](https://oldcc.gov/contact-us) and clicking on Stay Connected to OLDCC, or by clicking [here](#).

U.S. Department of Defense
Office of Local Defense
Community Cooperation

2231 Crystal Drive, Suite 520
Arlington, VA 22202
(703) 697-2130

UPDATED: MAY 24, 2024

OLDCC Listed Resilience Factors



INSTALLATION RESILIENCE FACTORS

FACTORS THAT ARE LIKELY TO IMPAIR THE CONTINUED OPERATIONAL UTILITY OF LOCAL MILITARY INSTALLATIONS.



Extreme Natural Events

- Avalanche
- Drought
- Earthquake/ Seismic Concerns
- Landslide
- Lightning
- Tsunami
- Volcanic Activity
- Wildfire



Water Supply

- Capacity
- Availability
- Contamination
- Salt Water Intrusion



Flooding

- Tidal Surge
- Coastal Flooding
- Inland Flooding
- Riverine Flooding



Land Use/ Development

- Air Quality
- Cultural Resources
- Environmental Justice
- Housing Availability
- Gate Access
- Light Pollution
- Encroachment
- Transportation
- Foreign Investment/Proximity
- Spectrum Encroachment
- Maritime Encroachment



Severe Weather

- Extreme Temperatures
- Severe Thunderstorms
- Hurricane/ Tropical Storm
- Snow/Ice Storms
- Tornado



Military Operational Impacts

- AICUZ/RAICUZ/RCUZ
- Airborne Noise
- Industrial Noise
- Artillery Noise
- Security
- Convoy Transportation
- Safety (explosives)



Land Degradation

- Coastal Inundation
- Erosion
- Forest Health
- Invasive Species
- Permafrost
- Sea Level Rise
- Subsidence



Infrastructure

- Stormwater
- Wastewater
- Water
- Telecommunications
- Electrical
- Gas



Species & Habitat Concerns

- Critical Habitat
- Rare, Threatened, Endangered Species
- Special Species of Concern
- Invasive Species
- BASH

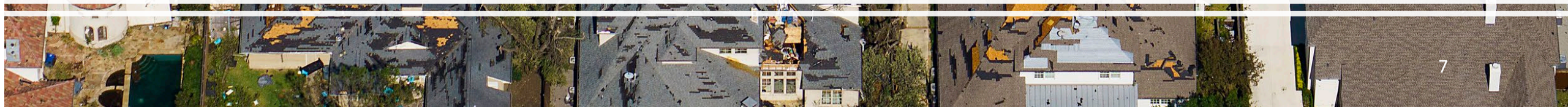


Energy

- Renewable Energy Siting
- Compatibility
- Microgrid
- Energy Redundancy
- Energy Security



Texas Resilience



Texas Resilience

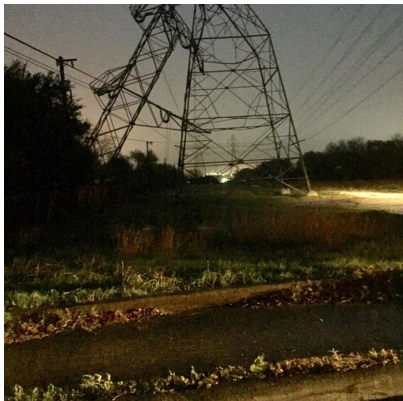


- Proximity to Key Military Operations – Texas installations support essential national and international missions, making resilience crucial.



- Unique Geographic Threats -Texas experiences hurricanes, tornadoes, floods, winter storms, drought, and extreme heat, which requires tailored resilience plans.

- Energy Production Nexus - As an energy leader, Texas benefits from MIRR's focus on securing critical energy partnerships.



Texas Resilience

- Cross-Border Security – Border proximity adds significance to resilience.
- Cyber and Technology Defense – Texas installations are key for cyber and intelligence, enhancing the need for cybersecurity.
- Strong Defense Community Partnerships – Texas culture offers strong local support, expediting resilience initiatives.





MIRR Projects

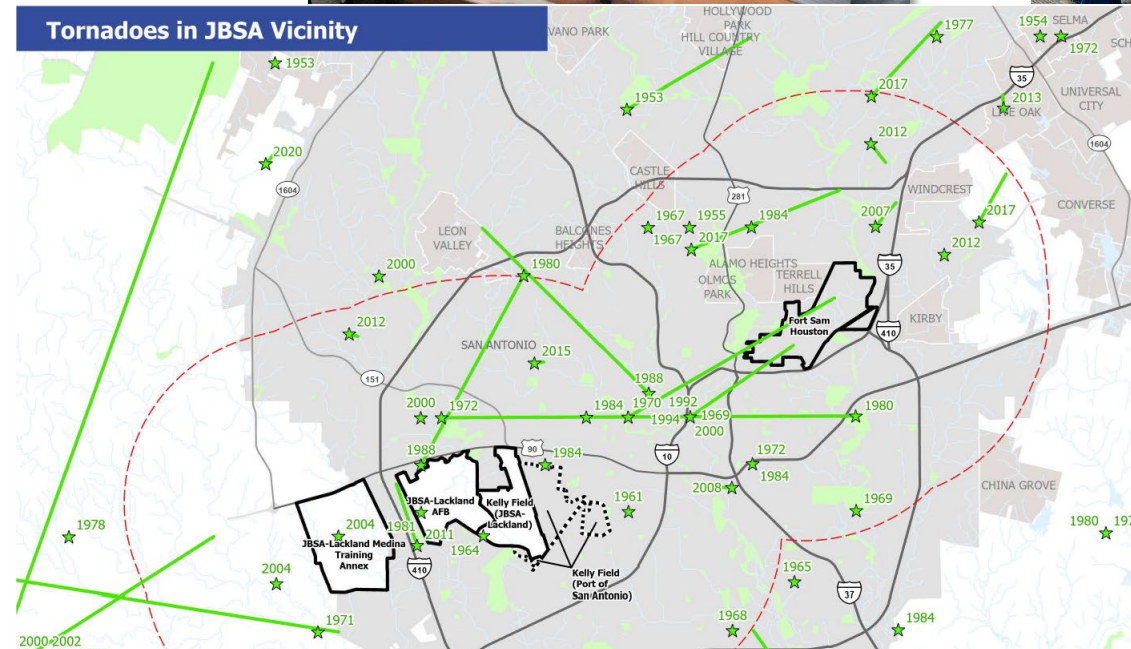
Joint Base San Antonio MIR

Key Concerns

- Winter/ice storms
- High wind/tornadoes
- Water resources
- Infrastructure
 - Substations
 - Distribution
 - Water pump stations
 - Natural gas
 - Micro grids

Projects Developed

- Energy distribution protection
- Pump station hardening



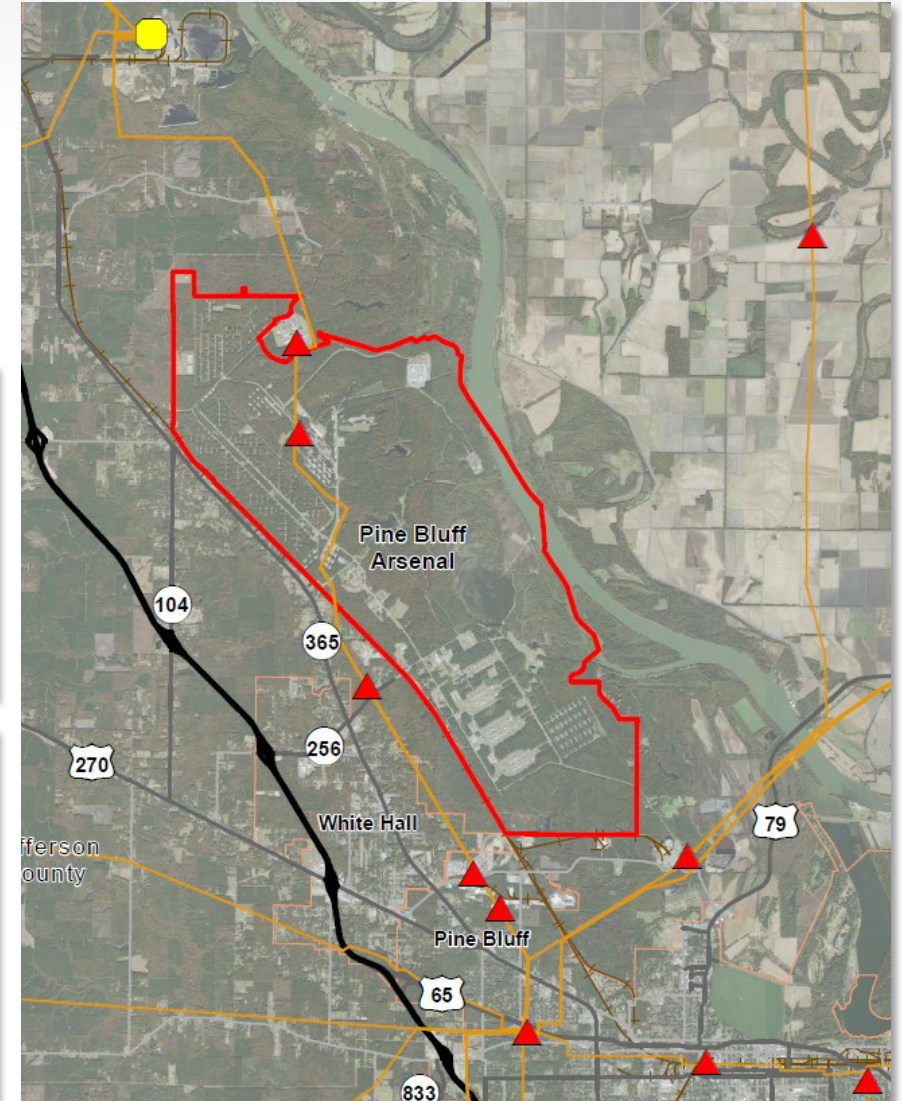
Pine Bluff Arsenal MIR

Key Concerns

- Winter/ice storms
- Localized flooding
- Energy distribution
- Communications
- High winds/tornadoes
- Workforce access

Key Recommendations

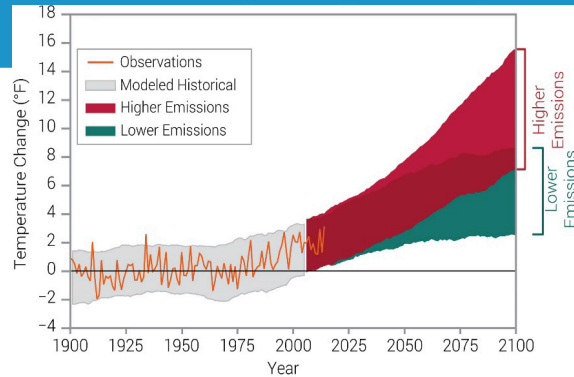
- Snow removal equipment
- Water redundancy
- Communication systems enhancements



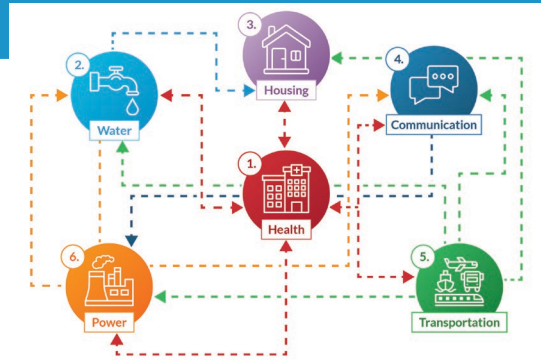
Energy Infrastructure Assessment

Project Approach

Set Climate Scenarios



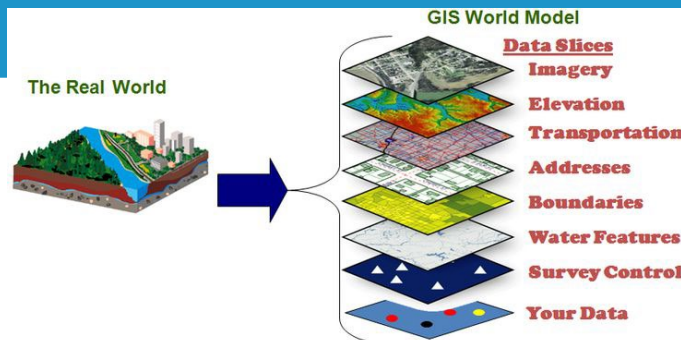
Identify Critical Assets/Programs & Hazards



Prioritize Assets & Hazards

Natural Hazard	Non-Natural Hazards
Drought/Water Shortage	Power Grid Failure/Power Outage
Earthquake	Aircraft Accident
Extreme Cold/Freeze	Civil Disorder
Extreme Heat/Heat wave	Cybersecurity Threats
Extreme Wind	Hazardous Materials and/or Chemical Release
Flood (Riverine and Pluvial)	Infectious Disease Outbreak
Hurricane/Tornado	Labor Strikes
Landslides (Mud/Debris Flows)	Supply Chain Disruption
Lightning	Terrorism and Malevolent Attacks
Wildfire	

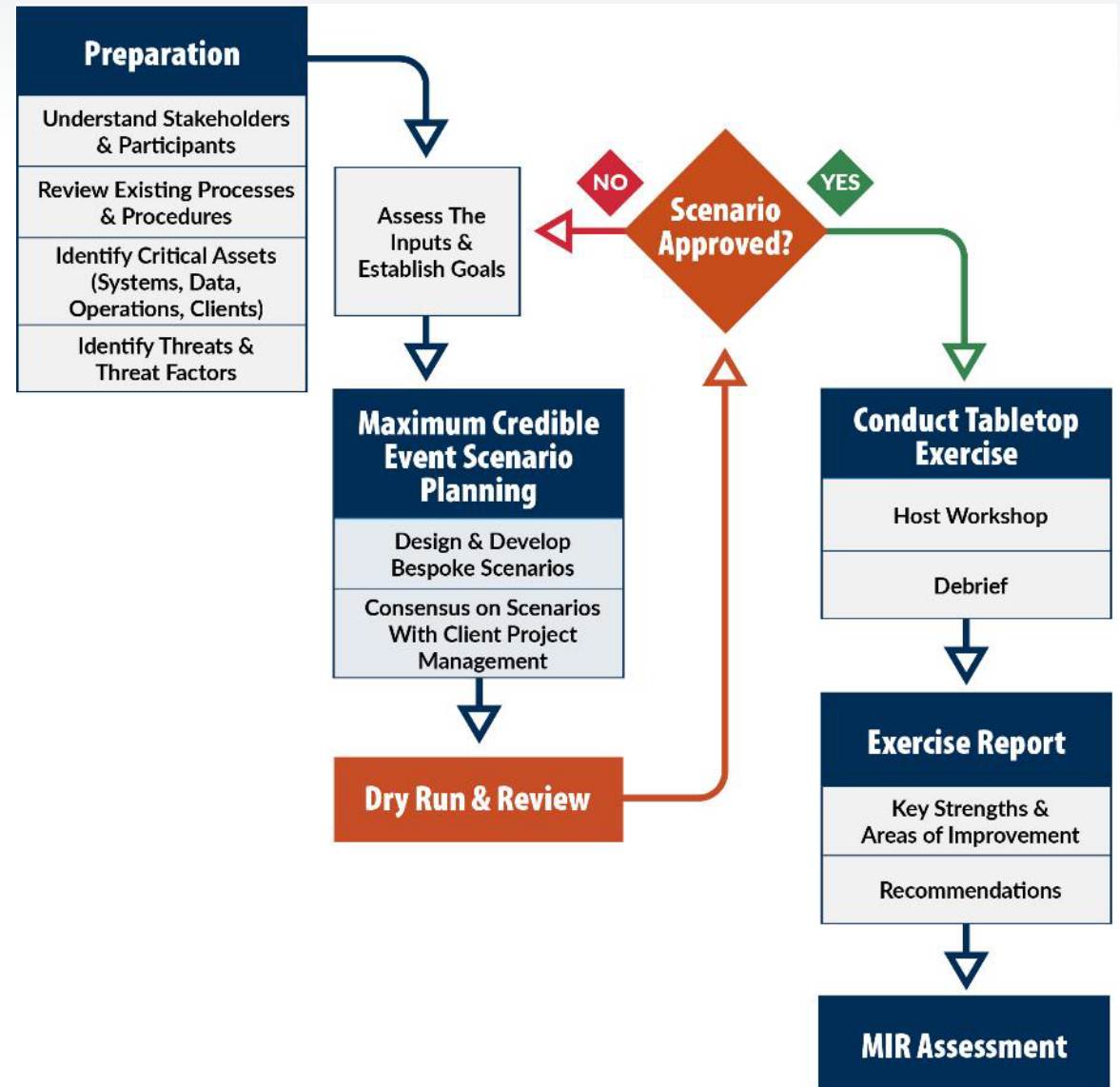
Score Consequences & Assess Risk



Develop and Prioritize Projects



Tabletop Exercises



Tabletop Exercise Outcome

- Processes
- Procedures
- Communication
- Resources
- Projects

Table 1 Summary of Core Capability Performance

Objective	Capability	Performed without Challenges (P)	Performed with Some Challenges (S)	Performed with Major Challenges (M)	Unable to be Performed (U)
Stabilize impacted infrastructure systems to minimize health and safety threats and restore systems and services to support the community	Infrastructure Systems				
All jurisdictions will coordinate response activities to maximize available resources and minimize time to recovery	Operational Coordination				
Manage public information process around response and recovery/ readiness status and activities, as appropriate	Public Information and Warning				

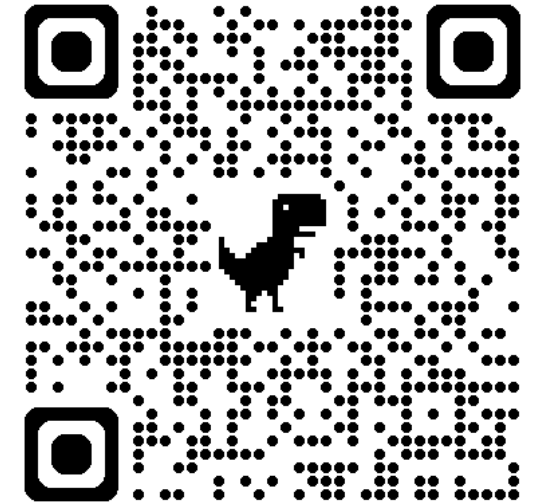


Moving Ahead with MIRR

Moving Ahead with MIRR

For communities interested in pursuing a MIRR, we recommend:

- Engage local military and community leaders to identify shared resilience priorities and project partners.
- Explore the OLDCC Installation Resilience website: [Installation Resilience | Office of Local Defense Community Cooperation](#)
- Meet with your OLDCC Project Manager to discuss your application.





Questions





Thank you

Celeste Werner, FAICP
Chief of Strategic Development
Executive Vice President
O 602.288.8344 | D 602.461.8909 | C 602.315.0736
celeste.werner@matrixdesigngroup.com

Janice Pokrant
Senior Planner
C 210.364.5375
Janice.pokrant@matrixdesigngroup.com

Mike Hrapla
Director of Planning and Analytics
Senior Vice President
O 443.274.6111 | C 443.995.1295
Mike_hrapla@matrixdesigngroup.com

Rob Leonhard, P.E., MBA
Senior Associate
C 210.577.1921
Rob.Leonhard@matrixdesigngroup.com

