



City of Ridgecrest, California

**Military Installation
Resiliency Study/Risk
Assessment of China
Lake, Ridgecrest, and
Surrounding Areas**

**Joint Policy and Technical Committee Meeting
January 24, 2022**

CITY OF RIDGECREST, CALIFORNIA

Military Installation Resiliency Study/Risk Assessment of China Lake, Ridgecrest, and Surrounding Areas

Agenda

- Project Background
- Project Goal
- Resilience Planning Team
- Resilience Planning Framework
 - Identify Assets and Hazards
 - Prioritize Critical Assets & Hazards
 - Score Consequence & Assess Risk
 - Identify Adaptation Projects
 - Prioritize & Recommend Projects
- Overview
- Schedule

Project Background

Resilience is about making our communities and installations stronger, now and in the future, for everyone.

Defense communities and installations **MUST** understand their collective risks and vulnerabilities to be resilient.

This is a Community sponsored (City of Ridgecrest) resilience planning process.



ADVANCING RESILIENCE FOR DEFENSE COMMUNITIES

A PLANNING FRAMEWORK

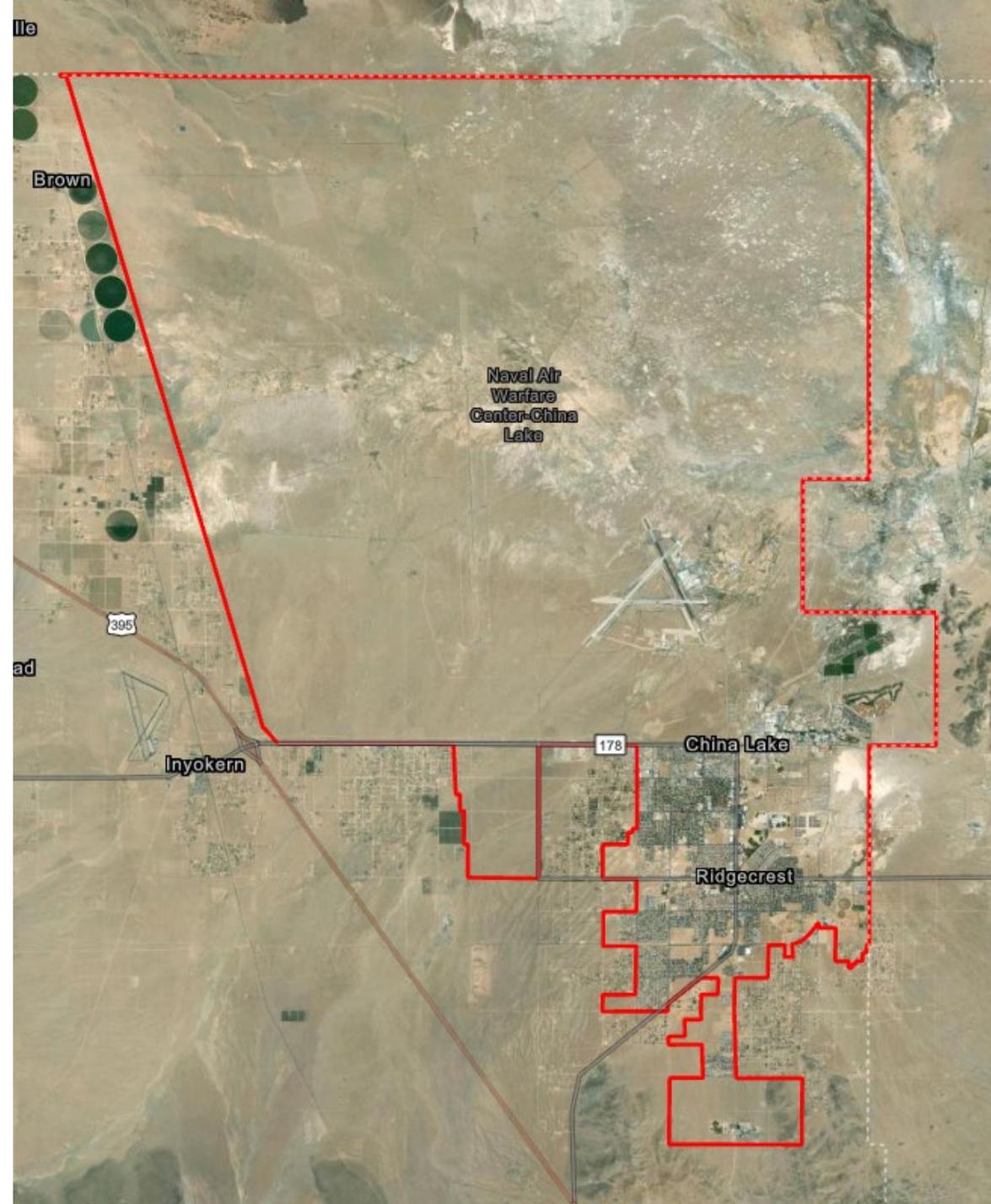


Project Goal:

- Identify critical assets that are at risk
- **Recommend actions/projects** that will increase resilience of both China Lake NAWS and Ridgecrest



Project example: Microgrid developed in partnership with Naval Construction Battalion Center and the Mississippi Power Company ensures mission readiness.



Resilience Planning Team



Resilience Consultant – Stantec & Cardno

- Risk/resilience and GIS professionals
- Advance project along the resilience planning framework

Project Sponsor – City of Ridgecrest (& China Lake NAWS)

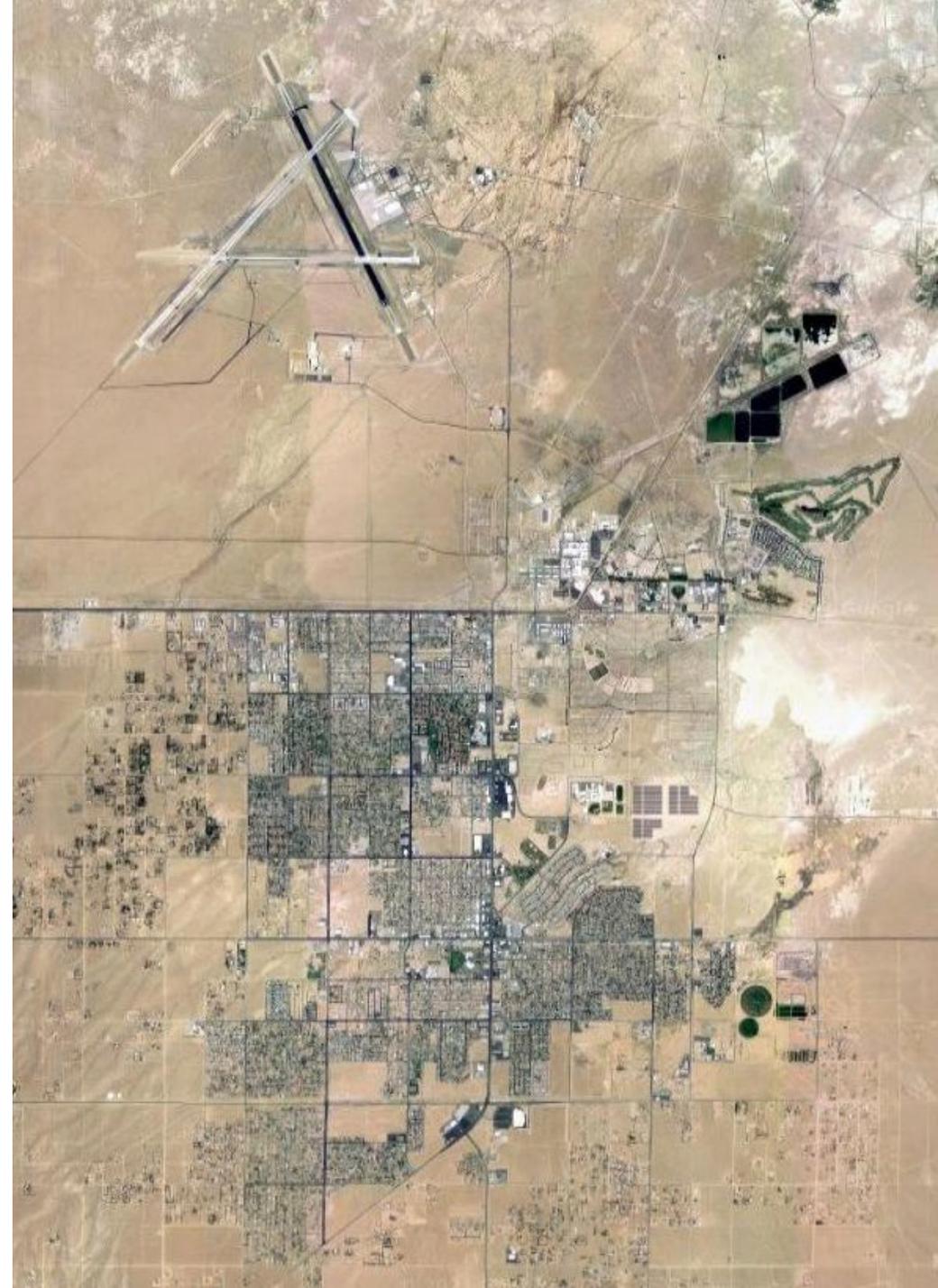
- Convene the right people to identify and address risks
- Serves as DoD Grantee

Policy Committee – Municipal, Regional and Military Leaders

- Guide planning process, accept final project deliverables
- Define network of systems, infrastructure, services and people needed to maintain resilience

Technical Committee –Community / Installation Experts

- Represent technical and subject matter experts
- Develop and recommend adaptation strategies and actions





Project Overview





Identify Assets

Water



Energy

Safety & Security



Communication

Health & Medical



Transportation

Food & Shelter



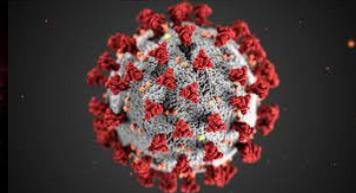
Identify Hazards

Flood



Cyber

Wildfire



Pandemic

Earthquake



Landslide

Extreme Heat



Identify Assets & Hazards

Prioritize Critical Assets & Hazards

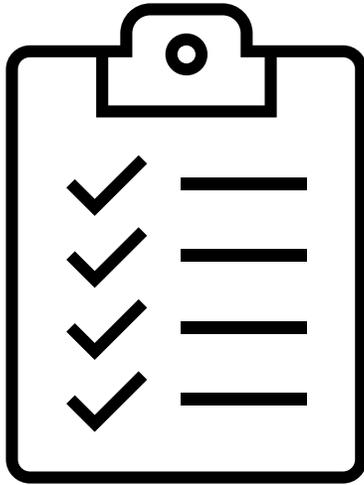
Score Consequence & Assess Risk

Identify Adaptation Projects

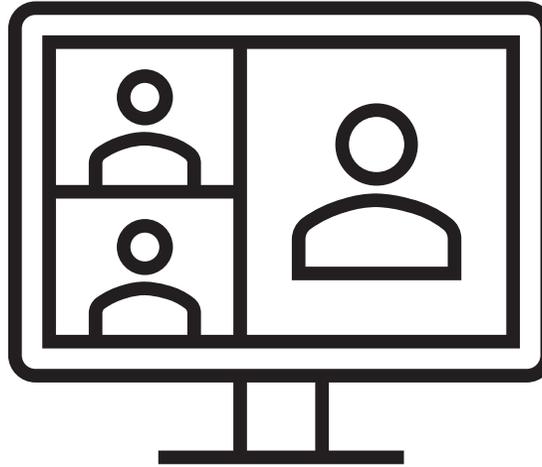
Prioritize & Recommend Projects



Identify Assets and Hazards



Survey



Workshop #1



Data Request/Collection

Identify Assets & Hazards

Prioritize Critical Assets & Hazards

Score Consequence & Assess Risk

Identify Adaptation Projects

Prioritize & Recommend Projects



Prioritize Critical Assets & Hazards

Critical Assets are those whereby loss of functionality could lead to:

- Loss of Life
- Serious Injury
- Health Impacts
- Quality of Life Reduction
- Threatened Safety

Relevant Hazards may impact critical assets and cause them to lose functionality

- Scientific knowledge: from hazard maps and past events
- Local knowledge: Data from interviews, workshops, survey
- Where do hazards and assets overlap?

Identify Assets &
Hazards

Prioritize Critical Assets
& Hazards

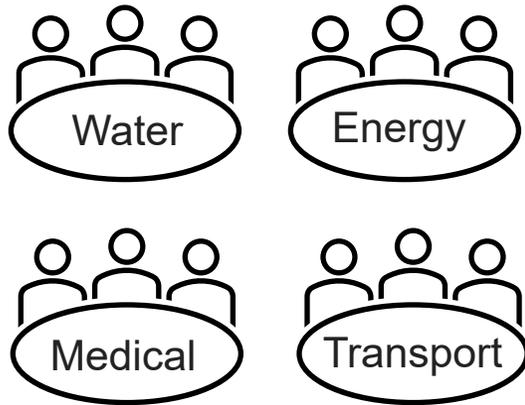
Score Consequence &
Assess Risk

Identify Adaptation
Projects

Prioritize &
Recommend Projects

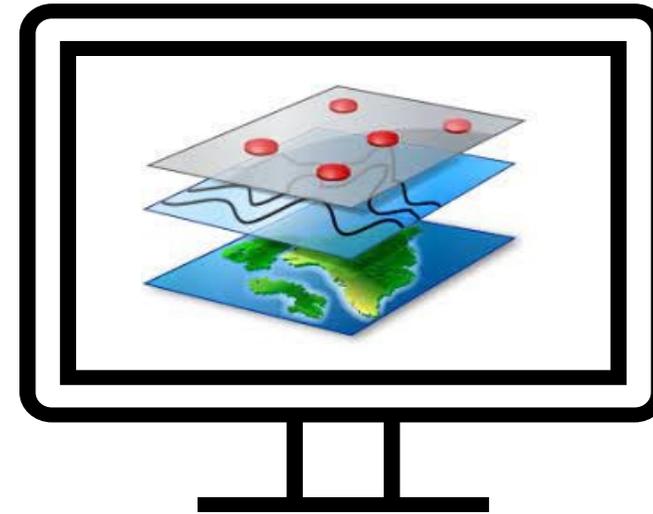


Prioritize Critical Assets & Hazards



Lifeline Interviews

Which assets are critical to installation and community resilience?



Spatial Data Analysis

Which hazards are relevant to installation and community resilience?

Identify Assets & Hazards

Prioritize Critical Assets & Hazards

Score Consequence & Assess Risk

Identify Adaptation Projects

Prioritize & Recommend Projects

Score Consequence & Assess Risk

Consequence: How bad would it be?



Insignificant

Minor

Moderate

Major

Catastrophic



Risk = Hazard Likelihood x Consequence

Identify Assets &
Hazards

Prioritize Critical Assets
& Hazards

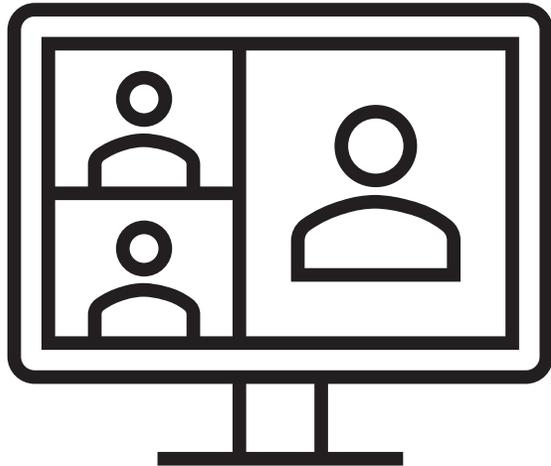
Score Consequence &
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Identify Adaptation
Projects

Prioritize &
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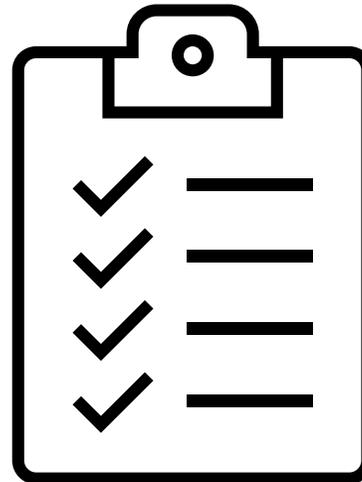


Score Consequence & Assess Risk



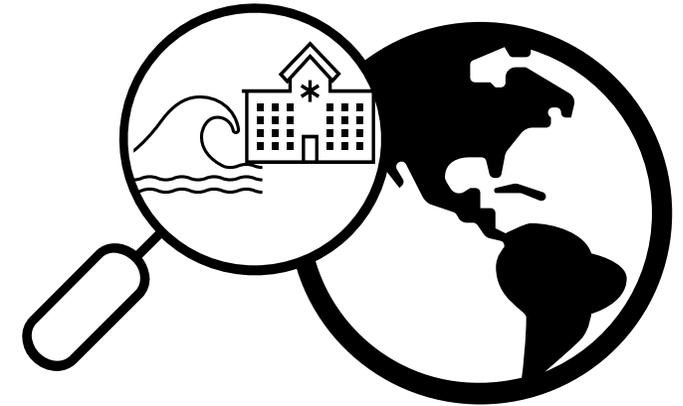
Workshop #2

Policy and Technical committees review assets



Critical Asset Owner Surveys

Materials, condition, age...



Spatial Data Analysis

High, Moderate, or Low Risk

Identify Assets & Hazards

Prioritize Critical Assets & Hazards

Score Consequence & Assess Risk

Identify Adaptation Projects

Prioritize & Recommend Projects



Identify Adaptation Projects

Project Types

Infrastructure

Nature-Based Solutions

Asset-Specific

Systems

Programs & Services

Policies & Regulations



Identify Assets & Hazards

Prioritize Critical Assets & Hazards

Score Consequence & Assess Risk

Identify Adaptation Projects

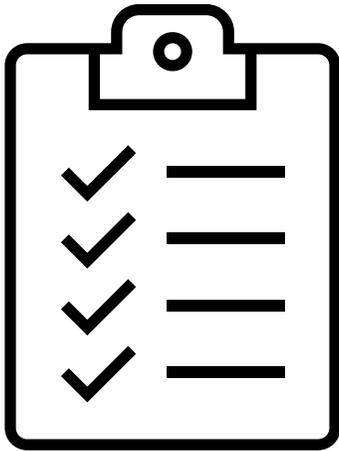
Prioritize & Recommend Projects



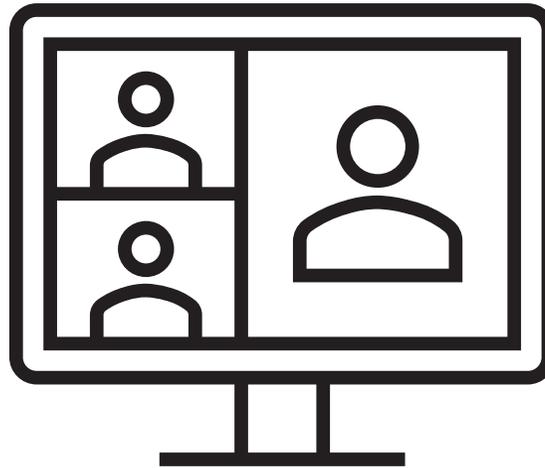
Prioritize Projects



Prioritize Projects

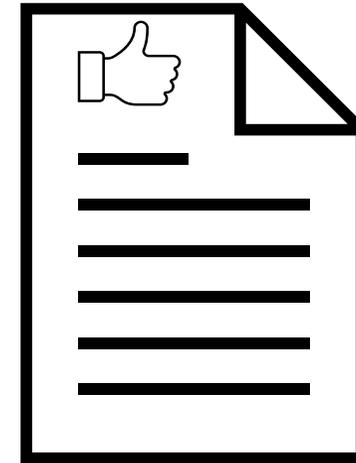


Draft List of Projects



Workshop #3

Discuss project options



Deliverable Report

- Summary of methods and process
- Adaptation implementation plan: *responsible parties, prioritization level, time horizon*

Identify Assets & Hazards

Prioritize Critical Assets & Hazards

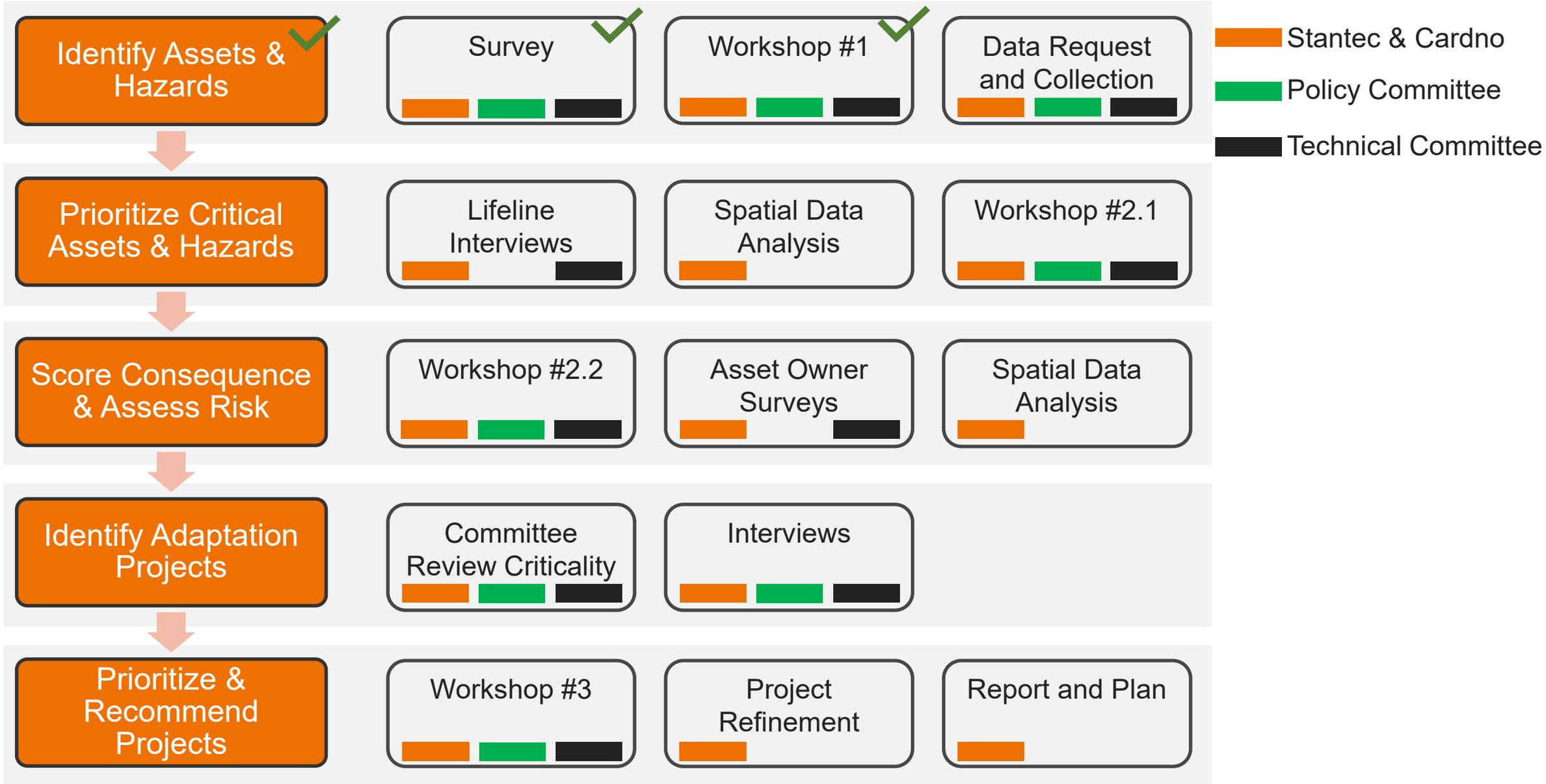
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Identify Adaptation Projects

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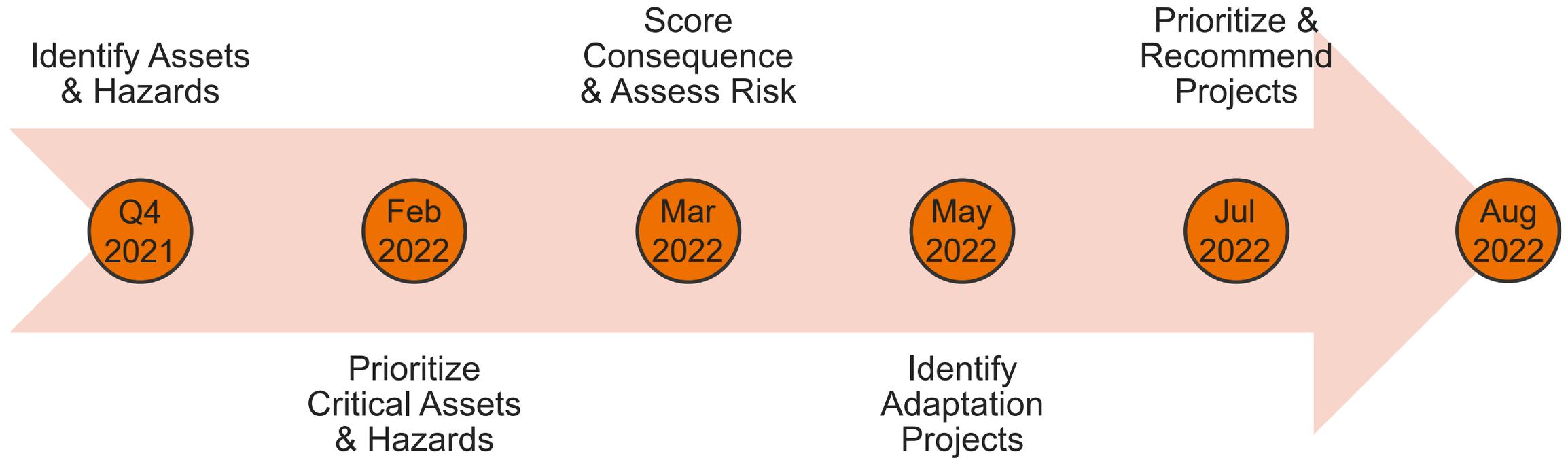


Project Overview



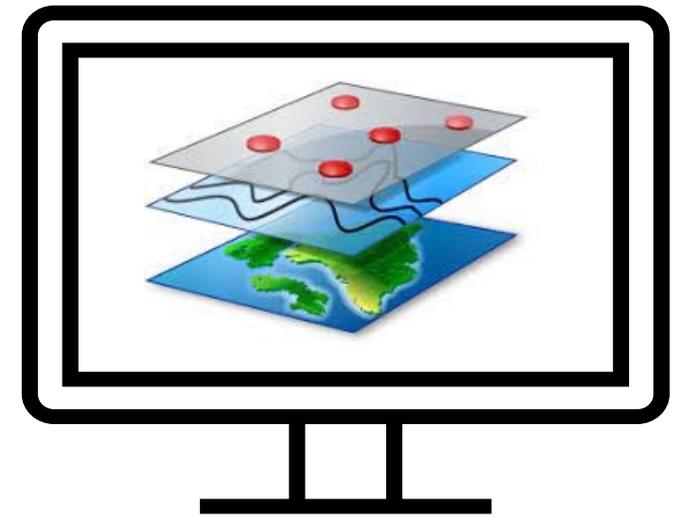
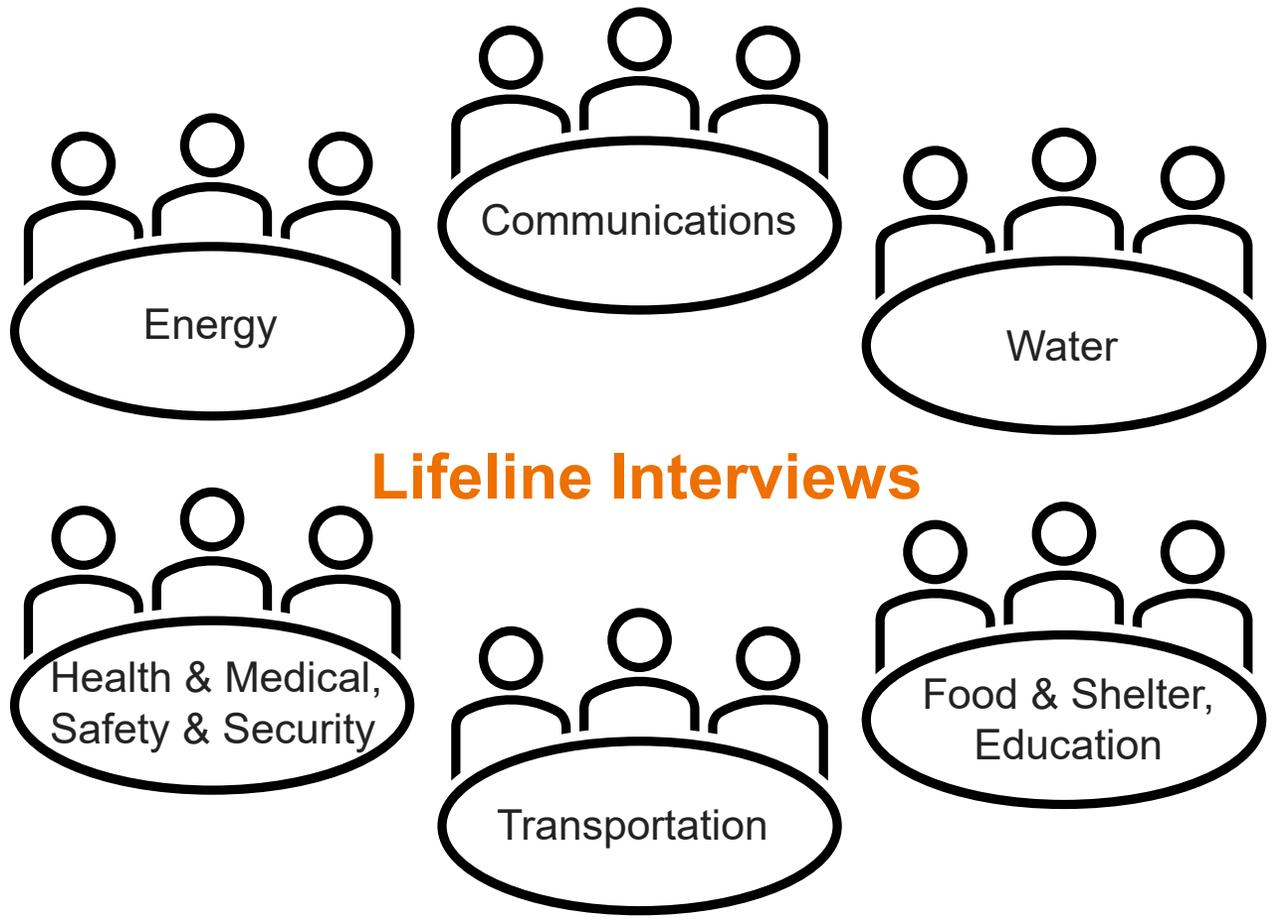


Project Schedule





Next Steps



Hazard Data Collection



Conclusion

Working together to identify vulnerabilities and risks is the first step to shared community and installation resilience.

With this project, we will guide you through the risk assessment process, then help you identify projects to increase the resilience of China Lake NAWS and Ridgecrest.

Upon completion you will receive a prioritized and detailed outline of the steps required to fund and execute these projects, with a clear path forward.

