Northeast Florida Regional Council
Military Installation Readiness Review

Technical Advisory Committee

May 27, 2026

Jacobs

Agenda

2:00 pm Welcome & Introductions
- **Introduction**
- **Purpose of the meeting - Jacobs**
- **Project scope & overview- Jacobs**

2:10 pm Using AI for Wildfire Mitigation and Recovery
- *Dr. Valeria Martin, University of West Florida*

2:40 pm Implementation Path Forward: Lessons from NWFL MIRR
- *Eric Christianson, Emerald Coast Regional Council*

3:10 pm NEFL Housing
- *Ashon Nesbitt, CEO Florida Housing Coalition*

3:35 pm Review of NEFL MIRR Adaptation Project Prioritization Metrics

3:50 pm Next Steps & Questions

Today's Objectives:
- Discuss regional adaptation topics
- Discuss implementation and potential path forward
- Review draft adaptation metrics

Welcome & Introductions

Introductions

Technical Advisory Committee Mission

- To discuss relevant topics, provide expert opinion, follow up questions on assessment and adaptation, review preliminary findings and foster the identified outcomes toward implementation.

Project Status

The purpose of the MIRR is to identify the risks, hazards, and vulnerabilities of concern as it relates to the ability of the military to carry out its missions on the installation that could be mitigated through investments and solutions ***outside the fence line in the community.***

Project Timeline

Pathway to Implementation

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

NORTHEAST FLORIDA REGIONAL COUNCIL

MIRR

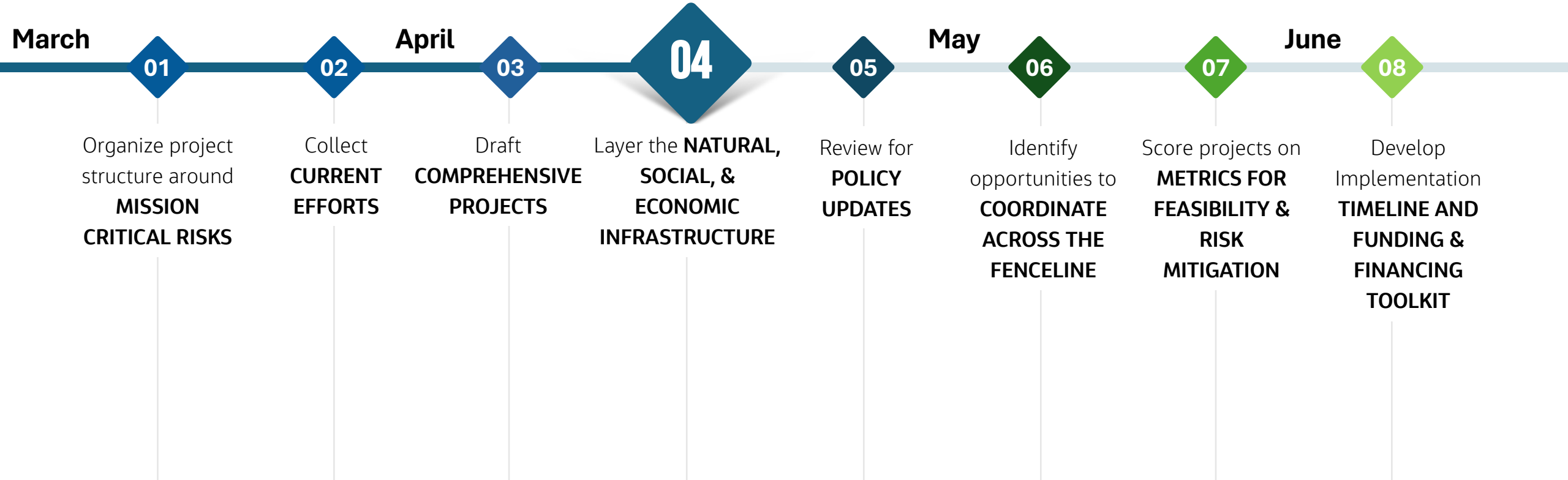
Implementation

$$$

FEMA

Others

Adaptation Timeline



Wildfire

Building Labeled Satellite Imagery Datasets and Benchmarking Deep Learning Models for Wildfire Detection and Mapping

Valeria Martín Hernández

Talk for Jacobs Engineering, May 2026

University of West Florida • Hal Marcus College of Science and Engineering
Department of Intelligent Systems and Robotics

Committee: Dr. K.B. Venable (Chair) • Dr. D. Morgan

Agenda

Motivation & Context

Wildfires, remote sensing, data gap

Dataset Creation

CWGID & CalFireSeg-50 pipelines

Image Classification

Unitemporal vs bitemporal CNNs

Pixel Segmentation

8 architectures, temporal fusion strategies

Generative Augmentation

Diffusion models for synthetic data generation

Wildfire Prediction

How can we adapt to prediction?

Publications

Springer Nature Book 2025

Mapping Illegal Logging Using GeoAI

DOI: 10.1007/978-3-031-81580-5_16

SciPy Conference 2024

Python-Based GeoImagery Dataset Development for DL-Driven Forest Wildfire Detection

DOI: 10.25080/YADT7194

Springer Nature Computer Science 2025

Development and Application of a Sentinel-2 Satellite Imagery Dataset for DL Driven Forest Wildfire Detection

DOI: 10.1007/s42979-025-04454-8

ACM SIGSPATIAL GeoAI Workshop 2025

A Sentinel-2 Benchmark and Deep-Learning Study for Wildfire Damage Mapping

DOI: 10.1145/3764912.3770829

GeoInformatica 2026 (Under Review)

A Multi-Temporal Sentinel-2 Benchmark and Deep Learning Approaches for Wildfire Damage Mapping

Manuscript ID: 0188d183-be57-44a6-8f84-ef44ad46c4b9 v1.0

Arxiv Preprint 2026

Generating Satellite Imagery Data for Wildfire Detection through Mask-Conditioned Generative AI

DOI: pending

Motivation & Context

Why wildfires, why satellites, why deep learning?

Wildfires: A Growing Crisis

Longer

Fire seasons

Larger

Individual events

Higher

Economic toll

Diverse vegetation, complex terrain, and prolonged dry seasons make wildfire detection and damage mapping an urgent challenge.

Challenge: Rapid detection of active fires AND accurate spatial mapping of the damage they leave behind.

Machine Learning, specifically Deep learning offers a powerful approach, but is constrained by the scarcity of large, labeled, geographically diverse training datasets.

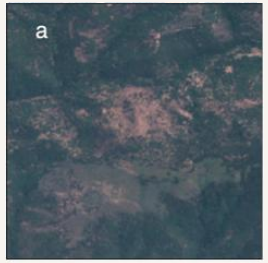
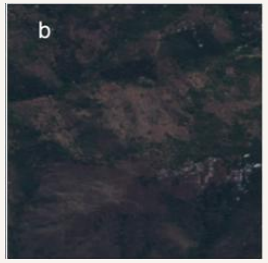
But… what is Machine Learning?

- Machine Learning (ML) is a form of Artificial Intelligence (AI) based on the human learning process (Pritt et al., 2017).
- ML algorithms learn from training data (Lary et al., 2016).
- Used in difficult classification problems and data mining.
- Different learning approaches:
  - Neural networks: Deep Learning (DL).
  - Random forests.
  - Bayesian neural networks.
- ML is very successful in many applications domains but in some cases it requires substantial labeled training data.

Source: https://greensqa.com/introduccion-al-machine-learning/

Example of DL in Forest Wildfire Detection

Part 1: Training	
	No Wildfire Damage
	Wildfire Damage

Part 2: Testing	
	No Wildfire Damage
	Wildfire Damage

→ Part 3: Deployment and Classification

Sentinel-2: Our Data Source

Constellation	Sentinel-2A + 2B (ESA Copernicus)
Revisit	5 days combined (2–3 days at higher latitudes)
Resolution	10m (RGB, NIR) + 20m (SWIR)
Access	Free and open — via Google Earth Engine

Bands used in this dissertation:

B2 Blue	B3 Green	B4 Red	B8 NIR	B11 SWIR-1	B12 SWIR-2
492 nm	560 nm	665 nm	833 nm	1614 nm	2202 nm

L2A products (bottom-of-atmosphere reflectance) ensure spectral consistency across dates and locations.

The Data Bottleneck

Existing wildfire satellite imagery datasets are limited in:

Scale	Most have <5K samples — insufficient for deep learning
Temporal depth	Few support bitemporal or multitemporal analysis
Label quality	Manual annotation is expensive and hard to reproduce
Geographic diversity	Often limited to a single region or a handful of fires

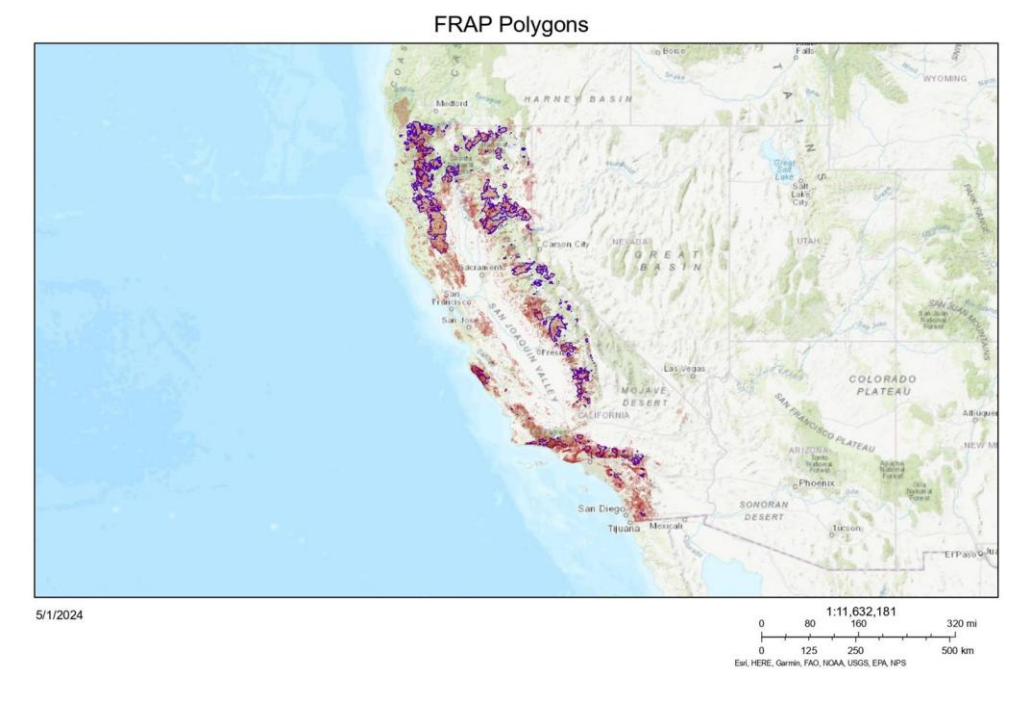
This dissertation addresses this bottleneck through an integrated pipeline:
Dataset construction → Benchmarking → Generative augmentation

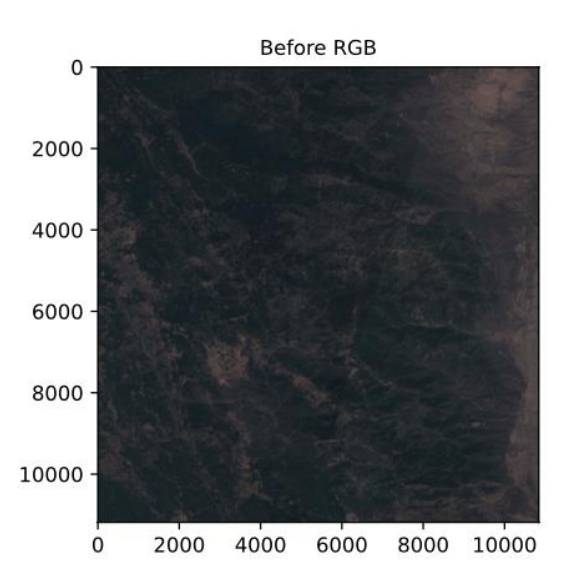
Dataset Creation Pipelines

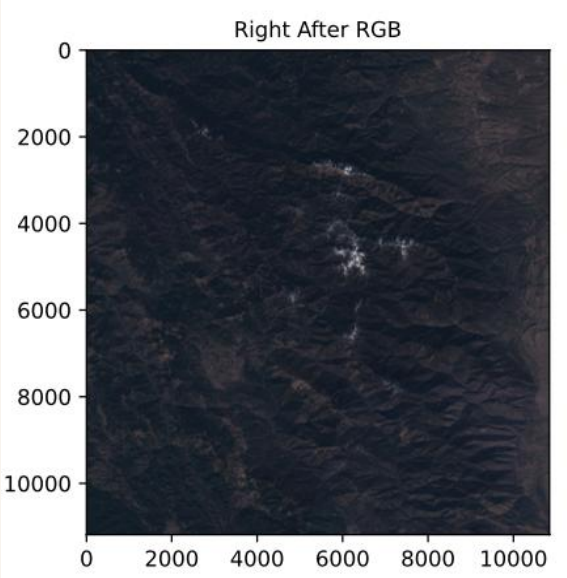
Turning open data into model-ready benchmarks

CWGID: California Wildfire GeoImaging Dataset

106,317	256×256	2016–2021	Hundreds
Bitemporal pairs	Pixel tiles	Time span	Wildfires



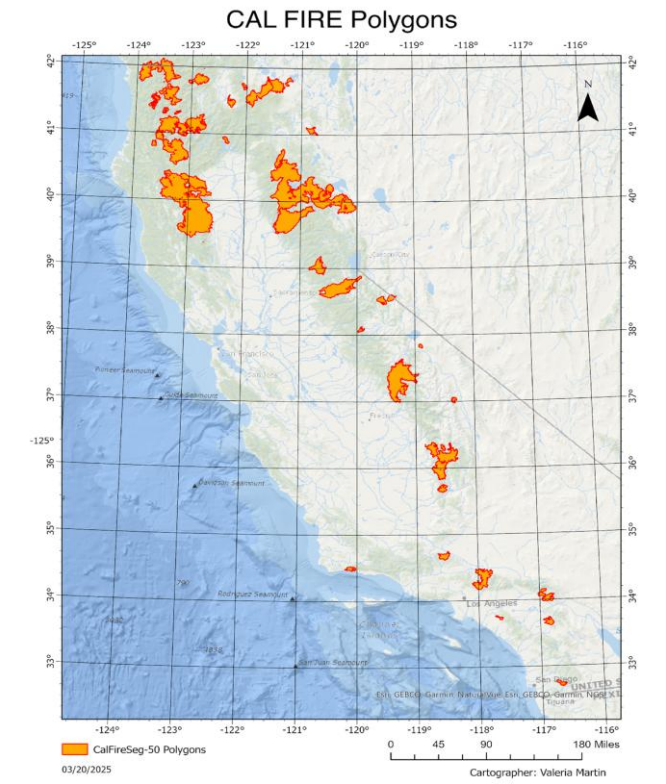




CalFireSeg-50: Segmentation Benchmark

50	50,392	2019–2023	4
Largest CA wildfires	224×224 tiles	Time span	Temporal stages

Before → **During** → **Right After** → **Regrowth**



Temporal Windows

Pre-fire
15–20 days before

During
Alarm → Containment

Right After
15–20 days post

Regrowth
March–April next year

Window design accounts for:

Seasonal effects • Satellite revisit constraints • Fire timing uncertainty • California's Mediterranean climate

CWGID vs CalFireSeg-50

	CWGID	CalFireSeg-50
Scale	106,317 pairs	50,392 tiles
Tile size	256×256 px	224×224 px
Temporal	2 stages (before/after)	4 stages
Label type	Perimeter rasterization	Conditional (NDVI+NBR)
Downstream	Classification (Ch.4)	Segmentation (Ch.5)

Open & Reproducible

- **Fully programmatic pipelines**
  No manual annotation required — end-to-end automated
- **Open-source tools**
  Google Earth Engine, Python, GeoPandas, Rasterio
- **Public data sources**
  Sentinel-2 (ESA) + FRAP fire perimeters (CAL FIRE)
- **Code available on Kaggle**
  Download, annotation, and tiling notebooks
- **Datasets freely accessible**
  Google Drive (CWGID) and Kaggle Datasets (CalFireSeg-50)
- **Adaptable beyond wildfires**
  Applicable to deforestation, floods, land-use change monitoring

Image-Wise Classification

Does temporal context improve image-level wildfire detection?

Three Classification Architectures

VGG16 Unitemporal

Post-fire only

3-channel RGB

Baseline

EF EfficientNet-B0 Early Fusion

6-channel input

(before + after concat)

Bitemporal

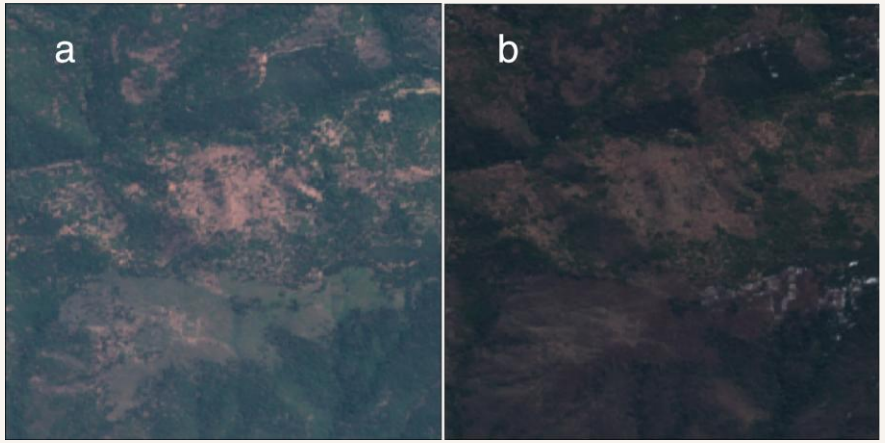
Siamese EfficientNet-B0

Dual branches

Shared weights

Bitemporal

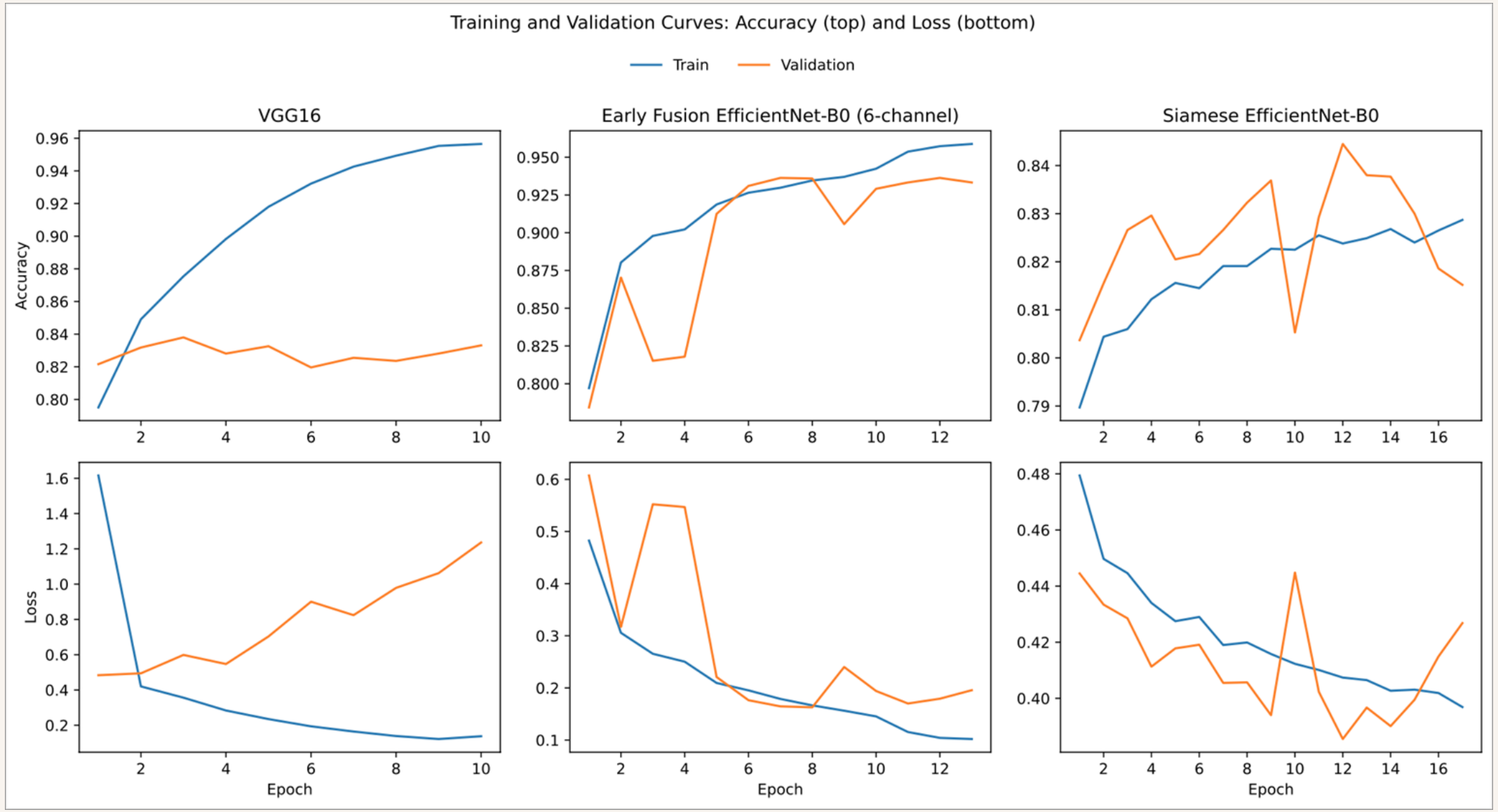
All trained on the CWGID • Adam optimizer • BCE loss • ImageNet pre-trained



Classification Results

Metric	VGG16	EfficientNet-B0	Siamese EfficientNet-B0
Loss	1.220	0.178	0.413
Accuracy	0.832	0.926	0.816
Precision	0.749	0.925	0.875
Recall	0.588	0.819	0.442
Time (minutes)	1953	933	1007

Training & Validation Curves



Pixel-Wise Segmentation

What architecture and temporal strategy produces the best damage maps?

From Classification to Segmentation

Classification

"Is there wildfire damage?"

Segmentation

"WHERE is the wildfire damage?"

Precise burn boundary delineation is critical for: insurance claims, recovery planning, ecosystem monitoring, and understanding fire behavior.

Key metric: IoU (Intersection over Union) — strictest measure of spatial agreement.

4 Architectures trained on CalFireSeg-50

UNet (ResNet-50)	UNet++ (Dense skips)	TransUNet (CNN+ViT)	SegFormer-B2 (Transformer)
Unitemporal	Unitemporal/Bitemporal	Unitemporal/Bitemporal	Unitemporal

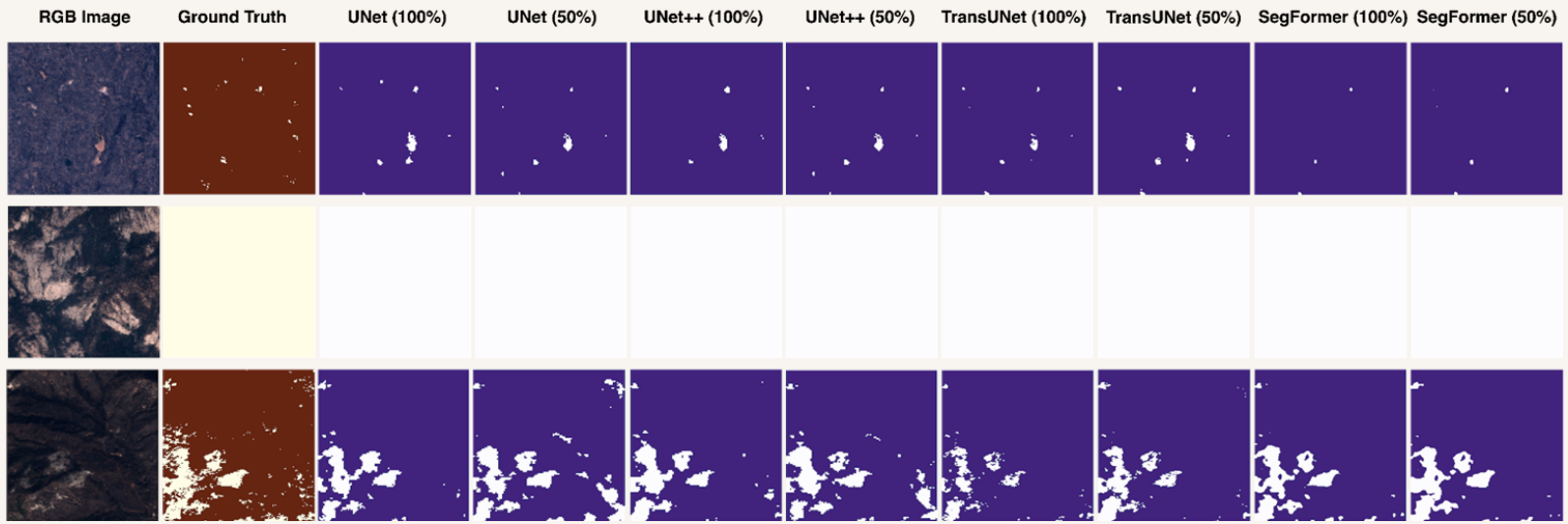
Unitemporal Segmentation Architectures

Unitemporal Results

TransUNet: best Dice (0.881) and Accuracy (0.943) | UNet++: best IoU (0.817)

CNN-based models are competitive and significantly faster to train

Model	IoU	Dice	Acc	Prec	Recall
UNet	0.800	0.856	0.935	0.834	0.883
UNet++	**0.817**	0.878	0.940	0.869	0.892
TransUNet	0.812	**0.881**	**0.943**	**0.880**	0.887
SegFormer-B2	0.640	0.753	0.899	0.878	**0.894**



Bitemporal Segmentation Architectures

EF UNet++

6-ch stem + UNet++

EF TransUNet

6-ch stem + TransUNet

Siamese UNet++

Dual encoders + UNet++

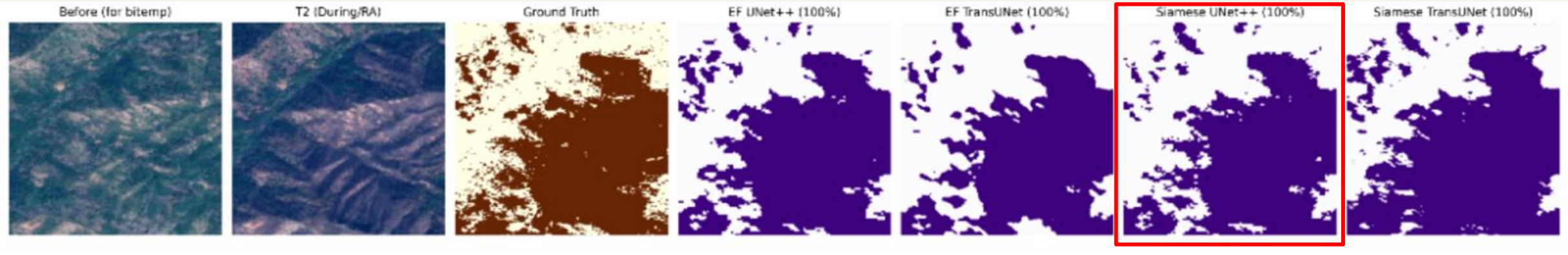
Siamese TransUNet

Dual encoders + TransUNet

Bitemporal Results

Model	IoU	Dice	Acc	Prec	Recall
EF UNet++	0.857	0.881	0.942	0.876	0.894
EF TransUNet	0.871	0.893	0.948	**0.886**	0.908
Siamese UNet++	**0.878**	**0.898**	**0.950**	0.873	0.932
Siamese TransUNet	0.829	0.856	0.931	0.797	**0.936**

Siamese UNet++ achieves the best overall performance:
IoU 0.878 • Dice 0.898 • Accuracy 0.950



Unitemporal vs Bitemporal: Head-to-Head

Metric	Best Unitemporal	Best Bitemporal	Gain
IoU	0.817 (UNet++)	**0.878 (Siamese UNet++)**	**+6.1%**
Dice	0.881 (TransUNet)	0.898 (Siamese UNet++)	+1.7%
Accuracy	0.943 (TransUNet)	0.950 (Siamese UNet++)	+0.7%
Precision	0.880 (TransUNet)	0.886 (EF TransUNet)	+0.6%
Recall	0.894 (SegFormer)	0.936 (Siamese TransUNet)	**+4.2%**

+6.1 %

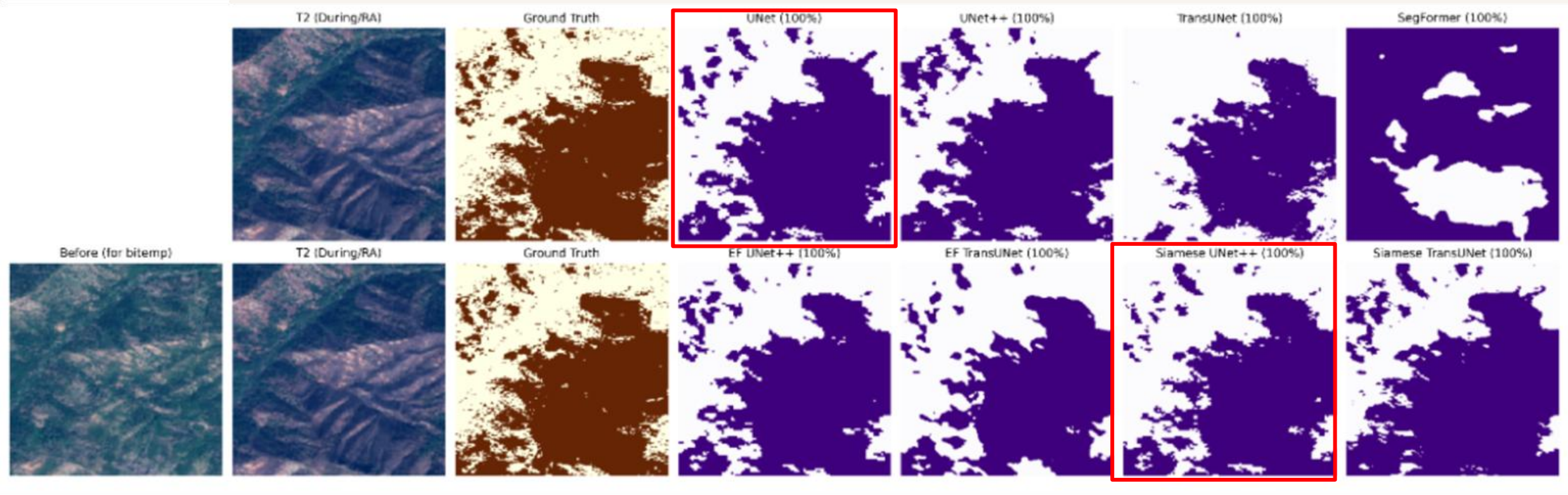
IoU improvement with bitemporal

+4.2%

Recall improvement with bitemporal

Temporal change information consistently improves segmentation accuracy, particularly for boundary-level metrics.

… Unitemporal vs Bitemporal: Head-to-Head



Segmentation: Key Findings

Temporal context is critical

Siamese UNet++ reaches 87.8% IoU vs 81.7% unitemporal — 6.1 % gain on strictest metric

Fusion strategy is backbone-dependent

Siamese works best for CNN (UNet++); Early Fusion works best for Transformer (TransUNet)

CNNs remain highly competitive

With appropriate modifications, CNNs match or exceed transformer performance at lower cost

Precision-recall trade-off persists

Siamese TransUNet: highest recall (93.6%) but lowest precision (79.7%) — over-segmentation

CalFireSeg-50 is a versatile benchmark

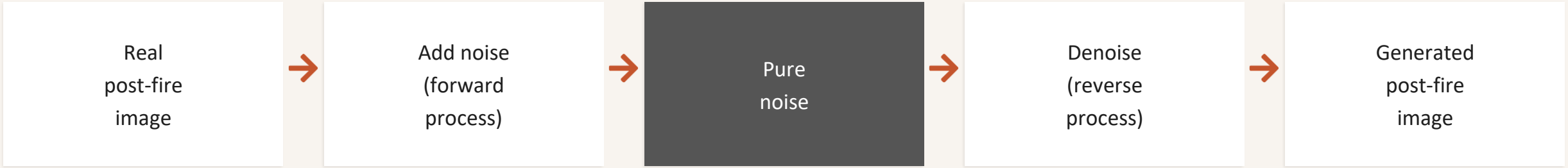
Successfully supports evaluation of 8 architectures across 2 temporal configurations

Generative Augmentation

Can diffusion models generate realistic post-fire imagery?

Denoising Diffusion + EarthSynth

Core idea: Learn to reverse a gradual noising process to generate realistic satellite imagery from burn masks.



Two generation strategies:

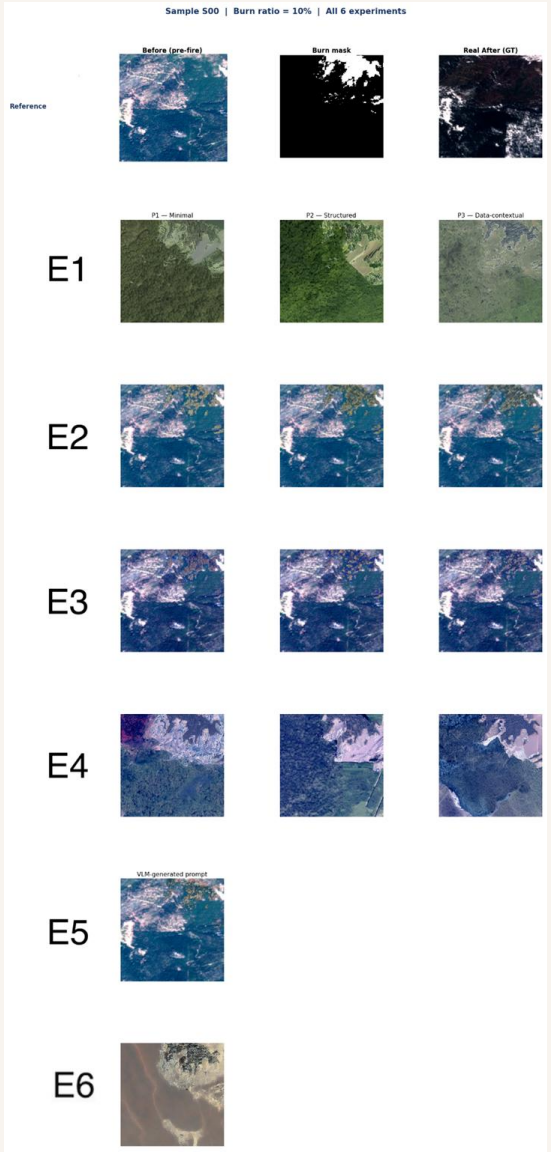
Mask-only generation

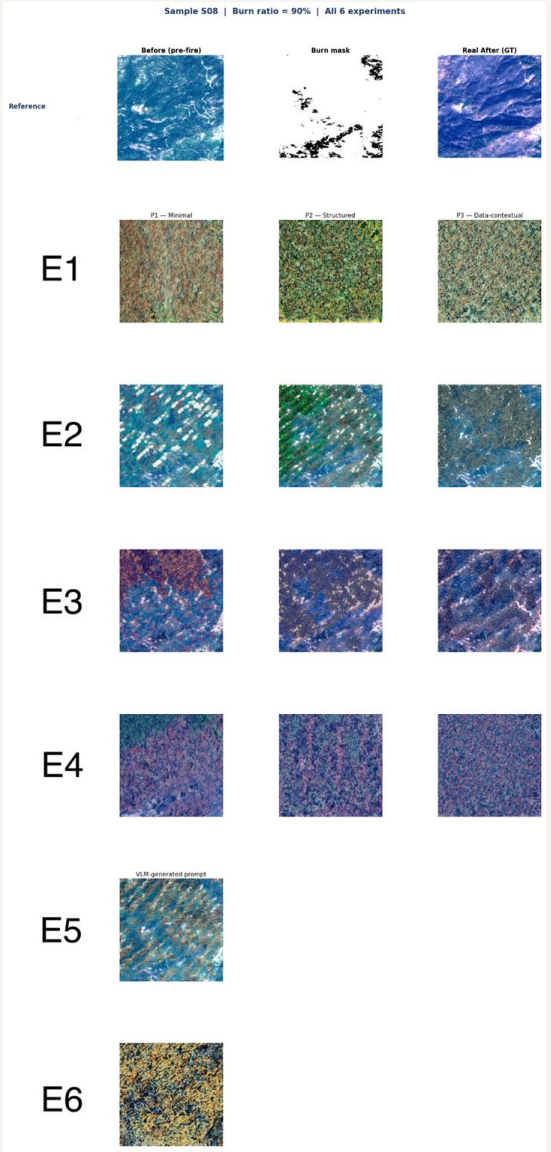
Generate entire tile from binary burn mask + text prompt. No pre-fire context.

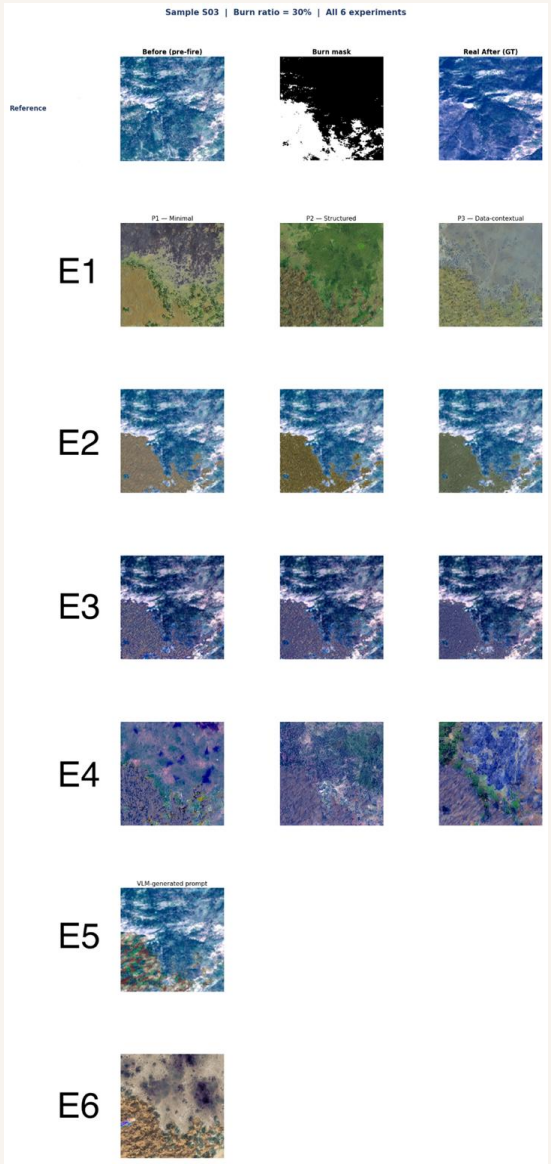
Context-preserving inpainting

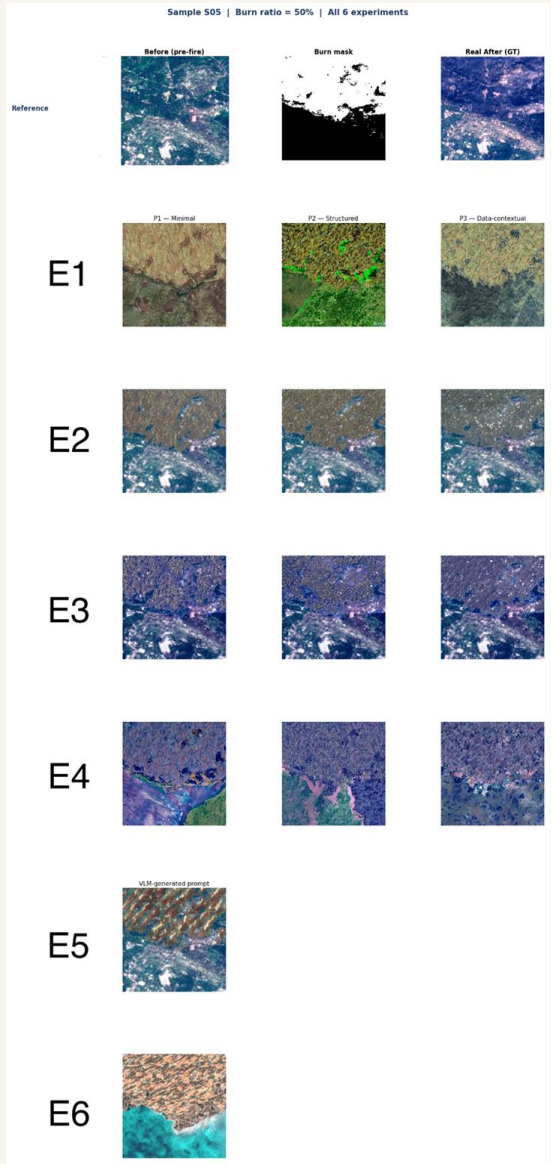
Synthesize only within burn mask, anchored by real pre-fire image context.

Generative Results: Visual Comparison









Generative Augmentation: Key Findings

Spatial context is the dominant factor

Inpainting (E2) >> mask-only (E1) across all metrics. Pre-fire context anchors the generation.

VLM-prompting is competitive

E5 (VLM+inpaint) performs within range of best hand-crafted prompts — automation is viable.

Color matching trades saliency for fidelity

Lowest ΔC_burn but reduced burn-scar contrast — useful when spectral consistency matters.

Visual evaluation remains essential

Metrics are proxies — high Burn IoU can result from dark artifacts, not realistic burn scars.

Generative augmentation is promising but not a replacement

Quality control and careful evaluation needed before downstream use in model training.

A New Task: Wildfire Prediction

From Detection to Prediction

COMPLETED

Dataset creation
(CWGID & CalFireSeg-50)

Fire detection
(classification models)

Burn mapping
(segmentation architectures)

Generative augmentation
(synthetic imagery)

NEXT FRONTIER

Where will fire start
and when?

In which direction
will it spread?

How large will it
ultimately become?

1 to 5 day operational
forecasting window

Four Wildfire Prediction Problems

Not all predictions are the same — horizon and output differ

1 Ignition Risk	2 Fire Danger	3 Spread Forecast	4 Burned Area
Where could fire start?	**How favorable are conditions?**	**Where will an active fire move?**	**How large will the fire grow?**
Horizon: 1 – 10 days	**Horizon:** 1 – 7 days	**Horizon:** 1 – 5 days	**Horizon:** Days – weeks
Weather forecast, fuel dryness, human activity, lightning	Fire Weather Index, VPD, temperature, humidity, drought indices	Active fire perimeter, wind, topography, fuel type, satellite observations	Early fire perimeter, climate conditions, vegetation, historical fire behavior

The 1–5 Day Operational Window

Why short-term forecast matters for real-world decisions

Emergency Response

Fire crews and incident management teams need 24–120 hour ahead spread forecasts to safely position personnel and equipment.

Infrastructure Protection

Utilities, transport networks and insurers use short-term forecasts to pre-position repair crews, trigger power shutoffs…

Why Not Longer?

Weather forecast accuracy degrades beyond 5–7 days

Active Research Area

The ECMWF Probability of Fire model (Nature Communications 2025) targets this window globally. Multiple 2024–2025 papers report 1–5 day spread prediction using satellite + weather forecast inputs.

What the Models Need: Multi-Source Inputs

Weather Forecast

- Temperature & humidity
- Wind speed & direction
- Precipitation forecast
- Vapor Pressure Deficit
- Fire Weather Index (FWI)
- Drought index / soil moisture

Satellite Observations

- Active fire detections (VIIRS/MODIS)
- Current fire perimeter
- Vegetation stress (NDVI, NBR, NDMI)
- Soil & fuel moisture anomaly
- Thermal anomalies
- Burned area history

Landscape Context

- Elevation, slope, aspect (DEM)
- Fuel type & land cover
- Canopy cover & biomass
- Roads, WUI, infrastructure
- Population density
- Historical ignition frequency

How Models Work: Fire Spread as Segmentation

The same families of models used in this dissertation apply to prediction

Today's fire perimeter + weather forecast + landscape layers → **Deep Learning Model (U-Net / Transformer)** → **Tomorrow's predicted fire perimeter (pixel probability map)**

Key insight: This is the same task as wildfire damage segmentation — just applied forward in time.

Same

Segmentation architecture (U-Net, Transformer)
Bitemporal input strategy
Sentinel-2 / satellite imagery
Spatial evaluation metrics (IoU, Dice)

Different

Input = weather forecast (not just imagery)
Label = future perimeter (not past damage)
Training data = fire progression sequences
Output = probability map, not binary mask

Key Model Families in Wildfire Prediction

Traditional ML (Random Forest, XGBoost, TabNet)

Best for ignition and fire danger prediction. Works well on tabular / grid data and is highly interpretable, feature importance reveals which variables drive risk.

Spatial Deep Learning (U-Net, Attention U-Net, APAU-Net)

Treats spread prediction as image segmentation: today's fire perimeter + environmental layers → tomorrow's burned-area mask.

Temporal Deep Learning (ConvLSTM, SwinUnet, Transformers)

Models fire as a time series: yesterday + today + weather forecast → tomorrow's perimeter. Transformers capture long-range dependencies critical for wind-driven spotting effects.

Key Datasets Driving the Field (2024-2025)

Next Day Wildfire Spread (NDWS)

Google Research · 2022

Benchmark combining fire masks with topography, vegetation, climate and population layers. 1-day lead time. Widely used baseline for spread models.

WildfireSpreadTS

OpenReview / NeurIPS Workshop · 2023

607 wildfire events in the western US (2018-2021), 13,607 daily images, 23 multimodal channels at 375m. Designed specifically for temporal spread prediction.

TS-SatFire

Scientific Data, Nature · 2025

3,552 images, 71GB. Covers US wildfires 2017-2021 with surface reflectance, weather, topography, land cover and fuel data. Supports three tasks: active fire detection, daily burned area mapping, and next-day progression prediction.

Recent Breakthroughs (2025)

Selected highlights from the current state of the art

ECMWF — Global Probability of Fire

Nature Communications 2025

First operational global fire activity prediction model integrating weather, fuel, ignition sources and satellite data.

APAU-Net — Weather Forecast Inputs

ScienceDirect 2025

Introduced Atrous Pyramid Attention U-Net using actual next-day weather forecasts: wind, precipitation, temperature.

SwinUnet + Time Series Attention

arXiv 2025

Transformer architecture captures long-range dependencies in fire spread direction and momentum.

Multimodal 1–5 Day Prediction

Scientific Reports 2024

Explicit 1-to-5-day spread prediction using multimodal geospatial data.

Open Challenges in Wildfire Prediction

Trained on the past, but used for the future

Models must be trained on actual forecasts, not just history.

Fires are rare, and that fools the math

On any given day, fire shows up in less than 1% of the map. A model can score 99% accurate by simply predicting "no fire everywhere"

Where it starts and where it spreads — still separate problems

Most research answers one question or the other: where a fire will start, or how it will spread.

Acknowledgements & Recognitions

This work is in collaboration with my supervisors:

- Dr. Brent Venable (UWF and IHMC)
- Dr. Derek Morgan (UWF)

Recognitions:

- Outstanding Graduate Assistant of the Year Award, 2026, Hal Marcus College of Science and Engineering, UWF.
- NSF Travel Grant Award, 2025, ACM SIGSPATIAL.
- Best Student Poster Award, 2024, GeoINT Symposium.

Thank You

Questions?

Valeria Martín Hernández

University of West Florida • Dept. of Intelligent Systems and Robotics

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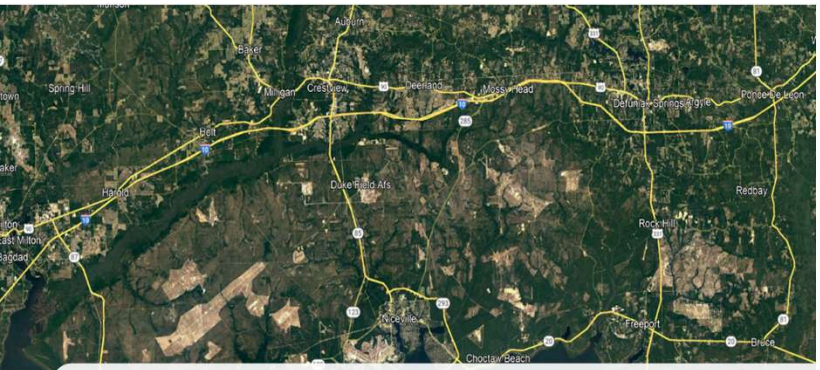
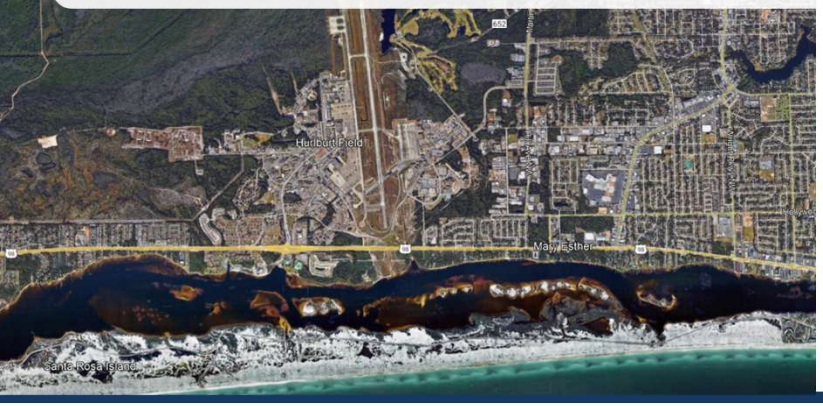
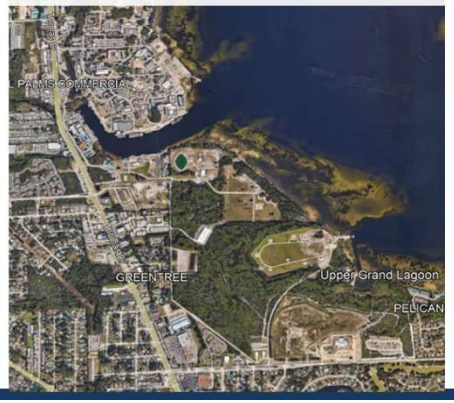
Implementation



EMERALD COAST MILITARY INSTALLATION RESILIENCY REVIEW

NE FL MIRR TAC
May 26, 2026



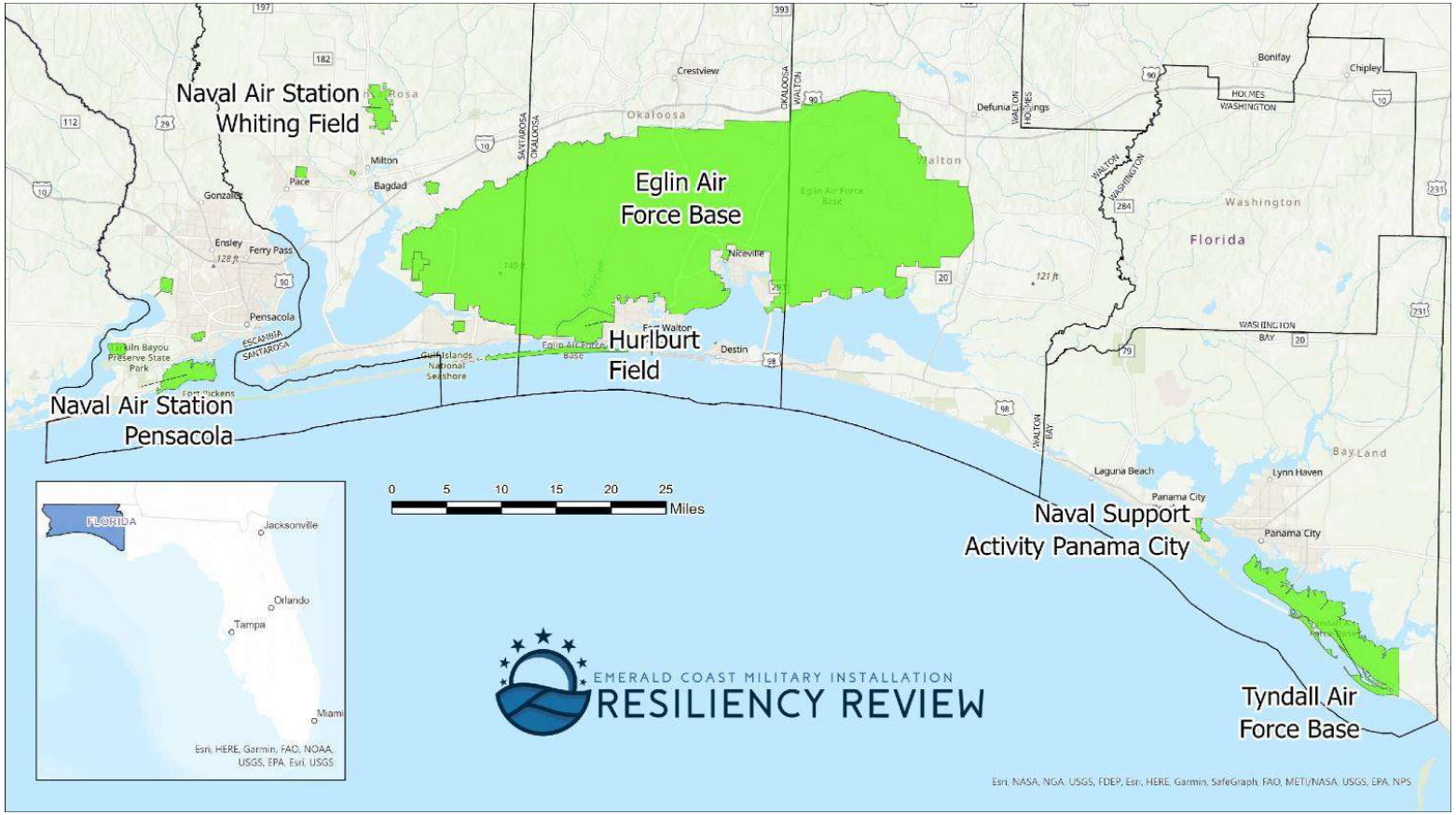


Funded in part by DOD - OLDCC

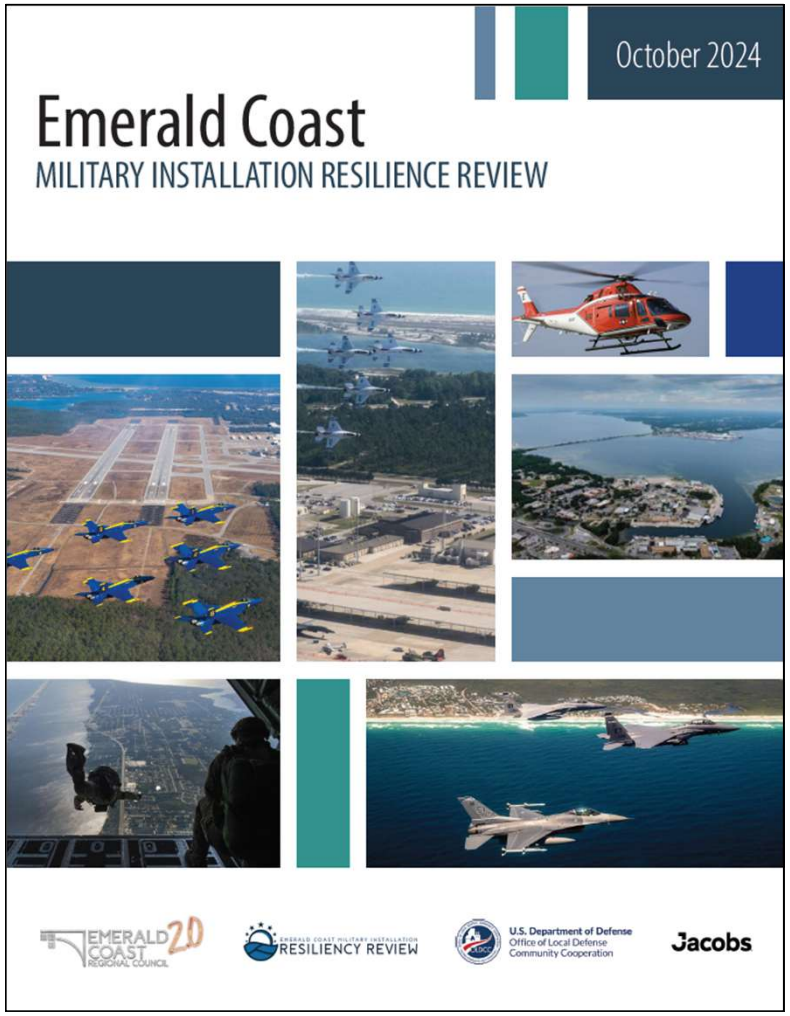
EMERALD COAST REGIONAL COUNCIL

Jacobs
Challenging today.
Reinventing tomorrow.

MIRR OVERVIEW & BACKGROUND



FINAL REPORT



EMERALD COAST MILITARY INSTALLATION
RESILIENCY REVIEW
PROJECT KICK OFF MEETING & VISIONING

October 2024

Emerald Coast

MILITARY INSTALLATION RESILIENCE REVIEW

READINESS

EMERALD COAST AREA RESILIENCE COLLABORATIVE

- Started through a seed grant from the American Flood Coalition in 2021.
  - Currently funded by the Florida Department of Environmental Protection as a Regional Resilience Entity
- Represents the seven-county ECRC region including Escambia, Santa Rosa, Okaloosa, Walton, Holmes, Washington, and Bay Counties.
- EC-ARC will work to facilitate regional collaboration on resilience projects identified in the Emerald Coast MIRR and continue updating resilience strategies.

EMERALD COAST
AREA RESILIENCE
COLLABORATIVE

EMERALD COAST
AREA RESILIENCE
COLLABORATIVE

IMPLEMENTATION PLANNING - PARTNERSHIPS

Key Partners:

- Leadership and community liaisons from each installation in the study area
- County representatives
- City representatives
- Northwest Florida Sentinel Landscape
- Local Defense Alliances (TCPI, NWFL Defense Coalition, Bay Defense Alliance)
- State agencies
- Utility providers
- Other private and non-profit sector representatives

NORTHWEST FLORIDA SENTINEL LANDSCAPE

TCPI TRI-COUNTY COMMUNITY PARTNERSHIP INITIATIVE

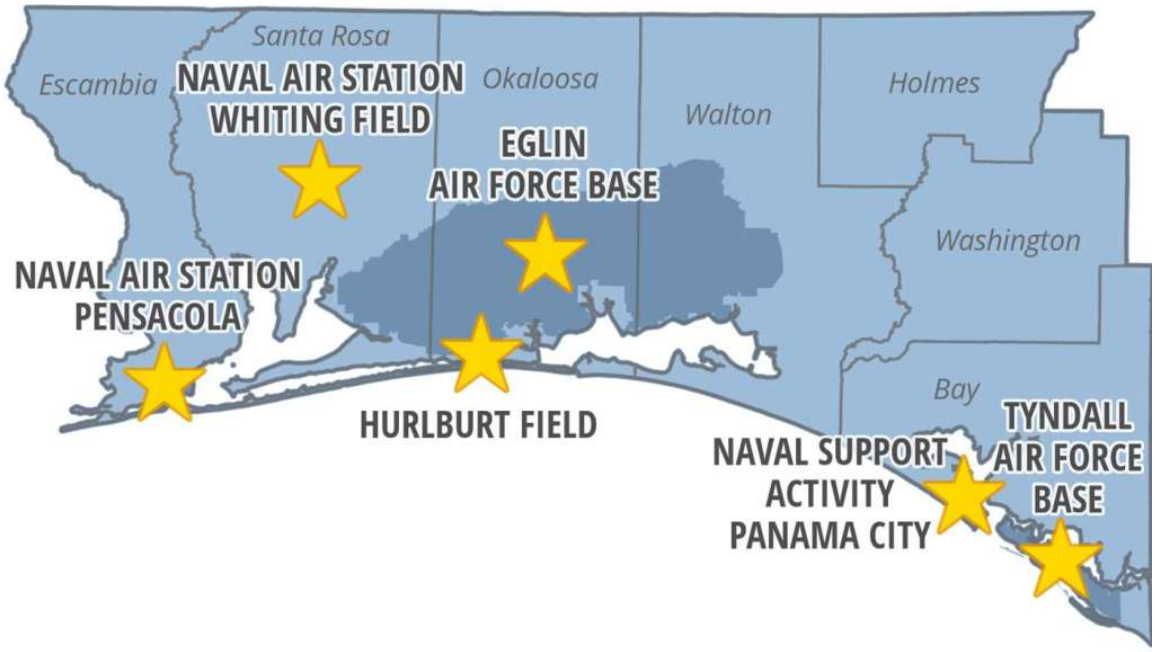
Bay Defense Alliance

NORTHWEST FLORIDA Defense Coalition

LOCAL MIRR IMPLEMENTATION WORKING GROUPS

NORTHWEST FLORIDA
Defense Coalition

TCPI
TRI-COUNTY COMMUNITY
PARTNERSHIP INITIATIVE



Bay Defense Alliance

EMERALD COAST
AREA RESILIENCE
COLLABORATIVE

IMPLEMENTATION PLANNING - LONG TERM

- Meet remotely three times per year
  - Project status updates
  - Requests for assistance
  - New projects to consider

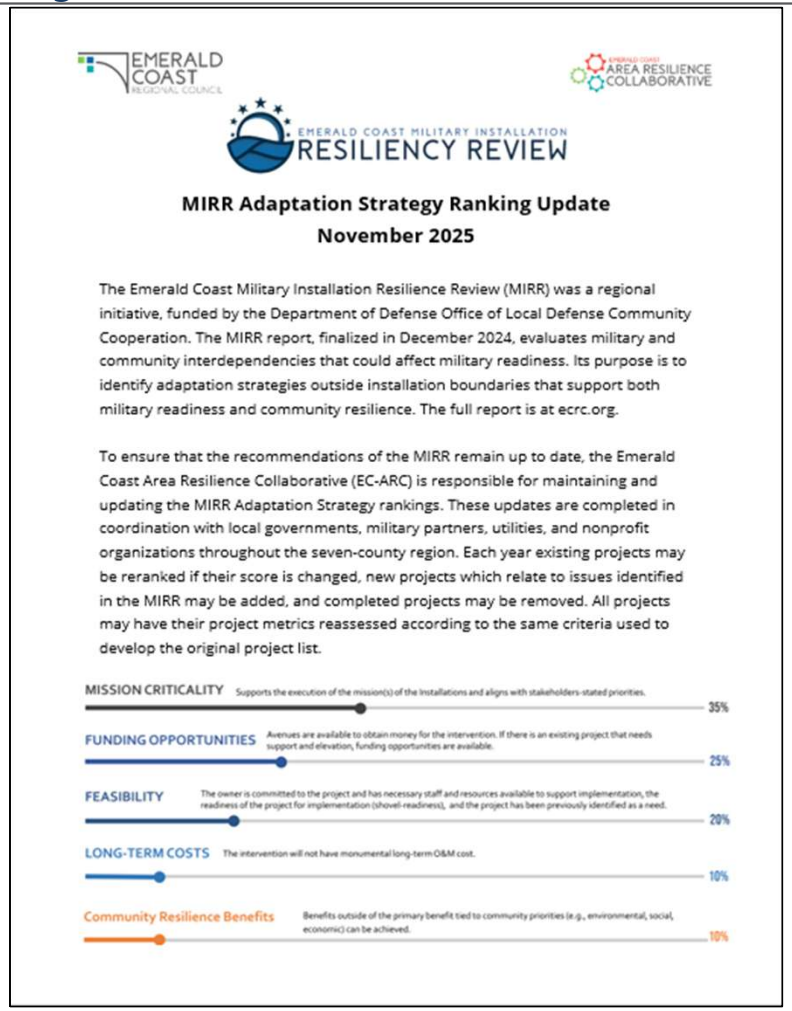
- Annual Update Meeting
  - Add new projects
  - Update the prioritization of local projects
  - Commit to any new region-wide initiatives

- Increase regional collaboration around resilience practices and leverage partnerships to improve grant competitivity.

- Unified regional voice to state and federal agencies when possible.

EMERALD COAST AREA RESILIENCE COLLABORATIVE

UPDATES – NOVEMBER 2025



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EMERALD COAST AREA RESILIENCE COLLABORATIVE

EMERALD COAST MILITARY INSTALLATION RESILIENCY REVIEW

MIRR Adaptation Strategy Ranking Update
November 2025

The Emerald Coast Military Installation Resilience Review (MIRR) was a regional initiative, funded by the Department of Defense Office of Local Defense Community Cooperation. The MIRR report, finalized in December 2024, evaluates military and community interdependencies that could affect military readiness. Its purpose is to identify adaptation strategies outside installation boundaries that support both military readiness and community resilience. The full report is at ecrc.org.

To ensure that the recommendations of the MIRR remain up to date, the Emerald Coast Area Resilience Collaborative (EC-ARC) is responsible for maintaining and updating the MIRR Adaptation Strategy rankings. These updates are completed in coordination with local governments, military partners, utilities, and nonprofit organizations throughout the seven-county region. Each year existing projects may be reranked if their score is changed, new projects which relate to issues identified in the MIRR may be added, and completed projects may be removed. All projects may have their project metrics reassessed according to the same criteria used to develop the original project list.

MISSION CRITICALITY — Supports the execution of the mission(s) of the installations and aligns with stakeholders-stated priorities. — 35%

FUNDING OPPORTUNITIES — Avenues are available to obtain money for the intervention. If there is an existing project that needs support and elevation, funding opportunities are available. — 25%

FEASIBILITY — The owner is committed to the project and has necessary staff and resources available to support implementation, the readiness of the project for implementation (shovel-readiness), and the project has been previously identified as a need. — 20%

LONG-TERM COSTS — The intervention will not have monumental long-term O&M cost. — 10%

Community Resilience Benefits — Benefits outside of the primary benefit tied to community priorities (e.g., environmental, social, economic) can be achieved. — 10%

EMERALD COAST AREA RESILIENCE COLLABORATIVE

ADAPTATION METRIC RANKINGS

MISSION CRITICALITY Supports the execution of the mission(s) of the Installations and aligns with stakeholders-stated priorities.

35%

FUNDING OPPORTUNITIES Avenues are available to obtain money for the intervention. If there is an existing project that needs support and elevation, funding opportunities are available.

25%

FEASIBILITY The owner is committed to the project and has necessary staff and resources available to support implementation, the readiness of the project for implementation (shovel-readiness), and the project has been previously identified as a need.

20%

LONG-TERM COSTS The intervention will not have monumental long-term O&M cost.

10%

COMMUNITY BENEFITS Benefits outside of the primary benefit tied to community priorities (e.g., environmental, social, economic) can be achieved.

10%

EMERALD COAST AREA RESILIENCE COLLABORATIVE

NAS PENSACOLA - RESILIENCE STRATEGY RANKING

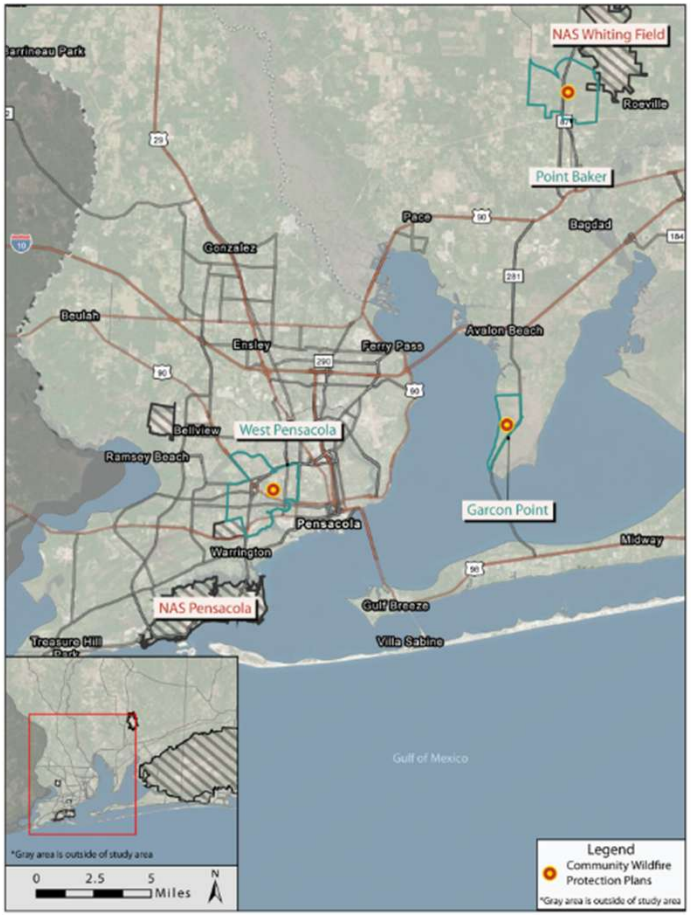
Resilience Projects	Metric Ranking	Ranking Updates
Shoreline Protection	8.1	Construction underway score increased from 7.7
Tower improvements at PNS	7.0	
ECUA Resilience Improvements	6.5	
Blue Angel Parkway Improvements	5.7	
Corry Station Flood Risk Reduction	5.5	
Navy Boulevard Improvements	5.5	Corridor study has been completed. Score increased from 5.1
Gulf Beach Highway	4.9	
Navy Point Community Improvements	3.9	
Trout Bayou Encroachment	3.4	
~~Alternative Water Line for Corry Station~~	~~2.5~~	Project removed. Supply improvements have been completed.

EMERALD COAST AREA RESILIENCE COLLABORATIVE

NAS WHITING FIELD – RESILIENCE STRATEGY RANKING

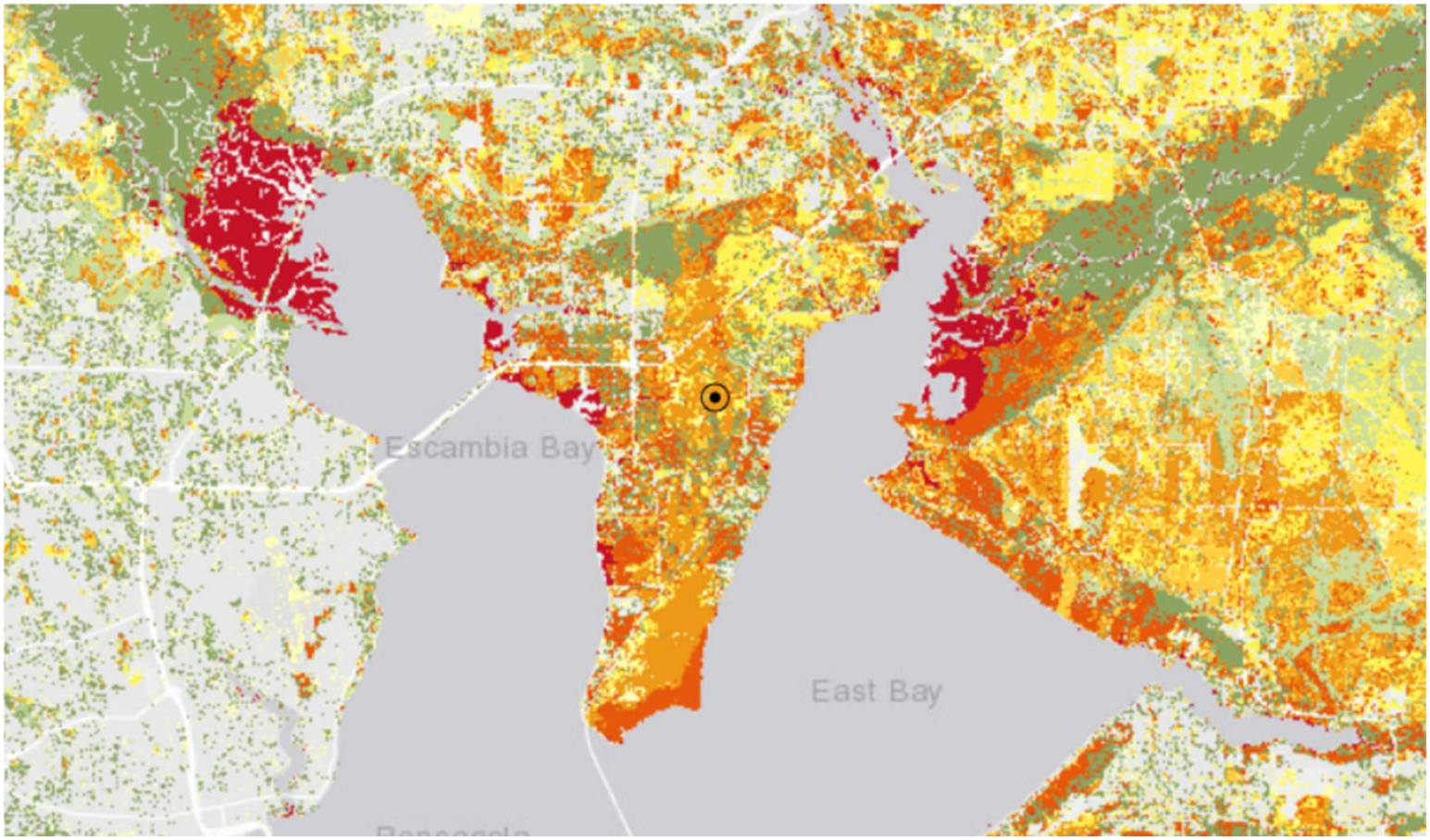
Resilience Projects	Metric Ranking	Ranking Updates
Resilient Wastewater Treatment	7.7	The City of Milton received a grant from the Florida Department of Environmental Protection for the construction of a new wastewater treatment plant. Score increased from 7.2.
NAS Whiting Field Resilient Energy Park	7.0	
Wildfire Mitigation	6.5	
Munson Highway Connector	5.6	
NAS Whiting Field Redundant Water Supply	5.4	
Highway 90 Resilient Roadway	4.8	
City of Milton Flood Mitigation	3.6	
SR 87 Improvements	3.0	

NAS WHITING FIELD – RESILIENCE STRATEGY RANKING



EMERALD COAST AREA RESILIENCE COLLABORATIVE

NAS WHITING FIELD – RESILIENCE STRATEGY RANKING



EMERALD COAST AREA RESILIENCE COLLABORATIVE

EGLIN AFB – RESILIENCE STRATEGY RANKING

Resilience Projects	Metric Ranking	Ranking Updates
SR 85 Comprehensive Corridor Enhancement	7.6	
Power Supply and Reliability Improvements	6.8	
SR 285 Capacity Evaluation Study	6.1	
US 98 Living Shoreline*	5.8	
Regional Intelligent Traffic Management	5.7	
Potable Water Supply Redundancy and Resilience	5.6	
~~Eglin Orphan Parcel Master Plan~~	~~5.1~~	Completed.
Eglin Air Force Base Strategic Buffering	4.7	
Choctawhatchee Bay Shoreline Protection	4.4	
Highway 20 Capacity Enhancements	4.3	
Navarre Beach Bridge Realignment and Reconstruction	3.9	

EMERALD COAST AREA RESILIENCE COLLABORATIVE

EGLIN AFB – RESILIENCE STRATEGY RANKING

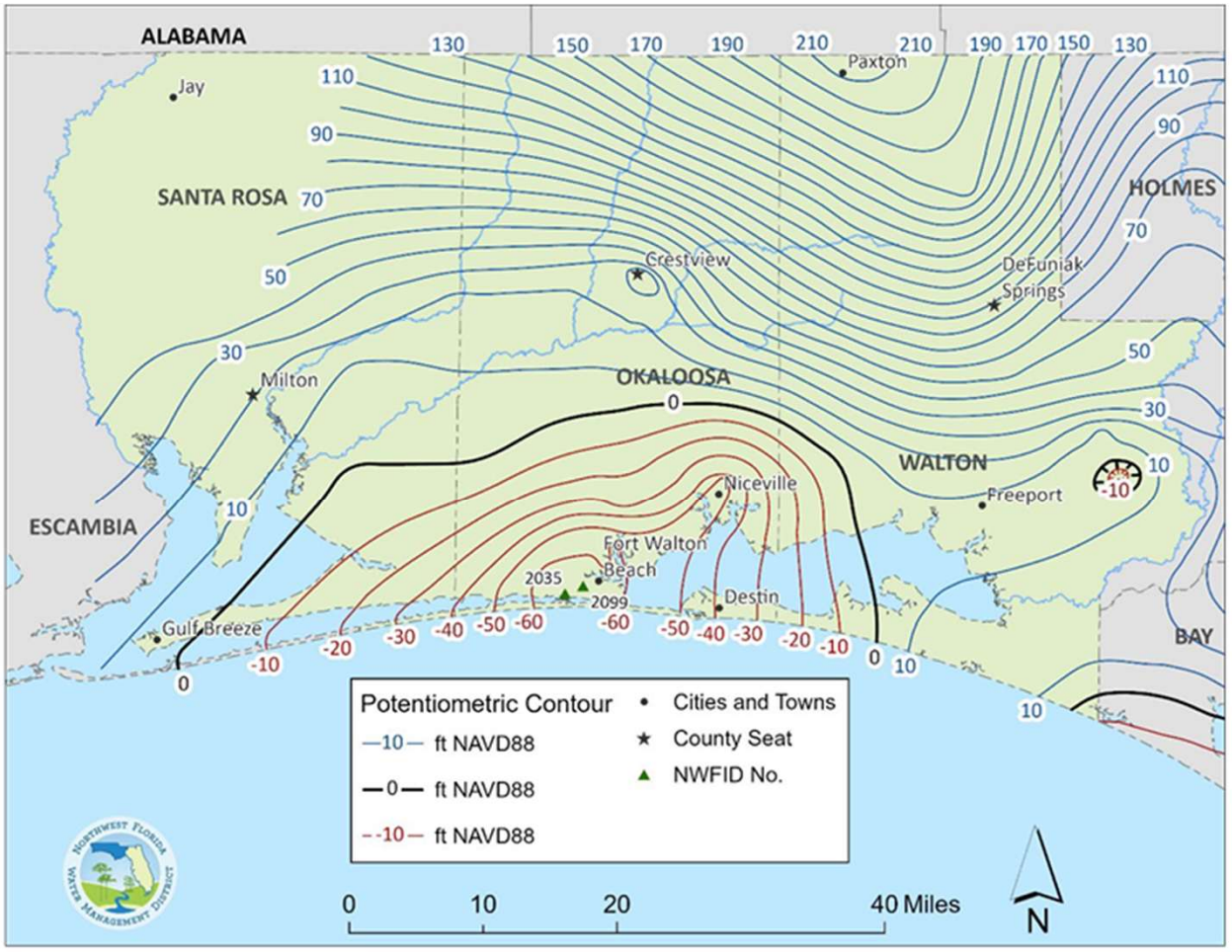


Figure 8. Potentiometric Surface of the Upper Floridan Aquifer in September 2019

EMERALD COAST AREA RESILIENCE COLLABORATIVE

EGLIN AFB – RESILIENCE STRATEGY RANKING

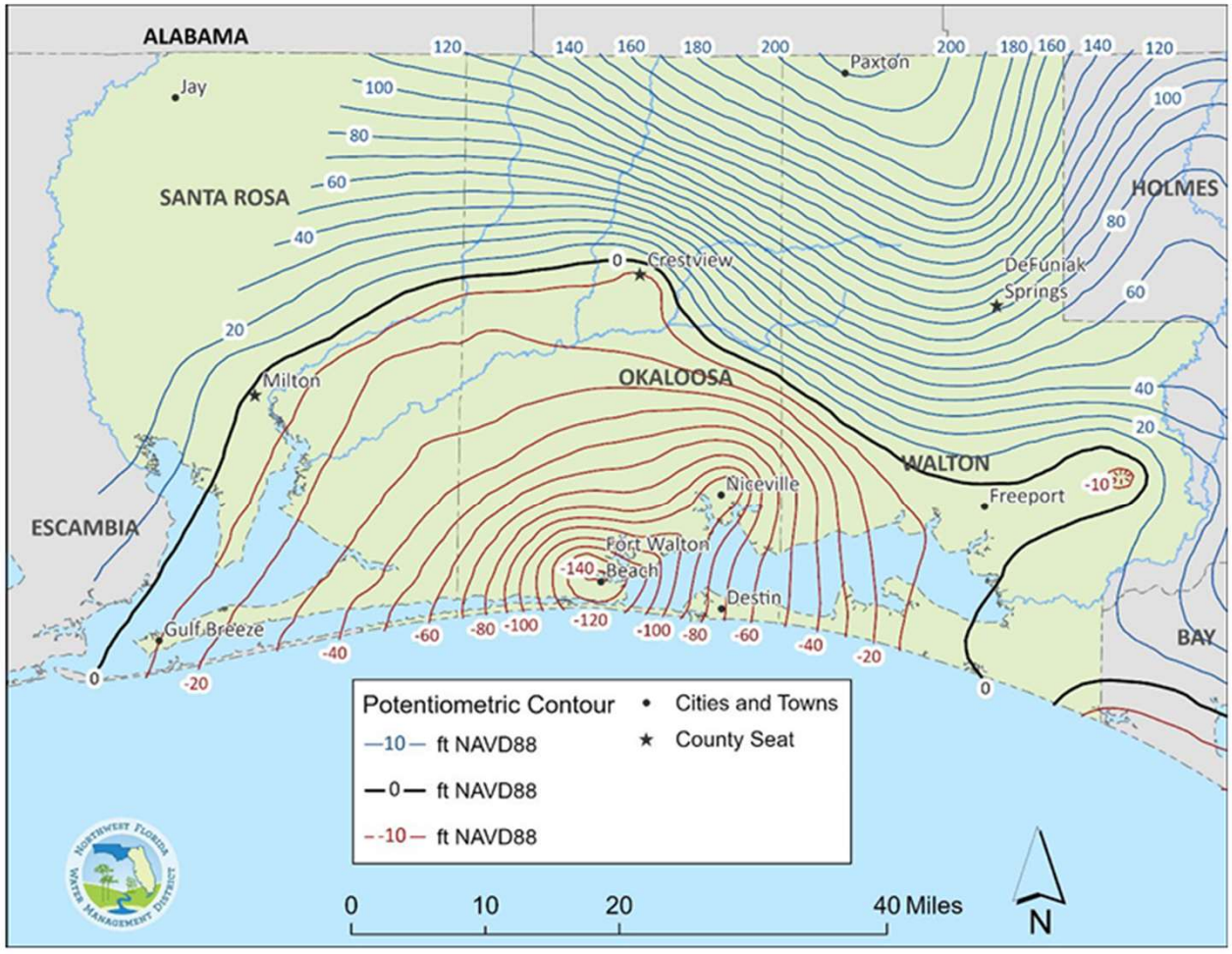


Figure 9. Estimated Upper Floridan Aquifer Potentiometric Surface under 2045 Projected Pumping

EMERALD COAST AREA RESILIENCE COLLABORATIVE

HURLBURT FIELD – RESILIENCE STRATEGY RANKING

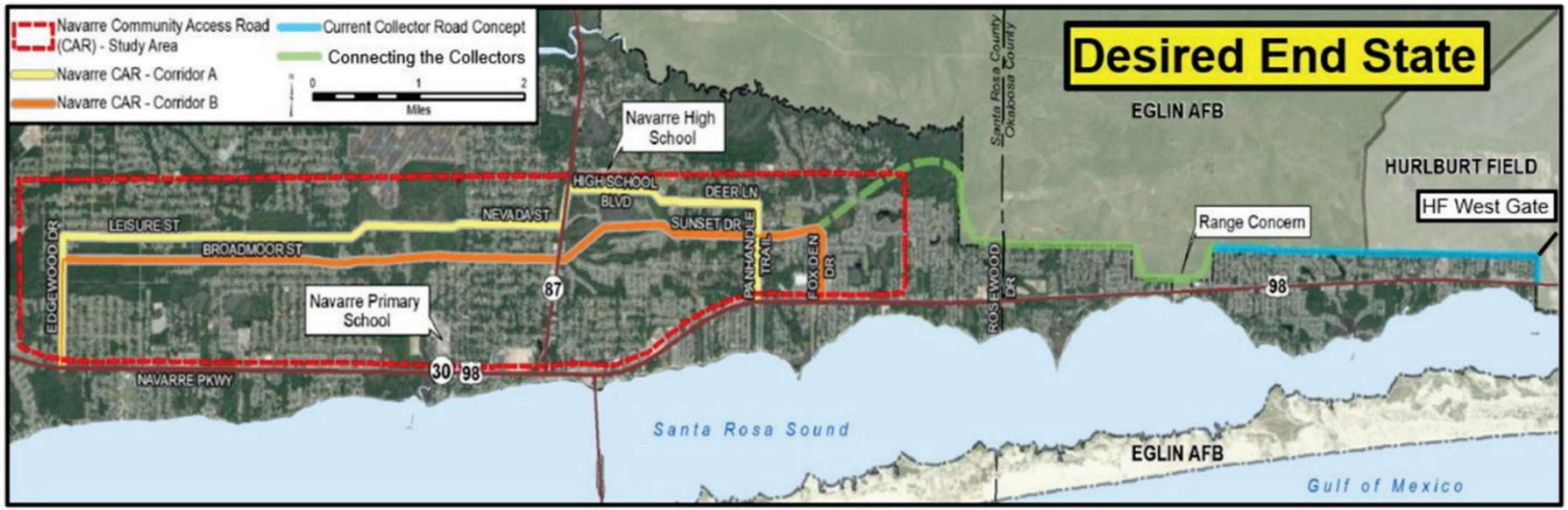
Resilience Projects	Metric Ranking	Ranking Updates
New Collector Road*	7.7	New resilience project (see below)
Hwy 98 Widening (several segments)*	7.3	New resilience project (see below)
Hurlburt West Gate*	6.2	New resilience project (see below)
City of Mary Esther and Hurlburt Wastewater Conveyance	6.1	
”Connecting the Collectors”*	5.8	New resilience project (see below)
Stormwater Ditch and Improvements	4.7	
Navarre Community Access Road*	4.5	New resilience project (see below)
Lift Station Upgrades	2.9	
Emergency Communication System Upgrades	2.7	

* Five projects were previously grouped together as “Highway 98 Congestion Relief Package.”

EMERALD COAST AREA RESILIENCE COLLABORATIVE

HURLBURT FIELD – RESILIENCE STRATEGY RANKING

Hurlburt Field Traffic Priorities				
Hwy 98 Widening	Navarre Community Access Road (CAR)	Connecting the Collectors	Okaloosa County Collector Road	Hurlburt Field West Gate



EMERALD COAST AREA RESILIENCE COLLABORATIVE

NSA PANAMA CITY – RESILIENCE STRATEGY RANKINGS

Resilience Projects	Metric Ranking	Ranking Updates
Redundant Water Supply Loop for the City of Panama City Beach	8.2	Federal funding awarded and increased installation priority. Score increased from 7.3.
New North Water Treatment Plant	8.0	Site Assessment and Design Funding Advanced. Score increased from 7.5
Installation Access Improvements on Highway 98	6.0	Reduced funding and feasibility. Score reduced from 8.2.
NSA Panama City Shoreline Protection and Resilience	5.5	
Power Supply Reliability Improvements	5.3	
~~Barefoot Palms~~	~~4.9~~	Removed. The site was acquired by the State of Florida and transferred to the Navy.
St. Andrew Bay Navigation	2.5	

TYNDALL AFB– RESILIENCE PROJECT RANKING

Resilience Projects	Metric Ranking	Ranking Updates
Upgrade Transmitter Road Water Treatment Plant	8.2	
Tyndall AFB Coastal Resilience	7.2	Project continues to advance in design and implementation. Score increased from 6.3.
Tyndall Parkway Improvements	6.3	
Tree Canopy Restoration	6.0	USDA Forest Service grant to City of Panama City. Score increased from 4.1.
Highway 22 Widening	4.9	
Redundant Water Line to Tyndall AFB	4.4	
North Bay WWTP Upgrades	4.1	
Lift Station Improvements	3.7	
Relocation of Panama City Millville WWTF	3.6	
Military Point AWT Facility Upgrades	3.0	

INTERGOVERNMENTAL SUPPORT AGREEMENTS

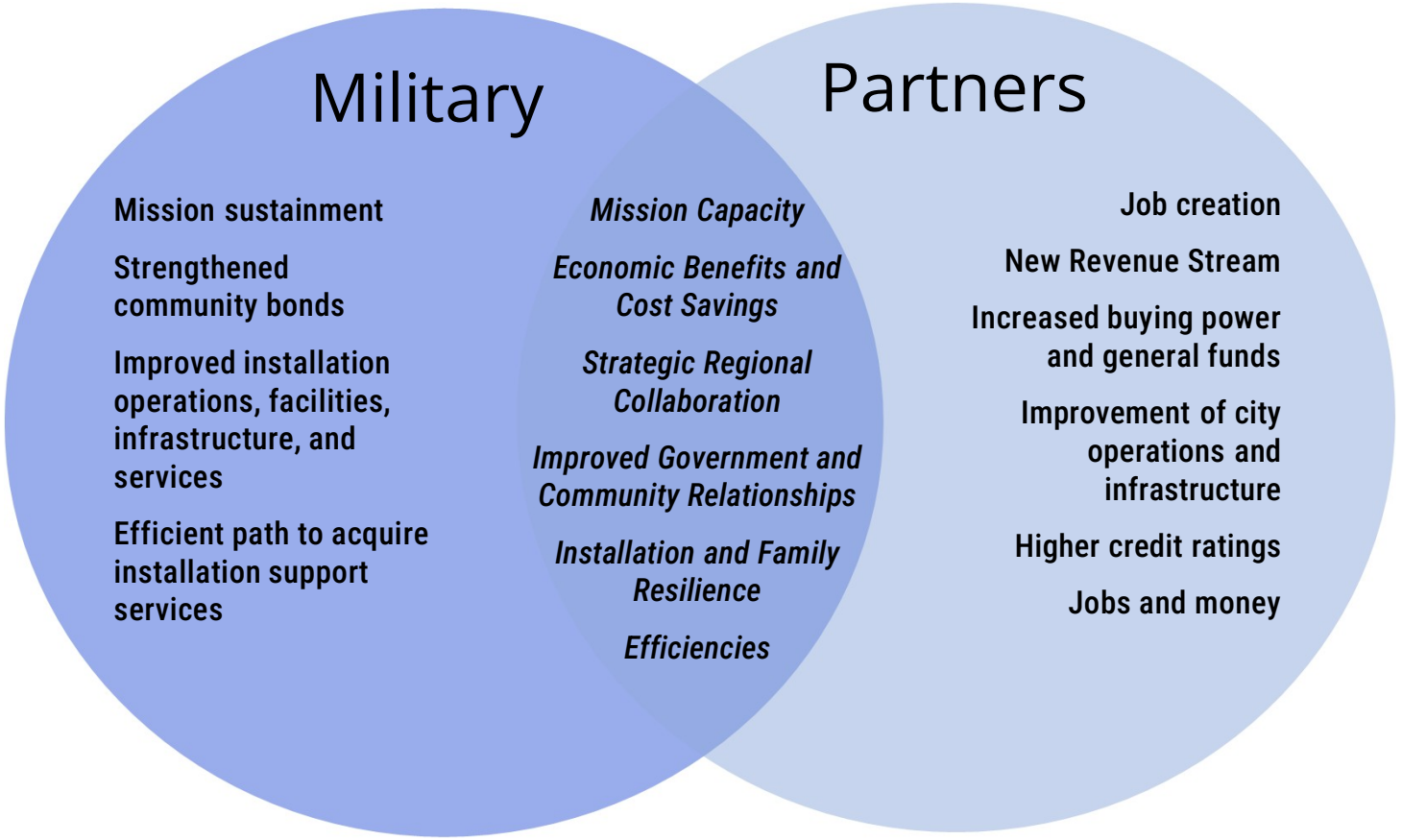
IGSAs are collaborative partnership agreements for services, material procurement, and mutual support that can enhance operational effectiveness.

10 U.S.C. §2679

"Intergovernmental Support Agreements (IGSA)"
(formerly 10 U.S.C. §2336, re-designated by Sec 351 of Public Law 113-291)
authorizes the branches of each service to enter into a sole source IGSA
with a State or local government for installation-support services

EMERALD COAST AREA RESILIENCE COLLABORATIVE

INTERGOVERNMENTAL SUPPORT AGREEMENTS



EMERALD COAST AREA RESILIENCE COLLABORATIVE

INTERGOVERNMENTAL SUPPORT AGREEMENTS

Service Description		Installation	Public Partner	Status					
				Confirm Partner	Determine Requirement and Cost	Draft Concept Packet	Submit Concept Packet	Transaction Document	IGSA Executed
1	Planning/ Technical Support Services	Eglin AFB	ECRC	Y					
2	Planning/ Technical Support Services	Regional: Hurlburt Field	ECRC	Y					
3	Planning/ Technical/ Consulting Support Services	Navy	ECRC	Y					
4	Road Maintenance	NAS Panama City	Bay County	Y					
5	Blanket	Hurlburt Field	Okaloosa County	Y					
6	Wastewater and Construction Services	Hurlburt Field	City of Mary Esther	Y					
7									
8									

EMERALD COAST AREA RESILIENCE COLLABORATIVE

Thank You

EMERALD COAST REGIONAL COUNCIL

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NEFL Housing

NEFRC
NORTHEAST FLORIDA REGIONAL COUNCIL

Housing Policy, Resilient Guided Growth and Development

An Approach to Housing Planning

A Presentation for the NE FL Council Military Installation Readiness Review and Implementation Plan Initiative

May 26, 2026

THE FLORIDA HOUSING COALITION

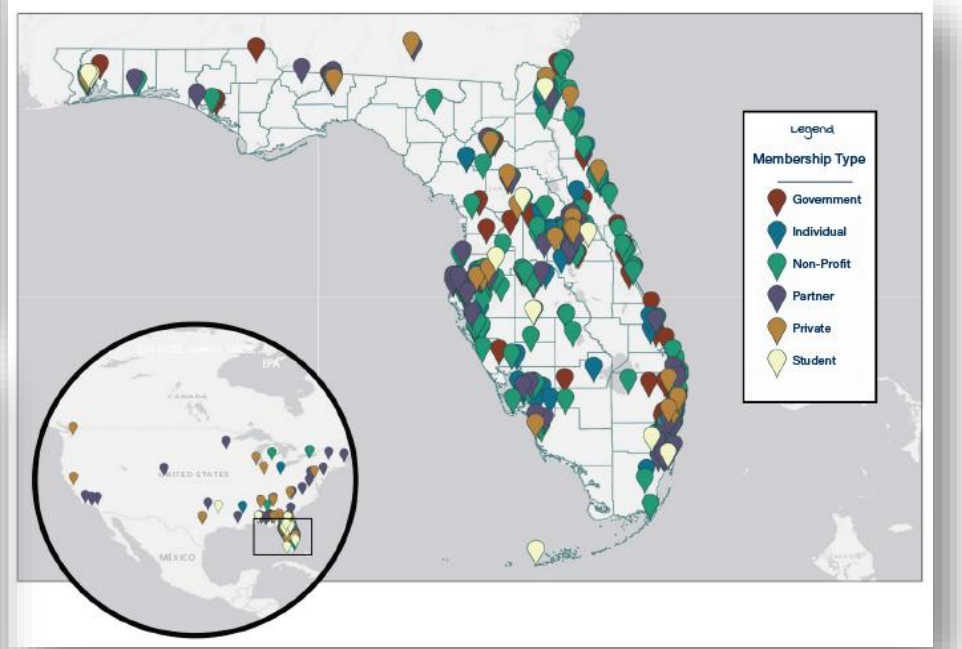
About the Coalition

Our mission.

Our mission is to bring together housing advocates and resources so that all Floridians have a home that is affordable in a suitable living environment. We carry out our mission primarily through the provision of affordable housing training and technical assistance statewide.

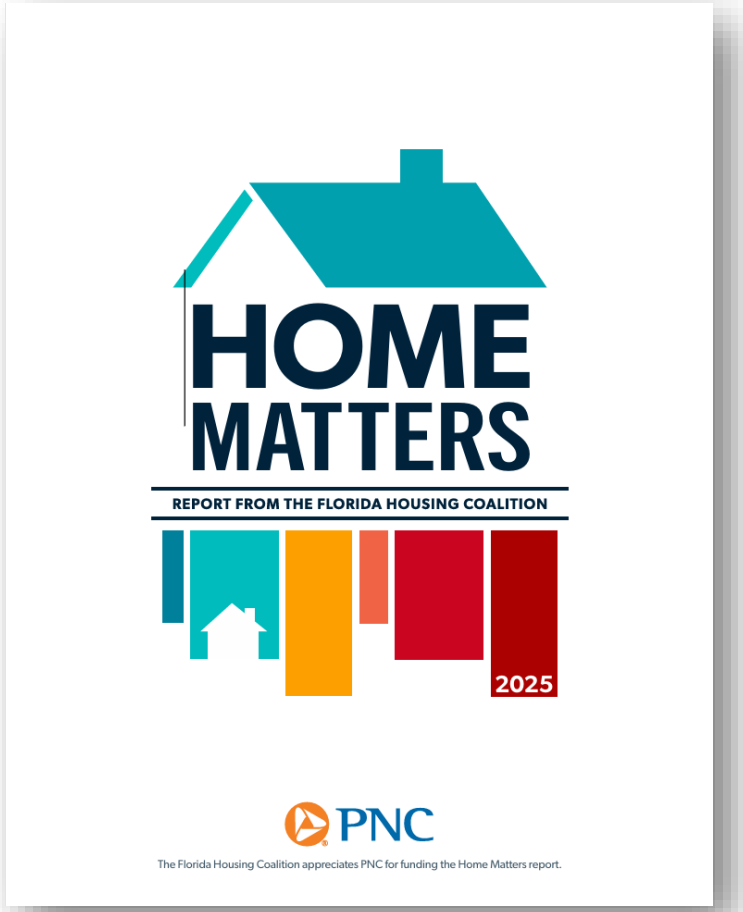
Our vision.

We envision a Florida where there exists an ethic to ensure all members of every community, including the most vulnerable and low income, can live in a home of their own choosing that is affordable to them, and that each community has at least one community-based organization with the capacity to play an important role in the delivery of housing and related services.



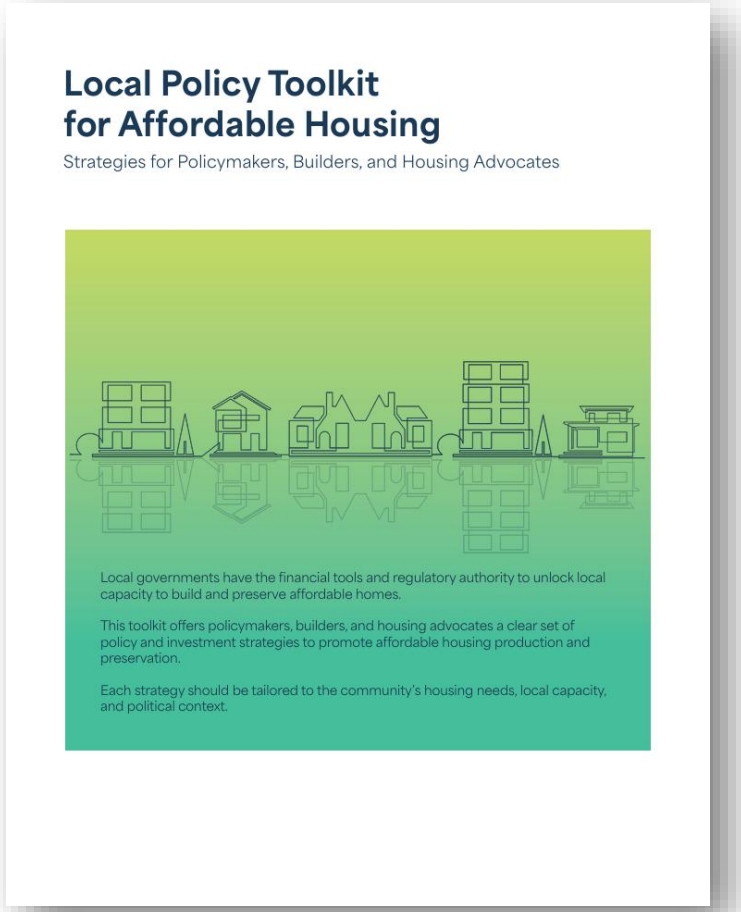
BUILDING YOUR LOCAL STRATEGY

Using REPAIR



Source: https://flhousing.org/wp-content/uploads/2025/09/Home-Matters-Report-2025-V5-DIGITAL.pdf

- Reachable
- Equitable
- Permanently Affordable
- Available
- Innovative
- Resilient

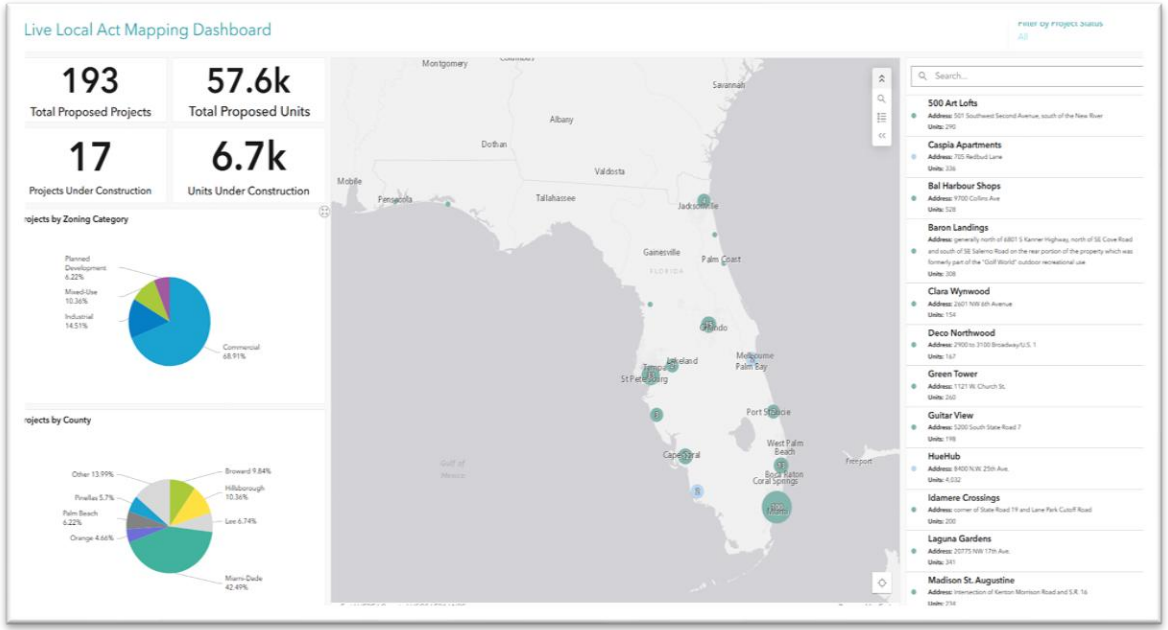


Source: https://flhousing.org/wp-content/uploads/2025/12/FHC-Local-Policy-Toolkit-for-Affordable-Housing-12.2025.pdf

HOUSING POLICY MOMENTUM

State-level policies impacting housing and land use planning

- **2020** – local governments the ability to override land use and zoning for affordable housing in commercial and industrial
- **2021** – protection of housing trust funds
- **2023** – Live Local Act
  - Land use mandate and property taxes
  - Additional funding
- **2025** – local governments the ability to override land use and zoning for affordable housing on land owned by religious institutions
- **2026** – Land use mandate extended to certain properties owned by religious institutions; modification to opt-out provisions for missing middle property tax exemptions

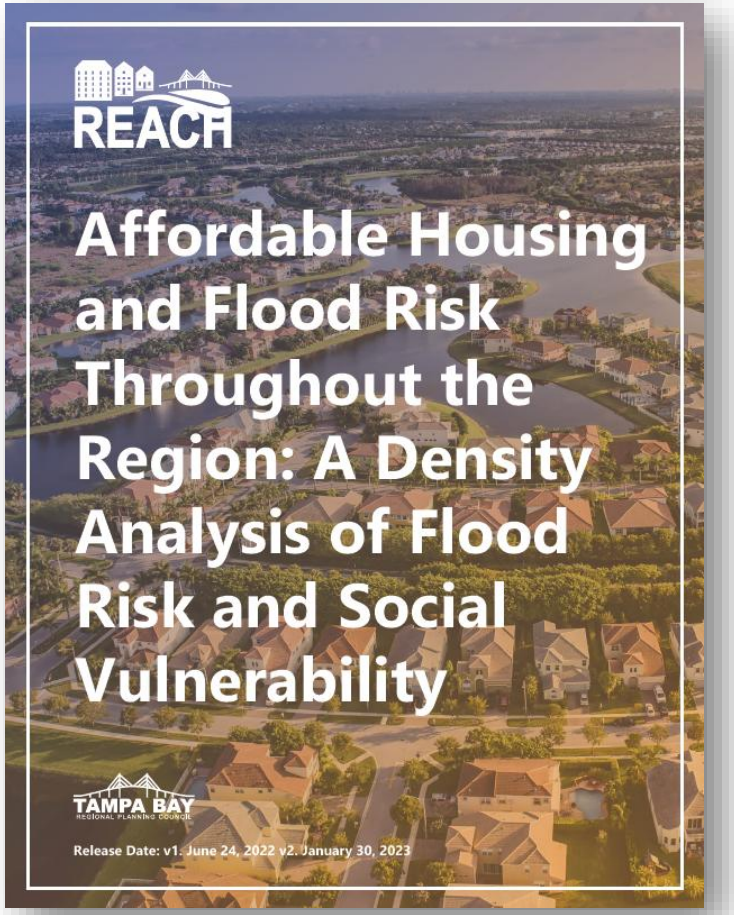


Source: Florida Housing Coalition Live Loal Act Land Use Mandate Dashboard: https://flhousingc.maps.arcgis.com/apps/dashboards/3d8c36553af44db1aae3b32a7b8a6f81

HOUSING IS A CRITICAL ASSET

Supporting implementation of new housing and disaster policy

- REACH – Resilience and Energy Assessment of Communities and Housing
- Project Team – TBRPC, Florida Housing Coalition, UF Shimberg Center, United Way Suncoast, USF
- Assessed potential risks and vulnerabilities of communities
  - Focus on the assisted housing inventory
  - Also looked at unassisted affordable housing
  - County-by-county analysis
  - Tools for ongoing assessment



Source: https://tbrpc.org/reach/

GUIDED GROWTH

Incorporating resilience into housing affordability strategy planning

Planning Process

Phase 01 — Conduct Assessments and Compile Information

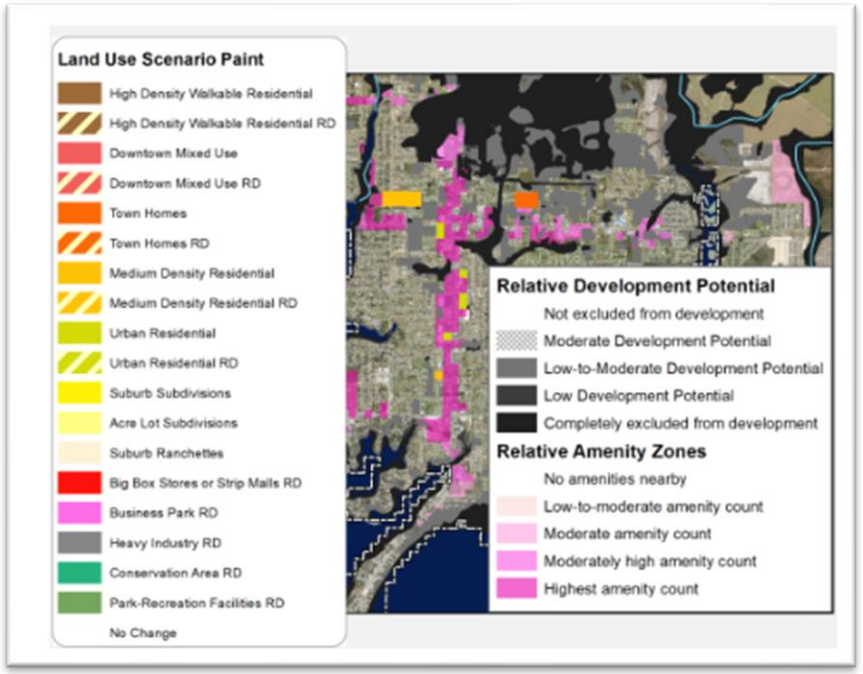
- Identify Planning Context & Goals
- Determine Existing Capacity & Supplemental Needs
- Conduct or Review Housing Needs Assessment
- Identify Stakeholders & Develop Engagement Plan
- Develop Planning Exercises & Goals for Workshop
  Acquire and Visualize Data for Planning Exercises

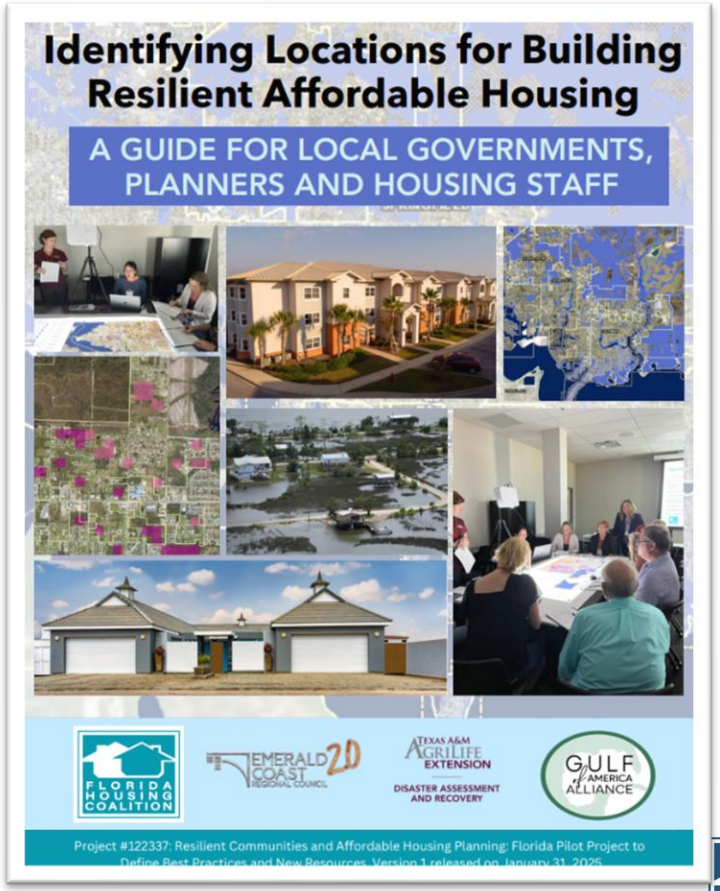
Phase 02 — Implement Engagement Activites

- Conduct Pre-Workshop Stakeholder Survey
- Conduct Stakeholder Workshop to Implement Planning Exercises

Phase 03 — Analysis and Recommendations

- Analyze Community Input
- Prepare Recommendations for Action





BUILDING TO HIGHER STANDARDS

Benefits of recognized industry certifications

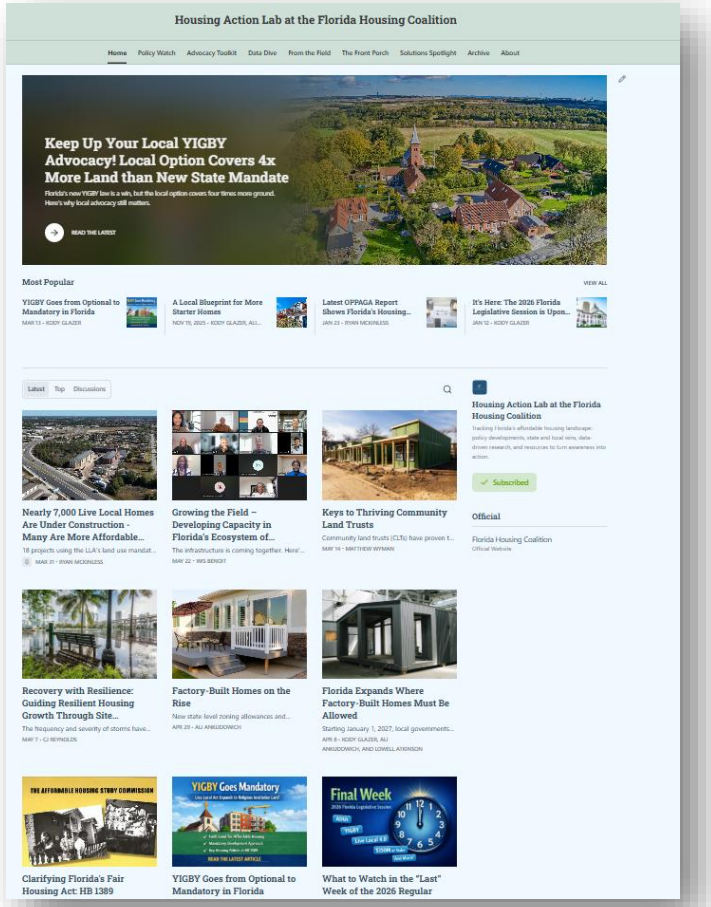
- Key takeaways from study:
  - Building to higher standards is financially feasible
  - Benefits vary by location (inland v. coastal)
  - Best to integrate resilience at project beginning
  - Further integration into state and local housing programs will accelerate implementation

Source: https://flhousing.org/wp-content/uploads/2025/12/new-FHC-Fortified-Multifamily-2025-5.pdf

ENGAGING

Utilizing the Florida Housing Coalition as a Resource

- Join us for free weekly webinars
  - Training calendar: https://flhousing.org/calendar/
- Follow us on Substack
  - Housing Action Lab: https://flhousingactionlab.substack.com/
- Free Resources
  - Resource Library: https://flhousing.org/resource-library/



Source: Florida Housing Coalition's Housing Action Lab on Substack https://flhousingactionlab.substack.com/

WHO TO CONTACT

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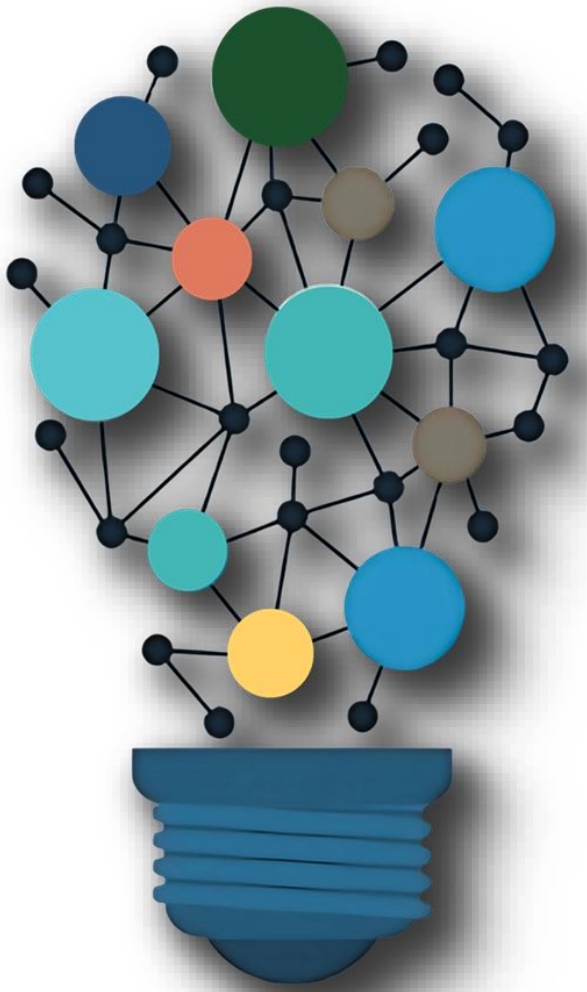
FLORIDA HOUSING COALITION



THANK YOU!

Adaptation Metrics

Evaluation Metrics Scorecard

Mission Criticality (x%) - 40 possible points	Exceptional	Well	Meets Minimum	No Impact
Installation system redundancy & robustness to support readiness	30	20	10	0
The strategy adds system redundancy and capabilities to support mission readiness.	*Direct benefit to primary mission*	*Indirect benefit to primary mission and/or direct impact to secondary mission*	*Indirect benefit on secondary mission or mission supportive*	
Connectivity and Access	10	5	2	0
The strategy enhances connectivity and compatibility between installations and surrounding communities, provides additional capacity of transportation routes and improves mobility.	*Yes. Strategy improves access to and through the installation, multiplies the transportation routes with alternative methods, and fully connects point-to-point mobility.*	*Yes. Strategy improves access to and through the installation, and enhances the transportation routes with an alternative method.*	*Yes. Strategy improves access to and through the installation and improves connectivity between the installation and surrounding communities.*	*No. Strategy does not address installation or community connectivity or access.*
Implementation Feasibility (x%) - 30 possible points	**Exceptional**	**Good**	**Meets Minimum**	**No Impact**
Aligns With Regional Resilience Policies & Priorities	6	3	1	0
The strategy aligns with or advances relevant and applicable local, state, or federal policies and priorities. The strategy benefits long-term planning efforts and supports regional resilience.	*Yes. Strategy works toward meeting relevant and applicable state, or federal policies, and priorities outlined in military installation reportsand development codes, and/or ordinances. **It directly enables multiple Actions of the RRAP.***	*Yes. Strategy works toward meeting relevant and applicable state, or federal policies, and priorities outlined in military installation reportsand development codes, and/or ordinances. **It directly enables an Action of the RRAP.***	*Yes. Strategy works toward meeting relevant and applicable state, or federal policies, and priorities outlined in military installation reportsand development codes, and/or ordinances. **It aligns with the goals of the RRAP.***	*No. Strategy does not directly address relevant and applicable local, state, or federal policies and priorities or strategy's alignment with existing policies and priorities is unknown.*
Adaptability (Incremental Adaptation)	6	3	1	0
The strategy can adapt over time for changing conditions.	*Strategy incorporates adaptation over time for anticipated future climate conditions.*	*Strategy can easily be adopted over time with minimal realignment.*	*With reconstruction, strategy can adapt over time, or strategy will need future adaptation*	*Strategy's adaptive capacity is unknown.*
Project Execution Complexity	6	3	1	0
*Number of agencies required to execute strategy, Authority to complete strategy, Technical complexity, Governance capacity, Legal feasibility, **Design/construction acceleration by elevating existing projects.***	*Execution has already begun **on an existing project** and authoritative and public entities already support. The required technology to implement the strategy currently exists. Ownership has authority and capacity to take finish execution.*	*Strategy is straightforward to begin execution. The required technology to implement the strategy currently exists. Entity has authority and capacity to take ownership. Policies and ordinances currently exist to support the strategy.*	*Strategy is doable, with anticipated hurdles. Requires a large number of permits, public engagement, new partnerships, etc.*	*Complexity is not clear.*
Financial Feasibility: Funding	6	3	1	0
1. Relevant funding programs are accessible (state resilience grants, DCIP, MIRR, etc.) *2. Up-front costs are attainable*	*Funding/financing is secured/budgeted. Up-front costs are known and attainable.*	*Relevant funding/financing programs have been identified and project costs can be attained.*	*Relevant funding programs have not been identified or project costs can be attained.*	*Relevant funding programs have not been identified and/ or project costs are unknown.*
Financial Feasibility: Cost Benefit and Avoided Loss	6	3	1	0
1. Long-term project costs are attainable and representative of benefits provided *3. Avoided loss is captured*	*Strategy robustly prevents substantial financial losses by eliminating risks associated with climate hazards; delivers comprehensive actions for critical assets, operations, and infrastructure. Long-term maintenance costs are manageable.*	*Strategy reduces the likelihood of financial losses from climate hazards by mitigating moderate risks to property, infrastructure, and operations. Long-term maintenance costs are manageable.*	*Strategy may avoid future financial losses such as from property and infrastructure damage or economic loss from disruptions in operations. Long-term maintenance costs are anticipated to be high.*	*Strategy does not impact anticipated future losses from climate hazards, or strategy's impact on anticipated economic damages from climate hazards is unknown.*
Supports a Thriving Regional Economy, Vibrant Quality of Life, and Healthy Natural Environment (x%) - 30 possible points	**Exceptional**	**Good**	**Meets Minimum**	**No Impact**
Development of Durable and Adaptive Built Environment	5	3	1	0
1. Minimize magnitude and cost of damage to infrastructure *2. Improve development practices and policies* *3. Decrease utility service disruptions and recovery time* *4. Improve transportation and mobility*	*Optimizes the durability and adaptability of development using locally-accepted and sourced practices and materials, while infusing additional innovative models for implementation pathways. Improvements in the natural environment to positively benefit the built environment are incorporated.*	*Encourages the durability and adaptability of development using locally-accepted and sourced practices and materials and is eligible for existing implementation pathways.*	*Contributes to development management by elevating an existing unfunded development project*	*Business as usual*
Supports Regional Economic Resilience	5	3	1	0
1. Improves access to education and employment opportunities *2. Increases housing stability* *3. Enhances tourism and historic preservation* *4. Increases smart growth and development*	*Positively benefits all four areas of economic resilience*	*Positively benefits two or three areas of economic resilience*	*Positively benefits one area of economic resilience*	*Does not affect economic resilience*
Increases or Improves Quality of Life	5	3	1	0
1. Improves public health and wellness *2. Enhances supply of food, and access to critical resources and/or essential services* *3. Increases public participation and engagement* *4. Minimizes disparity*	*Strategy goes above and beyond to safeguard community assets.*	*Strategy encourages growth and access to community assets.*	*Strategy effectively safeguards community assets such as housing, job centers, public facilities, parks, etc.*	*Strategy does not affect community assets or strategy's impact on community assets is unknown.*
Life Safety	5	0	0	0
The strategy avoids/ reduces loss of life and/or injury.	*Yes. Strategy increases life safety and/or enhances public health.*			*No. Strategy does not influence life safety and/or public health or strategy's impact on public health and safety is unknown.*
Aligns with Goals for a Healthy Natural Environment	5	3	1	0
1. Reduces heat stress *2. Increases biodiversity and ecological services* *3. Maximizes quality of soil, air, and water* *4. Minimizes erosion, flooding, and storm impacts*	*Strategy goes above and beyond to create habitat and biodiveristy outside of strategy scope.*	*Strategy goes above and beyond to create habitat and biodiversity.*	*Strategy creates habitat and biodiversity.*	*Strategy maintains / has no impact on habitat and biodiversity or strategy's impact on habitat and biodiversity is unknown.*
Reduction or Mitigation of Multiple Shocks and Stresses	5	3	1	0
The strategy addresses multiple shocks and stresses.	*Strategy addresses 3 or more shocks and stresses.*	*Strategy addresses 2 shocks and stresses.*	*Strategy addresses 1 shock or stress.*	
Extra Credit				
Is there a negative or unintended consequence? Y/N	✓			
	No. Strategy has considered potential consequences to infrastructure, environment, community, and the economy, and no consequences have been identified.		*Yes.*	
Is there incorporation of modernization and innovation in the infrastructure and technology components of the strategy? Y/N	✓			
	Yes. Strategy utilizes forward-thinking best practices, modernization techniques, or innovative thought leadership for the benefit of long-term resilience and readiness.		*No.*	
Total Available Points	**100**			

- Mission Criticality – 40 pts
- Implementation Feasibility – 30 pts
- Supports a Thriving Regional Economy, Vibrant Quality of Life, and Healthy Natural Environment – 30 pts
- Extra Credit
- Total Score = 100 pts

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Evaluation Metrics Scorecard

Mission Criticality – 40 pts

Mission Criticality (x%) - 40 possible points	Exceptional	Well	Meets Minimum	No Impact
Installation system redundancy & robustness to support readiness	30	20	10	0
The strategy adds system redundancy and capabilities to support mission readiness.	*Direct benefit to primary mission*	*Indirect benefit to primary mission and/or direct impact to secondary mission*	*Indirect benefit on secondary mission or mission supportive*	
Connectivity and Access	10	5	2	0
The strategy enhances connectivity and compatibility between installations and surrounding communities, provides additional capacity of transportation routes and improves mobility.	*Yes. Strategy improves access to and through the installation, multiplies the transportation routes with alternative methods, and fully connects point-to-point mobility.*	*Yes. Strategy improves access to and through the installation, and enhances the transportation routes with an alternative method.*	*Yes. Strategy improves access to and through the installation and improves connectivity between the installation and surrounding communities.*	*No. Strategy does not address installation or community connectivity or access.*

Evaluation Metrics Scorecard

Implementation Feasibility – 30 pts

Implementation Feasibility (x%) - 30 possible points	Exceptional	Good	Meets Minimum	No Impact
Aligns With Regional Resilience Policies & Priorities	**6**	**3**	**1**	**0**
The strategy aligns with or advances relevant and applicable local, state, or federal policies and priorities. The strategy benefits long-term planning efforts and supports regional resilience.	*Yes. Strategy works toward meeting relevant and applicable state, or federal policies, and priorities outlined in military installation reportsand development codes, and/or ordinances.* ***It directly enables multiple Actions of the RRAP.***	*Yes. Strategy works toward meeting relevant and applicable state, or federal policies, and priorities outlined in military installation reportsand development codes, and/or ordinances.* ***It directly enables an Action of the RRAP.***	*Yes. Strategy works toward meeting relevant and applicable state, or federal policies, and priorities outlined in military installation reportsand development codes, and/or ordinances.* ***It aligns with the goals of the RRAP.***	*No. Strategy does not directly address relevant and applicable local, state, or federal policies and priorities or strategy's alignment with existing policies and priorities is unknown.*
Adaptability (Incremental Adaptation)	**6**	**3**	**1**	**0**
The strategy can adapt over time for changing conditions.	*Strategy incorporates adaptation over time for anticipated future climate conditions.*	*Strategy can easily be adapted over time with minimal realignment.*	*With reconstruction, strategy can adapt over time, or strategy will need future adaptation*	*Strategy's adaptive capacity is unknown.*
Project Execution Complexity	**6**	**3**	**1**	**0**
Number of agencies required to execute strategy, Authority to complete strategy, Technical complexity, Governance capacity, Legal feasibility, ***Design/construction acceleration by elevating existing projects.***	*Execution has already begun* ***on an existing project*** *and authoritative and public entities already support. The required technology to implement the strategy currently exists. Ownership has authority and capacity to take finish execution.*	*Strategy is straightforward to begin execution. The required technology to implement the strategy currently exists. Entity has authority and capacity to take ownership. Policies and ordinances currently exist to support the strategy.*	*Strategy is doable, with anticipated hurdles. Requires a large number of permits, public engagement, new partnerships, etc.*	*Complexity is not clear.*
Financial Feasibility: Funding	**6**	**3**	**1**	**0**
1. Relevant funding programs are accessible (state resilience grants, DCIP, MIRR, etc.) *2. Up-front costs are attainable*	*Funding/financing is secured/budgeted. Up-front costs are known and attainable.*	*Relevant funding/financing programs have been identified and project costs can be attained.*	*Relevant funding programs have not been identified or project costs can be attained.*	*Relevant funding programs have not been identified and/ or project costs are unknown.*
Financial Feasibility: Cost Benefit and Avoided Loss	**6**	**3**	**1**	**0**
1. Long-term project costs are attainable and representative of benefits provided *3. Avoided loss is captured*	*Strategy robustly prevents substantial financial losses by eliminating risks associated with climate hazards; delivers comprehensive actions for critical assets, operations, and infrastructure. Long-term maintenance costs are manageable.*	*Strategy reduces the likelihood of financial losses from climate hazards by mitigating moderate risks to property, infrastructure, and operations. Long-term maintenance costs are manageable.*	*Strategy may avoid future financial losses such as from property and infrastructure damage or economic loss from disruptions in operations. Long-term maintenance costs are anticipated to be high.*	*Strategy does not impact anticipated future losses from climate hazards, or strategy's impact on anticipated economic damages from climate hazards is unknown.*

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Evaluation Metrics Scorecard

Supports a Thriving Regional Economy, Vibrant Quality of Life, & Healthy Natural Environment – 30 pts

Supports a Thriving Regional Economy, Vibrant Quality of Life, and Healthy Natural Environment (x%) - 30 possible points	Exceptional	Good	Meets Minimum	No Impact
Development of Durable and Adaptive Built Environment *1. Minimize magnitude and cost of damage to infrastructure* *2. Improve development practices and policies* *3. Decrease utility service disruptions and recovery time* *4. Improve transportation and mobility*	**5** *Optimizes the durability and adaptability of development using locally-accepted and sourced practices and materials, while infusing additional innovative models for implementation pathways. Improvements in the natural environment to positively benefit the built environment are incorporated.*	**3** *Encourages the durability and adaptability of development using locally-accepted and sourced practices and materials and is eligible for existing implementation pathways.*	**1** *Contributes to development management by elevating an existing unfunded development project*	**0** *Business as usual*
Supports Regional Economic Resilience *1. Improves access to education and employment opportunities* *2. Increases housing stability* *3. Enhances tourism and historic preservation* *4. Increases smart growth and development*	**5** *Positively benefits all four areas of economic resilience*	**3** *Positively benefits two or three areas of economic resilience*	**1** *Positively benefits one area of economic resilience*	**0** *Does not affect economic resilience*
Increases or Improves Quality of Life *1. Improves public health and wellness* *2. Enhances supply of food, and access to critical resources and/or essential services* *3. Increases public participation and engagement* *4. Minimizes disparity*	**5** *Strategy goes above and beyond to safeguard community assets.*	**3** *Strategy encourages growth and access to community assets.*	**1** *Strategy effectively safeguards community assets such as housing, job centers, public facilities, parks, etc.*	**0** *Strategy does not affect community assets or strategy's impact on community assets is unknown.*
Life Safety *The strategy avoids/ reduces loss of life and/or injury.*	**5** *Yes. Strategy increases life safety and/or enhances public health.*	**0**	**0**	**0** *No. Strategy does not influence life safety and/or public health or strategy's impact on public health and safety is unknown.*
Aligns with Goals for a Healthy Natural Environment *1. Reduces heat stress* *2. Increases biodiversity and ecological services* *3. Maximizes quality of soil, air, and water* *4. Minimizes erosion, flooding, and storm impacts*	**5** *Strategy goes above and beyond to create habitat and biodiveristy outside of strategy scope.*	**3** *Strategy goes above and beyond to create habitat and biodiversity.*	**1** *Strategy creates habitat and biodiversity.*	**0** *Strategy maintains / has no impact on habitat and biodiversity or strategy's impact on habitat and biodiversity is unknown.*
Reduction or Mitigation of Multiple Shocks and Stresses *The strategy addresses multiple shocks and stresses.*	**5** *Strategy addresses 3 or more shocks and stresses.*	**3** *Strategy addresses 2 shocks and stresses.*	**1** *Strategy addresses 1 shock or stress.*	**0**

Evaluation Metrics Scorecard

Extra Credit

Extra Credit		
Is there a negative or unintended consequence? Y/N	✓	
	No. Strategy has considered potential consequences to infrastructure, environment, community, and the economy, and no consequences have been identified.	*Yes.*
Is there incorporation of modernization and innovation in the infrastructure and technology components of the strategy? Y/N	✓	
	Yes. Strategy utilizes forward-thinking best practices, modernization techniques, or innovative thought leadership for the benefit of long-term resilience and readiness.	*No.*
Total Available Points	**100**	

Next Steps & Questions

Next Steps & Questions

- Adaptation Strategy Draft Project Sheets
- Next TAC Meeting – June 25th
- Emergency Management Exercise – August 4th

Northeast Florida Regional Council
Military Installation Readiness Review

Thank You

Comments / Feedback please email:
Tanya.Gallagher@Jacobs.com

Jacobs