



Northeast Florida Regional Council
Military Installation Readiness Review

Technical Advisory Committee

June 25, 2026

Jacobs

Welcome & Introductions



Agenda

2:00 pm

Welcome & Introductions

- Introduction
- Purpose of the meeting - Jacobs
- Project scope & overview- Jacobs

2:05 pm

Review Regional Adaptation Projects

- Childcare
- Housing
- Wildfire
- OneWater
- Shorelines

2:30 pm

Installation Breakout Sessions

- Camping Blanding JTF
- MCSF Blount Island
- NAS Jacksonville
- NS Mayport

3:40

Review Regional Adaptation Projects

- Airspace
- Regional Airports

3:55 pm

Next Steps

Today's Objectives:

- Review and receive feedback on regional adaptation projects
- Review and receive feedback on installation specific adaptation projects

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



DRAFT Project Package Recommendations on Sharepoint

Access via **Microsoft Sharepoint Email**

- If you **need the email sent out again or did not receive an email**, please put your email in the chat and we will resend the link.

How To Read This

- Included in each package. Start here before packages.

Questions to consider for each Draft Project Package:

- Did we get the existing efforts incorporated well?
- Are the partners and leads looking right?
- Does the recommendation sound feasible/like it would solve for the issues?

Ways to Give Feedback – **Due By July 1st**

- **Directly within the SharePoint documents** using the comment and track changes features
- **Via email**, either by sending a marked-up version of the downloaded Word documents or by including detailed comments in the body of the email

*If you choose to provide feedback via email, send your comments to **Sarah Marrs** (Sarah.Marrs@jacobs.com) and **Charley Golden** (Charley.Golden@jacobs.com).*

Please include the relevant project recommendation title(s) in your message to help us track and respond efficiently.



Questions to Consider for Each Recommendation

- Did we get the existing efforts incorporated well?
- Are the partners and leads looking right?
- Does the recommendation sound feasible/like it would solve for the issues?



Regional Recommendations



Childcare

Case studies from two military communities:

- Spouse-Led In-Home Care Networks (Emerald Coast / Eglin AFB)
 - In November 2024, Operation Child Care Project (OCCP) launched its HomeFront Help pilot at Eglin AFB funded through a \$5,000 AFA grant
 - OCCP has also expanded to Colorado Springs and is scouting additional installations
 - This model could be explored for replication in Northeast Florida
- DoD-Funded Community Child Development Centers (CDCs) (Hampton Roads)
 - DoD awarded the ASYMCA a contract in March 2024 to design, build, and operate three new off-installation CDCs for military families
 - The \$52 million project was selected as a pilot for the use of Other Transactional Authority (OTA) through the Defense Innovation Unit (DIU)

Housing

Regional Strategies for Housing Access

- H-1: Coordinate Planning Across Installations, Counties, Municipalities, and NGOs
- H-2: Streamline Permitting Processes for Military-Adjacent Housing
- H-3: Expand Public-Private Partnerships (P3s) for Military Housing
- H-4: Consider Expanding Community Land Trusts to Benefit Military Personnel and Defense Workers
- H-5: Encourage Zoning Reforms to Allow Greater Housing Density
- H-6: Explore Renter/Short-Term Rental Policies

Wildfire

Regional Recommendations for Wildfire Management Planning

- WF-1: Establish a Northeast Florida Fuels Management Partnership
- WF-2: Establish a Prescribed Fire Notification and Public Education Program

County Level Recommendations for Wildfire Management

- WF-3: Embed Installation Operations into the Duval County Community Wildfire Protection Plan (CWPP)
- WF-4: Develop Prioritized Fuels Treatment Areas through the Duval County CWPP
- WF-5: Integrate Wildfire Risk into Comprehensive Plan Policy
- WF-6: Adopt Wildfire-Resilient Construction Standards for New Development in High-Risk Zones

Collaboration with One Water

Regional Coordination

- OW-1: Explore Opportunities for Enhanced Collaboration on Water Resources Management Among Military and Regional Stakeholders
- OW-2: Improve Regional Coordination for Water Quality and Watershed Protection

Water Infrastructure Resilience

- OW-3: Modernize Water Infrastructure to Support an Integrated One Water System

Stormwater and Flood Resilience

- OW-4: Align Watershed-Based Stormwater and Flood Control Strategies

Water Supply and Demand

- OW-5: Increase Water Efficiency and Resilience
- OW-6: Ensure Emergency Water Security Through Regional Coordination



Shorelines

Strategic Project RS 1. Northside Coastal Shoreline Resilience Partnership and Implementation Strategy

- 1. Federal Coordination and Strategic Alignment (NEFRC)
- 2. State-level Coordination and Policy Alignment (NEFRC)
- 3. Regional Planning and Cross-jurisdictional Coordination (NEFRC + NERT)
- 4. Local Government, Port, and Installation Coordination (NEFRC and Local Partners)
- 5. Financial, Insurance, and Implementation Alignment (NEFRC and Partners)

Shorelines

Strategic Project RS 2. Regional Shoreline Coastal Resilience Implementation Plan (CRIP)

Step 1: Shoreline System Mapping and Vision Development (Short-term)

- 1A. Comprehensive Shoreline Typology Inventory and Two-dimensional (2D) Hydrodynamic Modeling (City of Jacksonville + USACE + NERT)
- 1B. Coastal Hydrology, Sediment Dynamics, and Comprehensive Shoreline Mapping (City of Jacksonville)
- 1C. Wake, Wave Energy, and Navigation Impact Gap Analysis (City of Jacksonville + USACE + JAXPORT)
- 1D. Citywide Shoreline and Coastal Resilience Vision (City of Jacksonville and Partners)

Step 2: Development of the Shoreline Coastal Resilience Implementation Plan (CRIP) (Short-term)

- 2A. CRIP Integration and Plan Development (City of Jacksonville)
- 2B. Climate-informed Shoreline System Health Analysis and Predictive Modeling (City of Jacksonville)
- 2C. Identification of Shoreline Issues and Root Cause Analysis (City of Jacksonville)
- 2D. Development of Shoreline Solutions Matrix and Co-benefits Framework (City of Jacksonville)
- 2E. Evaluation and Implementation Alignment of NBS and Hybrid Solutions (City of Jacksonville)
- 2F. Development of Adaptation Strategies, Typology-based Solutions, and Prioritization (City of Jacksonville)
- 2G. Development of Integrated Alternatives and Innovation Opportunities (City of Jacksonville)
- 2H. Financing, Funding, and Long-term Maintenance Strategy (City of Jacksonville and Partners)



Installation Specific Recommendations



Breakout Rooms

- You will be placed in breakout rooms based on the installations
- If you would like to join a different room, you are welcome to switch

Naval Station Mayport



Naval Station Mayport: Missions

Primary Mission

- Surface fleet homeporting
- Aviation basing
- Fleet readiness & sustainment

Secondary Missions

- Enable carrier/amphibious operations
- Enable Joint/Coalition operations & exercises
- Support humanitarian & disaster response
- Support major tenant commands



Naval Station Mayport: Mission-Critical Assets

Primary

House and support the 4th Fleet, maintain and house UAVs, manages fuel depots, homeland defense, repair major ships.

Location-Specific Positioning

- St. John's River
- Wetlands and Marshes
- **Shorelines**
- **Fuel Depot**

Assets Providing Direct Support

- **Electric Production and Supply Facilities**
- **Roads and Bridges**
- Communications Facilities (e.g., cell towers, fiberoptic lines)
- Water utility supply facilities
- Wastewater conveyance and treatment facilities
- Safe Harbor Facilities (JAXPort)
- Offsite dry dock facilities (BAE)

Secondary

Offer regional fueling depot.

Assets Providing Direct Support

- Emergency Response Facilities
- **Shorelines** (Atlantic Coast shorelines)
- Fire Stations

Mission-Supportive

Assets that support the livelihood and health of installation personnel, indirect support to primary and secondary missions.

Personnel Support

- Affordable Housing
- Childcare Facilities
- Emergency Response Facilities (Hospitals)

Assets Providing Indirect Support

- Solid and Hazardous Waste Facilities
- **Regional Road Network**



Background: NS Mayport Shocks and Stressors



1. **Flooding** has been documented as occurring throughout the installation because of **storm surge and SLR**. It also threatens to permanently inundate other regional mission-critical systems, such as regional fuel depots and wetlands, in the foreseeable future.
2. **Rainfall-induced flood** events are also projected to affect supporting access roads, such as Wonderwood Drive.
3. **Storm surge** can inundate multiple regional facilities, such as electric substations. It can also cause significant **shoreline erosion**.
4. **Shoreline erosion** has occurred on the installation's own shores (such as north of the fuel farm) and affects supporting infrastructure, such as the State Road (SR) A1A. This erosion is exacerbated by major storm events.
5. The pending **closure of the Anchor Academy** would be a major shock, requiring students to find a new school and posing physical, emotional, and financial challenges to military families, potentially impacting readiness.

Questions to Consider for Each Recommendation

- Did we get the existing efforts incorporated well?
- Are the partners and leads looking right?
- Does the recommendation sound feasible/like it would solve for the issues?



NS Mayport Recommendation Project Packages

Project Package #1: *Mobility Corridor A1A and the Timucuan Preserve*

Project Package #2: *Mobility Corridor Mayport Road*

Project Package #3: *Regional Road Network*

Project Package #4: *Improved Electrical System Resilience*

Project Package #5: *Improved Fuel Depot Resilience*

Project Package #1 NS Mayport:

Adaptation for Mobility Corridor A1A and the Timucuan Preserve

Project Package #1 NS Mayport:

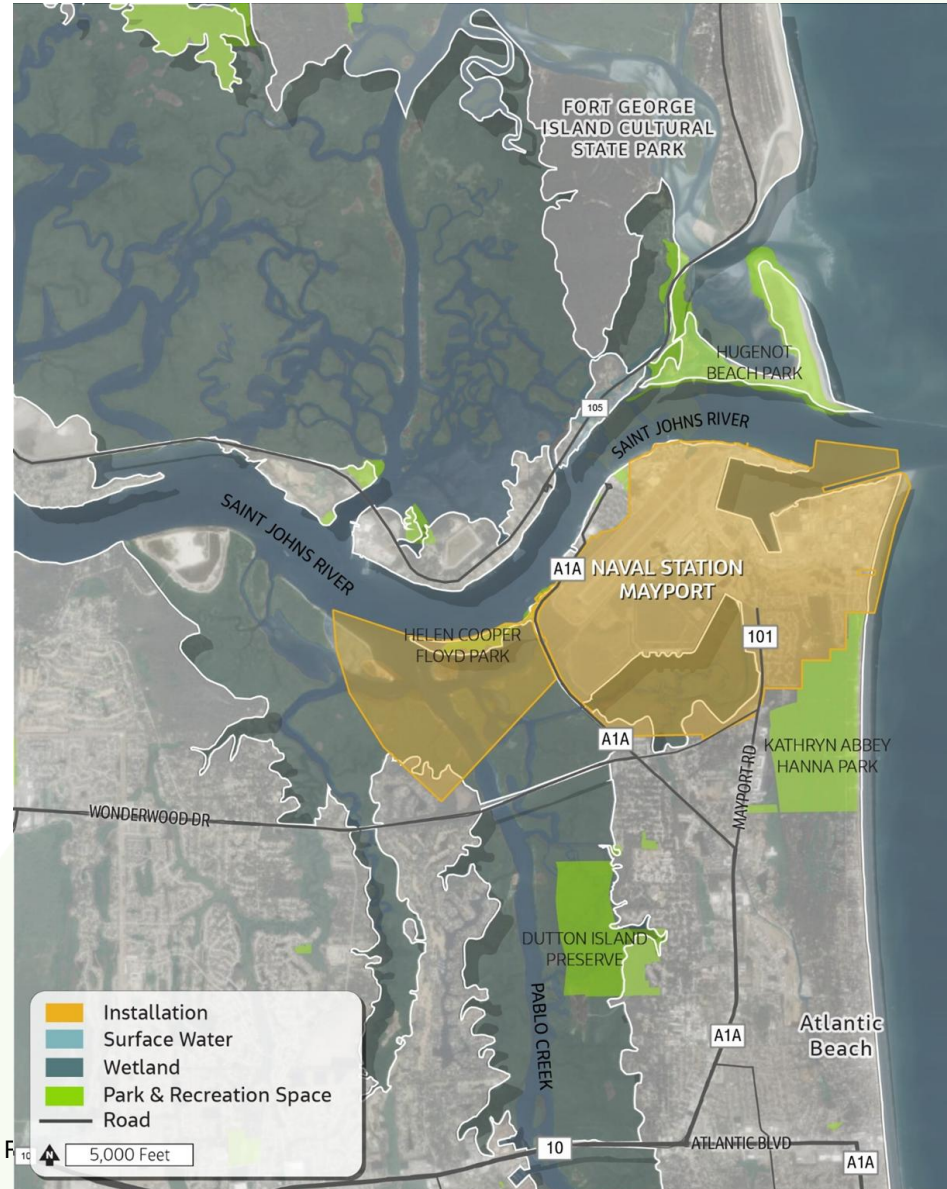
Adaptation for Mobility Corridor A1A and the Timucuan Preserve

Asset Name	Owner	Location	Mission Criticality	Relevant Shocks & Stresses	Level of Urgency
State Road A1A	FDOT	Village of Mayport to Wonderwood Drive	Primary	Sea Level Rise, Erosion, Storm Surge	Immediate
Timucuan Preserve	NPS	West of NS Mayport	Primary	Sea Level Rise	Mid-term

- **Strategic corridor:** A1A is a key north–south coastal route near NS Mayport, supporting regional mobility, coastal access, and local connectivity while providing redundancy to primary access routes.
- **Sensitive setting:** The roadway runs alongside the ~46,000-acre Timucuan Ecological and Historic Preserve, a nationally significant landscape of marshes, dunes, forests, and estuarine systems.
- **Natural resilience asset:** Adjacent salt marshes act as natural infrastructure—reducing storm surge, stabilizing shorelines, improving water quality, and supporting habitat.
- **Built–natural tension:** The roadway supports access but constrains marsh function by limiting drainage, interrupting flow paths, and restricting inland migration under sea level rise.
- **Growing flood risk:** Rising sea levels and constrained marsh capacity increase high-tide flooding, drainage backflow, groundwater impacts, and compound flooding during storms.
- **Opportunity for resilience:** Enhancing and preserving marsh systems offers a nature-based approach to reduce flood risk and support long-term corridor sustainability within regulatory constraints.

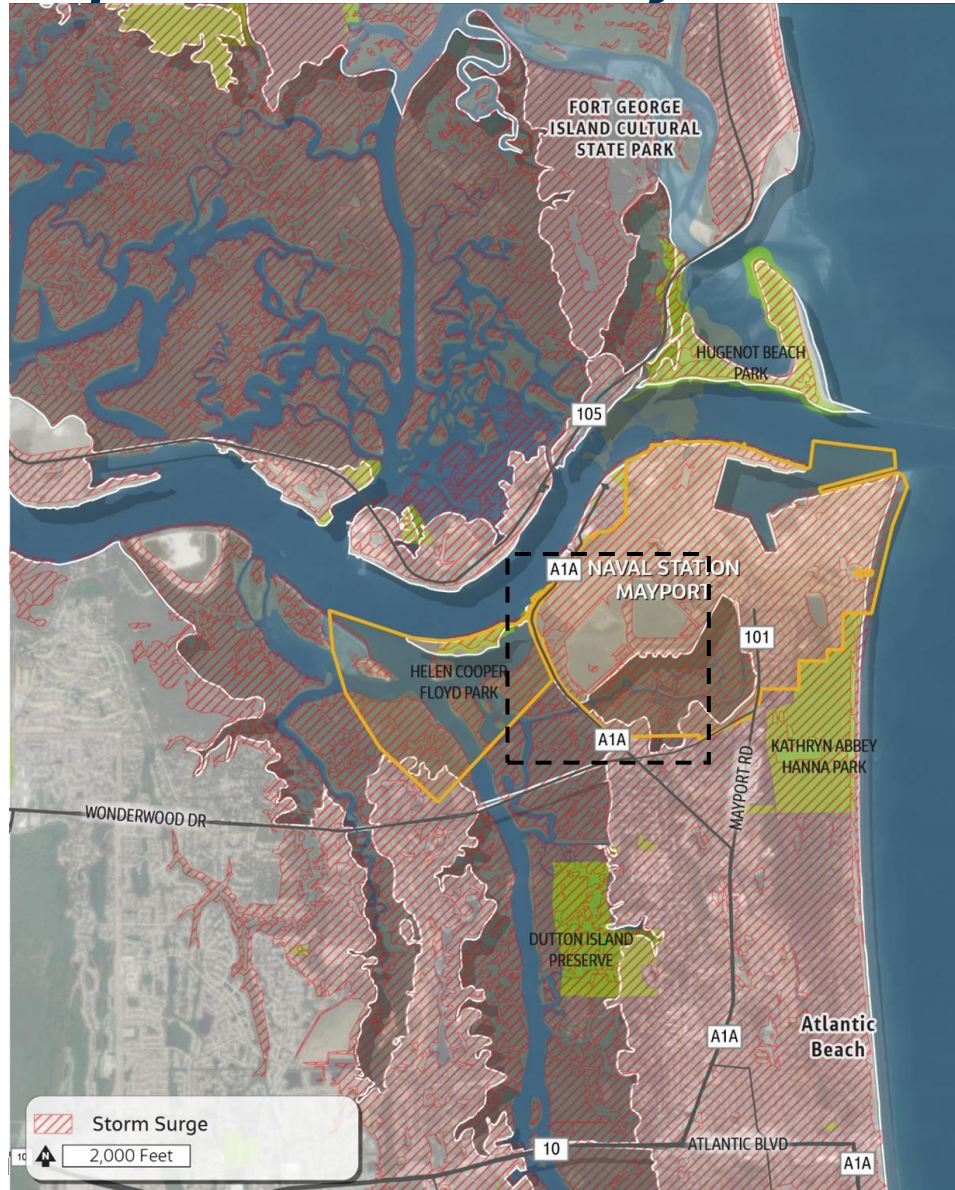
Project Package #1 NS Mayport:

Adaptation for Mobility Corridor A1A and the Timucuan Preserve



Project Package #1 NS Mayport:

Adaptation for Mobility Corridor A1A and the Timucuan Preserve



Project Package #1 NS Mayport:

Adaptation for Mobility Corridor A1A and the Timucuan Preserve

Current Projects:

Existing Project	Entity	Location	Purpose	Timeline
Living Shorelines	U.S Navy	Across A1A from Gate 5	Mitigate Erosion	Design Complete
Living Shorelines	University of Georgia	Helen Floyd Cooper Park	Mitigate Erosion	In Design
Sherman Creek Park Design Acquisition	City of Jacksonville	West of A1A and north of Wonderwood Drive	Community Improvement	TBD
A1A Road Raising	FDOT	South of Village of Mayport	Mitigate Flooding	In Design
Core 2 Coast Trail Loop	NF TPO	A1A	Improved Bike/Pedestrian Infrastructure	Report Final

Project Package #1 NS Mayport: *Adaptation for Mobility Corridor A1A and the Timucuan Preserve*

Existing Projects:



Project Package #1 NS Mayport:

Adaptation for Mobility Corridor A1A and the Timucuan Preserve Recommendations



Northeast



Project Package #1 NS Mayport:

Adaptation for Mobility Corridor A1A and the Timucuan Preserve Recommendations

Strategic Project: A1A Flood Mitigation and Public Access Connectivity Improvements

Step 1: Corridor Assessment, Modeling, and Adaptive Planning (Short-term)

1A. Refine Roadway Elevation, Flooding Risk, and Hydrologic Constraints Using Existing Studies (FDOT + City + Navy)

1B. Integrate Core to Coast Trail and Shared-Use Boardwalk (FDOT + City + North Florida TPO)

Step 2: Roadway Elevation, Hydrologic Restoration, and Access Improvements (Mid-term)

2A. Elevate A1A to Reduce Flooding and Improve System Performance (FDOT + Navy)

2B. Expand Culverts and Improve Hydrologic Connectivity (FDOT + City)

2C. Improve Access to Helen Floyd Cooper Park and Sherman Creek Park (FDOT + City)

Step 3: Smart Monitoring, Flood Detection, Adaptive Operations, and Long-Term System Integration (Mid- to Long-term)

3A. Deploy Flood Sensors and Real-Time Monitoring Systems (FDOT + City + Navy)

3B. Integrate Smart Alerts and Adaptive Response Systems (FDOT + JTA)

3C. Advance Adaptive Operations and Emergency Planning (FDOT + City + Navy)

3D. Plan for Long-Term Corridor Adaptation and Network Integration (FDOT + Regional Partners)

Project Package #1 NS Mayport:

Adaptation for Mobility Corridor A1A and the Timucuan Preserve Recommendations

Strategic Project: Timucuan Marsh Hydrologic Connectivity, Habitat Adaptation, and Natural Infrastructure System Resilience

Step 1: Marsh Adaptation and Transition Planning (Short-term)

1A. Integrate Existing Hydrologic and Habitat Studies (All Partners)

1B. Evaluate Marsh Migration and Future Habitat Transition Needs (FDOT + Environmental Partners + NPS + NS Mayport)

Step 2: Nature-Based Infrastructure and Habitat Enhancement (Mid-term)

2A. Implement Living and Hybrid Shoreline Systems (FDOT + Environmental Agencies)

2B. Implement Marsh Migration and Thin Layer Placement (FDOT + Environmental Partners)

2C. Expand Floodplain Capacity Through Strategic Land Acquisition at Sherman Creek Park (City + Partners)

Step 3: Integrated Coastal System Performance and Long-Term Adaptation (Long-term)

3A. Monitor Marsh and Hydrologic Performance (All Partners)

3B. Integrate Natural Infrastructure into Corridor Resilience Planning (FDOT + City + Navy)

Project Package #2 NS Mayport:
Adaptation for Mobility Corridor Mayport Road

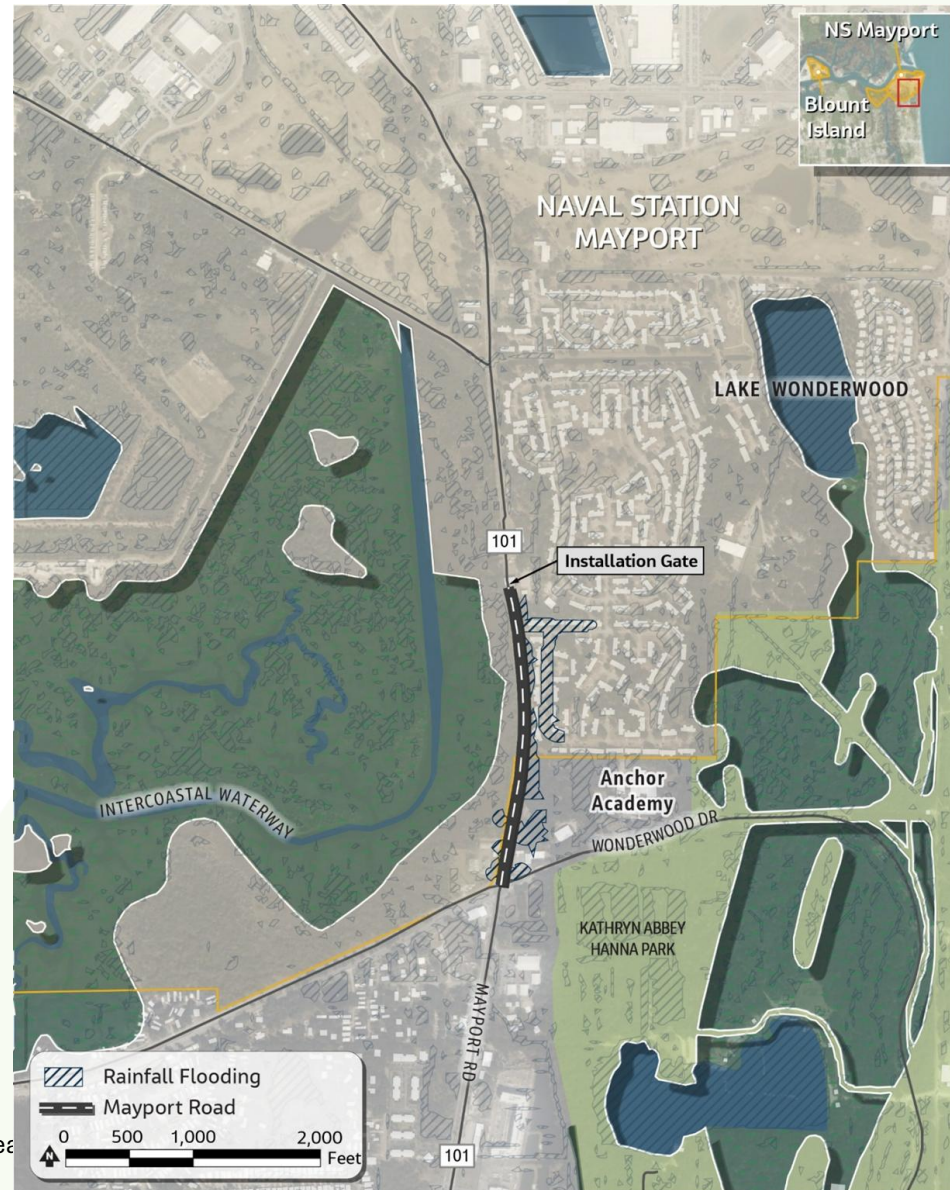
Project Package #2 NS Mayport:

Adaptation for Mobility Corridor Mayport Road

Asset Name	Owner	Location	Mission Criticality	Relevant Shocks & Stresses	Level of Urgency
Mayport Road	FDOT/Atlantic Beach	Wonderwood Drive to NS Mayport Gate	Primary	Rainfall Flooding	Medium

- Critical access route supporting base operations and connectivity
- Low-lying wetlands and flat terrain limit drainage capacity (*addressed in Package #1*)
- Frequent flooding from heavy rainfall overwhelms green and gray systems (*green infrastructure addressed in Package #1*)
- Poor drainage and aging infrastructure cause prolonged ponding
- Flooding reduces capacity, creates hazards, and can block access

Project Package #2 NS Mayport: *Adaptation for Mobility Corridor Mayport Road*



Project Package #2 NS Mayport:

Adaptation for Mobility Corridor Mayport Road

Current Projects:

Project	Entity	Location	Purpose	Timeline
Mayport Road Milling and Resurfacing	FDOT	NS Mayport Gate to 7 th Street	Infrastructure Repair	Out for Bid

Project Package #2 NS Mayport: *Adaptation for Mobility Corridor Mayport Road*

Current Projects:



Project Package #2 NS Mayport:

Adaptation for Mobility Corridor Mayport Road Recommendations



Project Package #2 NS Mayport:

Adaptation for Mobility Corridor Mayport Road Recommendations

Strategic Project: Gray Stormwater Infrastructure Upgrades for Mayport Road

Step 1: System Assessment and Modeling (Short-term)

- 1A. Roadway Drainage System Modeling and Performance Assessment (FDOT and Partners)
- 1B. High-Resolution Terrain Mapping and Surface Flow Analysis (FDOT and Partners)

Step 2: Prioritization of Drainage Improvements (Short-term)

- 2A. Identification of Targeted Drainage Interventions (FDOT and Partners)
- 2B. Prioritization Framework for Capital Investments (FDOT and Partners)

Step 3: Infrastructure Modernization and Resilient Design (Mid-term)

- 3A. Upsizing and Modernization of Storm Drains, Culverts, and Inlets (FDOT)
- 3B. Redundant Drainage Pathways and Flow Efficiency Enhancements (FDOT)
- 3C. Flood-Resistant Pavement Installation (FDOT)
- 3D. Integrated Infrastructure Performance Management (FDOT and Partners)

Step 4: Corridor Expansion and Regional Integration (Long-term)

- 4A. Expansion Along Mayport Road and Adjacent Networks (FDOT and City)
- 4B. Integration with Citywide Stormwater and Resilience Programs (City of Jacksonville)
- 4C. Alignment with FDOT District and Statewide Resilience Initiatives (FDOT)
- 4D. Scalable, Replicable Model for Coastal Transportation Resilience (All Partners)



Project Package #2 NS Mayport:

Adaptation for Mobility Corridor Mayport Road Recommendations

Strategic Project NSM: Smart Stormwater Monitoring and Emergency Operations for Mayport Road Access Corridor

Step 1: Deployment of Smart Monitoring Systems (Short-term)

- 1A. Real-Time Rainfall and Water-Level Monitoring (FDOT, City, and Navy)
- 1B. Flood Detection and Early Warning Capabilities (FDOT and Partners)

Step 2: Integration with Operations and Maintenance (Short-term)

- 2A. Proactive Maintenance and System Optimization (FDOT and Partners)
- 2B. Data Integration and Decision Support Platforms (FDOT, City, and Navy)

Step 3: Emergency Operations, Adaptive Response, and System Expansion (Mid- to Long-term)

- 3A. Adaptive Traffic and Access Management (FDOT and Partners)
- 3B. Emergency Access and Continuity Planning (FDOT, Navy, and City)
- 3C. Pre-Staged Rapid Response Operations (FDOT and Partners)
- 3D. Continuous Monitoring, Data Integration, and System Optimization (All Partners)

Project Package #3 NS Mayport:
Adaptation for Regional Roads

Project Package #3 NS Mayport:

Adaptation for Regional Roads

Asset Name	Owner	Location	Mission Criticality	Relevant Shocks & Stresses	Level of Urgency
Regional Roadways	Various	SR-10, US-90, SR-202, 3rd St.	Primary	Sea Level Rise, Storm Surge, Rainfall Flooding, Compound Flooding	Near-term

- **Critical regional corridors** (SR-10, U.S. 90, SR-202, 3rd St) form an integrated network supporting NS Mayport operations, logistics, and regional connectivity.
- **They support and feed into primary access routes** (Mayport Rd & SR A1A) which are essential for daily operations and represent a shared, limited-access lifeline between the installation and surrounding coastal communities. *(Addressed in Packages #1 and #2)*
- **Infrastructure vulnerability is high** due to low-lying coastal geography, with exposure to flooding, storm surge, sea level rise, and increasing congestion.



Project Package #3 NS Mayport: *Adaptation for Regional Roads*



Project Package #3 NS Mayport:

Adaptation for Regional Roads

Current Projects:

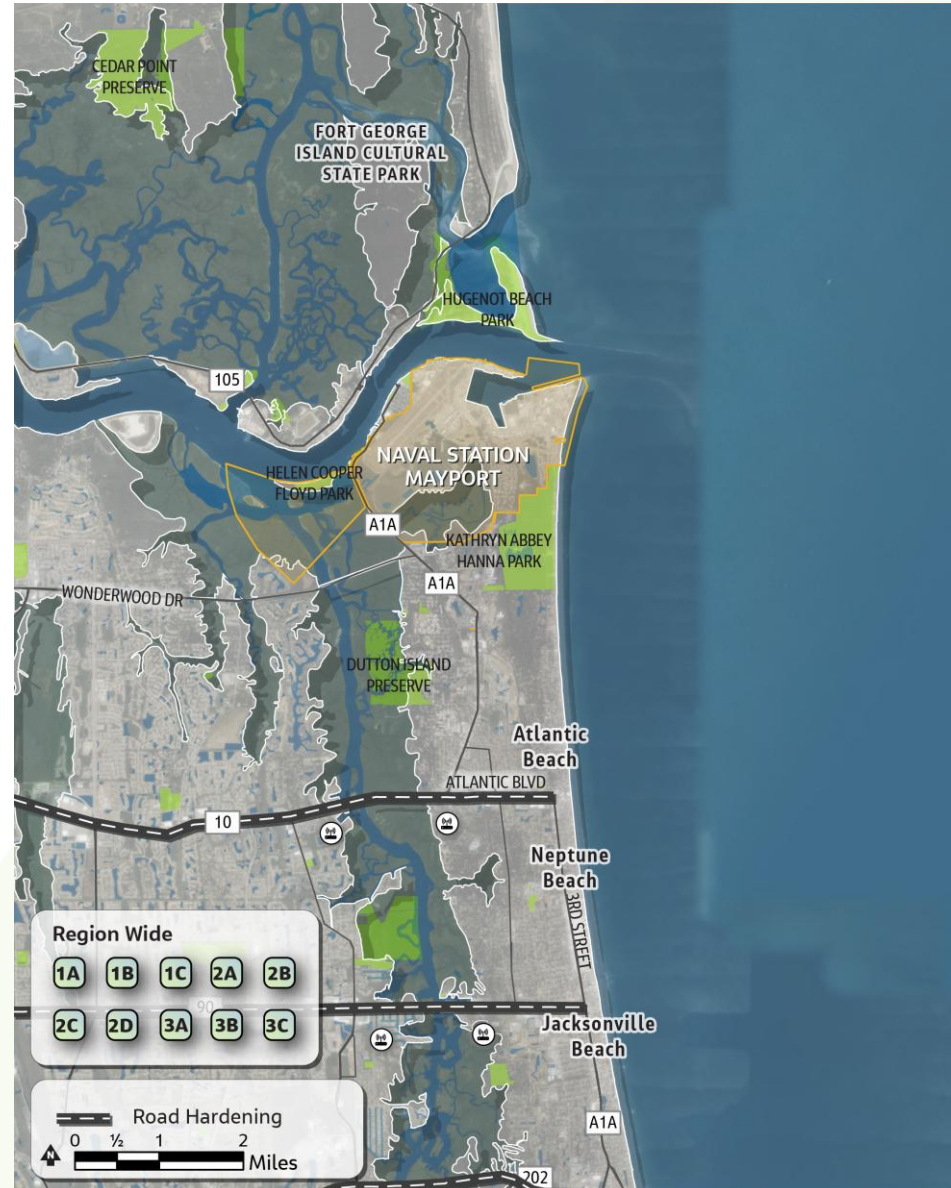
Existing Project	Entity	Location	Purpose	Timeline
Resilient Jacksonville Strategy	City of Jacksonville	City-wide/Countywide	Data-driven modelling to identify high-risk road segments	Complete
Duval County Shore Protection Project	USACE	Beaches along Atlantic Coastline	Beach renourishment and dune restoration	Ongoing

Project Package #3 NS Mayport: *Adaptation for Regional Roads*

Current Projects:



Project Package #3 NS Mayport: *Adaptation for Regional Roads Recommendations*



Project Package #3 NS Mayport:

Adaptation for Regional Roads Recommendations

Strategic Project: Regional Resilient Coastal Transportation and Transit Network Plan

Step 1: Regional Coordination, Data Integration, and Plan Development (Short-term)

- 1A. Compile and Synthesize Existing Plans and Resilience Efforts (NEFRC + FDOT + NFTPO + City of Jacksonville)
- 1B. Regional Synthesis of Transportation Vulnerability Assessments (NEFRC + FDOT + FHWA)
- 1C. Develop Integrated Data and Mapping Platform (NEFRC + NFTPO + FDOT)

Step 2: Typologies, Scenario Planning, and Regional Prioritization (Short-term)

- 2A. Develop Coastal Transportation Typologies (NEFRC + FDOT + NFTPO)
- 2B. Scenario-Based Planning for Future Conditions (NEFRC + FHWA + NFTPO)
- 2C. Regional Resilience Prioritization Strategy (NEFRC + FDOT + City of Jacksonville)
- 2D. Cost-Benefit Analysis and Avoided Loss Evaluation (NEFRC + FDOT + FHWA)

Step 3: Policy Integration and Implementation Readiness (Short-term)

- 3A. Align Transportation and Land Use Planning (NEFRC + NFTPO + City of Jacksonville)
- 3B. Establish Regional Coordination and Governance Framework (NEFRC + All Partners)
- 3C. Advance Funding Readiness and Implementation Pathways (FDOT + FHWA + NFTPO)

Project Package #4 NS Mayport:
Improving Electrical System Resilience

Project Package #4 NS Mayport:

Improving Electrical System Resilience

Asset Name	Owner	Location	Mission Criticality	Relevant Shocks & Stresses	Level of Urgency
Mayport Substation	JEA	Southern boundary of NS Mayport installation	Primary	Lack of Redundancy, Rainfall flooding, storm surge	Immediate

- **Legacy design:** Above-ground, fossil-fuel grid with layered, aging infrastructure
- **Key risks:** Limited substations/feeders; high vulnerability in low-lying waterfront areas
- **Upgrades:** Improved redundancy, storm hardening, undergrounding, cleaner energy mix
- **Ongoing challenges:** Coastal exposure + high mission demand strain the system
- **Future needs:** Harden substations; expand microgrids, storage, and climate-resilient design

Project Package #4 NS Mayport: *Improving Electrical System Resilience*



Project Package #4 NS Mayport:

Improving Electrical System Resilience

Current Projects:

Existing Project	Entity	Location	Purpose	Timeline
Substation Hardening Study	JEA	Southern boundary of NS Mayport installation	Electrical system resilience	Study completed study; remains at the concept level
Wetlands preservation Study	City of Jacksonville	Wetlands along Sherman Creek	Manage flooding, minimize storm surge damage, filter pollutants, replenish groundwater, and support wildlife habitats	Study completed study; remains at the concept level
Duval Countywide Map of Oysters: Land Conservation for Existing Salt Marsh	City of Jacksonville	Wetland along Sherman Creek	Marsh Migration Corridor Conservation	Remains at the program level

Project Package #4 NS Mayport:

Improving Electrical System Resilience Recommendations



Project Package #4 NS Mayport:

Improving Electrical System Resilience Recommendations

Strategic Project: Substation Hardening and Flood Resilience Enhancement

Step 1: Critical Infrastructure Hardening (Short-term)

- 1A. Prioritize Improvements to Critical Substation and Transmission Infrastructure (JEA)
- 1B. Protect Control and Communication Systems (JEA + NAVFAC + NS Mayport)

Step 2: Smart Flood Management and Active Drainage Systems (Mid-term)

- 2A. Enhance Stormwater and Flood Management (JEA + NAVFAC)
- 2B. Smart Drainage and Active Flood Control (JEA + NAVFAC)

Step 3: Fault Detection, Recovery, and Predictive Resilience (Long-term)

- 3.1 Strengthen Recovery and Emergency Power Capability (Fault Detection)
- 3.2 AI-Driven Predictive Analytics

Project Package #4 NS Mayport:

Improving Electrical System Resilience Recommendations

Strategic Project: Regional Community Energy Resilience Planning

Step 1: Community Energy Resilience Planning and Load Coordination (Short-term)

- 1A. Critical Load Identification and Prioritization (JEA, NS Mayport, Municipal Emergency Services)
- 1B. Develop Community Energy Resilience Plan (JEA + NS Mayport + Community Stakeholders)
- 1C. Monitoring Strategy and System Visibility Planning (JEA)

Step 2: Coordination and Plan Implementation (Mid-term)

- 2A. Load Management and Demand Balancing (JEA)
- 2B. Coordinated Integration with Utility Control Systems (JEA)

Step 3: Long-Term Community Resilience and Adaptive Planning (Long-term)

- 3A. Resilience Strategy Integration and Continuous Improvement (JEA, NS Mayport, Municipal Emergency Services)
- 3B. Regional Coordination and Stakeholder Engagement (JEA + NS Mayport + Community Stakeholders)

Project Package #4 NS Mayport:

Improving Electrical System Resilience Recommendations

Strategic Project: Wetland Restoration and Nature-Based Coastal Protection Plan

Step 1: Wetland Assessment and Restoration Planning (Short-term)

- 1A. Collate Existing Wetland Research and Conditions Data (City of Jacksonville + FDEP)
- 1B. Develop Wetland Restoration Unified Vision (City of Jacksonville + FDEP + Stakeholders)
- 1C. Predictive Modeling and Scenario Simulation (FDEP + Technical Partners)
- 1D. Develop Wetland Restoration Plan (City of Jacksonville + FDEP + Stakeholders)

Step 2: Restoration Implementation and Hybrid Protection Integration (Mid-term)

- 2A. Implement Priority Nature-Based Restoration Projects (City of Jacksonville + FDEP)
- 2B. Deliver Hybrid Shoreline and Flood Protection Projects (FDEP + NAVFAC + JEA)
- 2C. Advance Funding, Permitting, and Program Delivery (City of Jacksonville + FDEP + Partners)

Step 3: Monitoring, Adaptive Management, and Long-Term System Performance (Long-term)

- 3A. Integrated Monitoring of Implemented Restoration Projects (FDEP + City of Jacksonville + USACE + NOAA)
- 3B. Adaptive Management and Performance-Based Optimization (FDEP + USACE + NOAA + Partners)



Project Package #4 NS Mayport:

Improving Electrical System Resilience Recommendations

Strategic Project: Replace NS Mayport Substation

Step 1: Feasibility, System Design, and Operational Integration Planning (Mid-term)

- 1A. Evaluate Secondary Substation Feasibility, Capacity, and System Design (JEA + NAVFAC)
- 1B. Implement Switching Infrastructure, Automation, and Monitoring Systems (PWD + JEA)

Step 2: Execution (Long-term)

- 2A. Construct Replacement Substation and Commission Transition (JEA + NAVFAC)
- 2B. Optimize System Performance and Resilience Over Time (JEA + NAVFAC + PWD)

Project Package #5 NS Mayport:
Adaptation For Improved Fuel Depot Resilience

Project Package #5 NS Mayport:

Adaptation for Improved Fuel Depot Resilience

Asset Name	Owner	Location	Mission Criticality	Relevant Shocks & Stresses	Level of Urgency
Northside Fuel Depot	Naval Supply Logistics Command	West of Installation in industrial park; Southeast of the intersection of Zoo Parkway and Main Street	Primary	Storm Surge, Rainfall Flooding, Compound Flooding	Medium

- **Northside Fuel Depot:** Mission-critical NAVSUP facility supporting NS Mayport and regional fuel operations
- **Key function:** Bulk fuel storage and distribution for naval vessels and Blount Island operations
- **Hardened infrastructure:** Riprap and vegetated shoreline protect against erosion and flooding
- **Primary risks:** Sea level rise, storm surge, and shoreline degradation threaten stability and drainage
- **Access concerns:** Flooding and erosion may disrupt Somers Road South, impacting operations and fuel transport

Project Package #5 NS Mayport: *Adaptation for Improved Fuel Depot Resilience*



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Project Package #5 NS Mayport: *Adaptation for Improved Fuel Depot Resilience*



Project Package #5 NS Mayport:

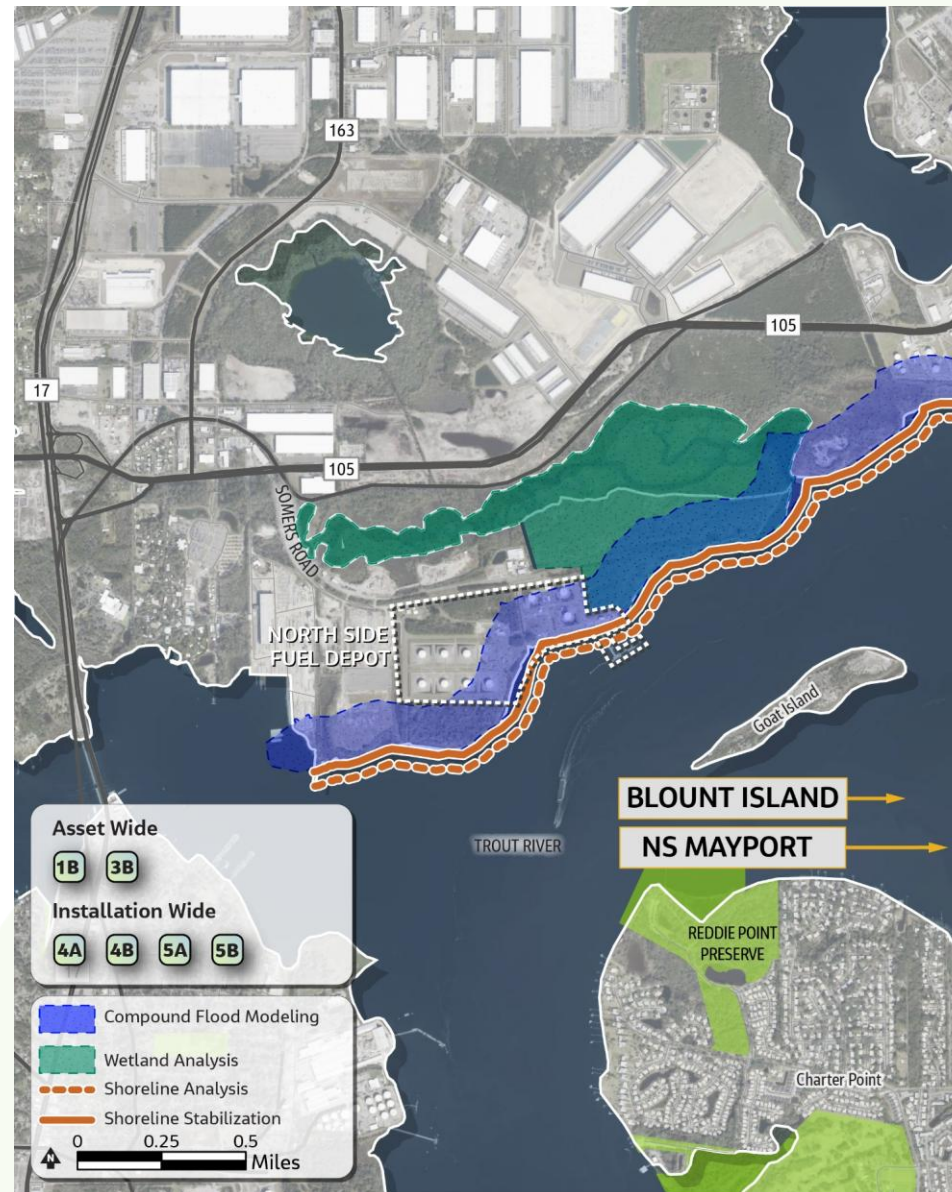
Adaptation for Improved Fuel Depot Resilience

Current Projects:

Existing Project	Entity	Location	Purpose	Timeline
Innovative Solutions for DFSP Management, Infrastructure Enhancement, and Underutilized Land and Resources	DOD-DLA; USN	Northside Fuel Depot	Operation efficiency and facility modernization	Unknow (still an RFI)
Strategic Shoreline Hardening	City of Jacksonville; Duval County; SJRWMD; USACE	Shoreline along the Atlantic Ocean and the St. Johns River within Duval County	Against flooding, sea level rise, chronic Flooding, and protect infrastructure	Remain at the planning level
Target Shorelines for Nature-Based Solutions	City of Jacksonville; Duval County; SJRWMD; USACE	As above	Against coastal erosion, chronic flooding, and improved water quality	Remain at the planning level
Regional Sediment Management	SJRWMD; USACE	A St. Johns River	Enhances coastal resilience, natural systems, and waterway navigation.	On-going
Plan Relocation of Critical Infrastructure	City of Jacksonville and utility agencies	City of Jacksonville	Prevent infrastructure failure	Remain at the planning level

Project Package #5 NS Mayport:

Adaptation for Improved Fuel Depot Resilience Recommendations



Project Package #4 NS Mayport:

Adaptation for Improved Fuel Depot Resilience Recommendations

Strategic Project: Northside Fuel Depot Supporting Infrastructure Vulnerability Assessment and Coastal Resilience Strategy

Step 1: Site-Specific Vulnerability Assessment and Modeling (Short-term)

1A. Apply Compound Flood Modeling to Asset-Level Risk Analysis (City of Jacksonville + Navy + Partners)

1B. Critical Infrastructure Identification and Dependency Mapping (All Partners)

Step 2: Shoreline, Wetland, and Erosion Assessment (Short-term)

2A. Shoreline Condition and Erosion Driver Analysis (FDOT + USACE + Environmental Partners)

2B. Wetland Condition and Hydrologic Function Assessment (Environmental Partners + City + Navy)

Step 3: Adaptation Strategies and Engineering Feasibility (Mid-term)

3A. Evaluate Shoreline Stabilization Alternatives (FDOT + USACE + Environmental Partners)

3B. Assess Constructability, Permitting, and Lifecycle Costs (All Partners)

Step 4: COOP Integration and Scenario-Based Planning (Mid-term)

4A. Develop Scenario-Specific COOP Recommendations (Navy + City + Partners)

4B. Identify Redundancy and Risk Reduction Opportunities (All Partners)

Step 5: Implementation Roadmap and Regional Alignment (Long-term)

5A. Prioritized Adaptation and Investment Strategy (All Partners)

5B. Integration with Regional Shoreline and Resilience Initiatives (All Partners)

Project Package #6 NS Mayport:
Adaptation For Mobility Corridor Wonderwood Drive

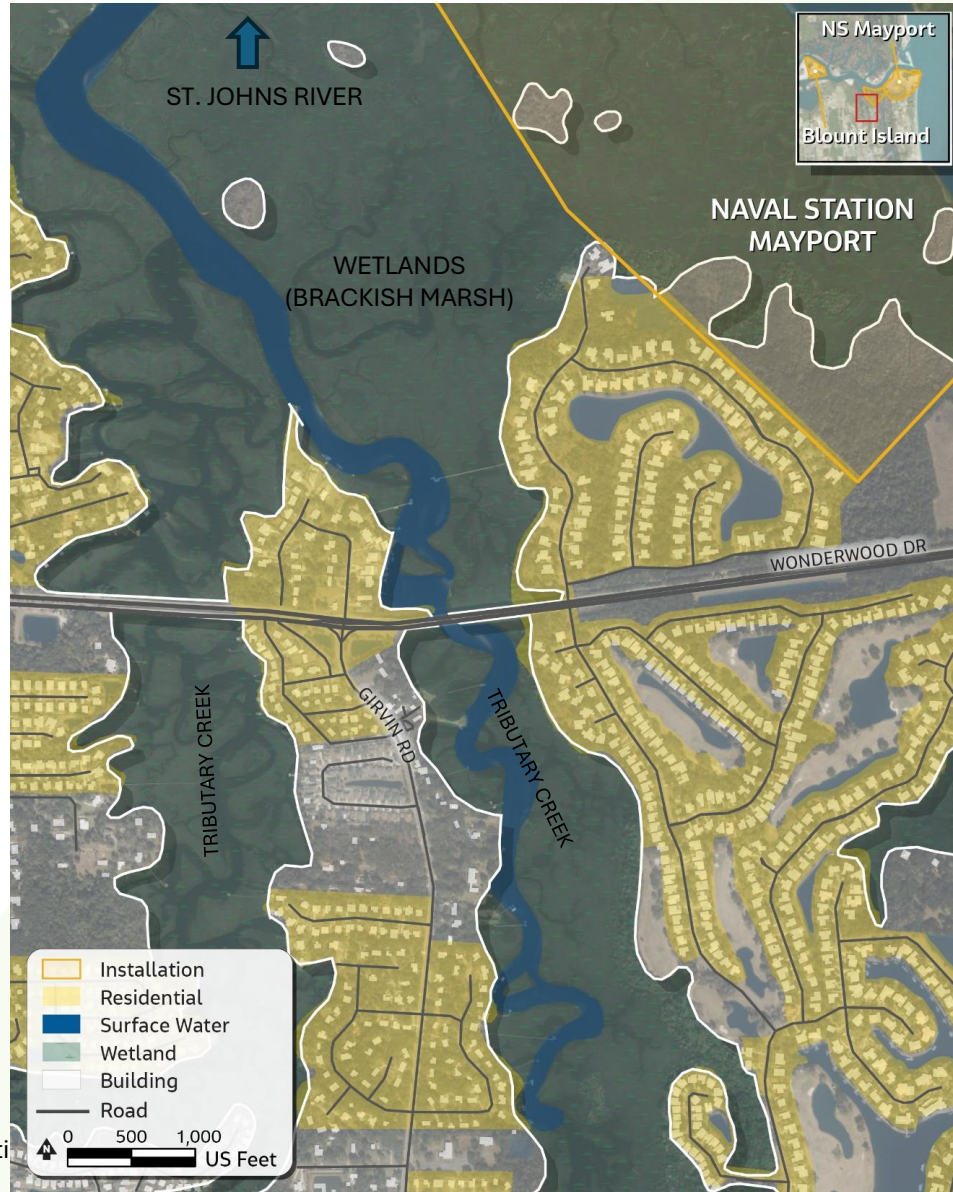
Project Package #6 NS Mayport:

Adaptation For Mobility Corridor Wonderwood Drive

Asset Name	Owner	Location	Mission Criticality	Relevant Shocks and Stresses	Level of Urgency
McCormick Road/ Wonderwood Drive	Duval County	Bridge approach at Greenfield Creek	Primary	Storm Surge	Near-term

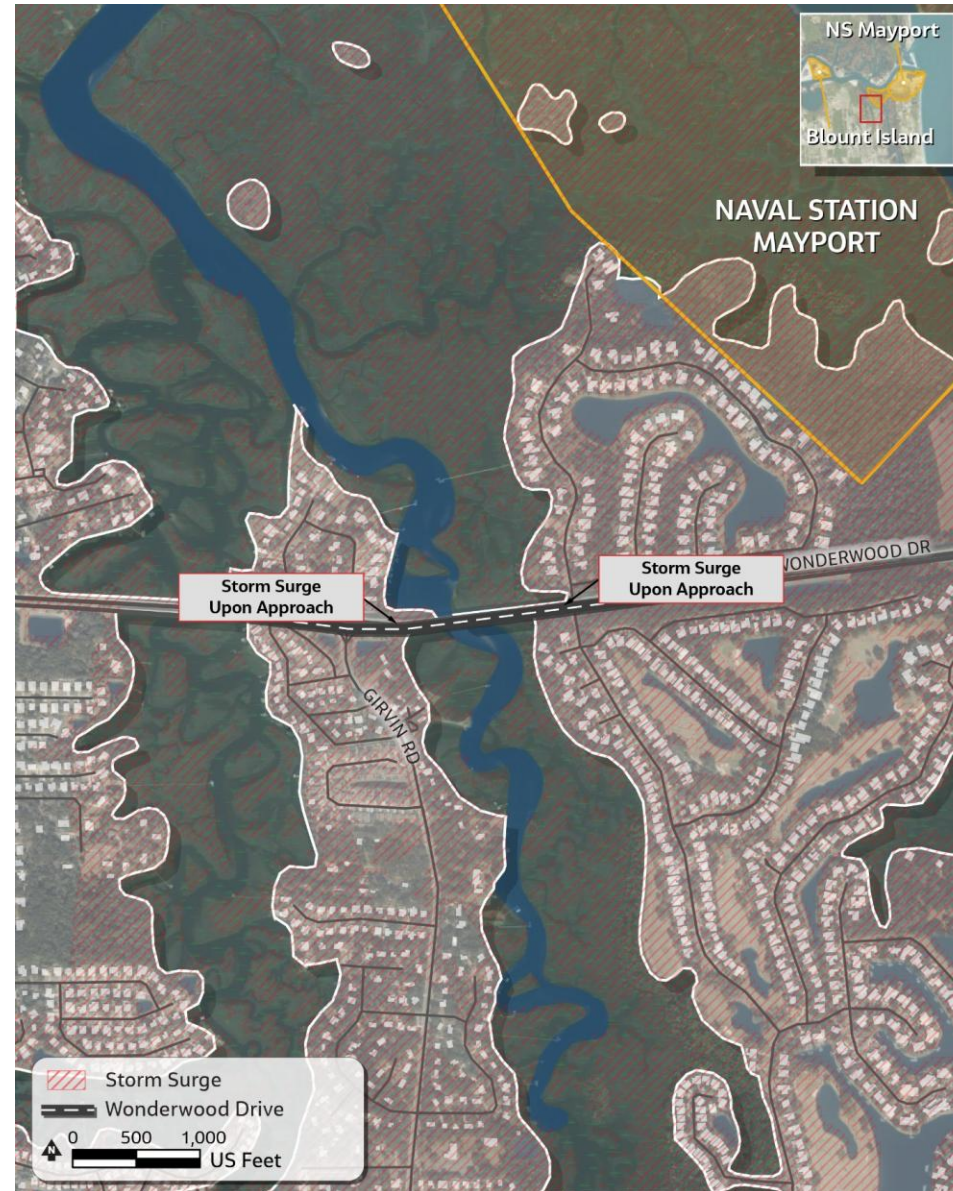
- **Critical connector:** Wonderwood Dr (SR 116) links inland communities to Mayport Rd and NS Mayport
- **High demand corridor:** Supports military operations, freight, commuters, and coastal travel
- **Land use mix:** Connects residential areas, Mayport Village, and naval/industrial zones
- **Growing risks:** Low elevation exposure to flooding, sea level rise, and storm surge
- **Strategic concern:** Limited alternate routes make disruptions impactful to access and mission readiness

Project Package #6 NS Mayport: *Adaptation For Mobility Corridor Wonderwood Drive*



Project Package #6 NS Mayport:

Adaptation For Mobility Corridor Wonderwood Drive



Project Package #6 NS Mayport:

Adaptation For Mobility Corridor Wonderwood Drive

Current Projects:

Project	Entity	Location	Purpose	Timeline
Strategic Intermodal System (SIS)	FDOT	SIS within Florida	Statewide connectivity	Ongoing
Strategic Shoreline Hardening	City of Jacksonville; SJRWMD; USACE	Shoreline along the Atlantic Ocean and the St. Johns River within Duval County	Protect against flooding and SLR	Remain at the planning level
Targeted Shorelines for Nature-based Solutions	City of Jacksonville; SJRWMD; USACE	Shoreline along the Atlantic Ocean and the St. Johns River within Duval County	Protect against flooding and SLR	Remain at the planning level
Core-2-Coast Trail	NFTPO; City of Jacksonville	From the Atlantic coastal area to downtown along FL-116 and FL-105.	Bicycle-pedestrian connectivity and safety.	Plan completed; partially constructed
Strengthening Emergency Response and Evacuation Plans	City of Jacksonville-Office of Resilience; JFRD-Emergency Preparedness	Citywide	Strengthening emergency response	Remain at the planning level
Compound Flood Modeling	City of Jacksonville-Office of Resilience	Citywide	Better decision-making	Ongoing

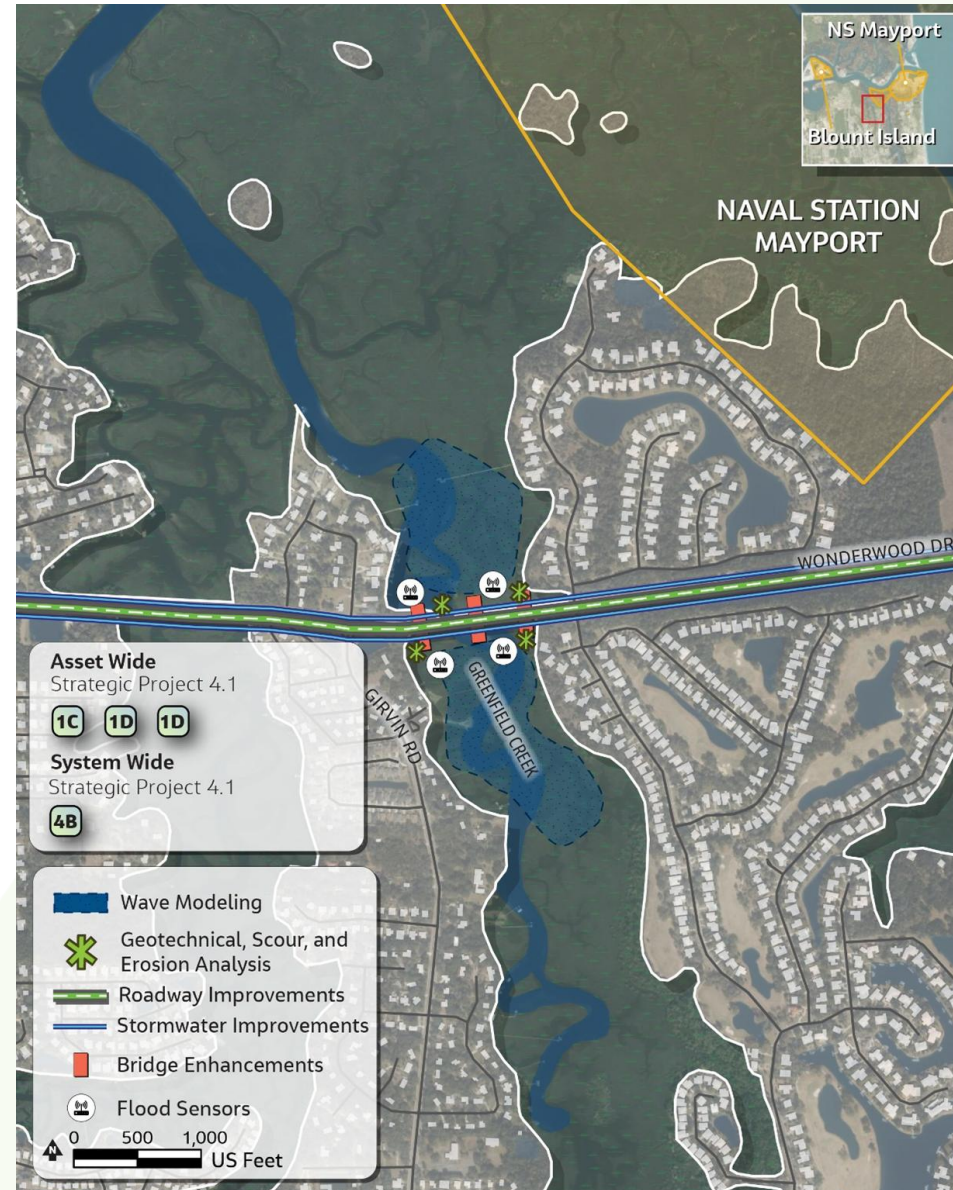
Nort JFRD = Jacksonville Fire and Rescue Department
USACE = U.S. Army Corps of Engineers

Project Package #6 NS Mayport: *Adaptation For Mobility Corridor Wonderwood Drive*

Current Projects:



Project Package #6 NS Mayport: *Adaptation For Mobility Corridor Wonderwood Drive Recommendations*



Project Package #6 NS Mayport:

Strategic Project: Northside Fuel Depot Supporting Infrastructure Vulnerability Assessment and Coastal Resilience Strategy

Step 1: Hydrologic Analysis, Modeling, and Erosion Assessment (Short-term)

- 1A. Conduct Hydrologic and Hydraulic Modeling and Coastal Flow Analysis (FDOT, City of Jacksonville, and NAVFAC)
- 1B. Perform Geotechnical, Scour, and Erosion Analysis (FDOT and NAVFAC)
- 1C. Deploy Predictive Modeling and Scenario-based Simulation (FDOT and SJRWMD)
- 1D. Conduct Remote Sensing and High-resolution Site Assessment (FDOT and City of Jacksonville)

Step 2: Roadway Elevation, Drainage Improvements, and Hydrologic Restoration (Mid-term)

- 2A. Prioritize Elevation of Low-lying Bridge Approaches and Roadway Segments Using Risk-based Criteria (FDOT and NAVFAC)
- 2B. Improve Stormwater and Tidal Drainage Connectivity (FDOT and City of Jacksonville)
- 2C. Restore Hydrologic Connectivity to Adjacent Marsh Systems (FDOT and Environmental Agencies)
- 2D. Deploy Flood Sensors and Monitoring Systems at Critical Low Points (FDOT, City of Jacksonville and NAVFAC)

Step 3: Structural Stabilization and Coastal Protection (Mid-term)

- 3.1 Stabilize Bridge Foundations and Embankments (FDOT and NAVFAC)
- 3.2 Implement Nature-based Shoreline and Erosion Control Solutions (FDOT and Environmental Agencies)

Step 4: Smart Monitoring and Adaptive Flood Management (Long-term)

- 4.1 Deploy Monitoring Systems and Ongoing Data Collection (FDOT and City of Jacksonville)
- 4.2 Implement Adaptive Management and Climate-informed Design Updates (FDOT and Regional Partners)

Marine Corps Support Facility Blount Island



Background: MCSF Blount Island Missions



Primary Mission

- Support readiness of Marine global pre-positioning (Maritime Prepositioning Force)
- Support crisis response through rapid loading and deployment of ships

Secondary Mission

- 841st Transportation Battalion
- Support Army and Navy sealift logistics
- Exercise & deployment support
- Vessel maintenance



Background: MCSF Blount Island Mission-Critical Assets

Primary

Maritime Prepositioning Force, Logistics & Sustainment, and Sealift Integration

Location-Specific Positioning

- Rivers (St. John's River)
- Shorelines

Assets Providing Direct Support

- Electric Production and Supply Facilities
- Roads and Bridges
- Railway systems
- Communications systems
- Ports (JAXPort)
- Fire Stations
- Tugboats and harbor pilots
- Fuel Depot
- Offsite dry dock facilities - The local dry dock facilities are private contracting companies

Secondary

Joint Logistics Hub, Exercise & Deployment Support, and Vessel Maintenance

Assets Providing Direct Support

- Water systems
- Wastewater systems

Mission-Supportive

Assets that support the livelihood and health of installation personnel, indirect support to primary and secondary missions.

Personnel Support

- Affordable Housing
- Childcare Facilities

Assets Providing Indirect Support

- Solid and Hazardous Waste Facilities



Background: MCSF Blount Island Shocks and Stressors



1. Installation **electric and potable water systems** lack redundancy and are exposed to coastal flooding.
2. Heckscher Drive is a single point of access to the installation and experiences transportation congestion and pedestrian safety challenges. Transportation congestion (traffic) is a significant issue on **Heckscher Drive and Dave Rawls Boulevard**, causing delays getting on and off-base. They are the primary access roads for the installation.
3. Aging infrastructure is a concern for the access bridges of **Dave Rawls Boulevard and the railroad**.
4. **Shoreline erosion** is occurring along the installation, particularly in the Navy Point area.
5. **Communications infrastructure** lacks redundancy and has experienced outages due to construction activities in the area.

Questions to Consider for Each Recommendation

- Did we get the existing efforts incorporated well?
- Are the partners and leads looking right?
- Does the recommendation sound feasible/like it would solve for the issues?



MCSF Blount Island Recommendation Project Packages

Project Package #1: *Improved Transportation Reliability (Dave Rawls Blvd and Railway)*

Project Package #2: *Heckscher Drive Mobility Improvements*

Project Package #3: *Improved Potable Water Supply Resilience*

Project Package #4: *Improved Electrical System Resilience*

Project Package #5: *Improved Communications Delivery*

Project Package #1 MCSF Blount Island: Transportation Reliability Improvements (Dave Rawls Blvd and Railway)

BI 1.1: Elevate and Fund Planned SIS Projects

BI 1.2: Partnership for Training, Logistics Backup Planning, and Emergency Response

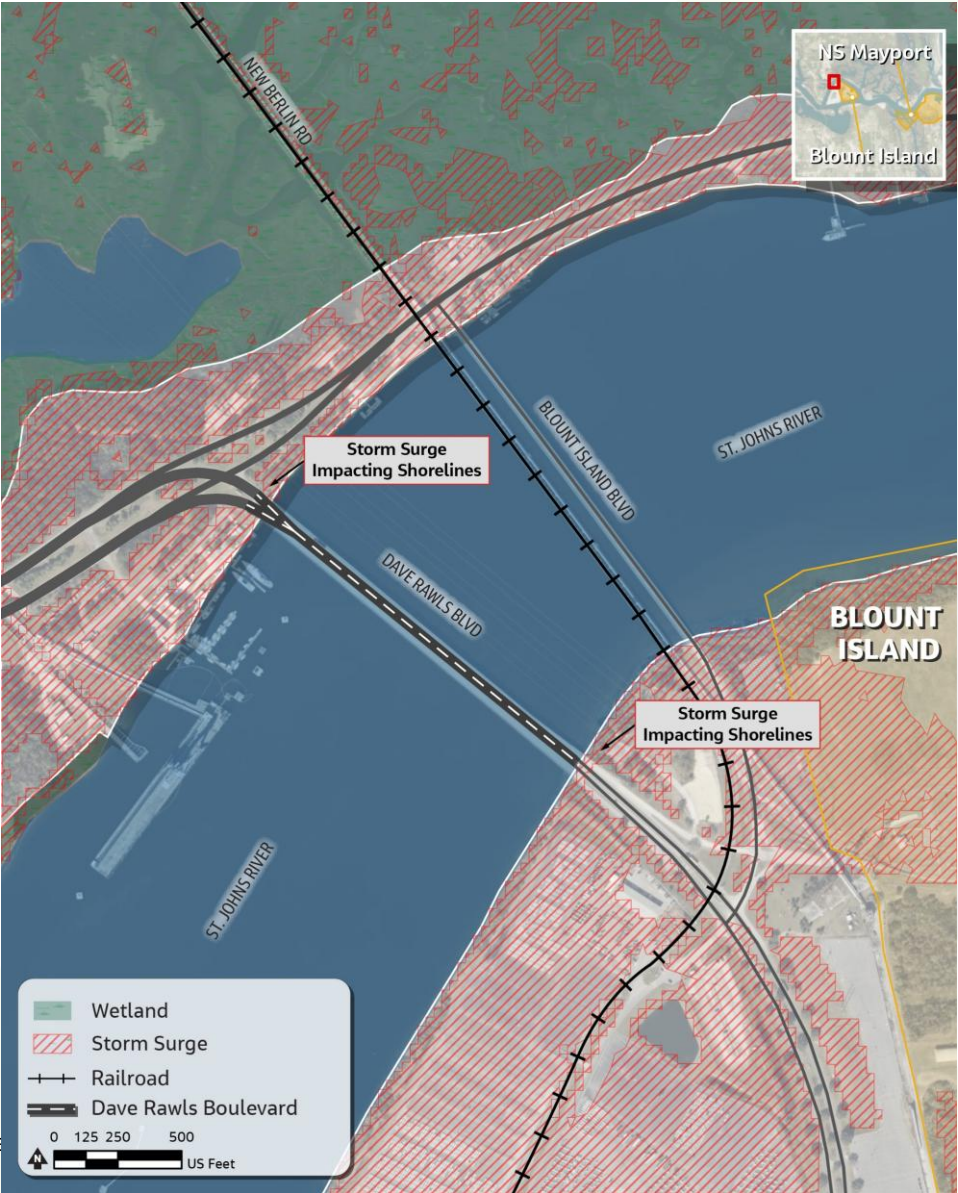
BI 1.3: Access Corridor Shoreline Protection and Grade Separation Enhancements

Project Package #1 MCSF Blount Island: *Transportation Reliability Improvements*

Asset Name	Owner	Location	Mission Criticality	Relevant Shocks & Stresses	Level of Urgency
Regional railway to Blount Island	CSX	Northwest portion of the railway segment to US-17 (N Main St)	Primary	Multiple hazards, Lack of Redundancy	Near-term
Rail bridge	JAXPORT	North of the Island	Primary	Lack of Redundancy	Near-term
Dave Rawls Boulevard	JAXPORT	Heckscher Drive to Blount Island	Primary	Storm Surge, Aging Infrastructure	Near-Term

- **Purpose-built freight transportation corridor:** Developed to support port and military expansion on Blount Island; bridge connection established in 1967
- **Critical last-mile link:** Connects regional highways to JAXPORT and MCSF Blount Island facilities
- **Primary controlled-access route:** Handles ~5,700 daily trips, including heavy truck and secure military traffic
- **Essential gateway:** Supports growing cargo operations and defense missions as a high-capacity, secure entry corridor

Project Package #1 MCSF Blount Island: *Transportation Reliability Improvements*



Project Package #1 MCSF Blount Island:

Transportation Reliability Improvements

Current Efforts (1 of 2)

Existing Project	Entity	Location	Purpose	Timeline
Roadway widening	FDOT	I-295 (South of Heckscher Drive to North of Pulaski Road), US17 north to airport center	Capacity	Funded for 2024-2029
Construct grade separation over rail	Duval County	Dave Rawls Blvd and CSX railroad crossing	Grade Separation	Planned; Unfunded
Track Addition and Switch Yard Improvements (NF-TPO, Regional Freight Plan Summary Report 2024)	CSX	Eastport Connector to Blount Island and Dames Point	Capacity	Planned; Unfunded
Freight Signal Priority	FDOT & Duval County	I-95 to David Rawls Boulevard	More efficient access to JAXPORT	Planned; Unfunded
SR 105 (Heckscher Drive) Corridor Study	North Florida TPO	Heckscher Drive Corridor		Complete

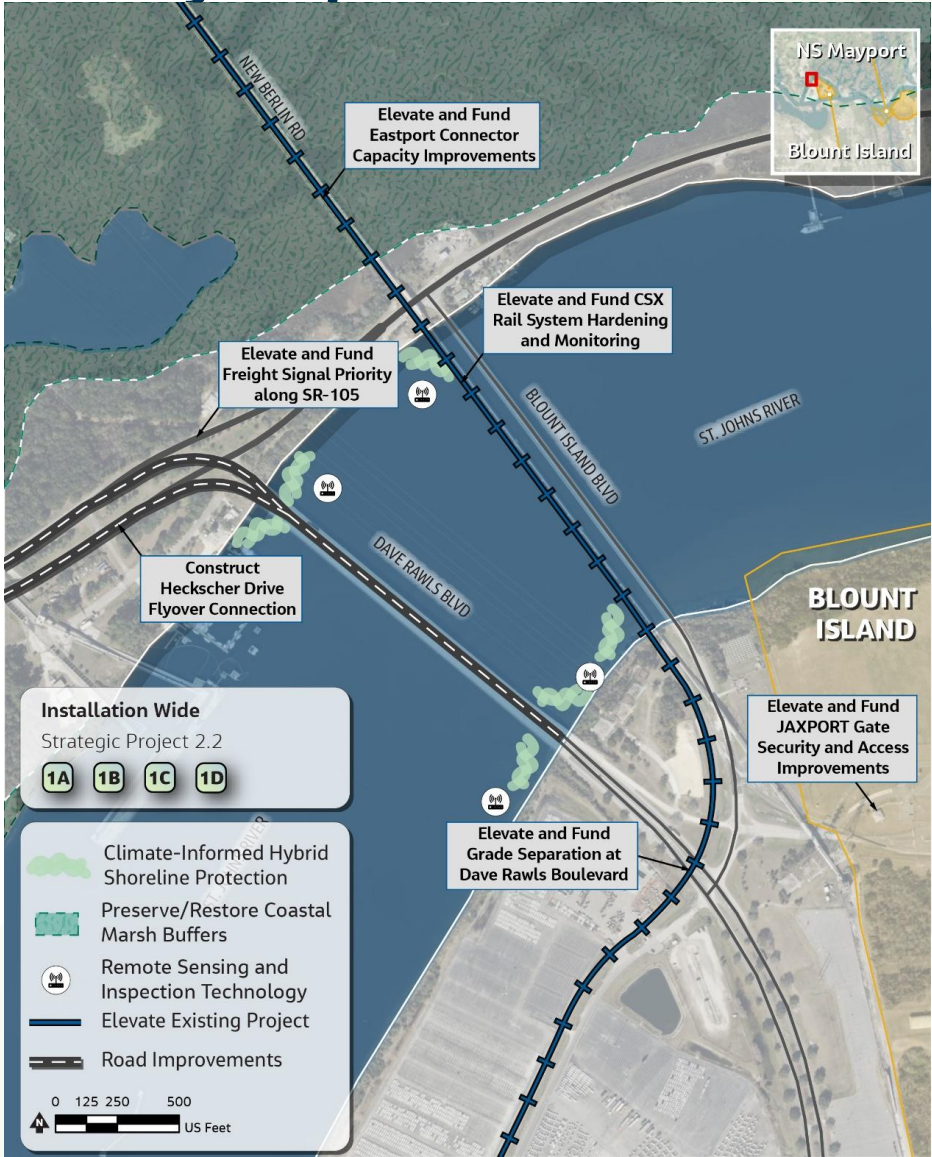
Project Package #1 MCSF Blount Island:

Transportation Reliability Improvements

Current Efforts (2 of 2)

Existing Project	Entity	Location	Purpose	Timeline
Gate security and access improvements	JAXPORT	Access Gate to Blount Island	Reduce (Freight) queues and spill back onto roadways	Planned; Unfunded
Rail System Hardening	CSX	All CSX rail system	Railway operation resilience	Ongoing
City of Jacksonville's lifelines and supply chains through contingency plans	JaxPort, CSX, JFRD - Emergency Preparedness	City of Jacksonville	Emergency Preparedness	Planned; Unfunded
Dave Rawls Boulevard Left Lane Addition	JAXPORT	Near security plaza	Reduce truck queuing and congestion	Ongoing
Traffic Flow Study	JAXPORT North Florida TPO	JAXPORT		Ongoing
Road and Drainage Repairs	NAVFAC	Blount Island	Repair aging infrastructure and improve roadway drainage	Ongoing

Project Package #1 MCSF Blount Island: *Transportation Reliability Improvements*



Project Package #1 MCSF Blount Island:

Transportation Reliability Improvements

Strategic Project BI 1.1. Elevate and Fund Planned SIS Projects

Partners: JAXPORT, FDOT, MCSF Blount Island PWD

Step 1: Elevate and Fund Eastport Connector Capacity Improvements

Step 2: Elevate and Fund Grade Separation at Dave Rawls Boulevard

Step 3: Elevate and Fund JAXPORT Gate Security and Access Improvements

Step 4: Elevate and Fund Freight Signal Priority along SR-105

Step 5: Elevate and Fund Regional Intermodal Transportation Strategies

Step 6: Elevate and Fund CSX Rail System Hardening and Monitoring

Project Package #1 MCSF Blount Island:

Transportation Reliability Improvements

Strategic Project BI 1.2 FDOT Study Potential for Grade Separation at Heckscher Drive and Rail Right of Way

Partners: FDOT, CSX, MCSF Blount Island PWD

Step 1. Strengthen Partnership Between MCSF Blount Island, JAXPORT, and CSX for Training, Planning and Emergency Response (Short-term)

- 1A. Develop Scenario-Based Training Modules Tailored to Blount Island Operations (MCSF Blount Island + JAXPORT + CSX)
- 1B. Conduct Recurring Multi-Agency Training Exercises Using CSX Platform (MCSF Blount Island + JAXPORT + CSX + Regional Partners)
- 1C. Establish Performance Monitoring and Feedback Loop (MCSF Blount Island + JAXPORT + CSX)
- 1D. Institutionalize Virtual Training within Readiness Programs (MCSF Blount Island + JAXPORT)

Project Package #1 MCSF Blount Island:

Transportation Reliability Improvements

Strategic Project BI 1.3 Elevate Shorelines Recommendations from Duval County Living Shoreline Suitability Analysis

Partners: COJ, MCSF Blount Island PWD

Step 1: Design Advancement and Climate-Informed Planning (Short-term)

1A. Advance Shoreline Protection Design at Bridge Approaches (City of Jacksonville + FDOT)

1B. Integrate Climate-Informed Design Standards (City of Jacksonville + FDOT + JAXPORT)

Step 2: Shoreline Stabilization and Natural Buffer Restoration (Mid-term)

2A. Implement Living Shorelines and Revetment Systems (City of Jacksonville + Env Partners)

2B. Preserve and Restore Coastal Marsh Buffers (City of Jacksonville + Environmental Agencies)

Step 3: Capacity Enhancement and Grade Separation (Mid-term)

3A Construct Heckscher Drive Flyover Connection (FDOT + JAXPORT)

Step 4: Monitoring, Inspection, and Adaptive Management (Long-term)

4A Deploy Remote Sensing and Inspection Technologies (City of Jacksonville + FDOT)

4B Implement Adaptive Infrastructure Management (FDOT + City of Jacksonville + JAXPORT)



Project Package #2 MCSF Blount Island:

Heckscher Drive Mobility Improvements

BI 2.1: Multimodal Access, Trail Connectivity, and Pedestrian Resilience Improvements

BI 2.2: Flood and Erosion Mitigation, Hydrologic Connectivity, and Marsh Resilience Improvements

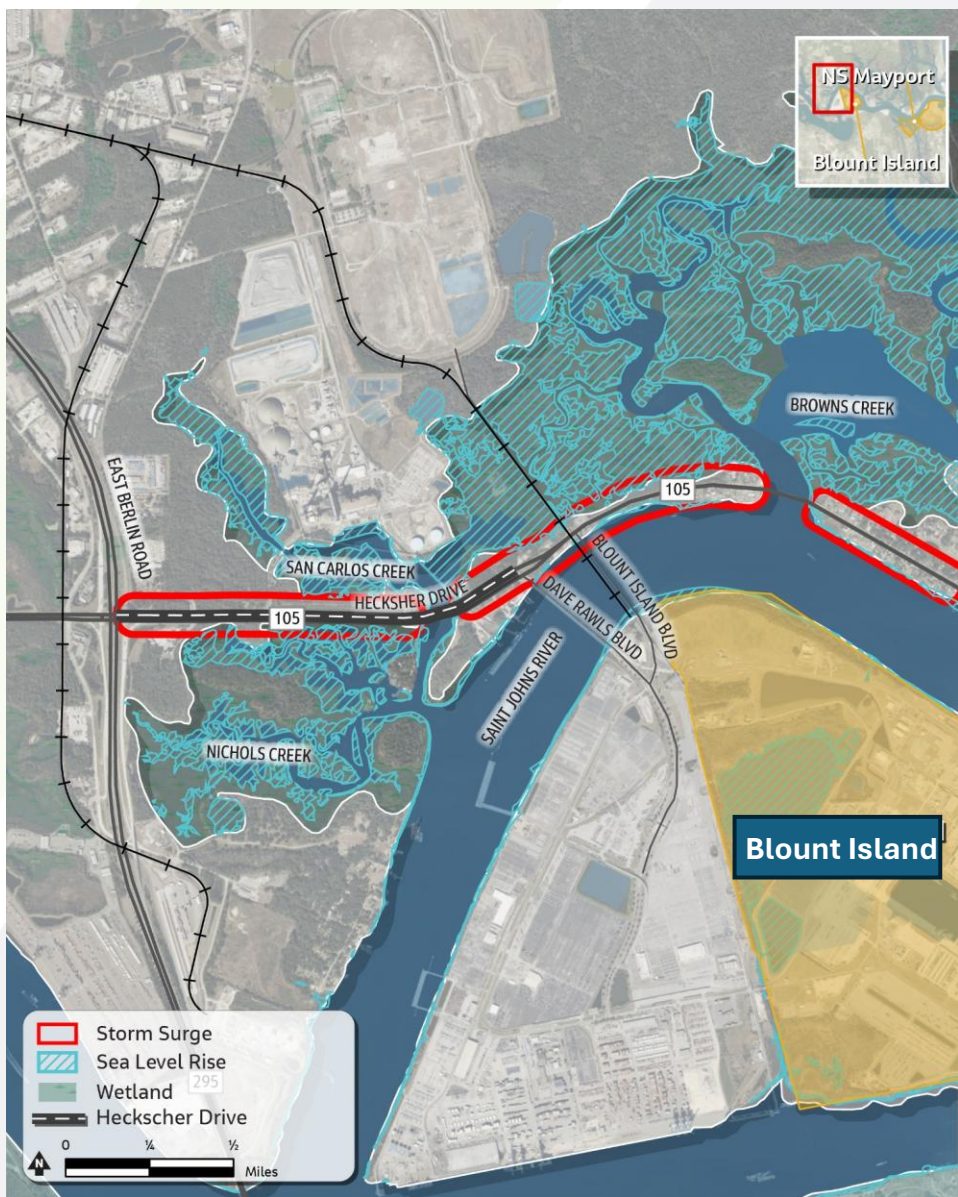
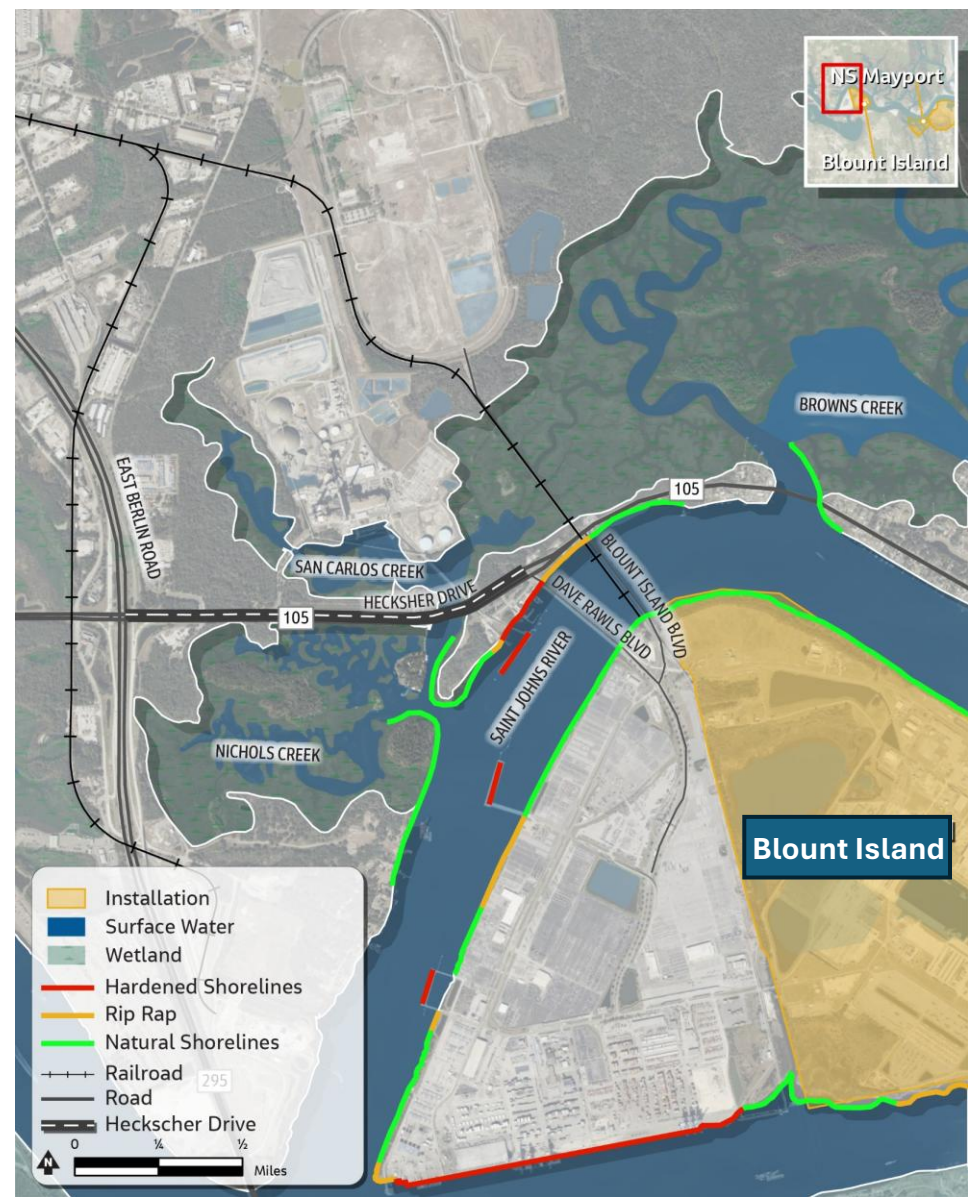
Project Package #2 MCSF Blount Island: *Heckscher Drive Mobility Improvements*

Asset Name	Owner	Location	Mission Criticality	Relevant Shocks & Stresses	Level of Urgency
Heckscher Drive	Duval County	I-295 to Blount Island Boulevard	Primary	Sea Level Rise, Storm Surge, Traffic Congestion, Pedestrian Safety	Near-term

- **Critical military corridor:** Heckscher Drive (SIS roadway) supports ~21,000 daily trips and is essential to JAXPORT operations and Blount Island access
- **Capacity & safety constraints:** Two-lane segments, heavy truck volumes, and aging infrastructure create congestion and operational challenges
- **Community & environmental interface:** Balances industrial use with nearby communities and sensitive ecosystems (Timucuan Preserve)
- **High vulnerability to flooding:** Low-lying corridor prone to storm surge, tidal flooding, and drainage issues, impacting reliability and resilience



Project Package #2 MCSF Blount Island: *Heckscher Drive Mobility Improvements*

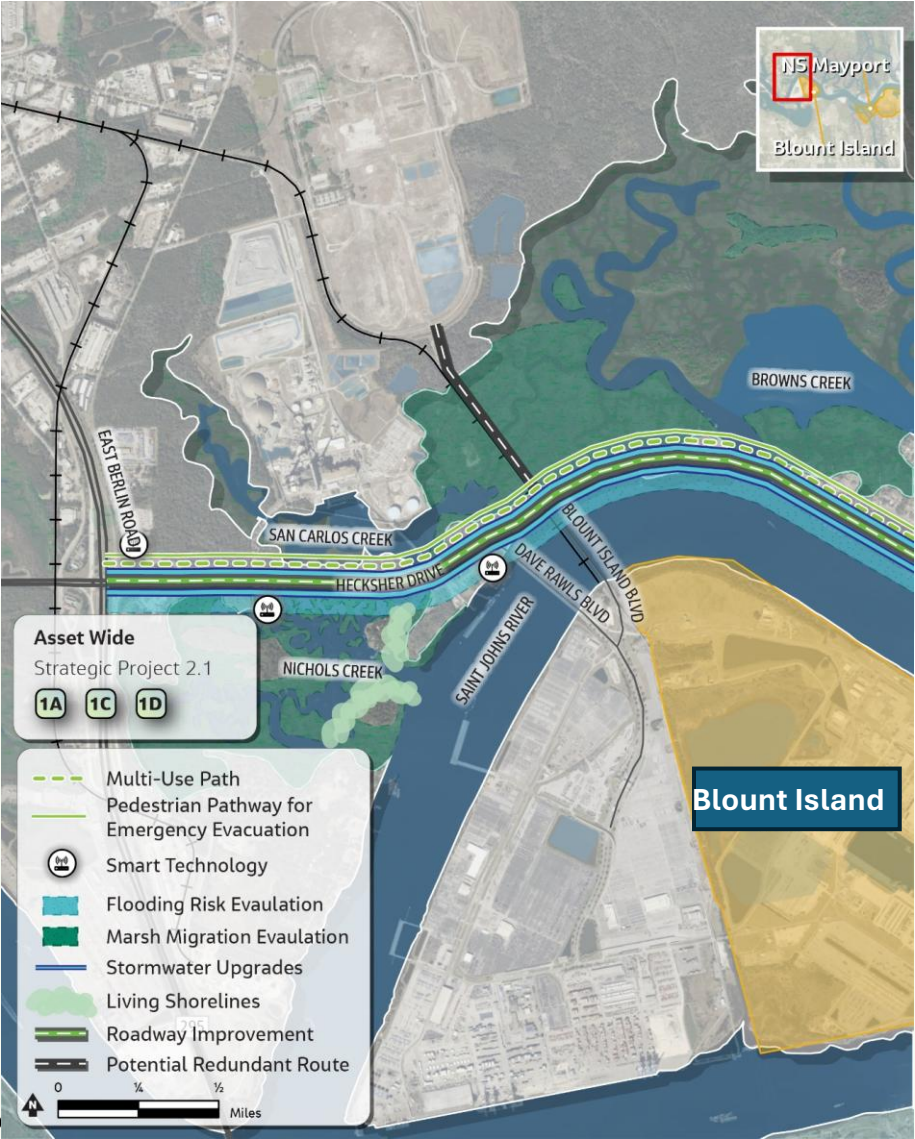


Project Package #2 MCSF Blount Island: *Heckscher Drive Mobility Improvements*

Current Efforts

Existing Project	Entity	Location	Purpose	Timeline
Heckscher Drive Corridor Study	North Florida TPO	I-295 to Blount Island Boulevard	Identify long-term transportation needs and infrastructure improvements	Complete
Passive Park	City of Jacksonville	Southside of Heckscher Drive	Provide additional public access to Nichols Creek	In Design
SR 105 (Heckscher Drive) Bridge over Browns Creek Project Development and Environment Study	FDOT	Heckscher Drive Bridge	Evaluate alternatives for bridge replacement	Starting October 2026

Project Package #2 MCSF Blount Island: *Heckscher Drive Mobility Improvements Recommendations*



Project Package #2 MCSF Blount Island:

Heckscher Drive Mobility Improvements Recommendations

Strategic Project BI 2.1. Heckscher Drive Multimodal Access, Trail Connectivity, and Pedestrian Resilience Improvements

Step 1: Pedestrian Infrastructure, Multimodal Connectivity, and Predictive Mobility (Short-term)

- 1A. Evaluate Pedestrian, Multimodal, Safety, and Trail Connectivity Needs (FDOT + COJ + NAVFAC)
- 1B. Construct and Upgrade Pedestrian and Shared-Use Trail Facilities (FDOT + COJ+ NAVFAC)
- 1C. Improve First/Last-Mile Connectivity and Reduce Vehicle Dependency (FDOT + JTA + JAXPORT)
- 1D. Flood-Aware Routing, Trail Access, and Predictive Mobility Analytics (FDOT + COJ)

Step 2: Resilient Mobility and Smart Corridor Systems (Mid-term)

- 2A. Real-Time Traveler and Trail User Information Systems (FDOT + JTA)
- 2B. Artificial Intelligence (AI)-Powered Traffic and Multimodal/Trail Interaction Management (FDOT + JTA + COJ)
- 2C. Connected Infrastructure and Integrated Corridor + Trail Data Platform (FDOT + NAVFAC + JTA)

Step 3: Emergency Mobility and Long-Term Resilience Enhancements (Long-term)

- 3.1 Enhance Emergency Evacuation and Workforce Mobility through Multimodal and Trail Networks (FDOT + NAVFAC + JTA)

Project Package #2 MCSF Blount Island:

Heckscher Drive Mobility Improvements Recommendations

Strategic Project BI 2.2. Heckscher Drive Flood and Erosion Mitigation, Hydrologic Connectivity, and Marsh Resilience Improvements

Step 1: Corridor Assessment, Modeling, and Adaptive Planning (Short-term)

- 1A. Evaluate Roadway Elevation, Flooding Risk, and Hydrologic Constraints (FDOT + City of Jacksonville + NAVFAC)
- 1B. Evaluate Marsh Migration and Future Habitat Transition Needs (FDOT + Environmental Partners)

Step 2: Roadway Elevation, Hydrologic Restoration, and Nature-Based Infrastructure (Mid-term)

- 2A. Elevate Heckscher Drive to Reduce Flooding and Restore Hydrology (FDOT + NAVFAC)
- 2B. Expand Culverts and Improve Drainage Connectivity (FDOT + City of Jacksonville)
- 2C. Implement Living Shorelines and Coastal Stabilization (FDOT + Environmental Agencies)
- 2D. Implement Marsh Migration and Thin Layer Placement (FDOT + Environmental Partners)

Step 3: Smart Monitoring, Flood Detection, and Adaptive Operations (Mid-term)

- 3.1 Deploy Flood Sensors and Real-Time Monitoring Systems (FDOT + City of Jacksonville + NAVFAC)
- 3.2 Integrate Smart Alerts and Adaptive Response Systems (FDOT + JTA)

Step 4: Long-Term Resilience and Network Redundancy Planning (Long-term)

- 4.1 Evaluate Alternative Corridor and Network Redundancy (FDOT + Regional Partners)
- 4.2 Implement Climate-Informed Roadway Elevation Strategy (FDOT + NAVFAC)

Project Package #3 MCSF Blount Island: Improving Potable Water Supply Resilience

BI 3.1: Interagency Utility Coordination Advancement

BI 3.2: Potable Water System Resilience and Redundancy Feasibility Study

Project Package #3 MCSF Blount Island:

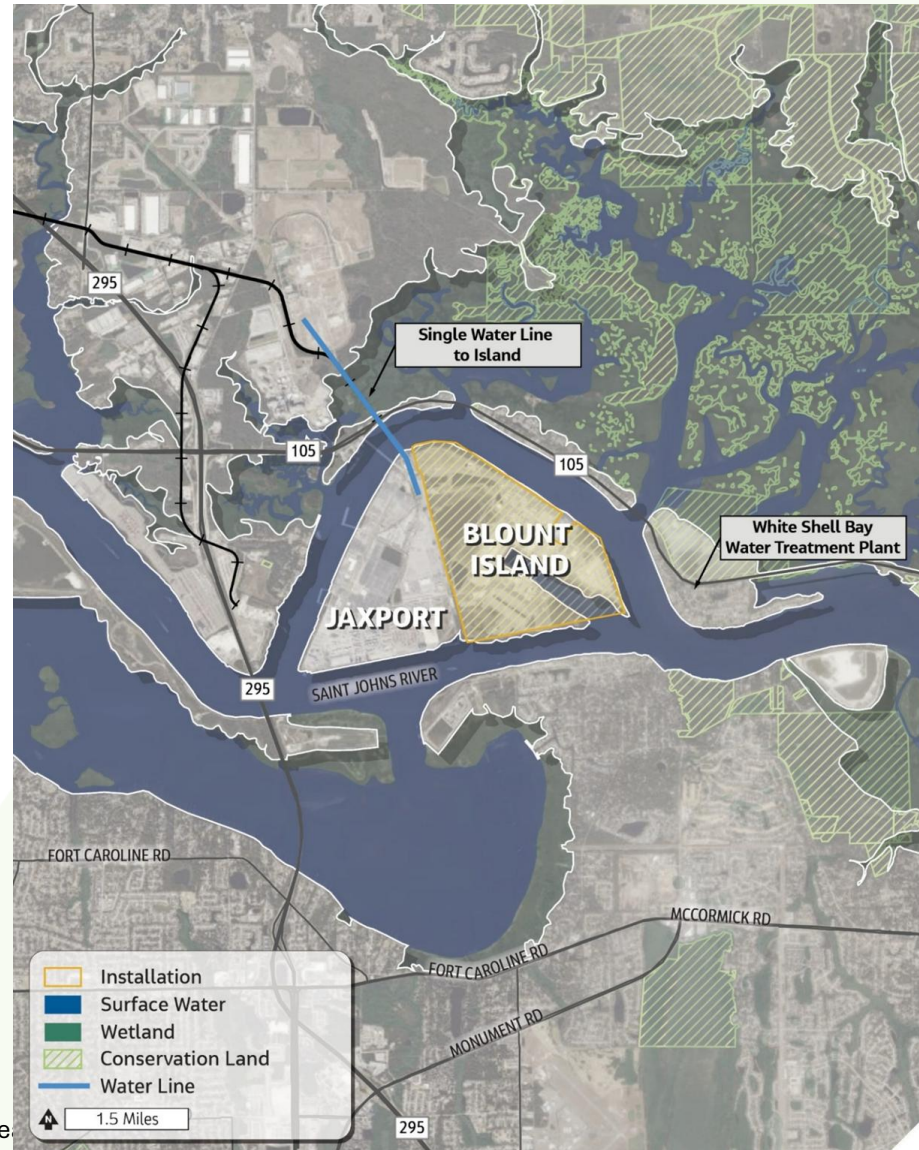
Improving Potable Water Supply Resilience

Asset Name	Owner	Location	Mission Criticality	Relevant Shocks & Stresses	Level of Urgency
Potable Water System	JEA	Water line from mainland connecting to the north of Installation	Secondary	Lack of Redundancy	Near-term

- **JEA-supplied system:** Blount Island served by centralized regional water network
- **Designed for reliability:** Built to support consistent industrial and operational demand
- **Recent upgrades:** Improved treatment reliability, pressure, and system controls
- **Limited redundancy:** Dependent on few connection points and distribution pathways



Project Package #3 MCSF Blount Island: *Improving Potable Water Supply Resilience*



Project Package #3 MCSF Blount Island: *Improving Potable Water Supply Resilience*

Current Efforts

Existing Project	Entity	Location	Purpose	Timeline
Updating the North Florida Regional Water Supply Plan	SJRWMD	St Johns River Water Management District	Water supply	Completed
JEA - Reclaimed Water line Expansions	SJRWMD; JEA	City of Jacksonville	Water supply	Funded; Ongoing
Demand-Side Management strategy	JEA	JEA service rea	Water conservation	Ongoing program



Project Package #3 MCSF Blount Island:

Improving Potable Water Supply Resilience

Strategic Project BI 3.1. Interagency Utility Coordination Advancement

Step 1: Coordinated Operational Integration Planning (Short-term)

- 1A. Establish Primary Integration Leads (JEA + MCSF Blount Island)
- 1B. Define or Update Scenario-Based Responsibility Matrix (NAVFAC + JEA + PWD)
- 1C. Implement Joint Utility Operations Communication Cadence (JEA + NAVFAC + PWD)
- 1D. Enhance Storm Forecasting and Pre-Staging Coordination (JEA + MCSF Blount Island)

Step 2: Data Visibility, Response Optimization, and System Flexibility Tool Utilization (Mid-term)

- 2A. Incorporate Data-Driven and Predictive Decision-Making Tools (JEA + NAVFAC)
- 2B. Establish Predefined Escalation Framework (JEA + NAVFAC)

Step 3: Long-Term Resilience and Partnership Planning (Long-term)

- 3A. Develop Joint Utility Resilience Plan (NAVFAC + JEA)
- 3B. Implement Embedded Liaison Coordination Model (JEA + Navy)

Project Package #3 MCSF Blount Island:

Improving Potable Water Supply Resilience

Strategic Project BI 3.2: Potable Water System Resilience and Redundancy Feasibility Study

Step 1: Blount Island Potable Water System Feasibility and Vulnerability Assessment (Short-term)

- 1A. Identify and Confirm Service Areas, System Configuration, and Demand (JEA + Navy)
- 1B. Evaluate Existing Infrastructure and Probability of Single-Point-of-Failure (JEA)
- 1C. Assess Environmental, Flood Threats, and Routing Constraints (JEA / Partners)
- 1D. Evaluate Redundancy and Conveyance Alternatives (JEA + Partners)
- 1E. Integrate Stakeholder Coordination and MIRR Requirements (JEA / Navy)

Step 2: Resilience Strategy Development and Implementation Planning (Short-term)

- 2A. Enhance System Reliability Through Redundant Conveyance (JEA)
- 2B. Incorporate Operational Flexibility and Emergency Bypass Capability (JEA)
- 2C. Integrate Strategic Storage to Support System Performance (JEA + Navy)
- 2D. Develop Prioritized Capital Improvement and Phasing Plan (JEA)
- 2E. Align Project with MIRR and External Funding Opportunities (All Partners)

Project Package #4 MCSF Blount Island: Improving Electrical Resilience

BI 4.1: Interagency Utility Coordination Advancement

BI 4.2: Substation Hardening and Flood Resilience Enhancement

BI 4.3: Island-Wide Energy Contingency Planning and Emergency Preparedness

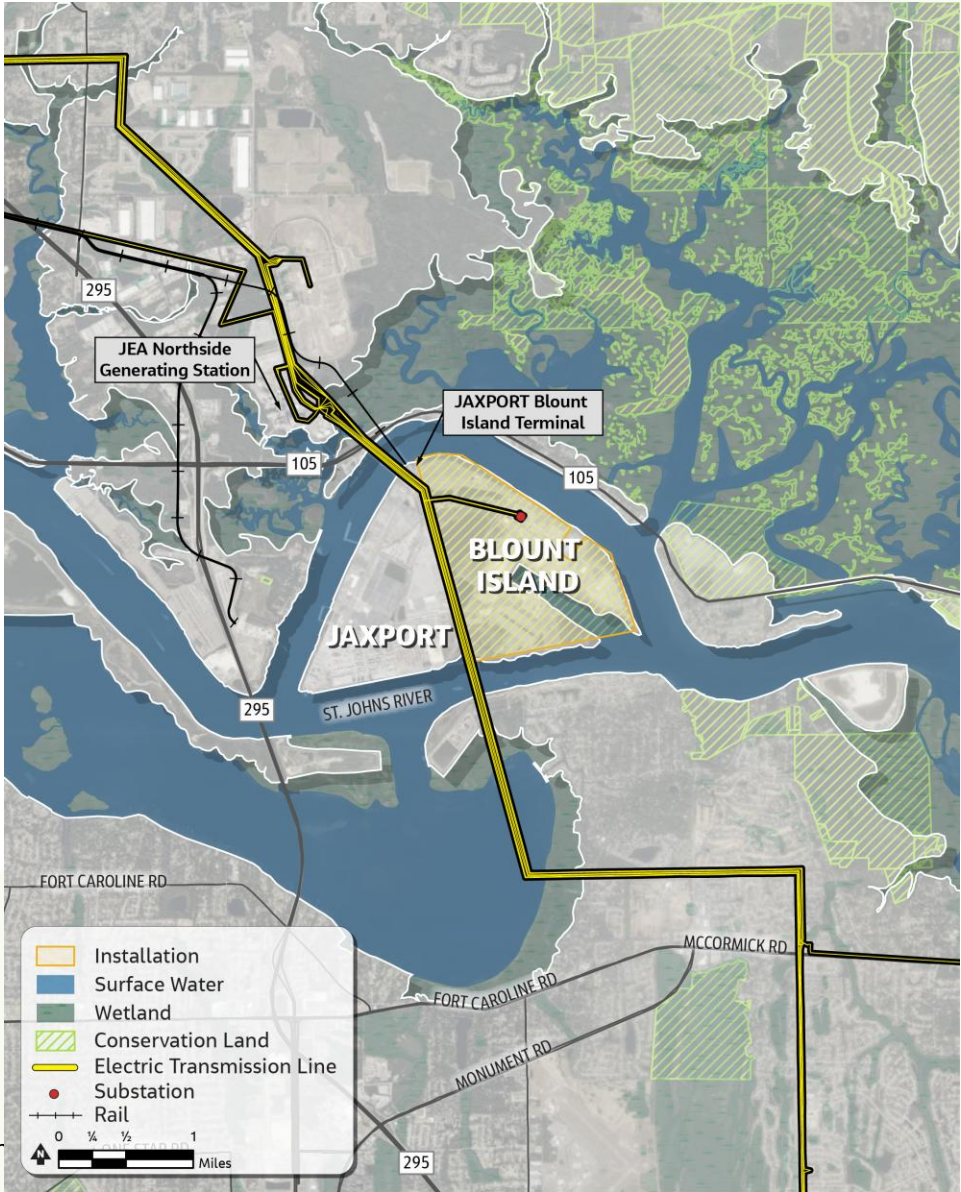
Project Package #4 MCSF Blount Island:

Dave Rawls Boulevard Mobility Improvements

Asset Name	Owner	Location	Mission Criticality	Relevant Shocks & Stresses	Level of Urgency
Northside Generating Station Substation	JEA	Northwest of the Blount Island	Primary	Storm Surge, Lack of Redundancy	Immediate
Blount Island Substation	JEA	Intersection of the Fairleads Blvd. and Gateco Blvd.	Primary	Storm Surge, Lack of Redundancy	Immediate

- **Legacy grid dependence:** Centralized JEA system with limited on-site generation and backup
- **Improved but exposed:** Modernized grid with some hardening, yet reliant on few substations/feeders
- **High vulnerability:** Susceptible to hurricanes, flooding, heat, and corrosive coastal conditions
- **Future resilience needs:** Hardening, distributed energy (microgrids/storage), and climate-adapted design

Project Package #4 MCSF Blount Island: *Improving Electrical Resilience*



Project Package #4 MCSF Blount Island:

Improving Electrical Resilience

Current Efforts

Existing Project	Entity	Location	Purpose	Timeline
Shoreline improvements for Mission Resilience	MCSF Blount Island; NOAA	Shoreline along the St. Johns River	Seek regulatory approvals for BNS for shorelines and establish a framework for shoreline protection and reduce the impact from erosion and SLR	Ongoing, will be completed in 2027
Living Shoreline - Enhancement	USFWS	Nature shoreline within and around the installation	Implement NBS at the remaining natural shoreline and protect the habitat.	Unknown
Strategic Shoreline Hardening	City of Jacksonville; Duval County; SJRWMD; USACE	Shoreline along the Atlantic Ocean and the St. Johns River within Duval County	Against flooding, SLR, chronic flooding, and protect infrastructure	Remain at the planning level
Substation Hardening	JEA	Blount Island and Northside Gen substations	Electrical system resilience	Completed study. Remain at the concept level
Powerline Raising Project	JAXPORT	Powerlines near Blount Island	Enhance navigation capacity	Completed

NBS = nature-based solutions

NOAA = National Oceanic and Atmospheric Administration

SJRWMD = St. Johns River Water Management District

USFWS = U.S. Fish & Wildlife Service

Project Package #4 MCSF Blount Island: *Improving Electrical Resilience Recommendations*



Project Package #4 MCSF Blount Island:

Improving Electrical Resilience Recommendations

Strategic Project BI 4.1. Interagency Utility Coordination Advancement

Step 1: Coordinated Operational Integration Planning (Short-term)

- 1A. Establish Primary Integration Leads (JEA + MCSF Blount Island)
- 1B. Define or Update Scenario-Based Responsibility Matrix (NAVFAC + JEA + PWD)
- 1C. Implement Joint Utility Operations Communication Cadence (JEA + NAVFAC + PWD)
- 1D. Enhance Storm Forecasting and Pre-Staging Coordination (JEA + MCSF Blount Island)

Step 2: Data Visibility, Response Optimization, and System Flexibility Tool Utilization (Mid-term)

- 2A. Incorporate Data-Driven and Predictive Decision-Making Tools (JEA + NAVFAC)
- 2C. Establish Predefined Escalation Framework (JEA + NAVFAC)

Step 3: Long-Term Resilience and Partnership Planning (Long-term)

- 3A. Develop Joint Utility Resilience Plan (NAVFAC + JEA)
- 3B. Implement Embedded Liaison Coordination Model (JEA + Navy)

Project Package #4 MCSF Blount Island:

Improving Electrical Resilience Recommendations

Strategic Project BI 4.2. Substation Hardening and Flood Resilience Enhancement

Step 1: Critical Infrastructure Hardening (Short-term)

- 1A. Harden and Floodproof Critical Substation Infrastructure (JEA)
- 1B. Protect Control and Communication Systems (JEA + NAVFAC + MCSF Blount Island)

Step 2: Smart Flood Management and Active Drainage Systems (Mid-term)

- 2A. Enhance Stormwater and Flood Management (JEA + NAVFAC)
- 2B. Smart Drainage and Active Flood Control (JEA + NAVFAC)

Step 3: Fault Detection, Recovery, and Predictive Resilience (Long-term)

- 3.1 Strengthen Recovery and Emergency Power Capability (Fault Detection)
- 3.2 AI-Driven Predictive Analytics

Project Package #4 MCSF Blount Island:

Improving Electrical Resilience Recommendations

Strategic Project BI 4.3. Island-Wide Energy Contingency Planning and Emergency Preparedness

Step 1: Integrated Contingency Plan Development (Short-term)

- Automated Load Shedding and Critical Load Prioritization
- Real-Time Monitoring and System Visibility
- Advanced Fault Detection and Coordinated Protocols
- Emergency Response Protocols

Project Package #5 MCSF Blount Island: *Improved Communications Delivery*

BI 5.1: Blount Island Redundant Fiber Connectivity Installation

BI 5.2: Supplemental Fiber Redundancy via JAXPORT Lease

Recommendation to Installation: Semi-Private Wireless Broadband Network Deployment

Project Package #5 MCSF Blount Island:

Improved Communications Delivery

Asset Name	Owner	Location	Mission Criticality	Relevant Shocks & Stresses	Level of Urgency
Communication Lines on Bridges	AT&T	From Hecksher Drive to Blount Island	Primary	Lack of Redundancy Heavy network congestion Bridge flooding due to sea level rise, storm surge	Immediate

- Rely on a single, mission-critical AT&T fiber route along Dave Rawls Boulevard
- This pathway provides essential connectivity for command, control, logistics, and mission operations
- Vulnerable to disruptions from physical damage, utility conflicts, flooding, and severe weather
- Any outage could lead to complete loss of communications capability
- Current system has limited resilience to both short-term incidents and long-term stressors
- Presents a significant risk to operational continuity and mission readiness

Key Priorities:

- Protect and maintain existing fiber infrastructure
- Develop redundancy and route diversity
- Implement hardening measures to reduce service interruption risk

Project Package #5 MCSF Blount Island: *Improved Communications Delivery*



Project Package #5 MCSF Blount Island:

Improved Communications Delivery

Current and potential solutions include:

- **Redundant fiber route:** AT&T plans to install a second fiber line to a new handhole and communications facility inside the installation, with completion expected in 4–6 months.
- **Satellite communication:** Nokia and Starlink have been evaluated and used for deployable and emergency connectivity, though high costs limit long-term use. Military satellite options have also been considered but are constrained by their location in hazard-prone areas.
- **Additional Private Fiber:** JAXPORT has existing dark fiber and is open to leasing it to the installation as an additional connection to enhance redundancy.

Existing Project	Entity	Location	Purpose	Timeline
Redundant fiber connection	AT&T	Area 11 inside the BI installation	Communication redundancy	To be completed around the end of 2026



Project Package #5 MCSF Blount Island: *Improved Communications Delivery Recommendations*



Project Package #5 MCSF Blount Island:

Improved Communications Delivery Recommendations

Strategic Project BI 5.1. Blount Island Redundant Fiber Connectivity Installation

Step 1: Routing, Design, and Coordination (Short-term)

1A. Engineering Design and Hardening Strategy (AT&T)

1B. Permitting and Interagency Coordination (AT&T + NAVFAC + JAXPORT)

Step 2: Construction and Deployment (Short-term)

2A. Install Secondary Fiber Route Across Dave Rawls Bridge (AT&T)

2B. System Integration and Testing (AT&T + NAVFAC + MCSF Blount Island PWD)

Step 3: Operational Resilience and Maintenance (Short-term)

3A. Establish Redundancy and Failover Protocols (AT&T + NAVFAC)

3B. Maintenance and Monitoring Program (AT&T + MCSF Blount Island PWD)

Project Package #5 MCSF Blount Island:

Improved Communications Delivery Recommendations

Strategic Project BI 5.2. Blount Island Supplemental Fiber Redundancy via JAXPORT Lease

Step 1: Lease Agreement, Security Design, and Coordination (Short-term)

- 1A. Execute Fiber Lease Agreement (JAXPORT + NAVFAC + MCSF Blount Island PWD)
- 1B. Design Secure Connection and Encryption Protocols (JAXPORT + NAVFAC)

Step 2: Infrastructure Extension and Integration (Short-term)

- 2A. Extend Fiber to MCSF Blount Island Communications Hub (JAXPORT + MCSF Blount Island PWD)
- 2B. System Integration and Redundancy Configuration (JAXPORT + NAVFAC + AT&T)

Step 3: Operations, Monitoring, and Maintenance (Short-term)

- 3A. Establish Operational Protocols and Failover Procedures (NAVFAC + MCSF Blount Island PWD + JAXPORT)
- 3B. Monitoring and Maintenance Program (JAXPORT + MCSF Blount Island PWD)

Project Package #5 MCSF Blount Island:

Improved Communications Delivery Recommendations

Recommendation to the Installation:

Semi-Private Wireless Broadband Network Deployment

- **Deploy wireless broadband if fiber leasing is not viable**
 - Creates an independent, resilient communications path for Blount Island
 - Reduces reliance on single-provider fiber and physical routes
 - Uses secure, redundant, and diverse wireless links (licensed spectrum)Improves resilience to weather, damage, and infrastructure disruptions
 - Enables rapid deployment, scalability, and seamless failover

Camp Blanding Joint Training Center



Camp Blanding Joint Training Center: Missions



Primary Mission

- Support live weapons and maneuver training ranges for combat arms training and exercise (Level 2 Garrison Training and Impact Area)
- Serve as the Florida National Guard Training Center

Secondary Mission

- Support state and federal activities
 - Provide a training ground for various federal and state agencies
 - Reserve, Law Enforcement, and ROTC support
 - Multi-jurisdictional counterdrug task force training
 - House Florida's backup EOC
 - Provide a staging area for emergency response



Camp Blanding JTC: Mission-Critical Assets

Primary

Support live weapons and maneuver training ranges and house the FL National Guard Training Center.

Location-Specific Positioning

- Conservation lands

Assets Providing Direct Support

- Electric Production and Supply Facilities
- Roads and Bridges
- Railway systems
- Communications systems
- Fire stations
- Police stations
- Stormwater systems
- Clay County EOC

Secondary

Support various state and federal activities, including disaster response and various trainings.

Assets Providing Direct Support

- Water systems
- Wastewater systems

Mission-Supportive

Assets that support the livelihood and health of installation personnel, indirect support to primary and secondary missions.

Personnel Support

- Affordable Housing
- Childcare Facilities

Assets Providing Indirect Support

- Solid and Hazardous Waste Facilities



Background: Camp Blanding JTC Shocks and Stressors



1. The **lack of conservation lands** directly outside the fence line raises the possibility for incompatible land uses stemming from the patchwork nature of property ownership.
2. On the installation, **wildfire** is a well-managed risk. Installation personnel, in collaboration with the Florida Forest Service, regularly conduct prescribed burns as a means of fuels management. However, wildfire hazards off the installation are managed by a variety of entities (state, local, or private). Wildfire risk is greater on private property that is not well managed. This can result in fire hazards entering other properties and, eventually, the installation, threatening operations.
3. **Stormwater flooding is a risk** on the installation (which has stormwater infrastructure past the end of its service life) and on **SR-16**, impacting installation access.
4. Extreme heat threatens **regional railways and roadways**, potentially causing buckling and impacting the movement of personnel and equipment.
5. The installation's **electrical supply lacks redundancy**, and wildfires threaten nearby electrical substations.
6. The installation's **wastewater system lacks redundancy and faces regulatory pressures** from existing State legislation, which requires that the installation adjust its wastewater disposal methods by 2032.

Questions to Consider for Each Recommendation

- Did we get the existing efforts incorporated well?
- Are the partners and leads looking right?
- Does the recommendation sound feasible/like it would solve for the issues?



Camp Blanding JTC Recommendation Project Packages

Project Package #1: *Mobility Corridor SR-16*

Project Package #2: *Encroachment and Wildfire Mitigation through Land Management*

Project Package #3: *Improved Electrical System Resilience*

Project Package #4: *Improved Wastewater System Resilience*

Project Package #5: *Improved Stormwater System Resilience*

Project Package #1 Camp Blanding JTC:

SR-16 Corridor Mobility Improvements

CB 1.1: Corridor Drainage and Climate Resilience [Study](#)

CB 1.2: Climate-resilient Drainage and Roadway Improvements [Implementation](#)

CB 1.3: Regional Coordination Workshops for Secondary Access to Camp Blanding

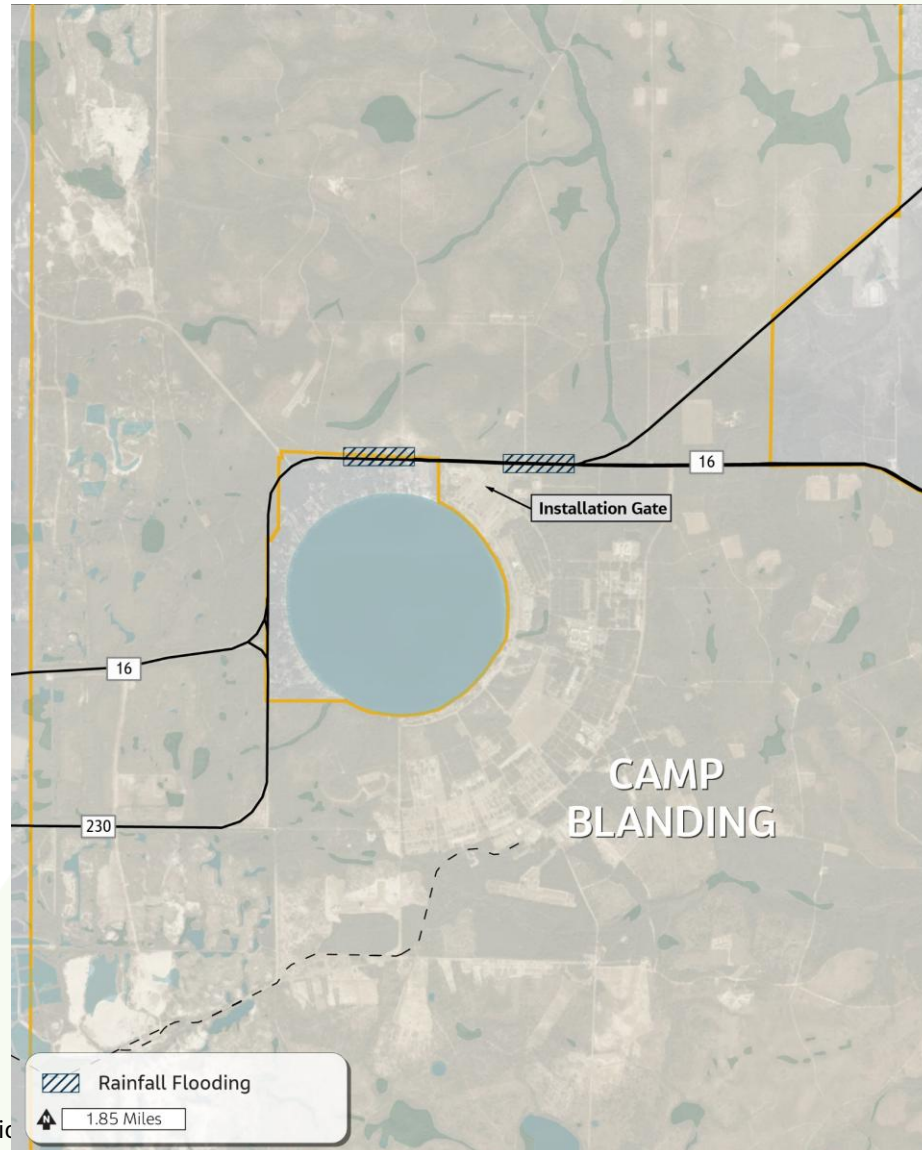
Project Package #1 Camp Blanding JTC:

SR-16 Corridor Mobility Improvements

Asset Name	Owner	Location	Mission Criticality	Relevant Shocks & Stresses	Level of Urgency
SR 16	FDOT	Between County Road 225 and eastern edge of installation boundary	Primary	Rainfall Flooding, Single Point of Failure, Extreme Heat	Mid-term

- Critical corridor: SR 16 provides key access to Camp Blanding, supporting military operations, emergency response, and local connectivity
- Environmental stressors: Extreme heat and heavy rainfall drive pavement damage, flooding, and hazardous conditions
- Drainage limitations: Aging stormwater systems and low-lying terrain increase risk of flooding and roadway disruptions
- Limited redundancy: Outages significantly impact mission readiness and community access; resilience upgrades are needed

Project Package #1 Camp Blanding JTC: *SR-16 Corridor Mobility Improvements*



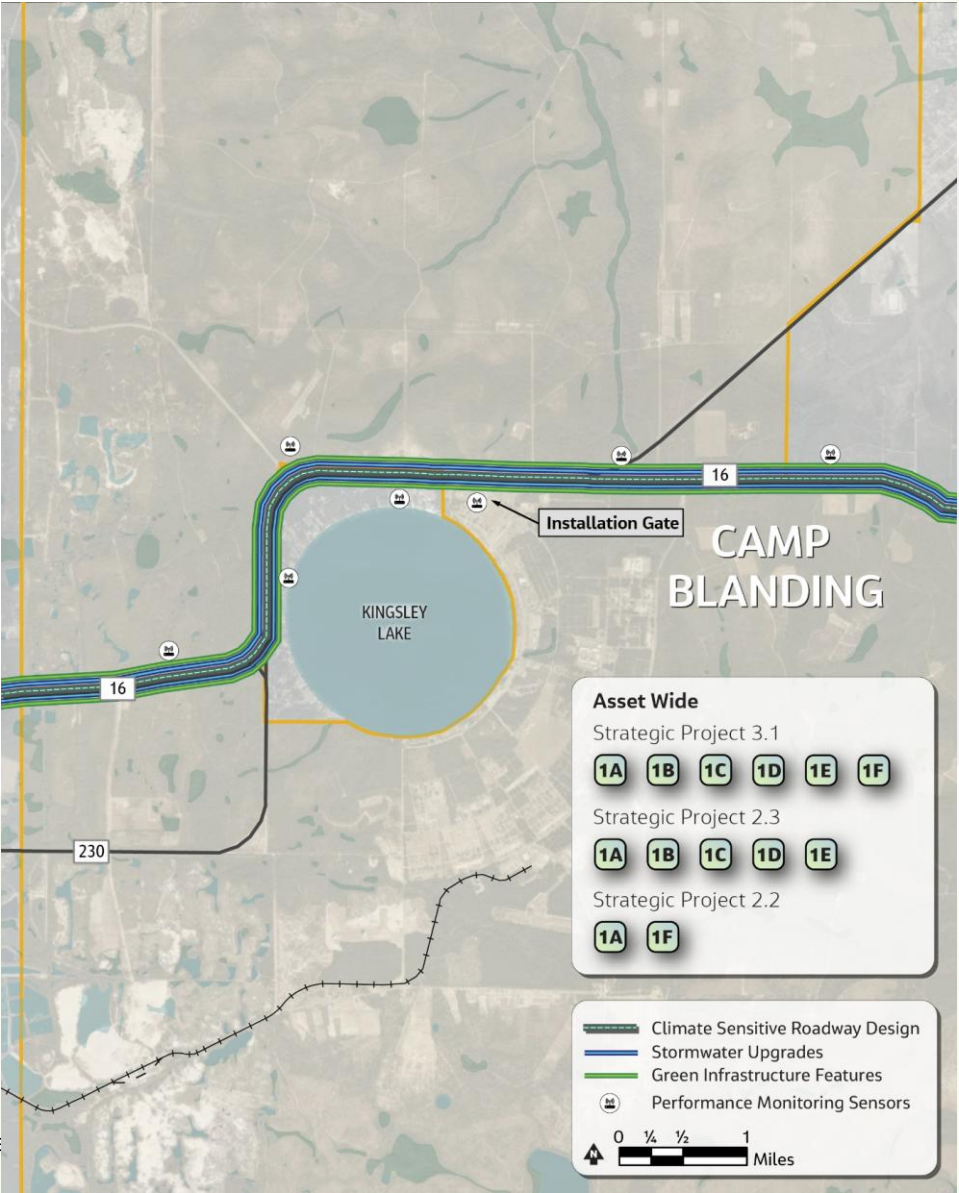
Project Package #1 Camp Blanding JTC: *SR-16 Corridor Mobility Improvements*

Current Efforts:

There are no ongoing projects immediately outside or within the installation boundary that relate to SR 16.

Project Package #1 Camp Blanding JTC:

SR-16 Corridor Mobility Improvements Recommendations



Project Package #1 Camp Blanding JTC:

SR-16 Corridor Mobility Improvements Recommendations

Strategic Project CB 1.1. Corridor Drainage and Climate Resilience Study

Step 1: Corridor Drainage and Climate Resilience Study (Short-term)

- 1A. Data Compilation, Inventory, and Existing Conditions Assessment (FDOT)
- 1B. Hydrologic, Hydraulic, and Thermal System Characterization (FDOT)
- 1C. Deficiency Identification and Integrated Performance Evaluation (FDOT)
- 1D. Predictive Modeling and Climate-informed Analysis (FDOT)
- 1E. Flood Risk Mapping and Prioritization (FDOT)
- 1F. Development of Adaptation Strategies and Final Study Deliverable (FDOT and Partners)

Project Package #1 Camp Blanding JTC:

SR-16 Corridor Mobility Improvements Recommendations

Strategic Project CB 1.2. SR 16 Climate-resilient Drainage and Roadway Improvements Implementation

Step 1: Integrated Climate-resilient Infrastructure Implementation (Short- to Mid-term)

- 1A. Final Design of Integrated Solutions (FDOT)
- 1B. Permitting, Coordination, and Climate-sensitive Design Integration (FDOT and Partners)
- 1C. Construction and Upgrade of Integrated Systems (FDOT)
- 1D. Deployment of Green Infrastructure and Heat-mitigation Features (FDOT)
- 1E. Smart Construction Technologies and Performance Monitoring (FDOT)
- 1F. Phased Implementation and Resilience Optimization (FDOT and Partners)

Project Package #1 Camp Blanding JTC:

SR-16 Corridor Mobility Improvements Recommendations

Strategic Project CB 1.3. Regional Coordination Workshops for Secondary Access to Camp Blanding

Step 1: Regional Workshop Series and Alternatives Exploration (Short-term)

- 1A. Stakeholder Engagement and Workshop Facilitation (NEFRC)
- 1B. Evaluation of Need and Level of Interest (Camp Blanding)
- 1C. Identification of Potential Alternatives (All Partners)
- 1D. Screening of Alternatives and Key Considerations (NEFRC and Partners)
- 1E. Summary Findings and Path Forward (NEFRC and Partners)

Project Package #2 Camp Blanding JTC: Encroachment and Wildfire Mitigation Through Land Management

CB 2.1: Smart Growth and Compatible Land Use Strategy for Camp Blanding and the O2O Corridor

CB 2.2: Northeast Florida Center for Natural Lands: Native Plant Nursery, Education, and Community Resource Hub

CB 2.3: Conservation Buffer and Corridor Protection Strategy for Camp Blanding

Project Package #2 Camp Blanding JTC:

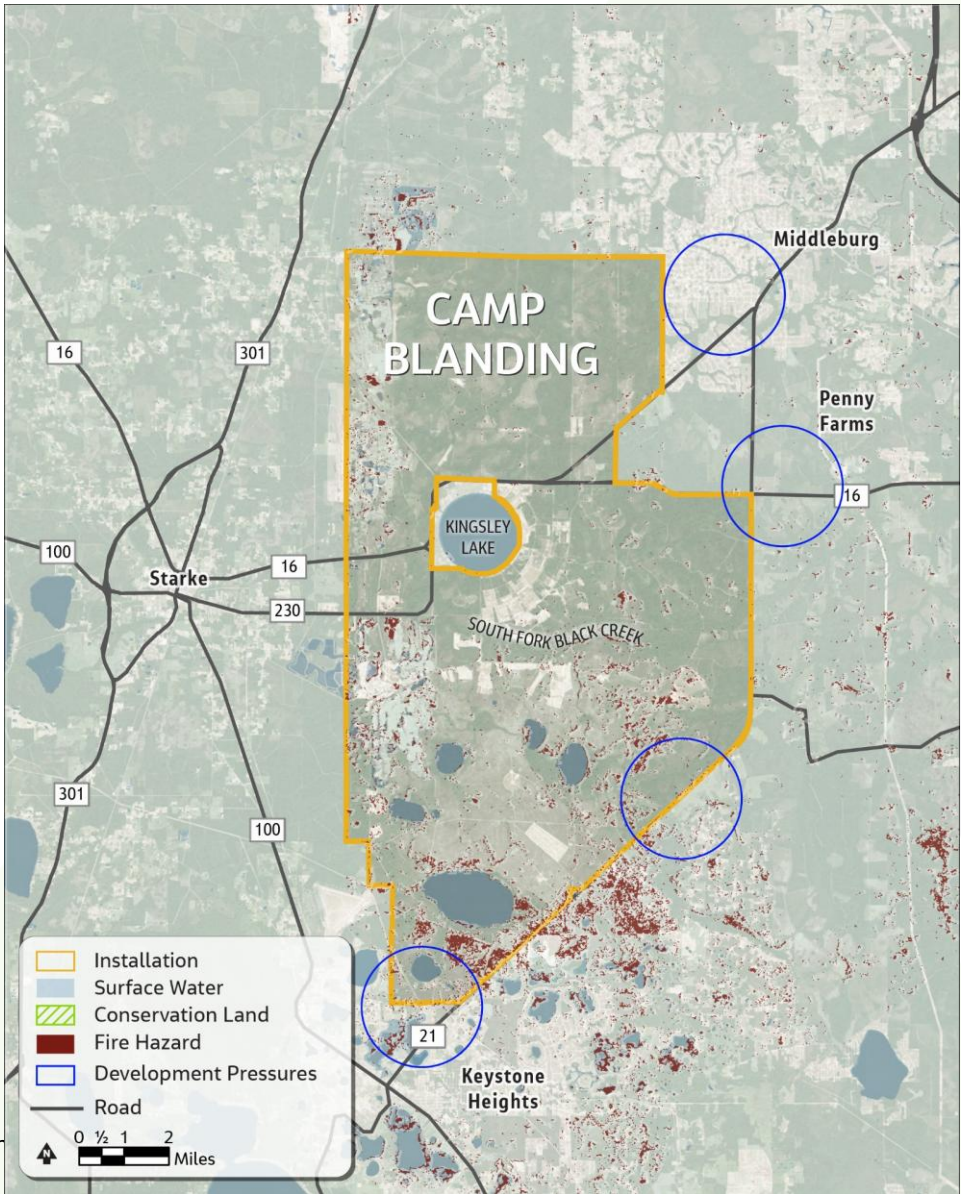
Encroachment and Wildfire Mitigation Through Land Management

Asset Name	Owner	Location	Mission Criticality	Relevant Shocks & Stresses	Level of Urgency
Parcels Immediately Surrounding the Installation	Various	Outside Installation Boundary	Primary	Development Encroachment, Wildfire	Near- to Long-term

- **High-value natural system:** Large, connected landscape within the O2O Wildlife Corridor supporting biodiversity, habitat connectivity, and ecosystem resilience
- **Natural infrastructure benefits:** Provides aquifer recharge, stormwater filtration, flood mitigation, and water quality protection
- **Changing landscape conditions:** Fire suppression and historic land use shifts have increased vegetation density and wildfire risk
- **Growth pressures:** Development demand rising along key corridors, balanced by military buffers and conservation protections
- **Critical management needs:** Prescribed fire, land conservation, and restoration to maintain function and reduce wildfire risk
- **Multi-stakeholder stewardship:** Managed by federal, state, local, nonprofit, and private partners supporting mission and environmental goals

Project Package #2 Camp Blanding JTC:

Encroachment and Wildfire Mitigation Through Land Management



Project Package #2 Camp Blanding JTC:

Encroachment and Wildfire Mitigation Through Land Management

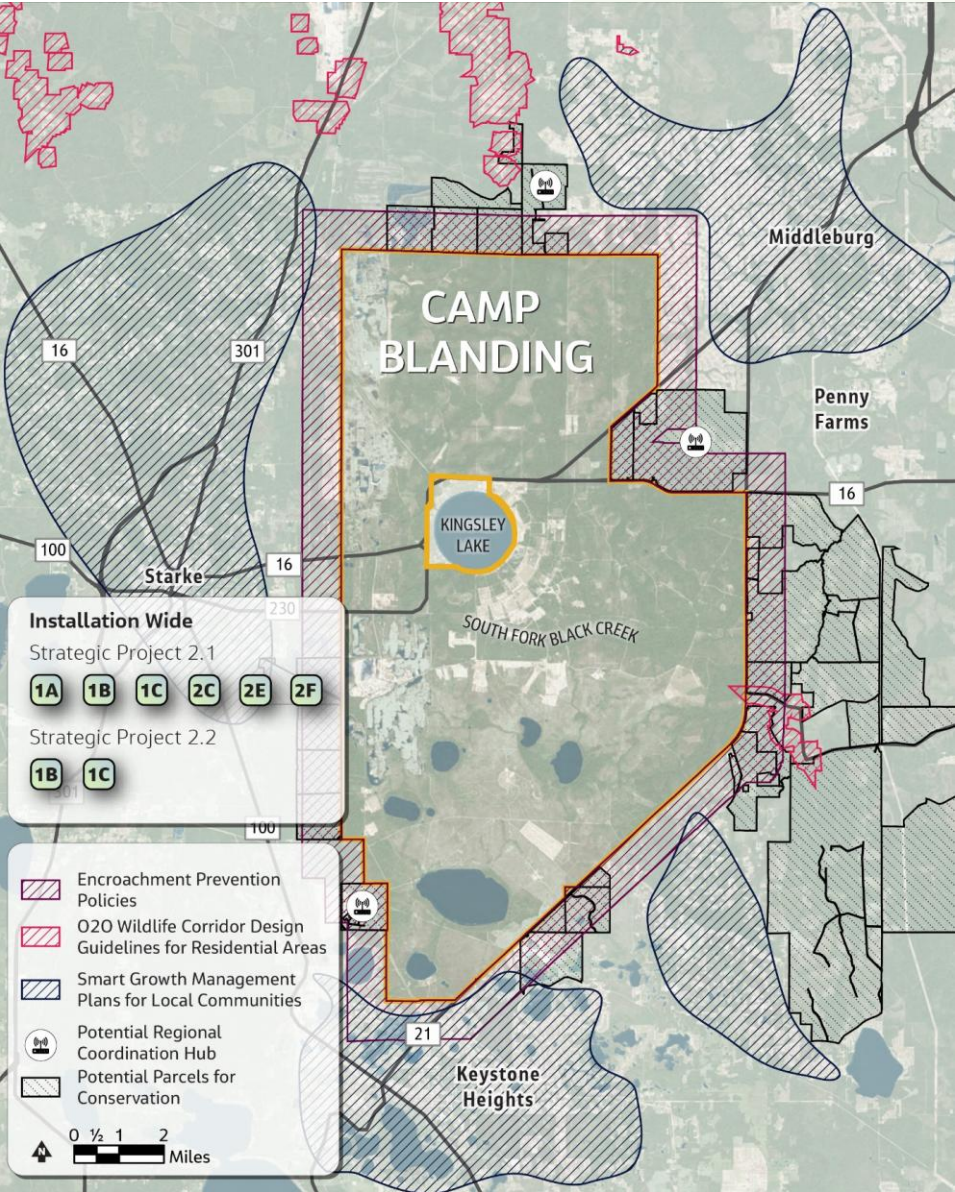
Current Efforts:

Project	Entity	Location	Purpose	Timeline
Camp Blanding REPI Program	Department of Defense	Camp Blanding JTC	Habitat Preservation, Managing Incompatible Development, Wildfire Fuel Management	Ongoing
Controlled Burns	NFLT/Florida Forest Service	State Forests and Other Conservation Areas	Wildfire Fuel Management	Ongoing
Clay County Local Mitigation Strategy	Clay County	Countywide	Identify natural hazards and vulnerabilities within Clay County	Complete



Project Package #2 Camp Blanding JTC:

Encroachment and Wildfire Mitigation Through Land Management



Project Package #2 Camp Blanding JTC:

Encroachment and Wildfire Mitigation Through Land Management

Strategic Project CB 2.1. Smart Growth and Compatible Land Use Strategy for Camp Blanding and the O2O Corridor

Partners: NEFRC, Clay County and Bradford County, Local municipalities, Camp Blanding JTC, NFLT, FDEP Division of State Lands, Florida Forever Program, FNAI, SJRWMD, St. Johns Riverkeeper, Tall Timbers Research Station, Private landowners, timber companies, and agricultural partners

Step 1: Partnership Development and Regional Coordination Framework (Short-term)

- 1A. Camp Blanding Neighbors Partnership (NEFRC and Partners)
- 1B. Working Lands and Conservation Partnership Expansion (NEFRC and Partners)
- 1C. Regional Data and Coordination Platform Development (NEFRC)

Step 2: Smart Growth Policy, Conservation Strategy, and Implementation (Short-term)

- 2A. Encroachment Prevention and Compatible Land Use Policies (Local Governments and NEFRC)
- 2B. O2O Corridor-compatible Growth Strategy and Design Guidelines (NEFRC and Partners)
- 2C. Nature-based Stormwater and Floodplain Enhancement (NEFRC and Clay County)
- 2D. Habitat Connectivity and Corridor Protection (NEFRC and Partners)
- 2E. Advanced Working Lands and Conservation Strategies (NEFRC and Partners)
- 2F. Smart Growth Management Plans for Local Communities (NEFRC and Local Governments)

Project Package #2 Camp Blanding JTC:

Encroachment and Wildfire Mitigation Through Land Management

Strategic Project CB 2.2. Northeast Florida Center for Natural Lands: Native Plant Nursery, Education, and Community Resource Hub

Step 1: Partnership Development and Center Establishment (Short-term)

- 1A. Facility Development and Regional Coordination (NEFRC and Partners)
- 1B. Multi-agency Partnership and Program Development (NEFRC and Partners)
- 1C. Workforce Development and Recruitment Partnerships (NEFRC and Partners)

Step 2: Nursery Operations, Education Programming, and Community Implementation (Short-term)

- 2A. Native Plant Nursery and Restoration Supply (NEFRC and Partners)
- 2B. Integrated Education, Demonstration, and Outreach Program (NEFRC and Partners)
- 2C. Public Education Program on Land Conservation and Water Resource Management (NEFRC and SJRWMD)
- 2D. Integrated Wildfire and Land Stewardship Demonstration (NEFRC and Partners)

Project Package #2 Camp Blanding JTC:

Encroachment and Wildfire Mitigation Through Land Management

Strategic Project CB 2.3. Conservation Buffer and Corridor Protection Strategy for Camp Blanding

Step 1: Conservation Buffer Protection and Land Security (Short-term)

1A. Permanent Land Protection Adjacent to Installation (NEFRC and Partners)

1B. Identification and Prioritization of Critical Buffer Parcels (NEFRC and Partners)

Project Package #3 Camp Blanding JTC: Adaptation for Electrical System Resilience

CB 3.1: Interagency Utility Coordination Advancement

CB 3.2: Improved Resilience Through Redundant Supply

CB 3.3: Wildfire Risk Mitigation for Electric System Assets

Project Package #3 Camp Blanding JTC:

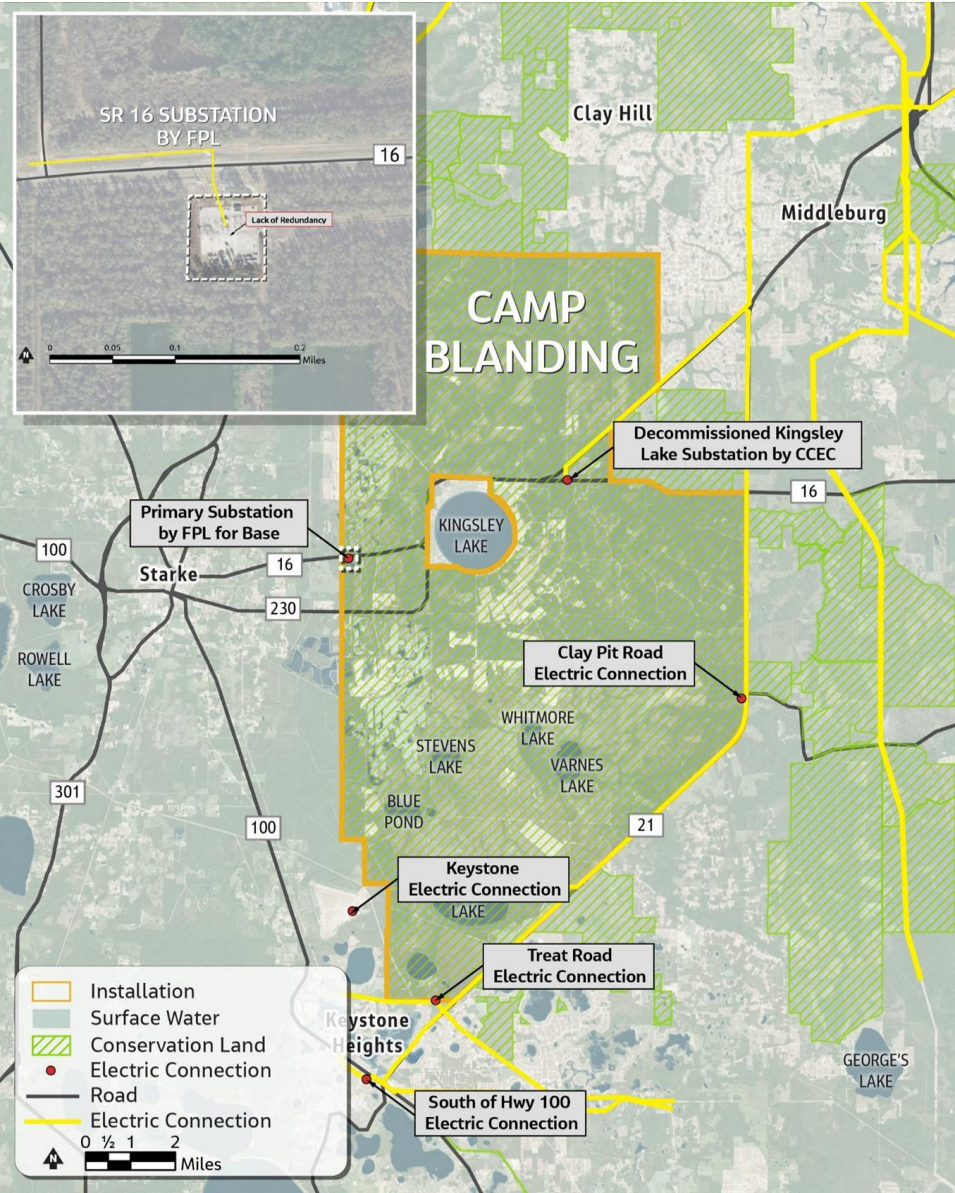
Adaptation for Stormwater System Resilience

Asset Name	Owner	Location	Mission Criticality	Relevant Shocks & Stresses	Level of Urgency
FPL Substation	FPL	Near the west end of the Camp Blanding boundary	Primary	Lack of Redundancy	Near-term
Kingsley Lake Substation	CEC	SR 16 near Gate D	N/A	Lack of redundancy, wildfire	N/A

- Originated as a WWII self-contained system with onsite diesel generation; later integrated with the regional grid.
- Expanded over time for wide geographic coverage, resulting in limited redundancy and reliance on long radial feeders.
- Weather exposure (storms, vegetation) and minimal backup generation create ongoing reliability risks.
- Modern upgrades improved resilience, but the system currently depends mainly on a single FPL substation due to an out-of-service Clay Electric substation.
- Future heat and stronger storms will increase strain, requiring added redundancy and vegetation management.

Project Package #3 Camp Blanding JTC:

Improving Electrical System Resilience



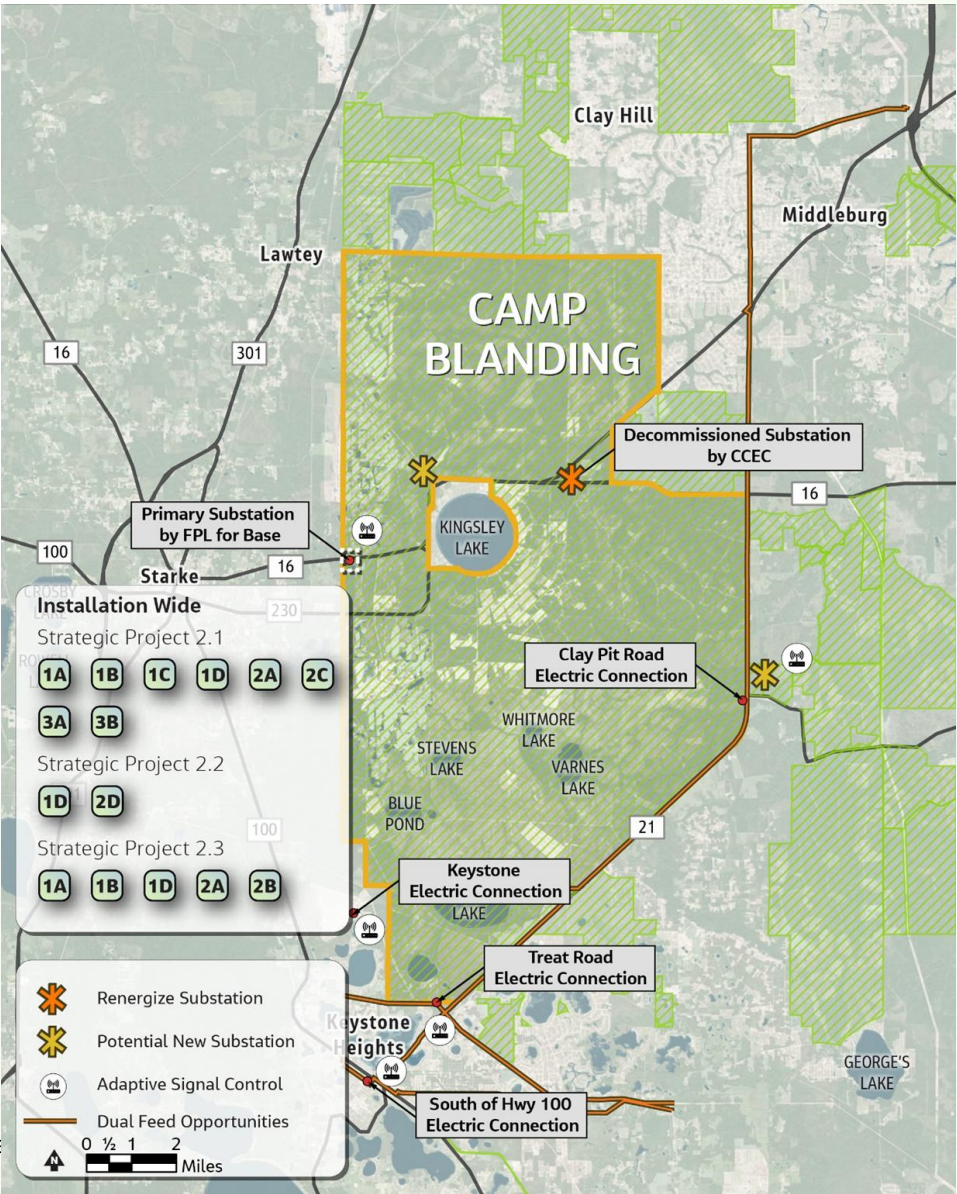
Project Package #3 Camp Blanding JTC:

Improving Electrical System Resilience

Current Efforts:

Existing Project	Entity	Location	Purpose	Timeline
Battery storage feasibility study	CEC	CEC service area	Determine feasibility of increasing system capacity	Funded, not start yet
Large-scale solar feasibility	CEC	CEC service area	Determine solar feasibility	Completed
Readiness and Environmental Protection Integration program for wildfire management	Camp Blanding JTC; DoD	Adjacent Residential Area	Wildfire management	Ongoing

Project Package #3 Camp Blanding JTC: *Improving Electrical System Resilience*



Project Package #3 Camp Blanding JTC:

Improving Electrical System Resilience

Strategic Project CB 3.1. Interagency Utility Coordination Advancement

Step 1: Coordinated Operational Integration Planning (Short-term)

- 1A. Establish Primary Integration Leads (FPL + CEC + Camp Blanding)
- 1B. Define or Update Scenario-Based Responsibility Matrix (FPL + CEC + Camp Blanding + Clay County)
- 1C. Implement Joint Utility Operations Communication Cadence (All Partners)
- 1D. Enhance Storm Forecasting and Pre-Staging Coordination (FPL + CEC + Camp Blanding + Clay County)

Step 2: Data Visibility, Response Optimization, and System Flexibility Tool Utilization (Mid-term)

- 2A. Incorporate Data-Driven and Predictive Decision-Making Tools (FPL + CEC + Camp Blanding)
- 2C. Establish Predefined Escalation Framework (FPL + CEC + Camp Blanding)

Step 3: Long-Term Resilience and Partnership Planning (Long-term)

- 3A. Develop Joint Utility Resilience Plan (All Partners)
- 3B. Implement Embedded Liaison Coordination Model (FPL + CEC + Camp Blanding)

Project Package #3 Camp Blanding JTC:

Improving Electrical System Resilience

Strategic Project CB 3.2. Improved Resilience Through Redundant Supply

Step 1: Redundant Feed Feasibility Study (Short-term)

- 1A. Evaluate Existing Infrastructure Re-Energization (CEC)
- 1B. Assess Dual-Feed Opportunities from Existing Grid Connections (CEC + FPL)
- 1C. Compare with New Substation Development (CEC)
- 1D. Define Preferred Redundancy Strategy and Publish in Feasibility Study (All Stakeholders)

Step 2: Redundant Feed Implementation of Preferred Solution (Mid-term)

- 2A. Final Design and Engineering (CEC + FPL)
- 2B. Infrastructure Development and Upgrades (CEC)
- 2C. Integration and Testing (CCEC + FPL + Camp Blanding)
- 2D. Operational Readiness and Coordination (All Stakeholders)

Project Package #3 Camp Blanding JTC:

Improving Electrical System Resilience

Strategic Project CB 3.3. Wildfire Risk Mitigation for Electric System Assets

Step 1: Wildfire Mitigation Planning and Assessment (Short-term)

- 1A. Update or Develop Wildfire Risk Mitigation Plan (FPL + CEC)
- 1B. Update Asset-Level Risk Assessment Based on Current Wildfire Forecast Data (FPL)
- 1C. Integrate Monitoring and Sensor Technologies (FPL)
- 1D. Strengthen Joint Planning and Emergency Response Coordination (All Stakeholders)

Step 2: Adaptive Implementation and Continuous Evolution Loop (Short-term)

- 2A. Implement Risk-Informed Mitigation and Adaptive Operations (FPL)
- 2B. Monitor, Evaluate, and Iterate Mitigation Strategy (All Stakeholders)

Project Package #4 Camp Blanding JTC: Adaptation for Wastewater System Resilience

CB 4.1: Wastewater System Resilience and Force Main Feasibility Study for Camp Blanding

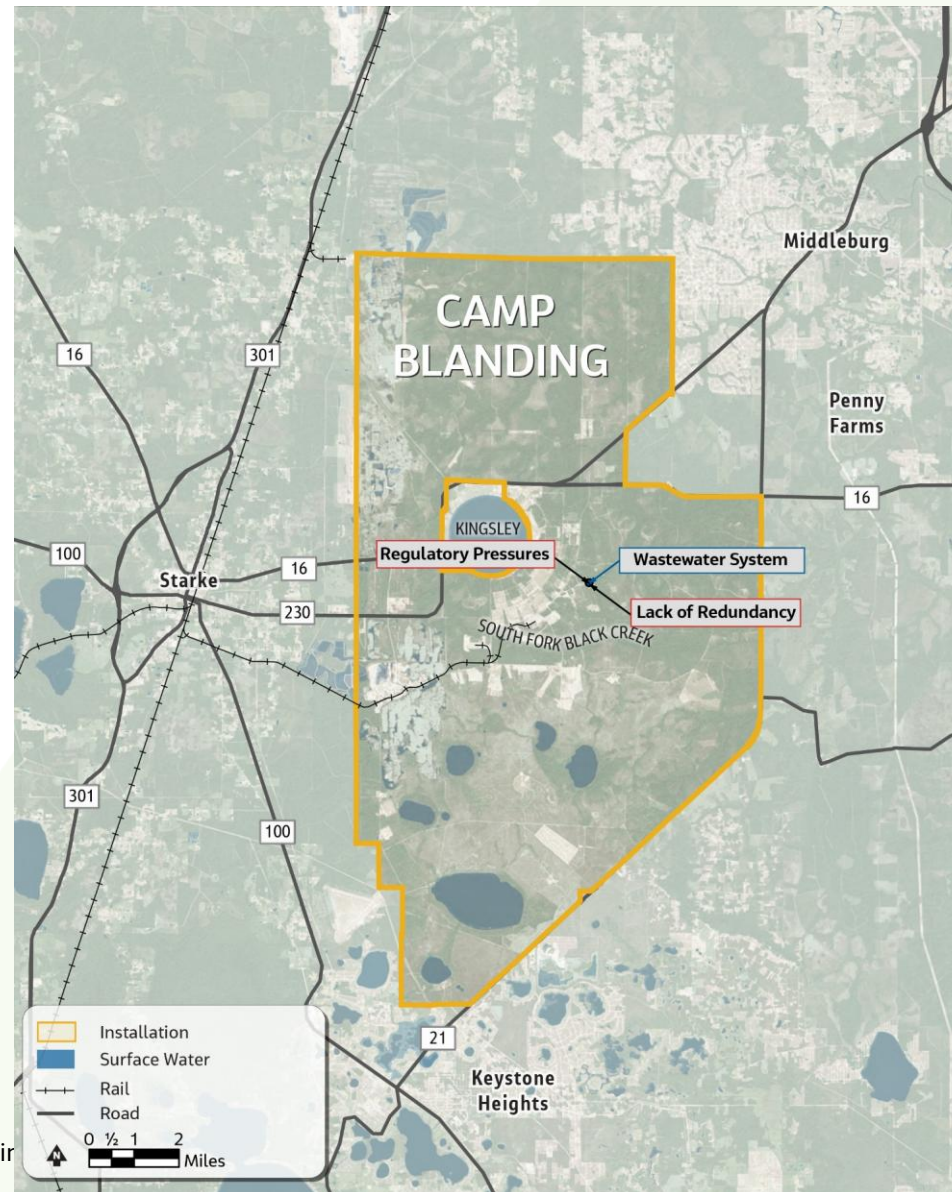
Project Package #4 Camp Blanding JTC:

Adaptation for Wastewater System Resilience

Asset Name	Owner	Location	Mission Criticality	Relevant Shocks & Stresses	Level of Urgency
Wastewater System	Camp Blanding JTC	On base	Secondary	Lack of redundancy	Near-term

- **Onsite Wastewater system**
- **Current constraints:** One wastewater treatment plant without a backup or interconnections
- **Future resilience needs:** Increased redundancy, improved waste disposal management, and system hardening

Project Package #4 Camp Blanding JTC: *Adaptation for Wastewater System Resilience*



Project Package #4 Camp Blanding JTC:

Adaptation for Wastewater System Resilience

Current Efforts:

- No current agreement exists between Camp Blanding and Clay County Utility Authority (CCUA), but both parties are interested in exploring potential wastewater collaboration.
- The on-installation wastewater treatment plant has no major planned upgrades, highlighting the need to evaluate long-term alternatives for reliability and growth.
- CCUA is advancing a Keystone Heights wastewater plant expansion ($\approx 74,000$ to $200,000$ GPD), though connecting Camp Blanding would require significant new force main infrastructure.
- Additional CCUA assets—including rapid infiltration basins ($\approx 200,000$ GPD capacity) and the Penny Farms force main—may offer future connectivity options depending on feasibility and cost.
- Ongoing CCUA projects provide a foundation for continued coordination and potential regional wastewater partnerships with Camp Blanding.

Project Package #4 Camp Blanding JTC:

Adaptation for Wastewater System Resilience

Strategic Project CB 4.1. Wastewater System Resilience and Force Main Feasibility Study for Camp Blanding

Step 1: Camp Blanding Resilient Wastewater and Force Main Feasibility Study (Short-term)

- 1A. Identify and Confirm Service Areas, Ownership, and Demand Projections (CCUA)
- 1B. Evaluate Existing Wastewater Infrastructure and Capacity Constraints (CCUA)
- 1C. Assess Environmental, Permitting, and Corridor Constraints (CCUA / Partners)
- 1D. Evaluate Force Main Routing and Conveyance Alternatives (CCUA)
- 1E. Integrate Stakeholder Coordination and DoD Requirements (CCUA / Camp Blanding)

Step 2: Implementation Readiness, Resilience Strategy, and Funding Alignment (Short-term)

- 2A. Identify Preferred Force Main Alignment and System Configuration (CCUA)
- 2B. Develop Prioritized Capital Improvement and Phasing Plan (CCUA)
- 2C. Advance Resilience and System Reliability Outcomes (CCUA / Partners)
- 2D. Align Project with MIRR and External Funding Opportunities (CCUA / Partners)
- 2E. Establish Long-Term Coordination and Operational Framework (CCUA / Camp Blanding)

Project Package #5 Camp Blanding JTC: Adaptation for Stormwater System Resilience

CB 5.1: Establish Partnership for Developing and Implementing the Clay County Countywide Water Resilience Implementation Plan (CWRIP): A Rural County-scale Pilot of One Water Approach to Resilient Systems Management

CB 5.2: Countywide Water Resilience Implementation Plan (CWRIP)

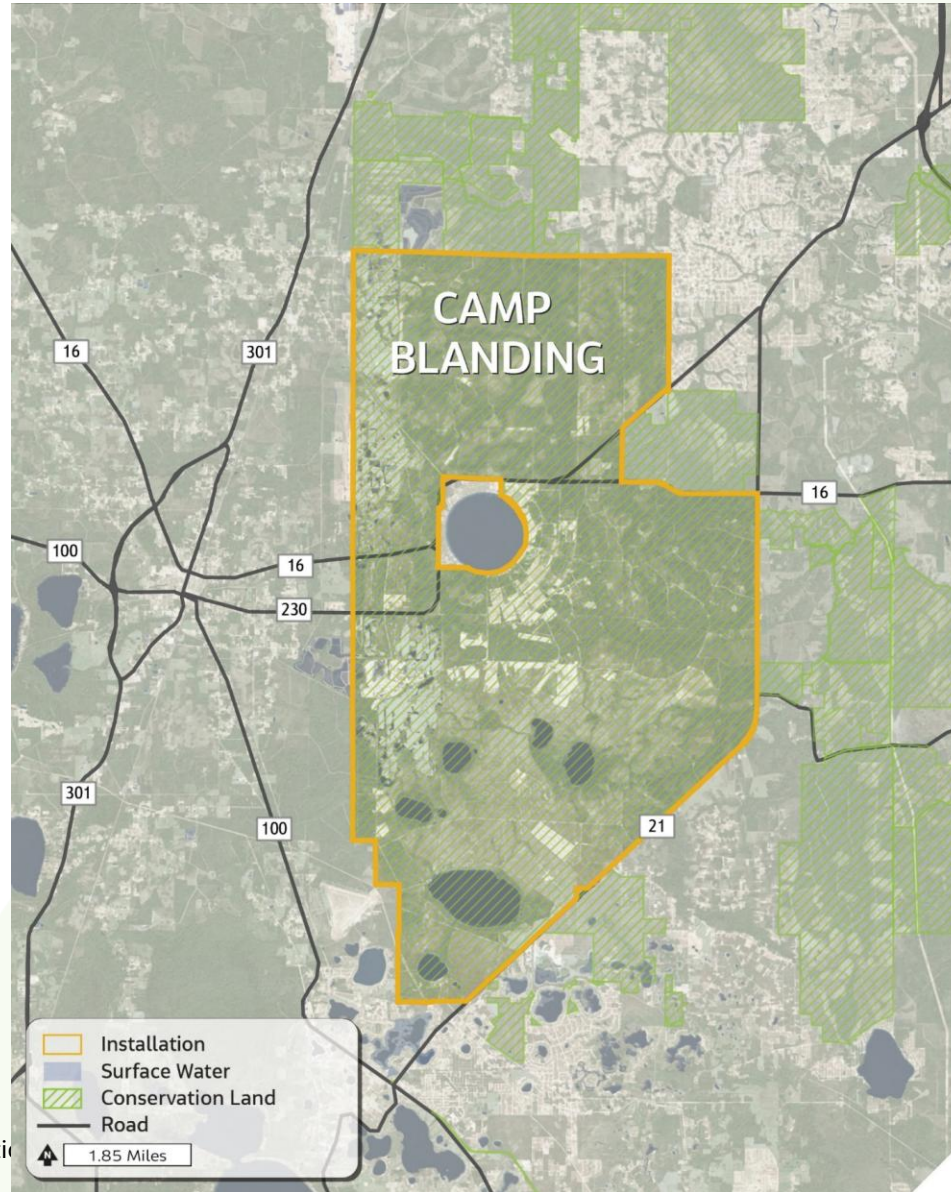
Project Package #5 Camp Blanding JTC:

Adaptation for Stormwater System Resilience

Asset Name	Owner	Location	Mission Criticality	Relevant Shocks & Stresses	Level of Urgency
Stormwater System	Clay County/FDOT	Areas surrounding installation	Primary	Rainfall Flooding	Near- to mid-term

- Built in the 1930s–1940s with ditches/culverts for rapid drainage, reducing natural infiltration and recharge.
- Hybrid system today, mixing legacy infrastructure with retention basins and swales, but with inconsistent performance.
- Aging, undersized components lead to flooding, erosion, and higher runoff risk.
- Strong surface–groundwater connection increases aquifer vulnerability.
- Future heat and heavier storms will require upgrades and more green infrastructure.

Project Package #5 Camp Blanding JTC: *Adaptation for Stormwater System Resilience*



Northeast Florida Regional Council Military Installation

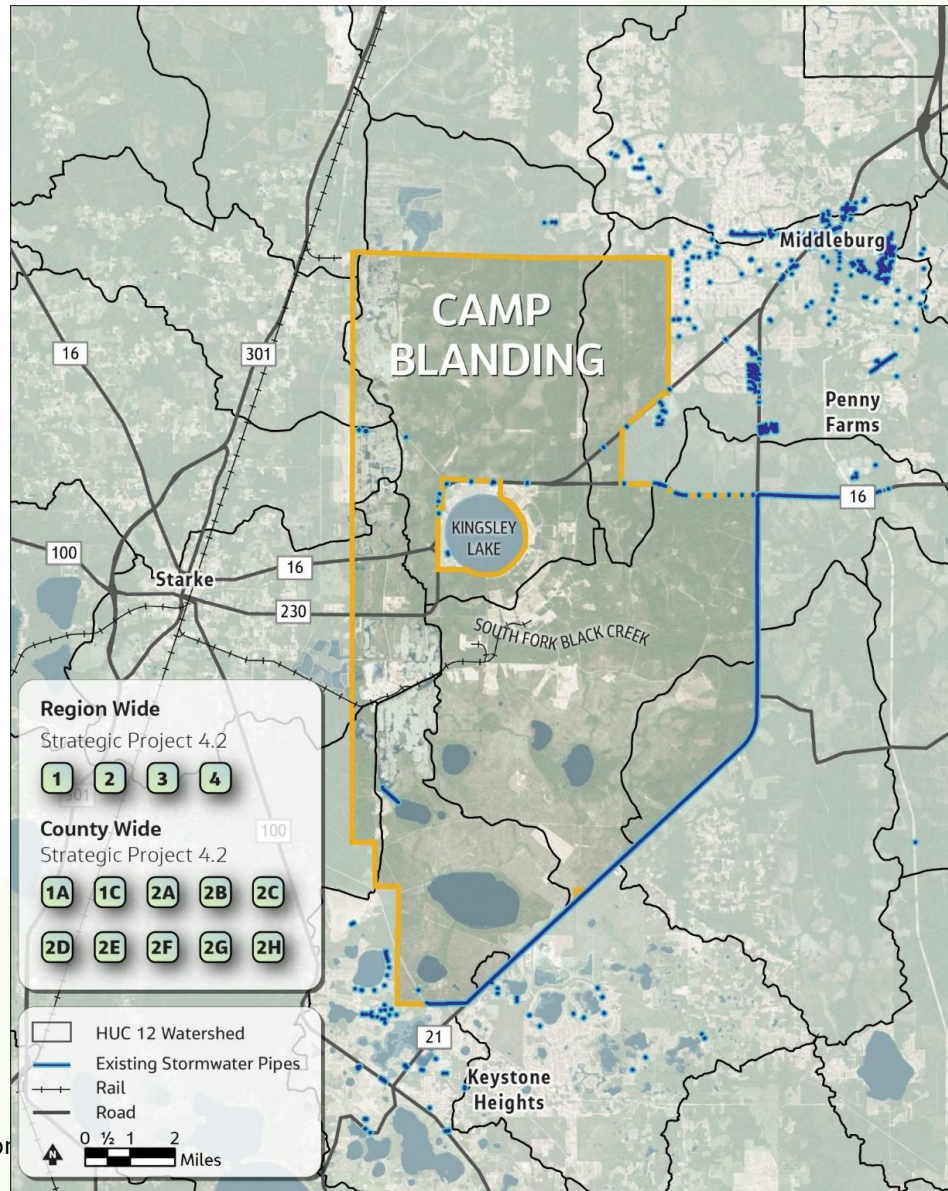
Project Package #5 Camp Blanding JTC:

Adaptation for Stormwater System Resilience

Current Efforts:

Existing Project	Entity	Location	Purpose	Timeline
Clay County Vulnerability Analysis	Clay County	Clay County	Countywide flood risk identification	Completed
Stormwater Master Plan	Clay County	Clay County	Countywide stormwater system improvement	Ongoing

Project Package #5 Camp Blanding JTC: *Adaptation for Stormwater System Resilience*



Project Package #5 Camp Blanding JTC:

Adaptation for Stormwater System Resilience

Strategic Project CB 5.1. Establish Partnership for Developing and Implementing the Clay County Countywide Water Resilience Implementation Plan (CWRIP): A Rural County-scale Pilot of One Water Approach to Resilient Systems Management

- Federal Coordination and Strategic Alignment (NEFRC)
- State-level Coordination and Policy Alignment (NEFRC)
- Regional Planning and Cross-jurisdictional Coordination (NEFRC)
- Local Government and Utility Coordination (NEFRC and Local Partners)
- Financial, Insurance, and Implementation Alignment (NEFRC and Partners)

Project Package #5 Camp Blanding JTC:

Adaptation for Stormwater System Resilience

Strategic Project CB 5.2. Countywide Water Resilience Implementation Plan (CWRIP)

Step 1: Countywide System Mapping and Vision Development (Short-term)

- 1A. Comprehensive Gray and Green Infrastructure Inventory and Two-dimensional (2D) Modeling (Clay County)
- 1B. Watershed Hydrology and Comprehensive Water Mapping (Clay County)
- 1C. Countywide Water and Natural Resources Vision (Clay County and Partners)

Step 2: Development of the Countywide Water Resilience Implementation Plan (CWRIP) (Short-term)

- 2A. Master Plan Enhancement and CWRIP Integration (Clay County)
- 2B. Climate-informed System Health Analysis and Predictive Modeling (Clay County)
- 2C. Identification of System Issues and Root Cause Analysis (Clay County)
- 2D. Development of Context-appropriate Solution Menu Tool (Clay County)
- 2E. Evaluation and Prioritization of Hybrid Gray and Green Infrastructure Solutions (Clay County)
- 2F. Development of Integrated Alternatives and Innovation Opportunities (Clay County)
- 2G. Strategic Implementation Framework (Clay County and NEFRC)
- 2H. Camp Blanding Coordination, Data Integration, and Federal Funding Alignment (Clay County and Camp Blanding JTC)



Naval Air Station Jacksonville



Naval Air Station Jacksonville: Missions



Primary Missions

- Naval Aviation hub
- Training and Readiness
- Logistical + Maintenance Support

Secondary Missions

- Naval Hospital
- Community & Homeland Defense (Customs / Border Patrol)
- Support regional commands
- FEMA staging site



NAS Jacksonville: Mission-Critical Assets

Primary

Conduct training and operations
Logistical and maintenance support

Location-Specific Positioning

- Conservation lands
- Shorelines

Assets Providing Direct Support

- Electric Production and Supply Facilities
- Roads and Bridges
- Railway systems
- Cecil Airfield
- Airspace
- Natural gas supply systems
- Regional fire stations

Secondary

Drone operations, Naval Hospital, Support regional commands, community and homeland defense

Assets Providing Direct Support

- Water systems
- Wastewater systems
- Communications systems
- Regional hospitals

Mission-Supportive

Assets that support the livelihood and health of installation personnel, indirect support to primary and secondary missions.

Personnel Support

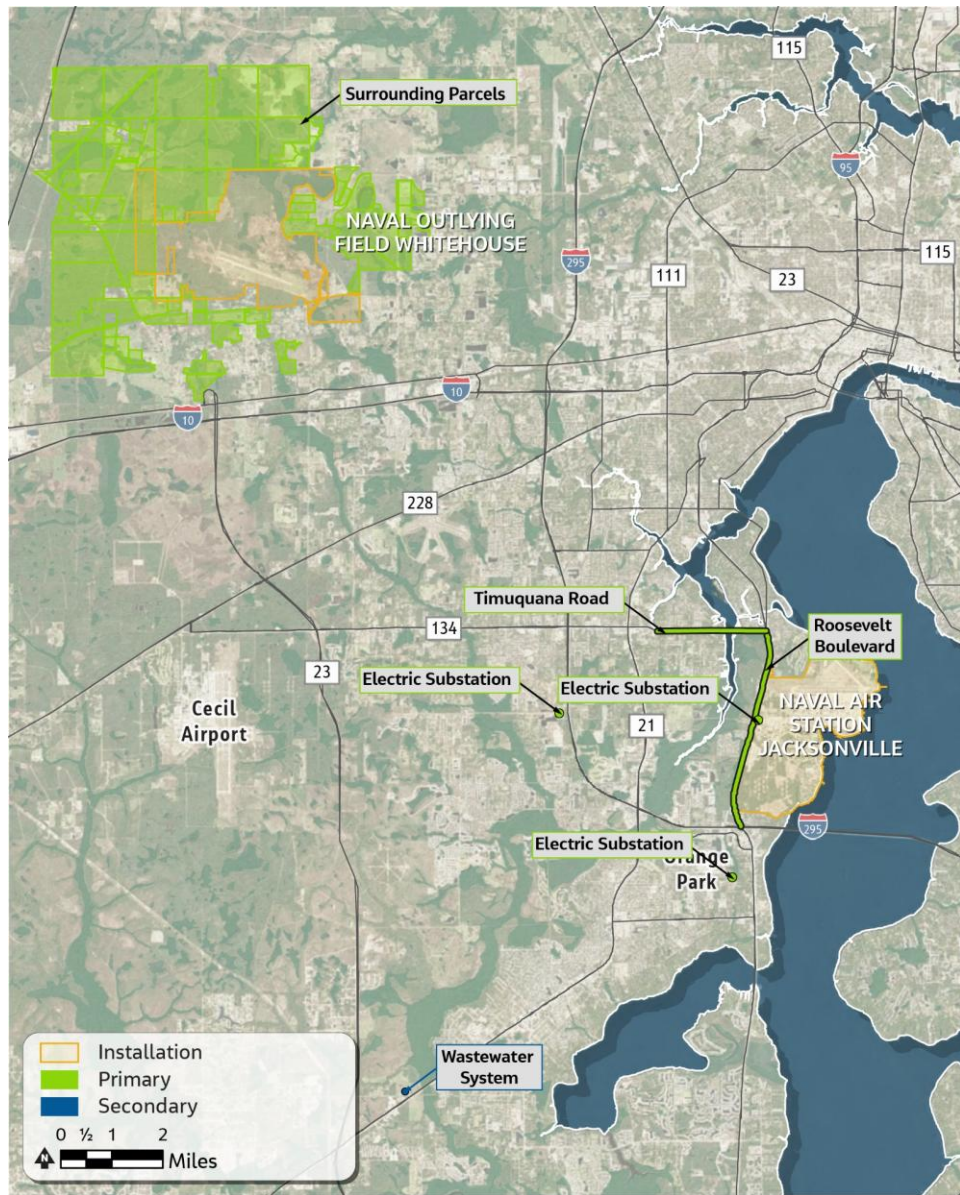
- Affordable housing
- Childcare facilities

Assets Providing Indirect Support

- Solid and Hazardous Waste Facilities
- Stormwater systems



Background: NAS Jacksonville Shocks and Stressors



1. Encroachment risks stem from development interest within the accidental potential zones of NAS Jacksonville and around NOLF Whitehouse.
2. Rainfall-induced flooding and SLR can impact travel on Timuquana Road.
3. Transportation congestion (traffic) is a significant issue on Roosevelt Boulevard, the Buckman Bridge, and the I-295 Interchange, causing major traffic and delays getting on and off-base. Roosevelt Boulevard is the primary access road for the installation.
4. Installation electric and wastewater systems lack redundancy.
5. Despite existing regulations, light pollution threatens nighttime training operations at NOLF Whitehouse that require dark skies.

Questions to Consider for Each Recommendation

- Did we get the existing efforts incorporated well?
- Are the partners and leads looking right?
- Does the recommendation sound feasible/like it would solve for the issues?



NAS Jacksonville Recommendation Project Packages

Project Package #1: *Improved Electrical System Resilience*

Project Package #2: *Improved Resilience for NOLF Whitehouse*

Project Package #3: *Mobility Corridor Roosevelt Boulevard*

Project Package #4: *Mobility Corridor Timuquana Road*

Project Package #5: *Improved Wastewater System Resilience*



Project Package #1 NAS Jacksonville

Improving Electrical Resilience

NSJ 1.1: Interagency Utility Coordination Advancement

NSJ 1.2: Conduct Microgrid Feasibility Study

NSJ 1.3: Construct Off-Base Substation

Project Package #1 NAS Jacksonville:

Improving Electrical Resilience

Asset Name	Owner	Location	Mission Criticality	Relevant Shocks & Stresses	Level of Urgency
Naval Air Substation	JEA	NAS Jacksonville Installation	Primary	Lack of Redundancy	Immediate

- **Legacy system:** Centralized, fossil-fuel grid with above-ground, storm-vulnerable infrastructure
- **Key vulnerability:** Reliance on a single on-base substation creates a critical failure point
- **Current upgrades:** Improved redundancy, grid controls, storm hardening, and cleaner energy mix
- **Rising stressors:** Stronger storms, flooding, and heat increase outage risk and demand
- **Future focus:** Substation hardening, microgrids, storage, and climate-resilient design



Project Package #1 NAS Jacksonville:

Improving Electrical Resilience



Project Package #1 NAS Jacksonville:

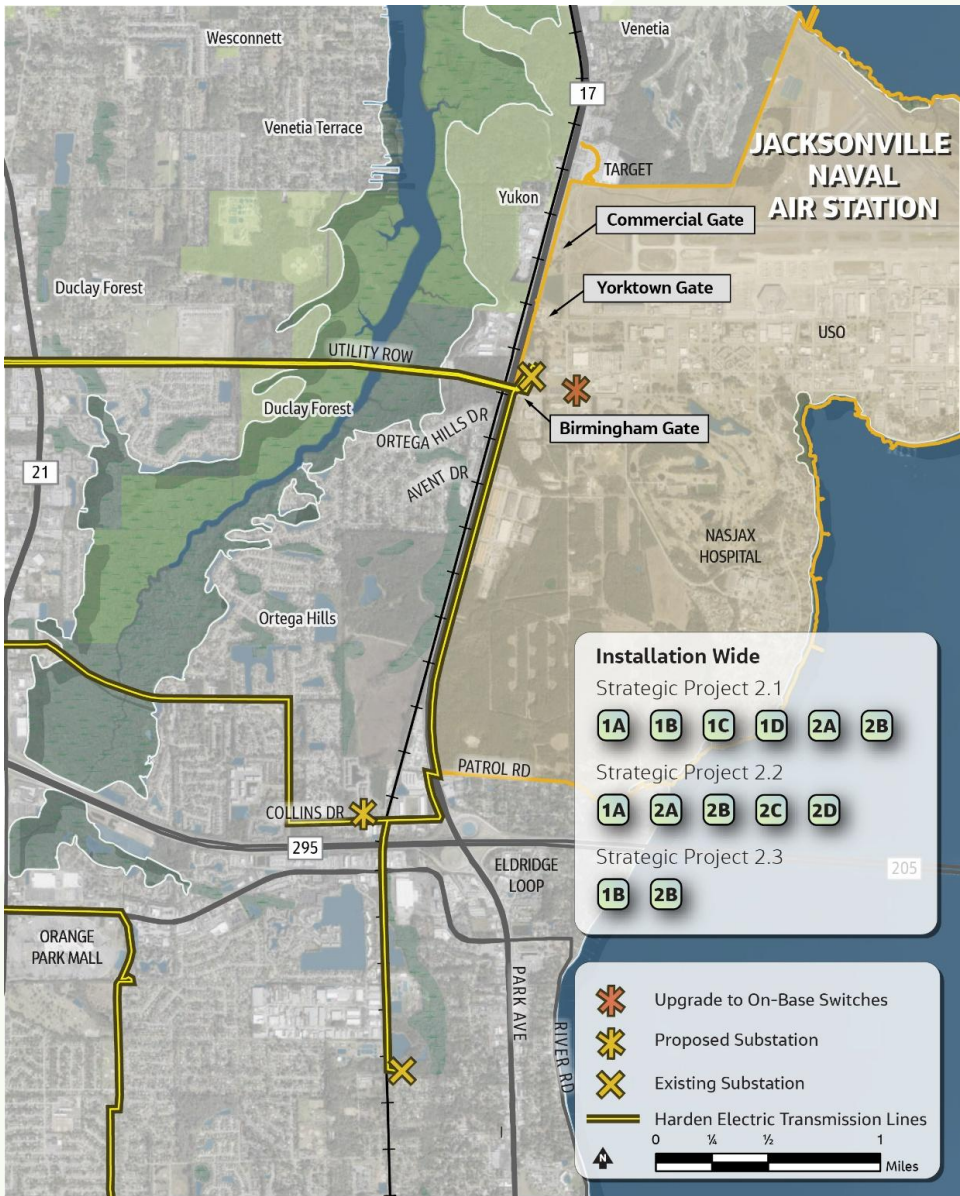
Improving Electrical Resilience

Current Projects:

Existing Project	Entity	Location	Purpose	Timeline
Electric Circuit Replacement	JEA	Naval Air Substation	Increase Capacity	Planned

Project Package #1 NAS Jacksonville:

Improving Electrical Resilience Recommendations



Project Package #1 NAS Jacksonville:

Improving Electrical Resilience Recommendations

Strategic Project NSJ 1.1. Interagency Utility Coordination Advancement

Step 1: Coordinated Operational Integration Planning (Short-term)

- 1A. Establish Primary Integration Leads (JEA + NAS Jacksonville)
- 1B. Define or Update Scenario-Based Responsibility Matrix (NAVFAC + JEA + PWD)
- 1C. Implement Joint Utility Operations Communication Cadence (JEA + NAVFAC + PWD)
- 1D. Enhance Storm Forecasting and Pre-Staging Coordination (JEA + NAS Jacksonville)

Step 2: Data Visibility, Response Optimization, and System Flexibility Tool Utilization (Mid-term)

- 2A. Incorporate Data-Driven and Predictive Decision-Making Tools (JEA + NAVFAC)
- 2C. Establish Predefined Escalation Framework (JEA + NAVFAC)

Step 3: Long-Term Resilience and Partnership Planning (Long-term)

- 3A. Develop Joint Utility Resilience Plan (NAVFAC + JEA)
- 3B. Implement Embedded Liaison Coordination Model (JEA + Navy)

Project Package #1 NAS Jacksonville:

Improving Electrical Resilience Recommendations

Strategic Project NSJ 1.2. Conduct Microgrid Feasibility Study

Step 1: Initial Assessment and Scenario Planning (Short-term)

1A. Conduct Microgrid Feasibility Analysis and Scenarios (NAVFAC + PWD)

Step 2: System Design and Operational Integration Modeling (Mid-term)

2A. Develop Islanding Capability and Integrated Control Systems (NAVFAC + JEA)

2B. Implement Energy Storage and Load Prioritization Framework (PWD + NAVFAC)

2C. Develop Phased Microgrid Implementation and Expansion Roadmap (NAVFAC + PWD)

2D. Coordinate Utility Integration and Long-Term Resilience Strategy (NAVFAC + JEA)

Project Package #1 NAS Jacksonville:

Improving Electrical Resilience Recommendations

Strategic Project NSJ 1.3. Construct Off-Base Substation

Step 1: Feasibility, System Design, and Operational Integration Planning (Mid-term)

- 1A. Evaluate Secondary Substation Feasibility, Capacity, and System Design (JEA + NAVFAC)
- 1B. Implement Switching Infrastructure, Automation, and Monitoring Systems (PWD + JEA)

Step 2: Execution (Long-term)

- 2A. Construct Substation and Commission Redundant Supply System (JEA + NAVFAC)
- 2B. Optimize System Performance and Resilience Over Time (JEA + NAVFAC + PWD)

Project Package #2 NAS Jacksonville

Adaptation for NOLF Whitehouse Resilience

NSJ 2.1: Interagency Utility Coordination Advancement

NSJ 2.2: Northeast Florida Center for Natural Lands: Native Plant Nursery, Education, and Community Resource Hub

NSJ 2.3: Conservation Buffer and Corridor Protection Strategy for NOLF Whitehouse

Project Package #2 NAS Jacksonville:

Adaptation for NOLF Whitehouse Resilience

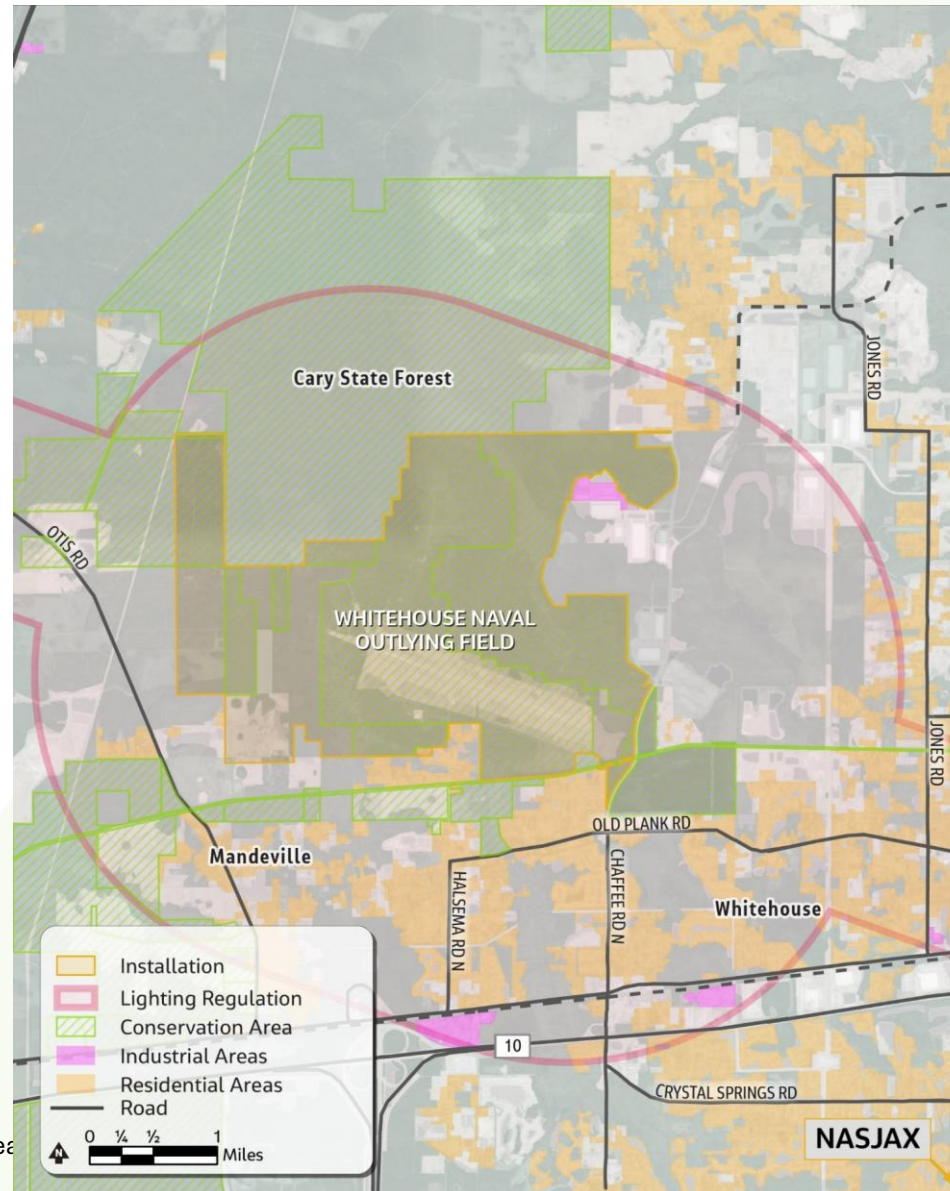
Asset Name	Owner	Location	Mission Criticality	Relevant Shocks & Stresses	Level of Urgency
NOLF Whitehouse	DoD	NOLF Whitehouse	Primary	Light Pollution, Encroachment, Wildfire	Immediate

- **Ecologically connected landscape:** Pine flatwoods, forests, and wetlands support biodiversity and regional hydrology
- **Managed working lands:** Fire suppression increased fuels; ongoing prescribed fire reduces wildfire risk and restores habitat
- **Critical ecosystem functions:** Stormwater storage, groundwater recharge, flood mitigation, and air/noise buffering
- **Development pressure:** Growth along US 90, I-10, and Chaffee Rd threatens compatible land use
- **Sentinel Landscape opportunity:** Enables conservation, buffers military operations, and preserves long-term ecological and economic value



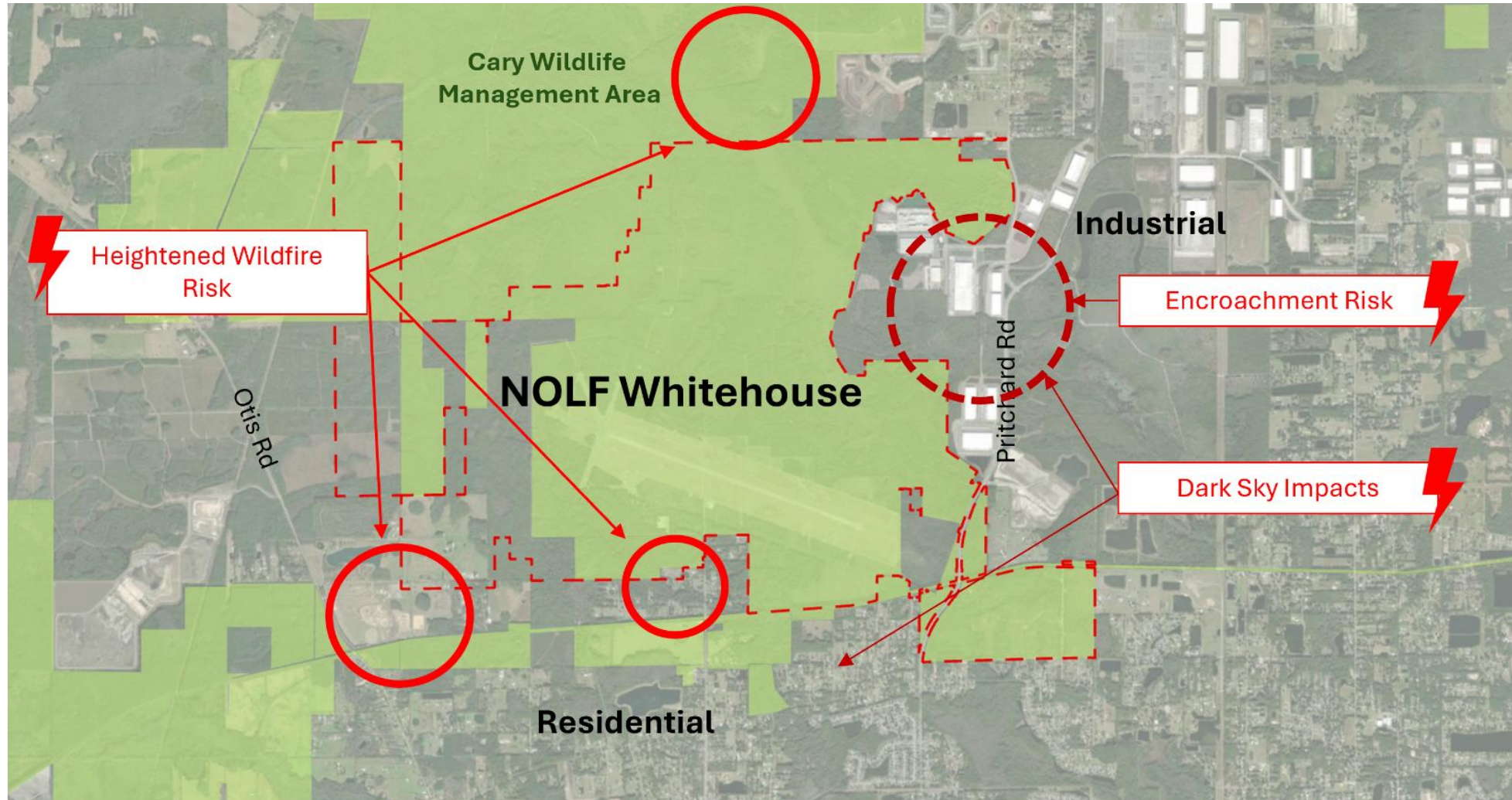
Project Package #2 NAS Jacksonville:

Adaptation for NOLF Whitehouse Resilience



Project Package #2 NAS Jacksonville:

Adaptation for NOLF Whitehouse Resilience



Project Package #2 NAS Jacksonville:

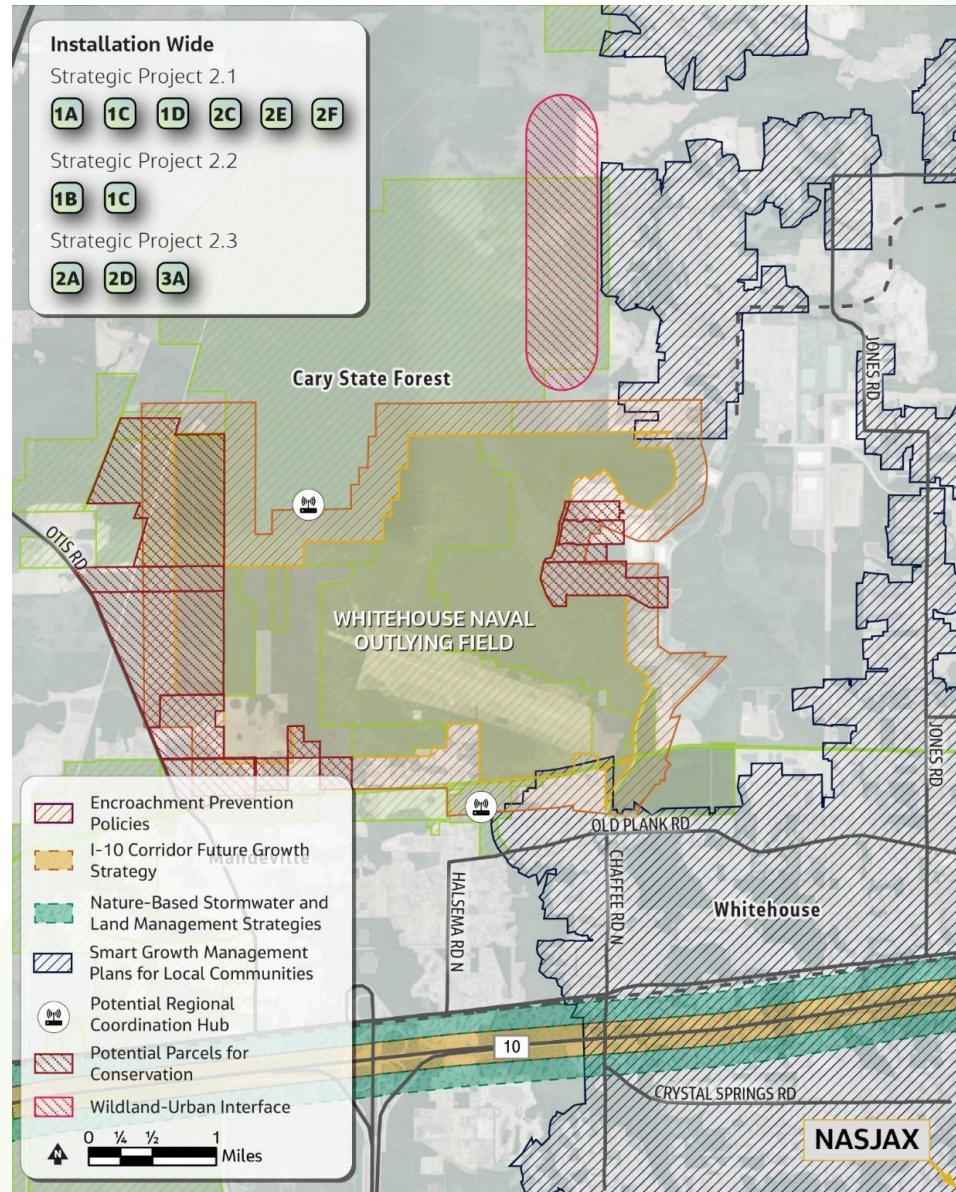
Adaptation for NOLF Whitehouse Resilience

Current Projects:

Project	Entity	Location	Purpose	Timeline
Duval County Local Mitigation Strategy	Duval County	Duval County	Regional framework for wildfire mitigation	Complete
Dark Sky Ordinance	City of Jacksonville	NOLF Whitehouse	Requirements for dark-sky friendly lighting for new development	Complete
Controlled Burns	Cary Wildlife Management Area	Cary Wildlife Management Area	Manage fuel on state-owned lands	Ongoing
Community Wildfire Protection Plan	City of Jacksonville	City-wide	Assess wildfire risk and determine mitigation strategies	Plan in Development

Project Package #2 NAS Jacksonville:

Adaptation for NOLF Whitehouse Resilience Recommendation



Project Package #2 NAS Jacksonville:

Adaptation for NOLF Whitehouse Resilience Recommendation

Strategic Project NSJ 2.1. Interagency Utility Coordination Advancement

Step 1: Partnership Development and Regional Coordination Framework (Short-term)

- 1A. NOLF Whitehouse Community Partnership (NEFRC and Partners)
- B. Working Lands, Housing, and Development Partnership Expansion (NEFRC and Partners)
- 1C. Regional Data and Coordination Platform Development (NEFRC)
- 1D. Strengthen Dark Sky Ordinance Through Whitehouse Lighting Code Updates (City of Jacksonville and NEFRC)

Step 2: Coordinated Future Growth Policy, Conservation Strategy, and Implementation (Short-term)

- 2A. Encroachment Prevention and Compatible Land Use Policies (Local Governments and NEFRC)
- 2B. I-10 Corridor Coordinated Future Growth Strategy and Design Guidelines (City of Jacksonville and NEFRC)
- 2C. Affordable and Workforce Housing Strategy for Military Personnel (NEFRC and Partners)
- 2D. Nature-based Stormwater and Land Management Strategies (NEFRC and Local Governments)
- 2E. Habitat Connectivity and Landscape Protection (NEFRC and Partners)
- 2F. Advanced Working Lands and Conservation Strategies (NEFRC and Partners)
- 2G. Coordinated Future Growth Management Plans for Local Communities (NEFRC and Local Governments)

Project Package #2 NAS Jacksonville:

Adaptation for NOLF Whitehouse Resilience Recommendation

Strategic Project NSJ 2.2. Northeast Florida Center for Natural Lands: Native Plant Nursery, Education, and Community Resource Hub

Step 1: Partnership Development and Center Establishment (Short-term)

- 1A. Facility Development and Regional Coordination (NEFRC and Partners)
- 1B. Multi-agency Partnership and Program Development (NEFRC and Partners)
- 1C. Workforce Development and Recruitment Partnerships (NEFRC and Partners)

Step 2: Nursery Operations, Education Programming, and Community Implementation (Short-term)

- 2A. Native Plant Nursery and Restoration Supply (NEFRC and Partners)
- 2B. Integrated Education, Demonstration, and Outreach Program (NEFRC and Partners)
- 2C. Public Education Program on Land Conservation and Water Resource Management (NEFRC and SJRWMD)
- 2D. Integrated Wildfire and Land Stewardship Demonstration (NEFRC and Partners)

Project Package #2 NAS Jacksonville:

Adaptation for NOLF Whitehouse Resilience Recommendation

Strategic Project NSJ 2.3. Conservation Buffer and Corridor Protection Strategy for NOLF Whitehouse

Step 1: Conservation Buffer Protection and Land Security (Short-term)

1A. Permanent Land Protection Adjacent to Installation (NEFRC and Partners)

1B. Identification and Prioritization of Critical Buffer Parcels (NEFRC and Partners)

Step 2: Integrated Buffer Management and Wildfire Resilience (Mid-term)

2A. Wildfire Risk Reduction through Fuel Management (NEFRC and Partners)

2B. Formalization of Wildland-Urban Interface (WUI) Resilience Zones

2C. Longleaf Pine Restoration and Regenerative Land Management

2D. Expansion of the City of Jacksonville Community Wildfire Protection Plan (CWPP)

2E. Establishment of the Northeast Florida Center for Natural Lands

Step 3: Technology Integration and Adaptive Management

3A. Smart Environmental Monitoring and Risk Detection Systems

3B. Integrated Data and Coordination Platform

Project Package #3 NAS Jacksonville
Roosevelt Boulevard Corridor Mobility Improvements

NSJ 3.1: Alternative Transportation, Land Use, and Heat-Resilient Corridor Development

NSJ 3.2: Improve Current Vehicular Infrastructure

NSJ 3.3: Modernize Operational Technologies for Demand and Emergency Responsiveness to Create a Safe, Smart Corridor

Project Package #3 NAS Jacksonville:

Roosevelt Boulevard Corridor Mobility Improvements

Asset Name	Owner	Location	Mission Criticality	Relevant Shocks & Stresses	Level of Urgency
Roosevelt Boulevard	FDOT	Timuquana Road to I-295	Primary	Congestion, Lack of Redundant Access Points	High

- **Major corridor:** US 17 connects I-295 to I-10, linking suburbs to Jacksonville.
- **Base access:** Only route to NAS Jacksonville (all three gates).
- **High demand:** ~38K daily vehicles; peak congestion at shifts/events.
- **Economic link:** Connects neighborhoods to jobs, schools, and retail.
- **Key challenge:** Heavy use drives congestion, safety issues, and food access gaps.



Project Package #3 NAS Jacksonville:

Roosevelt Boulevard Corridor Mobility Improvements



Project Package #3 NAS Jacksonville:

Roosevelt Boulevard Corridor Mobility Improvements

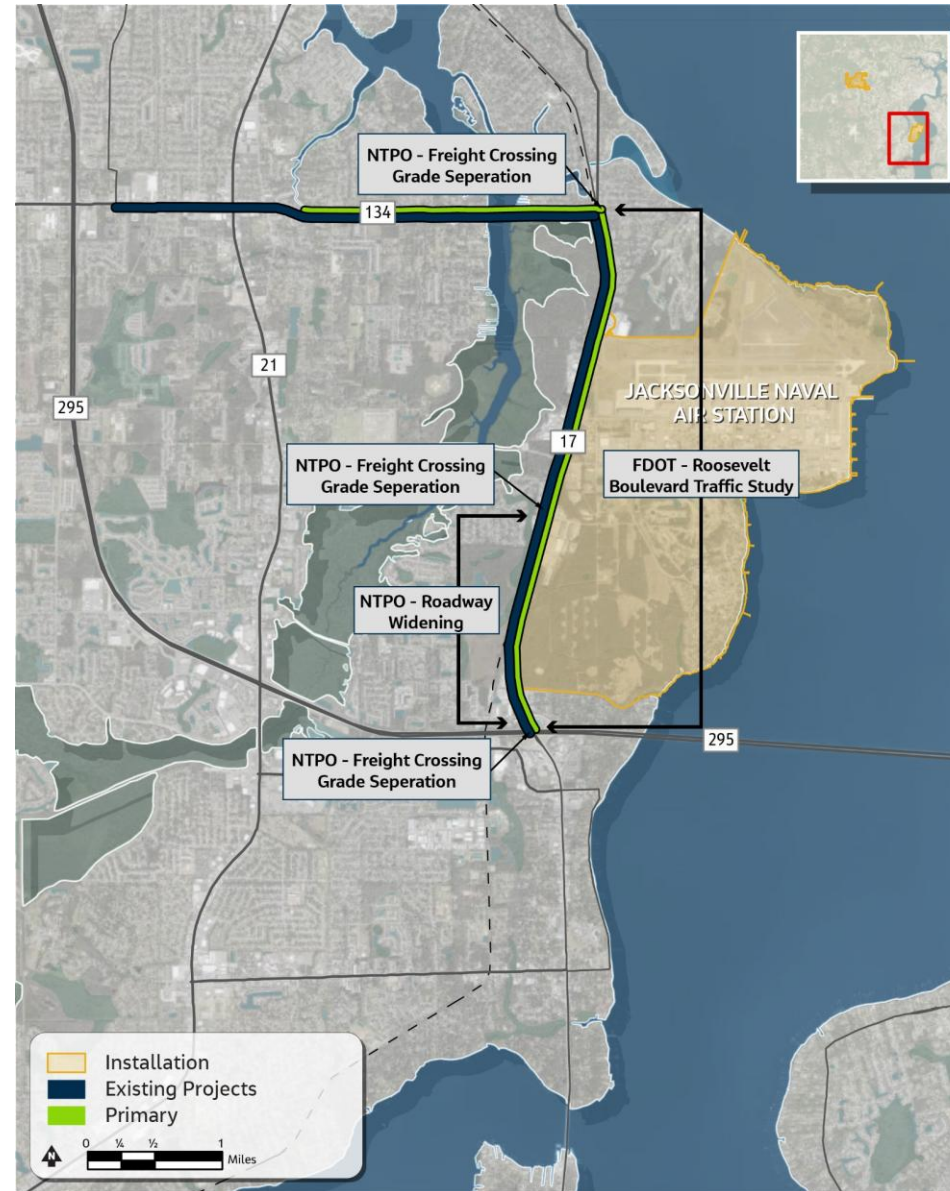
Current Projects:

Project	Entity	Location	Purpose	Timeline
Roosevelt Boulevard Traffic Study	FDOT	Roosevelt Boulevard	Traffic Operability	Ongoing
Roadway Widening	North Florida TPO – Duval	Collins Road to NAS Birmingham Gate	Add lanes and add multiuse trail	Unfunded Project
Southwest Commuter Rail	North Florida TPO – Duval/Clay	Downtown Jacksonville to Palatka	Transit Improvement	Unfunded Project
Freight Improvements	North Florida TPO - Duval	Timuquana Road, Avent Drive, Wells Road	Freight Improvement	Unfunded Project
Roosevelt Trail (Clay County)	North Florida TPO – Clay	Doctors Lake Drive to Duval County Line	Rail to Trail, improve trail system	Unfunded Project
Roosevelt Rail Trail	North Florida TPO – Duval	Clay County Line to Forest Street	Add multiuse trail	Unfunded Project
Interchange Improvement	North Florida TPO – Duval	I-295	Major interchange improvements	Under Construction
Widen Buckman Bridge	North Florida TPO – Duval	San Jose Boulevard to Blanding Boulevard	Improve traffic operability	Planned/Unfunded Project

Project Package #3 NAS Jacksonville:

Roosevelt Boulevard Corridor Mobility Improvements

Current Projects:



Project Package #3 NAS Jacksonville:

Roosevelt Boulevard Corridor Mobility Improvements Recommendations

Strategic Project NSJ 3.1. Alternative Transportation, Land Use, and Heat-Resilient Corridor Development

Step 1: Improved Safety, Access, and Transit Reliability Planning and Service Strategies (Short-term)

1A. Build the Complete Streets Foundation (City of Jacksonville)

1B. Execute Transit Service Enhancements and First/Last-Mile Solutions (JTA)

Step 2: Improved Corridor Performance, Mode Shift, and Climate-Adaptive Integration Strategies (Mid-term)

2A. Build Enhanced Transit Infrastructure (JTA)

2B. Complete Streets Infrastructure Expansion (City of Jacksonville)

Step 3: Build High-Capacity Transit Readiness Strategies (Long-term)

3A. Network Integration (NF TPO, JTA, + City of Jacksonville)

3B. Implement full BRT (if demand thresholds met)

Project Package #3 NAS Jacksonville:

Roosevelt Boulevard Corridor Mobility Improvements Project 3.1 Recommendations



Project Package #3 NAS Jacksonville:

Roosevelt Boulevard Corridor Mobility Improvements Recommendations

Strategic Project NSJ 3.2. Improve Current Vehicular Infrastructure

Step 1: Intersection & Signal Optimization Short-term Strategies (Short-term)

- 1A. Improve Timuquana Road & Avent Drive Intersections (NF TPO + FDOT)
- 1B. Improve Collins Road Intersection (FDOT)
- 1C. Corridor-Wide Signal Coordination (FDOT)

Step 2: Access Management for Reduced Friction Strategies (Mid-term)

- 2A. Timuquana Road to Collins Road Segment (High Conflict Commercial Zone)
- 2B. NAS Gate Influence Zones (High-Constraint Safety Area)
- 2C. Corridor-Wide Access Management Policy Integration (City of Jacksonville + FDOT)

Project Package #3 NAS Jacksonville:

Roosevelt Boulevard Corridor Mobility Improvements Project 3.2 Recommendations



Project Package #3 NAS Jacksonville:

Roosevelt Boulevard Corridor Mobility Improvements Recommendations

Strategic Project NSJ 3.3. Modernize Operational Technologies for Demand and Emergency Responsiveness to Create a Safe, Smart Corridor

Step 1: Improved Safety, Access, and Traffic Operations Reliability Strategies (Short-Term)

- 1A. Deploy Adaptive and AI-Enhanced Signal Control and Queue Safety (FDOT + NAS Jacksonville)
- 1B. Establish Foundational Smart Corridor ITS with Emergency Response Prioritization (FDOT + City of Jacksonville)
- 1C. Introduce Dynamic Traffic Management Tools (FDOT)

Step 2: Improve Corridor Performance, Mode Shift, and Safety Integration (Mid-Term)

- 2A. Implement Integrated Corridor Management with Safety Integration (FDOT + JTA)
- 2B. Coordinate Signal Systems Across Jurisdictions (FDOT + Orange Park)
- 2C. Strengthen Emergency and Incident Response Systems

Step 3: Build Advanced Smart Corridor and High-Capacity Safety Systems (Long-Term)

- 3A. Deploy AI-Based Predictive Safety and Traffic Management (FDOT + JTA + TPO)
- 3B. Expand Dynamic Lane and Demand Management

Project Package #3 NAS Jacksonville:

Roosevelt Boulevard Corridor Mobility Improvements Project 3.3 Recommendations



Project Package #4 NAS Jacksonville
Timuquana Road Corridor Mobility Improvements

NSJ 4.1: Flood Resilience and Adaptive Infrastructure

Project Package #4 NAS Jacksonville:

Timuquana Road Corridor Mobility Improvements

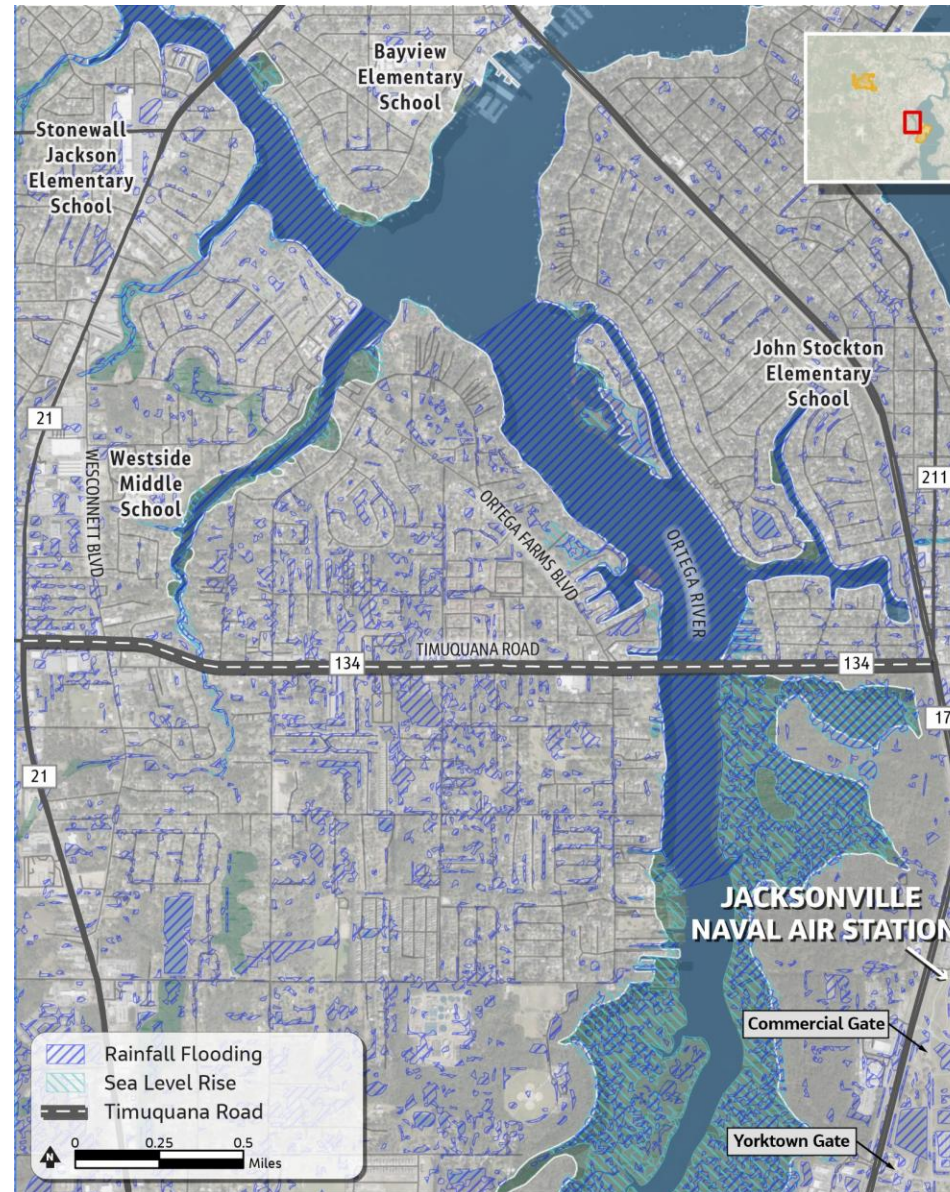
Asset Name	Owner	Location	Mission Criticality	Relevant Shocks & Stresses	Level of Urgency
Timuquana Road	FDOT	Roosevelt Boulevard to Wesconnett Boulevard	Primary	Sea Level Rise, Rainfall Flooding	Near-term

- **Key east–west corridor:** Connects US 17 to westside communities and crosses the Ortega River.
- **Military access:** Direct route to NAS Jacksonville (Timuquana Gate).
- **Daily demand:** ~20K vehicles/day with projected growth.
- **Flood risk:** Vulnerable to tidal, riverine, and stormwater flooding.
- **Resilience need:** Critical for mobility but challenged by climate impacts and aging infrastructure.



Project Package #4 NAS Jacksonville:

Timuquana Road Corridor Mobility Improvements



Project Package #4 NAS Jacksonville:

Timuquana Road Corridor Mobility Improvements

Current Projects:

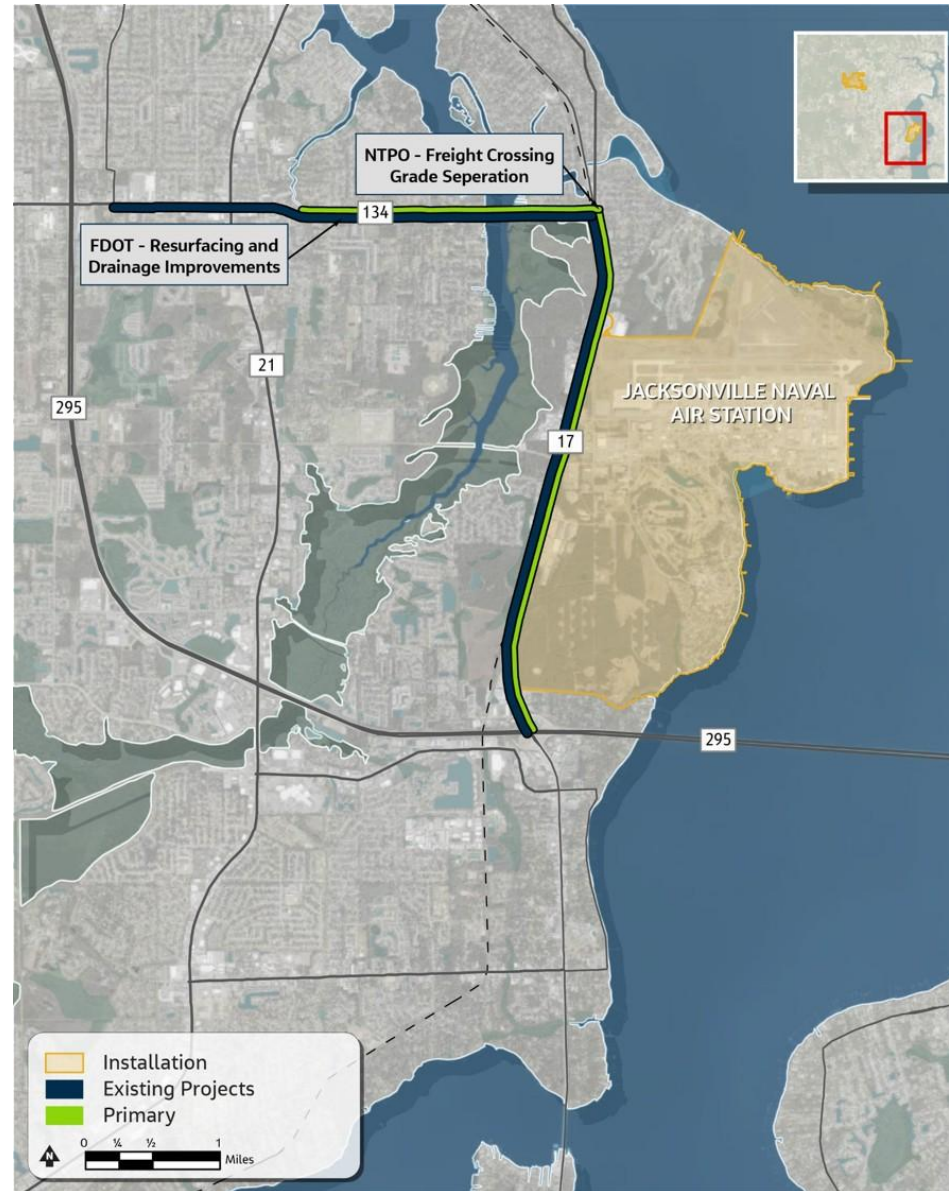
Project	Entity	Location	Purpose	Timeline
Resurfacing and Drainage Improvements	FDOT	Wesconnett Boulevard to Roosevelt Boulevard	Infrastructure Upgrades	Complete 2023



Project Package #4 NAS Jacksonville:

Timuquana Road Corridor Mobility Improvements

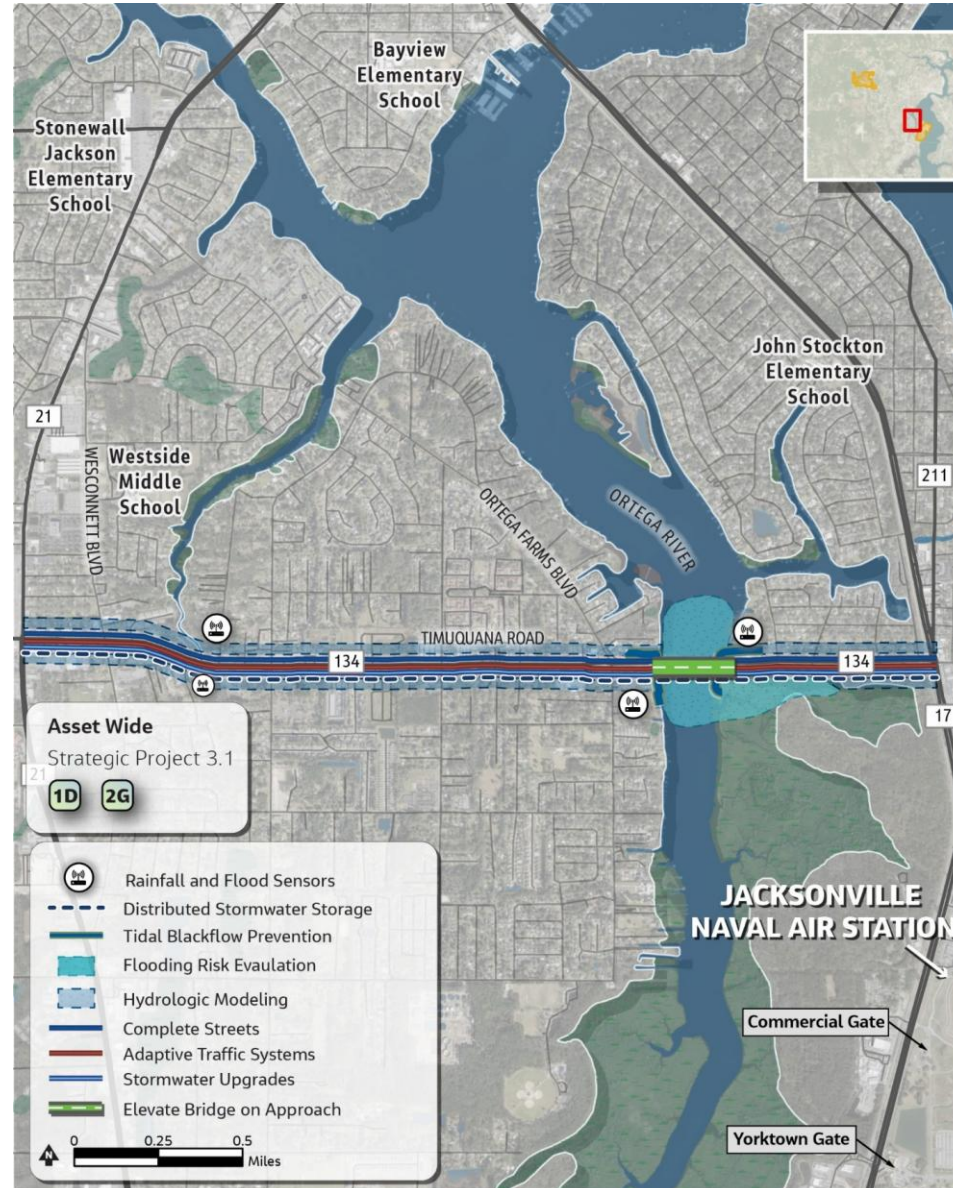
Current Projects:



Project Package #4 NAS Jacksonville:

Timuquana Road Corridor Mobility Improvements Project 4.1

Recommendations



Project Package #4 NAS Jacksonville:

Timuquana Road Corridor Mobility Improvements

Strategic Project NSJ 4.1. Timuquana Road Flood Resilience and Adaptive Infrastructure

Step 1: FDOT Model Roadway Drainage System (Short-term)

- 1A. Develop Comprehensive Hydrologic and Hydraulic Modeling (FDOT)
- 1B. Identify and Prioritize Drainage and Flood Risk Deficiencies (FDOT)
- 1C. Evaluate Backflow and Tidal Influence Risks (FDOT)
- 1D. Conduct Scenario-Based Planning for Future Conditions (FDOT)
- 1E. Complete Streets and Multimodal Feasibility Assessment (JTA)

Step 2: Infrastructure Implementation and Adaptive Management (Mid- to Long-term)

- 2A. Upgrade and Right-Size Drainage Infrastructure (FDOT)
- 2B. Implement Tidal Backflow Prevention Systems (FDOT)
- 2C. Elevate Roadway, Bridge Approaches, and Complete Streets Improvements (FDOT / JTA)
- 2D. Incorporate Distributed Stormwater Storage and Green Infrastructure (FDOT / City of Jacksonville)
- 2E. Deploy Real-Time Monitoring and Smart Infrastructure Systems (FDOT)
- 2F. Implement Adaptive Traffic and Emergency Management Systems (FDOT / JTA)
- 2G. Apply Long-Term Performance Monitoring and Maintenance Strategies (FDOT)

Project Package #5 NAS Jacksonville

Wastewater System Resilience

NSJ 5.1: Wastewater System Resilience Feasibility Study for NAS Jacksonville

Project Package #5 NAS Jacksonville:

Wastewater System Resilience

Asset Name	Owner	Location	Mission Criticality	Relevant Shocks & Stresses	Level of Urgency
Timuquana Road	FDOT	Roosevelt Boulevard to Wesconnett Boulevard	Primary	Sea Level Rise, Rainfall Flooding	Near-term

- **Existing systems:** Mix of decentralized and small centralized wastewater systems.
- **Aging & limits:** Capacity constraints, aging assets, and limited redundancy.
- **Environmental stress:** Rainfall and high groundwater reduce system efficiency.
- **Scalability gap:** No full regional connection limits expansion flexibility.
- **Future need:** Evaluate upgrades and regional tie-in (e.g., CCUA) for reliability.



Project Package #5 NAS Jacksonville:

Wastewater System Resilience

Potential Efforts:

- **Privatization study:** NAS Jax evaluating water/wastewater system privatization (FY27 BCA).
- **JEA partnership option:** Close on-base WWTP; redirect flow to Southwest WRF.
- **Proposed infrastructure:** Master pump station + 16-inch force main to Timuquana.
- **Capacity impact:** Would require expansion of JEA's 16 MGD Southwest WRF.

Project Package #4 NAS Jacksonville:

Wastewater System Resilience

Strategic Project NSJ 5.1. Wastewater System Resilience Feasibility Study for NAS Jacksonville

Step 1: NAS Jacksonville Resilient Wastewater Feasibility Study and System Evaluation (Short-term)

- 1A. Identify and Confirm System Ownership, Service Areas, and Demand Projections (JEA)
- 1B. Evaluate Existing Infrastructure and Critical System Needs (JEA)
- 1C. Assess System Vulnerabilities and Environmental Impacts (JEA / City of Jacksonville)
- 1D. Evaluate Wastewater Treatment and Conveyance Alternatives (JEA)
- 1E. Integrate Stakeholder Coordination and DoD Requirements (JEA / NAS JAX)

Step 2: Implementation Readiness, Resilience Strategy, and Funding Alignment (Short-term)

- 2A. Identify Preferred Resilient System Alternative and Implementation Strategy (JEA)
- 2B. Develop Prioritized Capital Improvement and Phasing Plan (JEA)
- 2C. Advance Resilience, Environmental, and Regulatory Outcomes (JEA / City of Jacksonville)
- 2D. Align Project with MIRR and External Funding Opportunities (JEA / Partners)
- 2E. Establish Long-Term Coordination and Adaptive Management Framework (JEA / NAS JAX)

Regional Recommendations



Air Space



Regional Airports

- **Strengthen and Formalize Partnerships** between Regional Airports and Military Installations
- **Invest in targeted infrastructure improvements at Cecil and Keystone** airports to enhance their capacity to support military training, logistics, and emergency operations.
- **Advance land use and encroachment mitigation strategies** around regional airports to preserve compatible airspace and operational conditions.
- **Develop a regional aviation resilience and continuity plan** that integrates NEFL's regional airports as part of a coordinated support network for military operations.

Next Steps & Questions



Next Steps & Questions



- Feedback and Comments - ***Due By July 1st***
 - **Directly within the SharePoint documents** using the comment and track changes features
 - **Via email**, either by sending a marked-up version of the downloaded Word documents or by including detailed comments in the body of the email

*If you choose to provide feedback via email, send your comments to **Sarah Marrs** (Sarah.Marrs@jacobs.com) and **Charley Golden** (Charley.Golden@jacobs.com). Please include the relevant project recommendation title(s) in your message to help us track and respond efficiently.*

- Emergency Management Exercise – August 4th, 2026



Northeast Florida Regional Council
Military Installation Readiness Review

Thank You



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Jacobs