

Marine Corps Support Facility Blount Island

Adaptation Package #2: Improving Communications Delivery

This package includes two strategic projects that in combination improve communication system redundancy for this installation. It encompasses infrastructure improvement recommendations that can be led by local authorities and agencies as well as private service providers.



This study was prepared under contract with the Northeast Florida Regional Council with financial support from the Office of Local Defense Community Cooperation, Department of Defense.

The content herein reflects the views of the Northeast Florida Regional Council and does not necessarily reflect the views of the Office of Local Defense Community Cooperation or the Department of Defense.

How to Read this Document

Project Summary Packages provide details on recommendations, background, and context to facilitate and accelerate implementation. The summaries are presented by mission-critical priority assets in the study area. The recommendations may include physical projects, new partnerships, and modernized policies identified over the course of the project. Presented in three sections, **Background and Context, Recommendations, and Implementation Tools**, each summary package can be used to brief decision makers and to complete funding requests and/or grant applications.

The first section, **Background and Context**, situates the reader to the Military Installation Readiness Review (MIRR) project, the study area location, and the military installations. It includes the following subsections:

- **Mission of the Installation of the Package**, which reminds the reader of the installations' purpose and importance of readiness
- **Mission-Critical Priority Assets** for the installation as identified through stakeholder engagement and vulnerability assessment
- **Current Conditions** of the mission-critical asset of the package, which illustrate the issues in local context
- **MIRR Adaptation Strategy Framework**, which is aligned to the region's vision for a Resilient First Coast and is the foundation of this body of work

The second section, **Recommendations**, dives into the issues challenging the region and study area and presents recommendations in the form of investments through projects, policy modernization, and/or by forging new partnerships among diverse stakeholder groups. This section is informed by the vulnerability assessment findings, stakeholder insight on ongoing projects and priorities, and best practices research. Information on the following topics is included in this section:

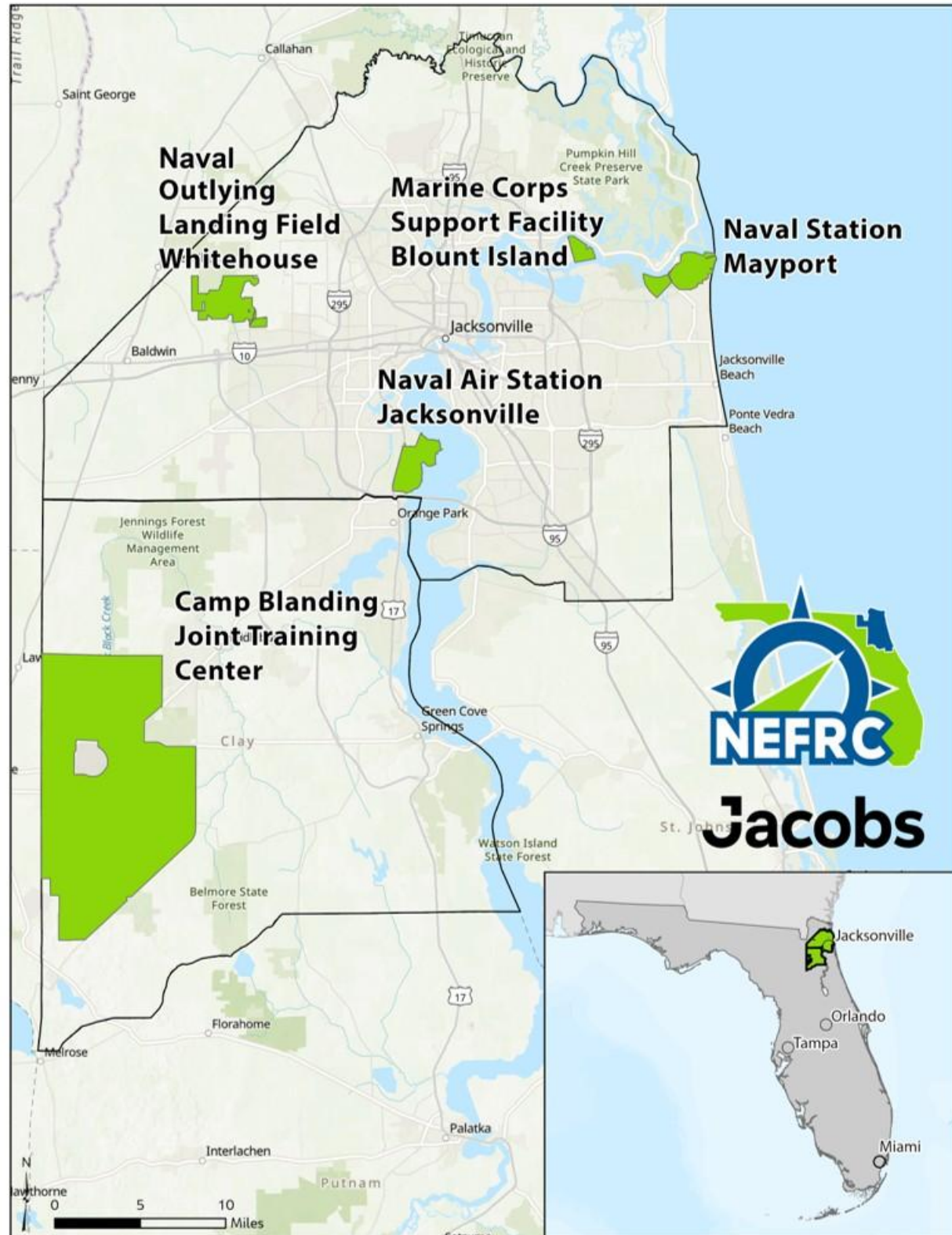
- **Shocks and Stresses** affecting the mission-critical asset
- **Project Objective**, which captures the adaptation goal for the following recommendations to support mission readiness through community resilience
- **Stakeholders and Current Efforts** highlighting successful foundational work upon which to build
- **Recommended Strategic Projects, Policies, and Partnerships**, including the owners and partners, vulnerability being addressed, co-benefits, foundational existing projects (as applicable), and timeline to comment implementation
- The **Metrics and Cost-Benefit Analysis** section, which illustrates how the recommendations were evaluated to determine appropriateness, viability, and achievement of project goals; this tool is available as new projects are identified by implementation partners

The final section, **Implementation Tools**, is provided as a resource to move from planning to action:

- **Financial Strategy Toolkit with Funding Opportunities**, which presents a matrix of opportunities and tools to finance and fund recommendations. Some recent grant opportunities are highlighted; however, given the changing conditions of federal sources and requirements, these should be viewed as initial suggestions for further review and applicability at the appropriate time.
- **References** are presented for user convenience.

Background and Content

Figure 1. Northeast Florida MIRR Study Area Map



In 2024, the Northeast Florida Regional Council (NEFRC) obtained a MIRR grant from the Department of Defense's Office of Local Defense Community Cooperation to identify and analyze the assets, hazards, and corresponding vulnerabilities and risks that affect the military installations in Duval and Clay counties. This study includes Camp Blanding Joint Training Facility, Marine Corps Support Facility (MCSF) Blount Island, Naval Station Mayport, and Naval Air Station Jacksonville (Figure 1). The goal is to increase the resilience and readiness of these installations from the impacts of extreme weather events, infrastructure challenges, and other vulnerabilities, thereby promoting mission assurance. The adaptation projects are structured into comprehensive summary packages, with each focused on a specific mission-critical asset or system.

MCSF Blount Island

MCSF Blount Island occupies more than 1,100 acres on Blount Island along the St. Johns River in Jacksonville, Florida, near the Atlantic Ocean. The installation is adjacent to the Jacksonville Port Authority's Blount Island Marine Terminal. The federal installation and port terminal are separate facilities, but they share regional dependencies, including roadway access, utilities, dredging, shoreline protection, emergency response and maritime transportation. Coordination among the Marine Corps, JAXPORT and regional partners helps preserve continuity for defense and commercial port operations. The installation combines deepwater maritime access with road and rail connections, waterfront infrastructure, maintenance and staging areas, and a specialized slipway supporting Maritime Prepositioning Force ship operations. These capabilities support equipment maintenance and staging, strategic mobility and distribution, connecting Northeast Florida's maritime and transportation network to a Marine Corps mission with global reach.

Mission

MCSF Blount Island and Blount Island Command are distinct organizations with complementary responsibilities.

MCSF Blount Island is the host installation under Marine Corps Installations East. It provides and sustains the facilities, utilities, security, installation services, workforce support and maritime access required for mission continuity. The installation is home to Blount Island Command.

Blount Island Command is an operational logistics command subordinate to Marine Corps Logistics Command. It generates, sustains, modernizes and distributes ready-for-issue, service-managed equipment and supplies across the Marine Corps' global positioning network. The network integrates prepositioning programs, sustainment nodes and distribution pathways, including equipment and supplies positioned afloat and ashore and contracted capabilities, so Marine, joint and combined forces can rapidly receive, integrate and employ combat capability.

At MCSF Blount Island, teams manage equipment throughout its lifecycle. They plan production, maintain accountability and asset visibility, coordinate maintenance and modernization, support ship offload and backload operations, and prepare equipment for distribution. During scheduled ship maintenance cycles and other production periods, equipment may be inspected, repaired, modernized, reconfigured and regenerated according to Marine Corps requirements. Together, the installation and command are more than a ship-loading point.

They form an integrated sustainment and industrial hub that converts infrastructure, technical expertise and strategic access into positioned combat capability.

The work is carried out by an integrated workforce of Marines, Sailors, federal civilians and defense contractors. Marine Corps Support Facility Blount Island has a reported population of approximately 1,600 people across the host installation, Blount Island Command and tenant organizations. That population includes nearly 700 service members, about 200 federal civilian employees and about 700 on-site contractors. Because the total includes hundreds of reservists, it does not represent a typical daily on-site count. The number of people present varies with reserve activity, ship offload and backload operations and other mission surges. Together, this workforce sustains the installation and enables Blount Island Command to generate, modernize, maintain accountability for and distribute ready-for-issue equipment and supplies across the global positioning network.

Blount Island is not merely a port facility; it is a production, sustainment, positioning, and strategic-distribution node. Loss of regional supporting infrastructure can therefore translate into delayed regeneration or movement of ready-for-issue equipment and reduced responsiveness of the Marine Corps' global positioning network.

Installation Interconnections

Marine Corps Support Facility Blount Island's most immediate interconnections are regional. Mission continuity depends on reliable access to the Atlantic Ocean through the St. Johns River; maintained shipping channels and waterfront infrastructure; road and rail transportation; utilities and communications; emergency response; and a skilled military, civilian and contractor workforce. The installation routinely coordinates with the city of Jacksonville, JAXPORT, state and local emergency management and public safety agencies, maritime and defense industries, educational institutions and other regional partners.

Naval Air Station Jacksonville, Naval Station Mayport and Camp Blanding are part of Northeast Florida's broader military and resilience network. These installations and organizations support regional planning, training, emergency preparedness, workforce development and a shared understanding of infrastructure risks. They are regional partners, not elements of Blount Island's command structure.

Blount Island also depends on upstream logistics nodes beyond Northeast Florida. Marine Corps Logistics Command, headquartered at Marine Corps Logistics Base Albany, Georgia, includes depot-level maintenance capabilities that rebuild, repair, modify and restore Marine Corps ground equipment. The Charleston, South Carolina, defense complex provides access to a broader joint transportation and munitions network supported by extensive roadway, rail and deepwater-port infrastructure. New equipment and supplies also enter the sustainment enterprise through Marine Corps acquisition and fielding processes, including Marine Corps Systems Command. Blount Island's mission depends on the movement of equipment and supplies over highways and rail lines and through upstream production, maintenance, storage and distribution nodes as well as through its maritime approaches. A disruption to an inland transportation corridor or an upstream logistics node can affect Blount Island operations even when the installation, St. Johns River and Atlantic approaches remain accessible.

These functional dependencies should not be confused with command relationships. Marine Corps Support Facility Blount Island operates under Marine Corps Installations East, while Blount Island Command operates under Marine Corps Logistics Command. Their missions also require coordination with Headquarters Marine Corps, Military Sealift Command, Marine Corps Systems Command, supported Marine components and operating forces, the joint distribution enterprise, industry partners and allied or partner-nation organizations as directed. Those organizations may serve as logistics providers, lifecycle partners, customers or mission partners without falling within the installation's command structure.

Globally, Blount Island's strategic value is best understood through the Marine Corps' global positioning network rather than through a fixed list of overseas sites. The network combines Maritime Prepositioning Force ships, approved ashore programs such as the Marine Corps Prepositioning Program-Norway, contracted capabilities, sustainment nodes and distribution pathways across multiple theaters. Blount Island Command supports, but does not command, the ships, Marine expeditionary forces or overseas operating forces that receive and employ the equipment.

Marine Corps Support Facility Blount Island is therefore a strategic sustainment and mobility node within a much larger logistics network. It links Northeast Florida's maritime access, infrastructure, workforce and industrial capacity with inland maintenance, munitions and distribution networks and with global maritime and ashore positioning. Its resilience depends not only on the facility and its access to the St. Johns River, but also on the roads, railways, utilities, ports, production capacity and partner organizations that allow equipment and supplies to reach, move through and depart the installation. Together, those connections enable the Marine Corps to accelerate force closure, extend operational reach, respond to crises and sustain combat capability worldwide.

Identification of Priority Assets for MCSF Blount Island

Priorities for the installation were based on the direct assets and local services required to support the missions (Figure 2). Priority assets include the shorelines around the installation that protect it from wave action, the electrical and communication systems that support the installation's logistics activities, the roadways and railways that connect the installation to the broader region (including Hecksher Drive, I-295, Dave Rawls Boulevard, and Blount Island Boulevard), and JAXPORT.

Primary Mission Critical asset types for 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
 - Natural Gas system

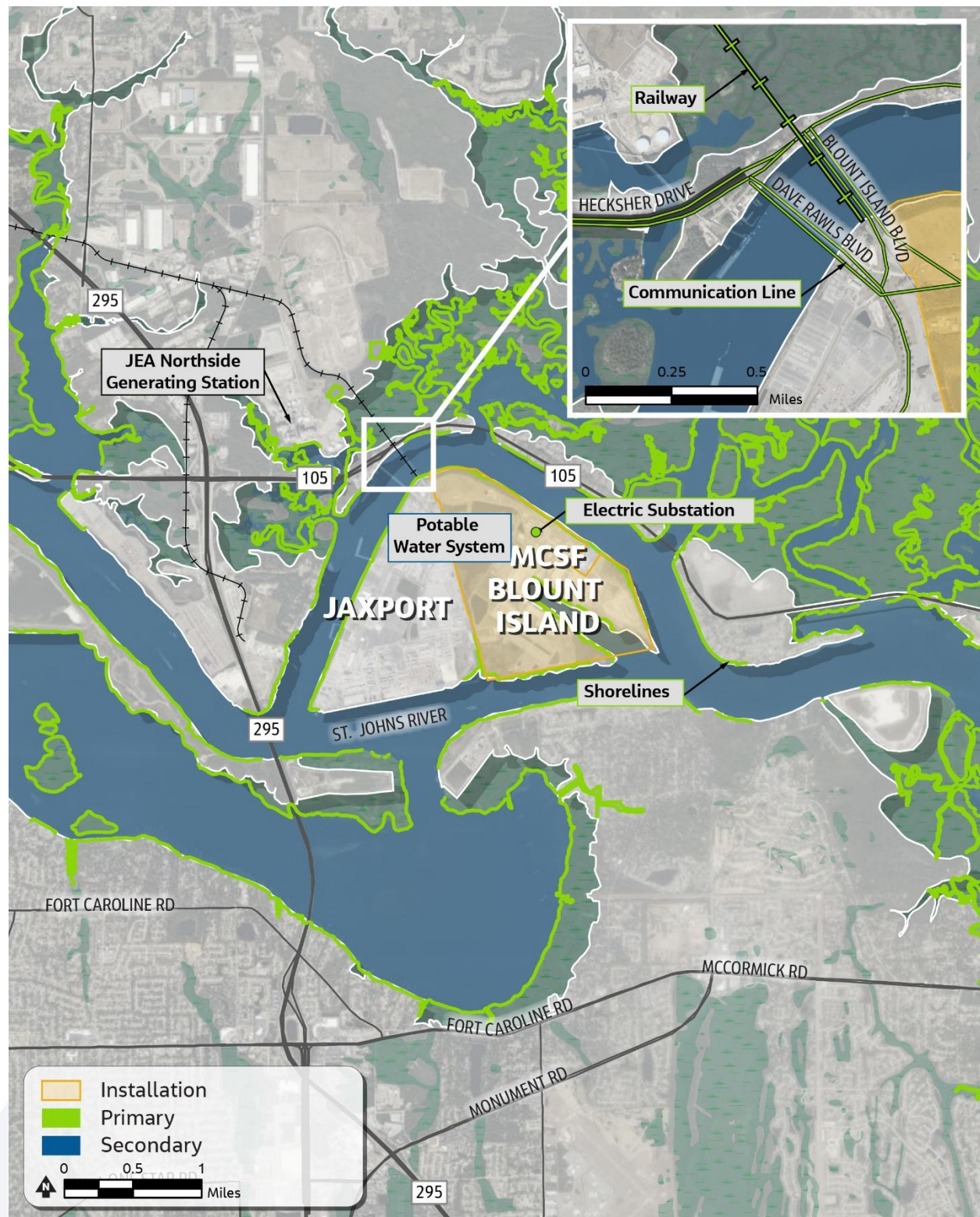
Secondary Mission Critical asset types for Joint Logistics Hub, Exercise & Deployment Support, and Vessel Maintenance

- Assets Providing Direct Support
 - Water systems
 - Wastewater systems

Mission Supportive for 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

Figure 2. Primary and Secondary Mission Critical Assets for MCSF Blount Island

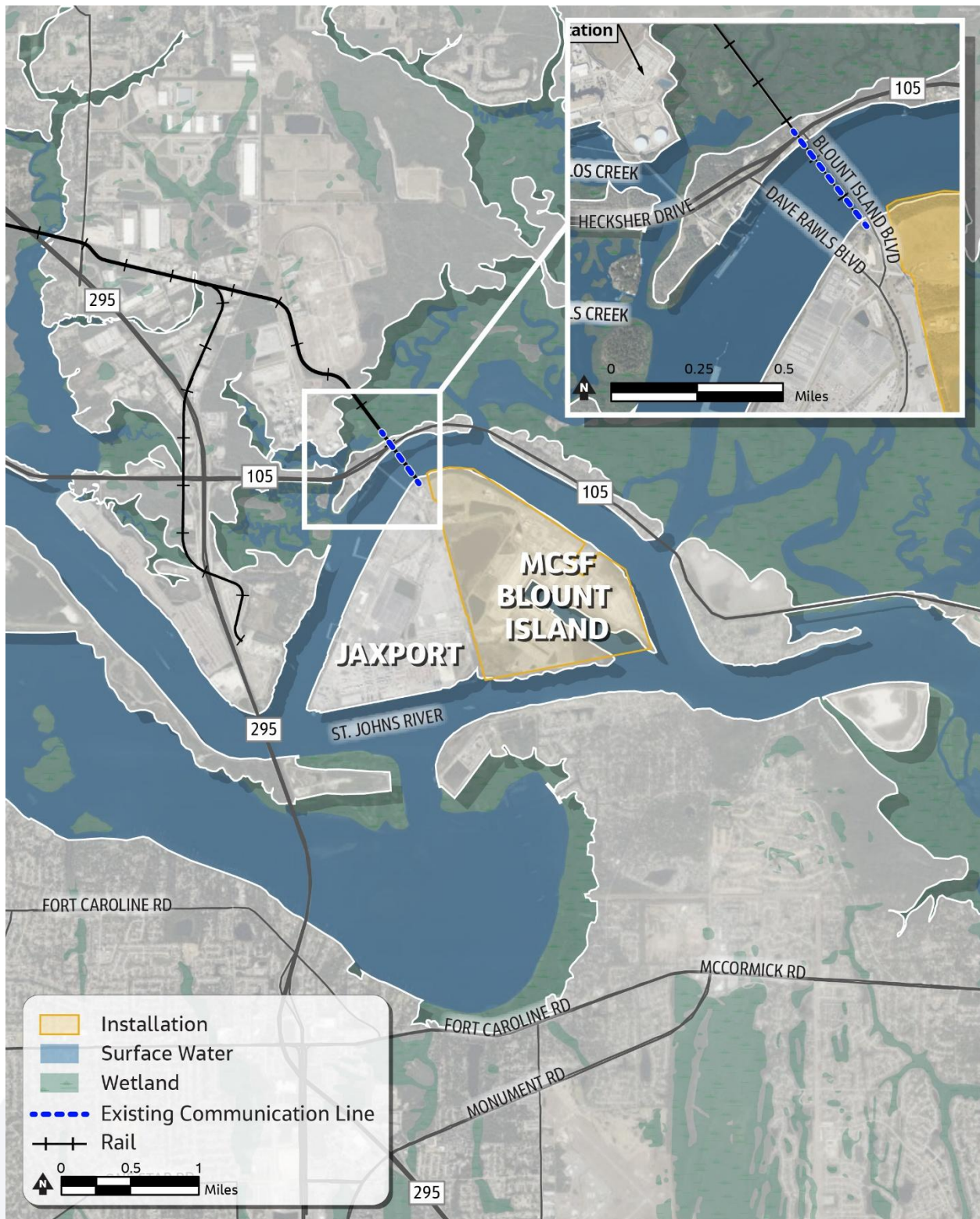


This package addresses the specific shocks and stresses of the mission-critical communications assets for MCSF Blount Island.

Current Conditions that affect the Communications System

Communications service to MCSF Blount Island is currently supported by a single, mission-critical fiber pathway located along Dave Rawls Boulevard and owned by AT&T. This corridor serves as the sole communications link providing secure, reliable, and continuous connectivity essential for command and control, logistics coordination, and mission execution at the installation. The reliance on a single linear asset introduces a significant vulnerability, as any disruption along this route, whether due to physical damage, utility conflicts, or environmental hazards such as flooding or storm impacts, could result in a complete loss of communications capability. Given the lack of redundancy, the system has limited resilience to both acute events and long-term stressors, elevating risk to operational continuity. As a result, maintaining the integrity of this asset and exploring opportunities for redundancy and hardening are critical considerations to support sustained mission readiness and reduce the potential for service interruption.

Figure 3. Communications Line Location Map



MIRR Adaptation Strategy Framework

The NEFRC envisions a resilient, prosperous, and inclusive region where communities work collaboratively across jurisdictional boundaries to strengthen economic vitality, safeguard natural and built systems, and enhance quality of life for current and future generations (Figures 3 and 4). In 2022, the Council launched Resilient First Coast to collaboratively address climate-related challenges across its seven member counties—Baker, Clay, Duval, Flagler, Nassau, Putnam, and St. Johns. This regional effort received strong support to develop a plan focused on addressing climate impacts and related threats to the region. Guided by this vision, the Regional Resilience Action Plan (RRAP) was published in 2025, providing a unifying framework that translates shared regional goals into coordinated action (NEFRC 2025).

The RRAP establishes a durable foundation for implementing this vision—enabling member governments and partners to prioritize investments, leverage funding opportunities, and advance solutions that build long-term resilience to environmental, economic, and social challenges across Northeast Florida. As such, the MIRR adaptation projects are built upon this framework to ensure alignment and promote successful implementation of the recommended strategies.

RRAP Goals and Objectives

Figure 4. Regional Resilience Action Plan Vision (NEFRC 2025)

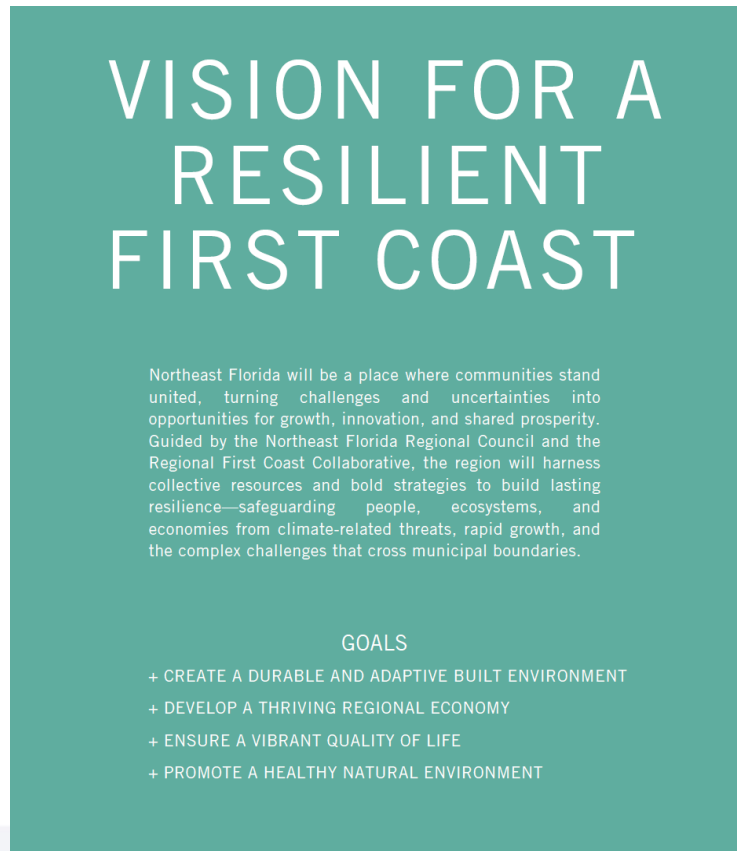


Figure 5. Regional Structure for Resilience as Framework for the MIRR

Create a Durable and Adaptive Built Environment

- Minimize magnitude and cost of damage to infrastructure
- Improve development practices and policies
- Decrease utility service disruptions and recovery time
- Improve transportation and mobility

Develop a Thriving Regional Economy

- Improve education and employment opportunities
- Increase housing stability
- Enhance tourism and historic preservation
- Increase smart growth and development

Ensure a Vibrant Quality of Life

- Improve public health and wellness
- Enhance supply of food, energy, and other critical resources
- Increase public participation and engagement
- Minimize disparity

Promote a Healthy Natural Environment

- Reduce heat stress
- Increase biodiversity and ecological services
- Maximize quality of soil, air, and water
- Minimize erosion, flooding, and storm impacts

Connecting this Built Environment Asset to the Regional Economy, Natural Environment, and a Vibrant Quality of Life

This framework provides the structure for how assets were organized and evaluated. This resilience project is centered on assets in the Built Environment pillar, so the acknowledgments below indicate how it is connected to the Regional Economy, Natural Environment, and Quality of Life.

Figure 6. Connection of This Asset to the Community





Recommendations



Documenting Shocks and Stresses with a Vulnerability Assessment

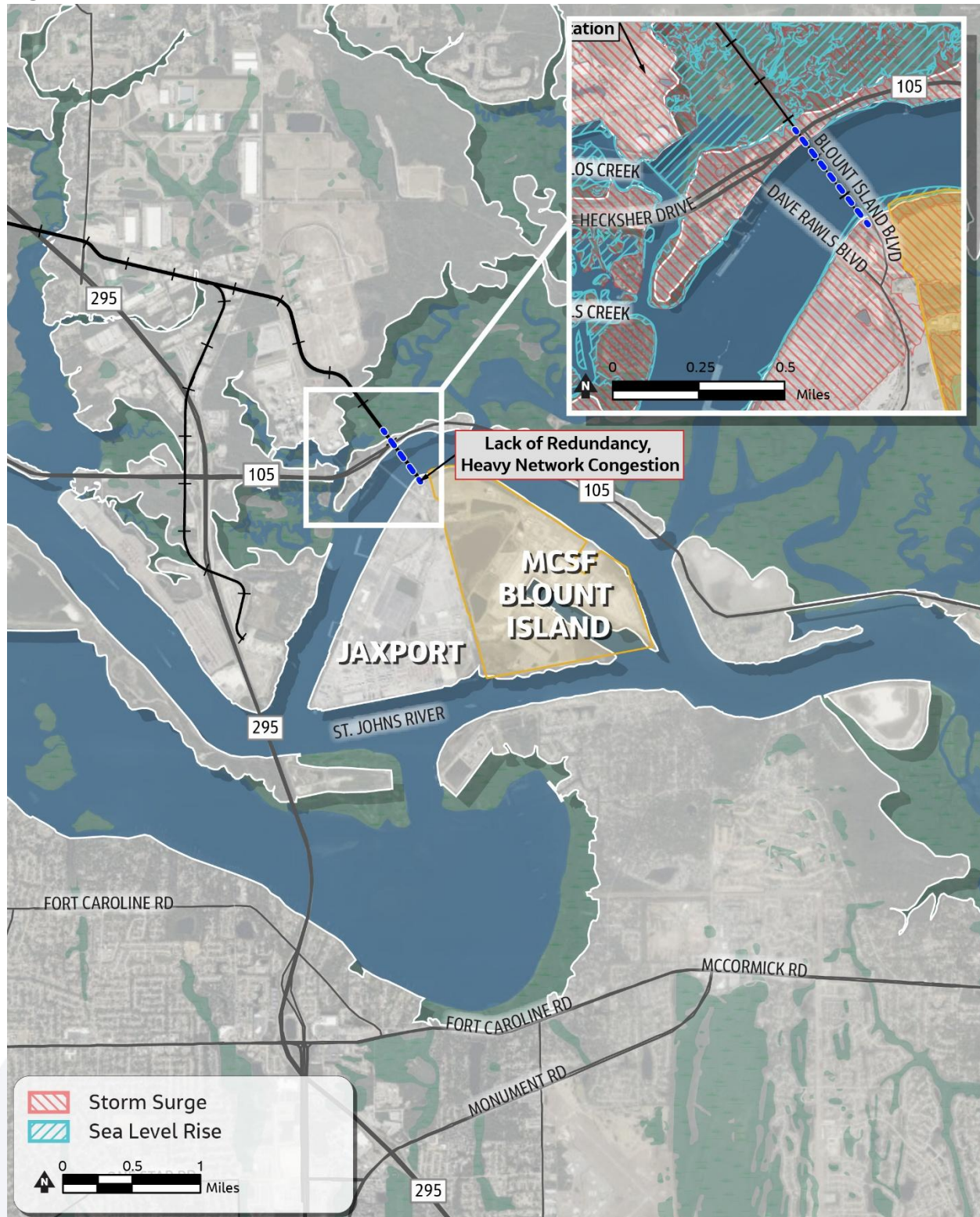
Shocks and stresses to the mission-critical assets supporting MCSF Blount Island include rainfall-induced flooding, coastal flooding from sea level rise (SLR) and storm surge, traffic congestion, lack of redundancy in transportation and utility system connection points, aging infrastructure of transportation assets, and erosion of shorelines of the island.

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, pedestrian safety challenges, and exposure to SLR. 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. JFRD Fire Station 48 provides emergency response services to MCSF Blount Island and the surrounding area. Marine-based response is significantly delayed due to the location of the fire boat dock on Heckscher Drive.
4. Aging infrastructure is a concern for the access bridges of Dave Rawls Boulevard and the railroad.
5. Shoreline erosion is occurring along the installation's perimeter, particularly in the Navy Point area.
6. **Communications infrastructure lacks redundancy and has experienced outages due to construction activities in the area.**
7. Freight transportation and logistics is supported primarily by rail, with opportunity for diversification in backup delivery logistics and options.

This project package addresses redundancy for communication delivery resilience for the installation (Item 6). Figure 7 shows the general location of mission critical communication infrastructure.

Project Need: Communications Service Delivery Resilience

Figure 7. Risk to Mission Map



Communications Asset Vulnerabilities Creating Risk to Mission

The primary communication link to MCSF Blount Island is a single AT&T fiber line, with internet service provided by Verizon. This line runs along Hecksher Drive and connects to the island via the Blount Island and Dave Rawls Boulevard bridges, entering the installation through a handhole near the gate and serving key operational facilities. During times of heavy network traffic, service delivery slows below optimal levels to support mission activities. While the fiber line itself is not directly exposed to significant hazards, it represents a single point of failure. The bridge to which the fiber cable is attached is vulnerable to sea-level rise and storm surge, though these risks are being addressed through separate adaptation projects.

Although communication capacity and service are generally reliable, two incidents in the past five years, both involving accidental line cuts during construction, highlight the risks associated with limited redundancy. A nearby cell tower may offer an alternative connection for point-to-point only. However, it is unclear whether it uses the same fiber network. Together, these factors underscore the system's vulnerability and the potential for disrupting mission (Table 1).

Table 1. Communication Assets Summary

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

Stakeholders and Current Efforts Identified

MCSF Blount Island is working with AT&T and other providers to improve communication redundancy. Additional support from neighboring JAXPORT infrastructure offers opportunities to strengthen resilience and reduce disruptions to installation operations.

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 four to six 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.

Table 2 gives details on projects and efforts that are currently ongoing or have been identified as a need within the region as it relates to communications infrastructure supporting Blount Island.

Table 2. Current projects and efforts related to Blount Island's communications system

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

Review of Strategic Partnerships and Policies

MCSF Blount Island's communications infrastructure is primarily supported by external providers, with AT&T owning and operating the primary communications lines serving the installation. While this arrangement enables reliable day-to-day service delivery, no formal agreements or coordination mechanisms were identified that specifically address communications resilience or redundancy. As a result, the installation's reliance on a single primary communications feed represents a significant vulnerability, particularly given the mission-critical nature of uninterrupted connectivity for logistics and operations.

Current coordination appears limited to routine service provision, with minimal formal engagement focused on risk mitigation or system hardening. Internal discussions within MCSF–Blount Island have identified the potential development of a secondary communications feed from Fernandina Beach, indicating awareness of the redundancy gap. However, this effort has not yet been formalized through a partnership agreement or coordinated implementation plan with AT&T or other providers.

This lack of redundancy creates a single point of failure, leaving the installation susceptible to disruptions from flooding, storm surge, infrastructure damage, or service outages. As environmental risks intensify, particularly in a coastal setting, the consequences of a communications outage could become more severe, affecting operational continuity, coordination, and emergency response capabilities.

Looking ahead, formalizing coordination with AT&T or alternative providers will be critical to addressing this vulnerability. Establishing a structured agreement such as an Intergovernmental Support Agreement (IGSA) or similar partnership framework could help define roles, responsibilities, and shared priorities for improving system resilience. This could include development of redundant pathways, diversification of service providers, or integration of hardened infrastructure solutions.

From an efficiency standpoint, building upon existing service relationships represents the most practical path forward. Advancing the proposed secondary feed project in coordination with external partners would provide a targeted and actionable step toward redundancy, while broader formalization of communications planning would help ensure long-term resilience.

Adaptable Built Infrastructure Projects

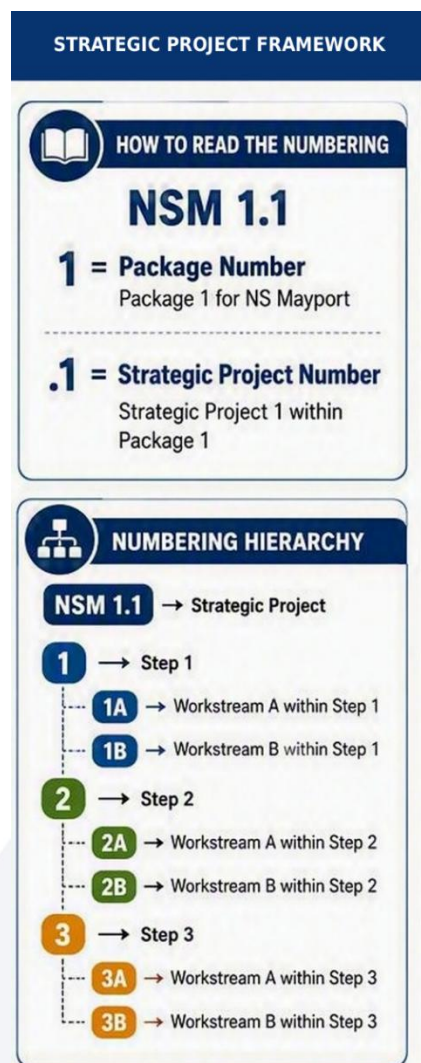
Figure 8. Adaptation Strategies Map



Strategies included in the adaptation plan have been organized by short, mid, and long-term timeframes for implementation. The strategy numbers in the maps correspond to the details provided in their respective sections, which outline a comprehensive approach to strengthening energy resilience and support long-term mission continuity. These strategies focus on enhancing existing system performance, reducing vulnerabilities, and advancing modern, flexible infrastructure solutions that can adapt to future demands and environmental conditions. Order-of-magnitude cost estimates will be provided in 2026 dollars to the extent possible, with up to 50% contingency unless otherwise noted.

Potential Project Leads and Partners are mentioned by organization in the following narratives. The intent is to identify the correct stakeholders that have agency, authority, and interest in the work that is being proposed. Being listed as a lead or partner provides the opportunity to collaborate, advise, and be involved in the adaptation efforts, but does not mandate participation. Funding and financing of projects are not indicated as the responsibility of the project lead or partners, and the monetary tools for obtaining such are in the Implementation section of this package.

Figure 9. Strategic Project Framework



The strategic projects are organized by installation, package, project, step, and actions. The 2-3 letter code indicates the installation. The first number indicates which package this project is in. The second number indicates the project number in the package.

Within each project, the timeline of activities is indicated through the steps (Step 1, Short-term, etc.), and the order of activities is narrated in the sub-steps (1A, 1B, etc.). Through this organization, each strategic project illustrates its project number, timeline, and actions in the narrative.

Strategic Project BI 2.1. Blount Island Redundant Fiber Connectivity Installation

This project establishes a redundant fiber communications route to Blount Island through the installation of a second, independent fiber pathway from the mainland across the Dave Rawls Bridge. Led by AT&T in coordination with Naval Facilities Engineering Systems Command (NAVFAC), MCSF Blount Island Public Works Department (PWD), and JAXPORT, the effort will enhance the reliability and resilience of communications service supporting port and military operations. The existing network currently relies on a single fiber route, creating a critical vulnerability where any disruption could result in a complete loss of communications capability. By introducing a geographically separate and hardened secondary pathway, this project will ensure continuity of service for the Marine Corps command and control, logistics coordination, and mission-critical operations.

The project will focus on designing and constructing a diverse routing solution that minimizes shared risk with existing infrastructure and accounts for hazards such as flooding, storm surge, utility conflicts, and physical damage. Routing across the Dave Rawls Bridge provides a strategic opportunity to leverage existing infrastructure while improving redundancy and accessibility. The addition of a second fiber line will significantly reduce single points of failure and improve system resilience during both routine operations and emergency conditions.

This effort supports broader regional resilience objectives by strengthening critical communications infrastructure that underpins port operations, military readiness, and freight mobility at MCSF Blount Island. The project will enhance operational continuity, reduce downtime risk, and improve the ability to maintain secure communications during adverse events. By creating a redundant and reliable communications network, the project positions MCSF Blount Island to better withstand disruptions and sustain mission readiness under increasingly challenging environmental and infrastructure conditions.

Potential Project Leads and Partners

- AT&T
- Naval Facilities Engineering Systems Command (NAVFAC)
- MCSF Blount Island PWD
- MCSF Blount Island S6
- Jacksonville Port Authority (JAXPORT)

Estimated Cost

To be determined by owner

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

1A. Engineering Design and Hardening Strategy

- AT&T can develop engineering designs for the new fiber route, incorporating protective measures such as hardened conduit systems, strategic placement within bridge infrastructure, and flood-resistant materials to improve durability under adverse conditions.

1B. Permitting and Interagency Coordination

- AT&T can coordinate with NAVFAC and JAXPORT to secure necessary approvals and ensure installation aligns with security, operational, and infrastructure requirements associated with both military and port environments.

Step 2: Construction and Deployment (Short-term)

2A. Install Secondary Fiber Route Across Dave Rawls Bridge

- AT&T can construct and install the new fiber pathway across the Dave Rawls Bridge, ensuring physical diversity from the existing route and secure placement that minimizes exposure to damage and disruption.

2B. System Integration and Testing

- The new fiber route should be integrated into the existing communications network and tested to ensure seamless failover capability, maintaining continuous service in the event of disruption to either route.

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

3A. Establish Redundancy and Failover Protocols

- AT&T and installation partners can implement automated failover systems and operational protocols to ensure uninterrupted communication during outages or disruptions.

3B. Maintenance and Monitoring Program

- AT&T can establish ongoing inspection, monitoring, and maintenance practices for both fiber routes, with coordination from MCSF Blount Island PWD to ensure long-term reliability and rapid response to potential issues.

Strategic Project BI 2.2. MCSF Blount Island Supplemental Fiber Redundancy via JAXPORT Lease

This project establishes a supplemental communications pathway to MCSF Blount Island by leveraging existing JAXPORT-owned fiber infrastructure through a formal lease agreement to support Marine Corps Support Facility (MCSF) Blount Island operations. In coordination with JAXPORT, Naval Facilities Engineering Systems Command (NAVFAC), and MCSF Blount Island Public Works Department (PWD), the effort will provide an additional, independent communications route to enhance redundancy and reduce the risk of service disruption. The current reliance on a single primary fiber connection creates a critical vulnerability, where any failure could significantly impact command and control, logistics coordination, and mission execution. By utilizing available private fiber assets already present within the port environment, this project offers a cost-effective and rapidly deployable solution to strengthen communications resilience.

The project will include implementation of secure data transmission protocols, with encryption measures applied at the JAXPORT interface to ensure protection of sensitive communications. Fiber will be extended from the leased JAXPORT network to a new, dedicated connection point at the MCSF Blount Island communications hub, creating a physically and operationally distinct pathway from the existing AT&T service. This approach improves system reliability while maintaining necessary security and operational integrity within a shared port and military environment.

By introducing a second, independent communications pathway, this effort significantly reduces single points of failure and enhances the overall resilience of critical infrastructure supporting Blount Island. The project supports continuity of operations for both port and military activities and aligns with broader regional resilience goals by leveraging existing assets, improving redundancy, and strengthening coordination between key operational partners.

Potential Project Leads and Partners

- Jacksonville Port Authority (JAXPORT) (Lead)
- Naval Facilities Engineering Systems Command (NAVFAC)
- MCSF Blount Island PWD
- MCSF Blount Island S6
- AT&T

Estimated Cost

To be determined by owner

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

1A. Execute Fiber Lease Agreement

- JAXPORT can establish a formal agreement to lease available private fiber capacity to support MCSF Blount Island communications needs. NAVFAC and MCSF Blount Island PWD can define technical requirements, access protocols, and operational constraints to ensure compatibility with installation needs.

1B. Design Secure Connection and Encryption Protocols

- JAXPORT, in coordination with MCSF Blount Island S6, can implement encryption at the port interface to ensure secure transmission of sensitive communications. The design should meet applicable military and federal cybersecurity standards while maintaining reliability and performance.

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

2A. Extend Fiber to MCSF Blount Island Communications Hub

- JAXPORT can construct and extend fiber from its existing network to a new, dedicated connection point at the MCSF Blount Island communications hub. Routing should prioritize physical separation from existing infrastructure to maximize redundancy and reduce shared risk.

2B. System Integration and Redundancy Configuration

- The leased fiber pathway should be integrated with existing communications systems, with configuration of redundancy and failover capabilities to ensure continuous service during outages or disruptions to any single route.

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

3A. Establish Operational Protocols and Failover Procedures

- Partners should define operational procedures to manage traffic across primary and backup systems, ensuring seamless failover and uninterrupted communications during disruptions.

3B. Monitoring and Maintenance Program

JAXPORT can implement ongoing monitoring and maintenance of the leased fiber infrastructure, with coordination from MCSF Blount Island PWD to ensure system reliability and rapid issue resolution.

Recommendation to the Installation: Semi-Private Wireless Broadband Network Deployment

If leasing additional fiber capacity through JAXPORT is not viable, it is recommended that the installation deploy a semi-private wireless broadband network to establish an independent and resilient communications pathway for MCSF Blount Island operations. This installation-controlled system would provide secure, high-availability connectivity for command and control, logistics coordination, and mission-critical communications without reliance on external fiber infrastructure.

A wireless broadband solution, such as licensed or priority-access spectrum, would create a geographically diverse pathway using tower- or structure-mounted radios to connect the mainland and the MCSF Blount Island communications hub. This reduces vulnerability to disruptions affecting fiber systems, including flooding, storm surge, construction impacts, and physical damage along transportation corridors. The system should incorporate robust encryption and cybersecurity protocols, along with redundant transmission paths and backup power, to ensure continuity under both routine and adverse conditions.

Ownership and control of the network would provide operational flexibility and allow rapid deployment compared to new fiber infrastructure, while enabling scalability to meet future needs. Integration with existing communications systems should ensure seamless failover capability. As an alternative solution, this approach strengthens overall resilience by diversifying connectivity, reducing reliance on single-provider infrastructure, and enhancing the installation's ability to maintain uninterrupted operations.

Alignment and Support of the Regional Resilience Action Plan

Figure 10. Alignment with the RRAP

SCALE	ACTION	DESCRIPTION
	6	Support resilient utilities
	7	Support resilient technology and digital communication networks
	13	Facilitate partnerships to advance resilience work
	16	Identify adaptation options for critical infrastructure to enhance resilience

 Facilitate

 Guide

The project strongly aligns with RRAP Actions 6, 7, 13, and 16 by addressing vulnerabilities in a mission-critical communications network that currently relies on a single AT&T fiber pathway by enhancing redundancy through the installation of a hardened, geographically diverse secondary fiber route across the Dave Rawls Bridge. The recommended engineering design, hardening strategy, and flood-resistant materials directly support the RRAP goal to create a durable and adaptive built environment, which calls for actions that enhance the resilience of assets and communities to future shocks. By reducing reliance on a single AT&T fiber pathway and mitigating risks from flooding, storm surge, utility conflicts, and accidental line cuts, the project implements RRAP-aligned adaptation measures that enhance continuity of mission-critical communications for command and control and logistics coordination.

The lease of JAXPORT's private fiber capacity, combined with secure connection design and encryption protocols meeting military and federal cybersecurity standards, reflects the multiagency collaboration envisioned in RRAP Action 13. The recommendation outlines joint responsibilities across AT&T, NAVFAC, JAXPORT, and MCSF Blount Island PWD for permitting, routing, construction, and system integration, supporting the RRAP's vision on regional cooperation to advance resiliency work. Integration of the new fiber with automated failover capability, redundancy configuration, and long-term monitoring and maintenance programs directly supports RRAP Action 16, which focuses on identifying and implementing adaptation options for critical infrastructure. These measures ensure uninterrupted failover between routes and rapid issue resolution, reducing downtime and strengthening regional economic stability.

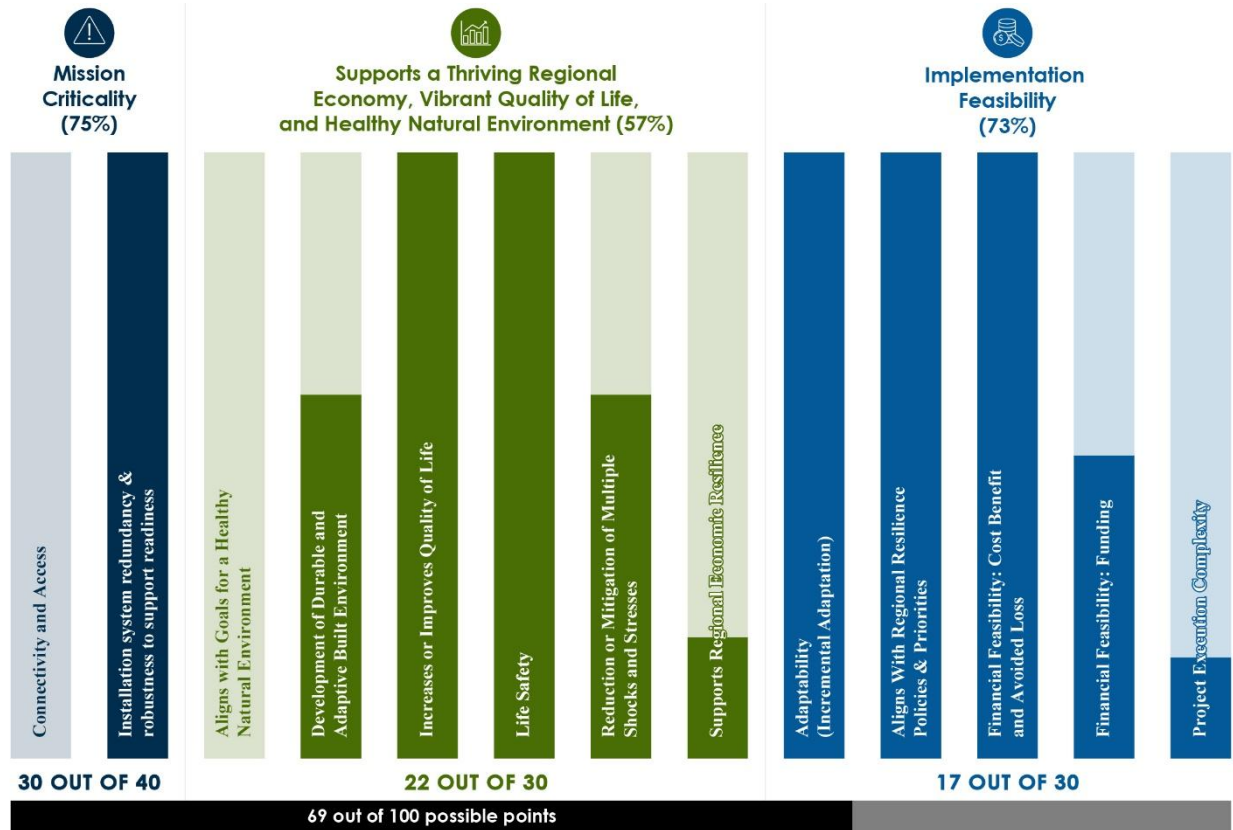
The project's contingency recommendation, deploying a semi-private wireless broadband network if fiber leasing is not feasible, further aligns with RRAP Actions 7 and 16 by diversifying connectivity pathways and modernizing digital infrastructure. The project's description of licensed or priority-access wireless systems, redundant transmission paths,

robust encryption, and backup power demonstrates a clear RRAP-aligned approach to reduce single-point vulnerabilities and enhance resilience under unfavorable conditions. Together, the redundant fiber installation, JAXPORT lease option, secure integration protocols, failover systems, and wireless broadband alternative collectively advance the RRAP's vision of protecting people, ecosystems, and regional commerce from climate-related threats through durable infrastructure, coordinated partnerships, and adaptive technological solutions.

Metrics Score

The MCSF Blount Island Resilient Communications Delivery project was evaluated against a robust series of metrics to determine the appropriateness, viability, and achievement of goals (Figure 11). The metric categories are given a percentage weight to indicate the comparative importance for the MIRR, with Mission Criticality being the highest. High and mid-range scores across all metric categories indicate that implementing the strategies and policy recommendations within this project will promote mission assurance for the installation.

Figure 11. Metrics Scorecard Results



Cost Benefit Analysis

Benefit-cost analysis (BCA) determines the cost-effectiveness of adaptation projects. This effectiveness is calculated using the equation

$$\frac{B}{C} = \text{Value}$$

Where B is the benefit, or avoided costs, of the project and C is the cost to implement the project. A benefit-cost value greater than 1 indicates that a project is cost-effective (i.e., the benefits of the project outweigh the costs incurred in implementing it), whereas a BC value less than 1 indicates the project may not be cost effective (i.e., the costs exceed the benefits).

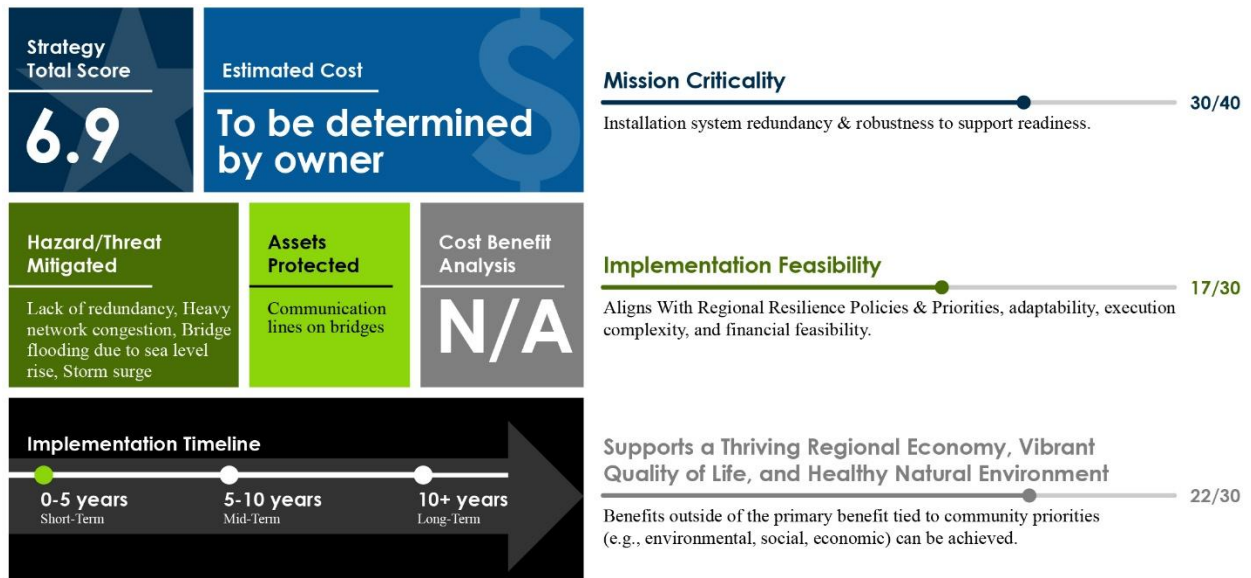
Adaptation project costs were costed to include project construction and design costs, where feasible. Project benefits were costed to include direct (construction or repair costs) and indirect (social, economic, and environmental) costs whenever feasible.

Data sources for benefit values include the Federal Emergency Management Agency, the National Institute of Standards and Technology, the National Interagency Fire Center, and others.

In many cases, associated financial savings data (such as improved installation operations, improved quality of life for installation personnel, or asset-specific O&M costs) was unknown; in these cases, the benefit is described. Hence, BCA values may not reflect the total possible benefit of the proposed adaptation project.

Total Project Package Snapshot

Figure 12. Total Project Package Snapshot





Implementation Tools



Financial Strategy Toolkit

More information on financial strategy building can be found in Technical Memo 10: Implementation Strategy and Investment Pathways.

Many of the tools required to fund, finance, and coordinate resilience implementation are already available under current Florida law or institutional precedent. The challenge, then, is aligning, adapting, and scaling existing tools to support coordinated regional resilience investment strategies. Thus, this section provides an initial inventory of funding, financing, and institutional tools that can be used to support the implementation of the MIRR project portfolio and the broader resilience system envisioned above.

Coordinate with JEA and Clay Electric on Regional Resilience Priorities

The region's utilities own most of the off-base grid, so coordinated planning and advocacy are the primary near-term levers. The proposed off-base substation near Camp Blanding is the clearest dual-benefit example, serving both the installation and the surrounding community. This effort can serve as a model for how utility investment and installation resilience can align. Near-term steps include:

- Convening the installations, JEA, and Clay Electric to identify shared priorities such as substation hardening and relocation, feeder redundancy, and outage-response improvements.
- Aligning installation and community resilience planning with the utilities' investment cycles and rate cases so regional needs are reflected in grid modernization plans.
- Advancing the off-base Camp Blanding substation as a co-investment that delivers mission and community benefit together.

Access Grid Resilience and Modernization Funding

Federal grid programs are structured to reach utilities like JEA and Clay Electric, either by formula through the state or through competitive rounds. Near-term steps include:

- Coordinating with the state energy office and the Florida Department of Emergency Management on the DOE Grid Resilience State and Tribal Formula Grants (IIJA §40101(d)), which pass through to electric utilities, including municipal utilities such as JEA and cooperatives such as Clay Electric, for hardening, undergrounding, and other resilience measures.
- Positioning larger transmission and reconductoring needs for DOE's competitive grid program (SPARK, formerly GRIP), which funds grid hardening, microgrids, and storage.

Note: The DOE competitive grid program's current round is likely the final one under IIJA, with concept papers and applications due in Spring of 2026, and formula grant allocations run through FY2026. Funding past FY2026 will depend on future congressional allocations.

Use the Defense Community Infrastructure Program (DCIP) for Dual-Benefit Utility Projects

The Defense Community Infrastructure Program (DCIP), administered by the DoD Office of Local Defense Community Cooperation, is a competitive grant program for community infrastructure that supports a nearby installation, and it can fund off-base water, wastewater, electric, and other utility projects. It is open to state and local governments and to member-owned utilities, which makes it a strong fit for dual-benefit projects such as the off-base Camp Blanding substation and community-serving upgrades tied to the installations. REPI can also support installation-resilience elements where energy and encroachment protection overlap. Near-term work is to identify which utility projects meet DCIP's installation-support criteria and prepare competitive applications around reliability and mission continuity.

Incorporate Energy Resilience into Public Facility and Infrastructure Upgrades

Many public facilities that provide lifeline services, including emergency operations centers and water treatment plants, lack sufficient backup power or redundancy. A cost-effective way to add resilience to existing facilities is during already planned upgrades. Near-term actions can include screening critical facilities for backup power, solar-plus-storage, or microgrid opportunities, aligning capital improvement planning with resilience co-benefits such as operational continuity and reduced recovery time, and prioritizing facilities that serve high-risk populations or mission-critical functions. Early-stage grant funding can pilot these systems before they are financed at scale through longer-term tools.

Resilient Utilities Longer-term Implementation

Utility resilience priorities should be matched to the funding or capital process most likely to deliver them. For utility-owned assets, this means determining whether the project belongs in the utility's capital program or needs another funding path based on the risk addressed, the function served, and the project's likely scope, cost, timing, and operation.

Installation-side and federally linked assets require separate considerations. Fuel infrastructure, on-base utility systems, and other projects tied directly to continuity of operations inside the fenceline should be distinguished from community utility investments, even where the systems are connected. These projects may require federal action, utility coordination, service-agreement changes, local cost-share, or a defense-community funding strategy.

The strongest candidates will be projects that connect mission assurance with community continuity and can be translated into a clear path to delivery.

Funding Opportunities

Table 3. Energy and Utility Resilience Funding Options

Agency/Org	Program	Description	Available Funding	General Eligibility	Example Eligible Projects	Timeline
US DOE	Speed to Power through Accelerated Reconductoring and other Key Advanced Transmission Technology Upgrades (SPARK) (formerly known as GRIP)	Supports efforts to modernize the electric grid, including reconductoring with advanced conductors, Advanced Transmission Technologies (ATTs) that can increase the usable capacity of existing assets in real time, and large-scale, cross-regional transmission upgrades and coordinated planning.	\$10.5 billion total (IIJA, FY2022-26); >\$6B awarded across Rounds 1-2. Round 3 = 'SPARK' (Speed to Power / advanced transmission), up to \$1.9B.	State and local governments, tribes and territories, utilities (including publicly owned and cooperative), grid operators, and partnerships among these entities.	Undergrounding of power lines, microgrids and energy storage for resilience, weatherization and automation of grid components, smart grid sensors and cybersecurity systems	Round 3 (SPARK) concept papers due April 2, 2026; full applications due May 20, 2026. Likely the final IIJA round — authorization expires FY2026.
US DOE	Grid Resilience State and Tribal Formula Grants (IIJA §40101(d))	Non-competitive formula grants to states and tribes to prevent outages and enhance the resilience of the electric grid against wildfires, extreme weather, and natural disasters. States sub-grant funds to electric utilities and other eligible entities.	Up to \$459M/year nationally (FY2022-26), allocated by formula (population, land area, hazard exposure, prior mitigation spending). Florida receives an annual allocation administered by the state energy office. (energy.gov/gdo; netl.doe.gov)	States and tribes (pass-through to electric utilities — investor-owned, cooperative, and municipal — and other eligible entities).	Grid hardening, undergrounding, vegetation management, weatherization, monitoring/control equipment, microgrids, and other resilience measures.	Annual state allocations FY2022-26.

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