

Marine Corps Support Facility Blount Island

Adaptation Package #1: Freight Transportation Resilience (Dave Rawls Blvd and Railroad)

This package comprises three strategic projects that collectively strengthen the resilience of rail and road transportation infrastructure and freight logistics operations serving Marine Corps Support Facility (MCSF) Blount Island. It elevates identified needs that are unfunded in current planning documents.



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:

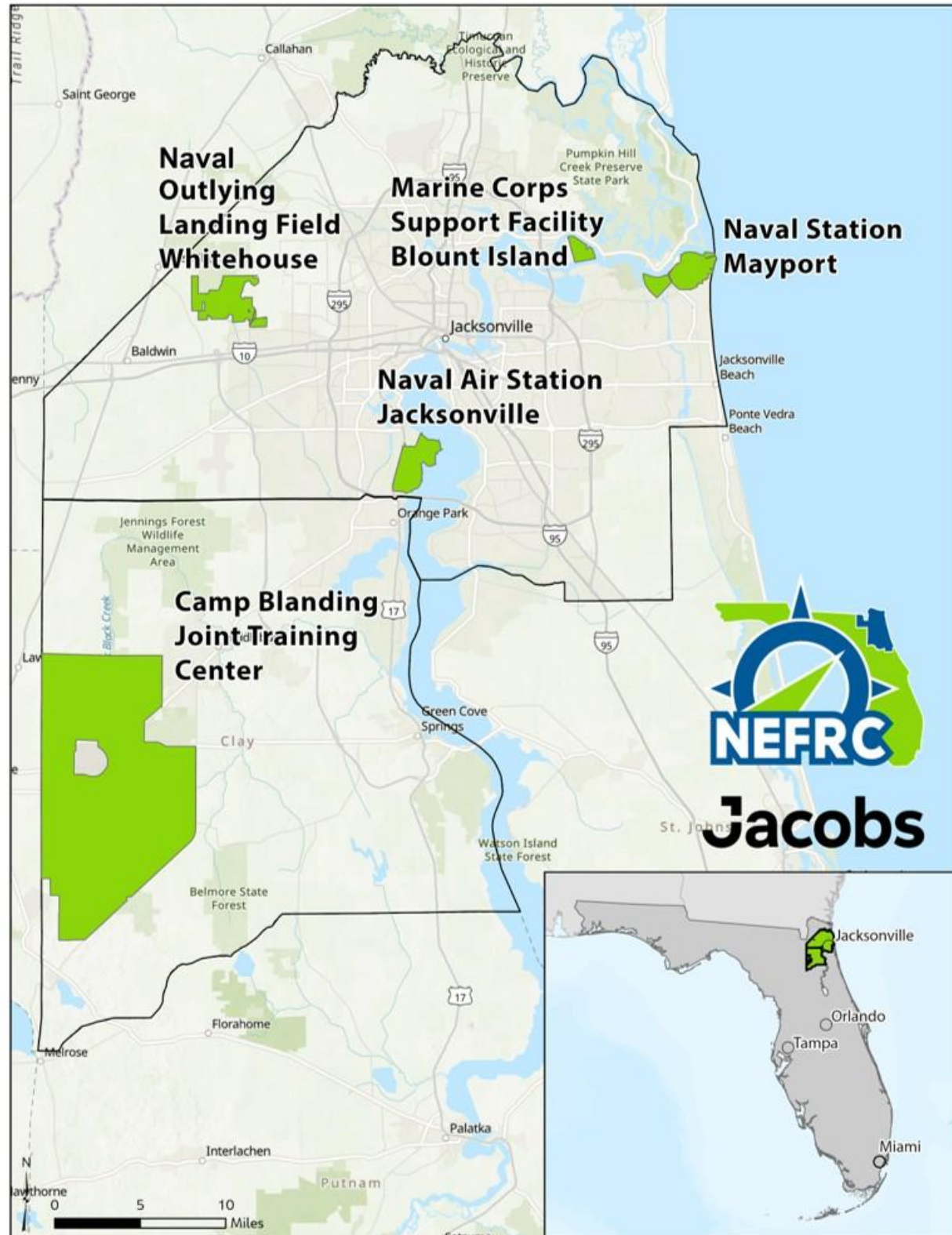
- **Shocks and Stresses** affecting the mission-critical asset
- **Project Objective**, which captures the adaptation goal for the following recommendations to support mission readiness through community resilience
- **Stakeholders and Current Efforts** highlighting successful foundational work upon 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. MCSF 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 freight transportation assets for MCSF Blount Island.

Current Conditions Affecting Freight Delivery Resilience (Rail and Roadway System)

Freight delivery to and from MCSF Blount Island and the JAXPORT Blount Island Marine Terminal operates as an interconnected multimodal system in which rail infrastructure and Dave Rawls Boulevard function together as critical components of the freight network. Historically, this system was designed around predictable, high-volume movements aligned with MCSF Blount Island's role as a Marine Corps logistics and maritime hub. Rail-supported operations emphasized bulk transport of vehicles, equipment, and sustainment supplies, while Dave Rawls Boulevard provided reliable last-mile roadway access connecting regional highways via Heckscher Drive to port and military facilities.

This infrastructure was built to support steady throughput and efficient movement of large cargo volumes under relatively stable demand conditions. Rail lines, yard configurations, and transfer points were designed for consistency and scale, while Dave Rawls Boulevard developed as a controlled-access industrial corridor, reinforced by the construction of its bridge in 1967, that enabled dependable truck and personnel access to a previously isolated port and military installation. Together, these systems prioritized capacity and operational efficiency but included limited redundancy and surge flexibility, reflecting the needs of earlier logistics models.

Today, freight delivery requirements have shifted significantly, introducing more dynamic, time-sensitive, and interdependent operations. The system must now support fluctuating demand driven by military deployments, training exercises, port expansion, and evolving supply chain conditions. This has increased reliance on synchronized performance across rail, roadway, and port operations, where disruptions in one mode can quickly affect the entire system. Rail continues to play a vital role in moving bulk cargo into and out of the terminal, while Dave Rawls Boulevard serves as the primary controlled-access route for transferring goods, employees, and equipment between the port, military facilities, and the regional highway network.

Dave Rawls Boulevard is now the primary freight and access spine into Blount Island, carrying approximately 5,700 daily trips, with a high proportion of heavy trucks and secure military traffic. It provides direct access to both JAXPORT's marine terminal and MCSF Blount Island, supporting major cargo operations including containerized goods and vehicle processing. As port capacity and cargo volumes grow, the roadway serves as a high-security, high-capacity gateway, making it essential not only for economic activity but also for national defense operations.

Despite its critical role, the combined rail-road system operates with key constraints that affect overall freight resilience. These include limited staging space, constrained transfer points between rail and truck operations, and reliance on a small number of access routes, particularly Dave Rawls Boulevard as the dominant last-mile connection. Any disruption whether from congestion, incidents, infrastructure failure, or environmental conditions—can create bottlenecks that impact freight delivery timelines and operational reliability across both modes.

Environmental stressors are also increasingly affecting system performance. Extreme heat conditions can reduce rail efficiency by increasing the risk of track deformation, requiring slower speeds, and accelerating infrastructure wear. Heat similarly affects roadway operations by degrading pavement, increasing vehicle stress, and impacting workforce endurance during loading and transfer activities. Because the system relies on tightly coordinated handoffs

between rail and truck movements, delays in one mode can propagate throughout the network, reducing throughput and reliability during peak demand periods.

Looking ahead, freight delivery resilience along the Blount Island corridor is expected to face increasing pressure from growing demand variability, climate-related stressors, and infrastructure limitations. Future operations will require greater surge capacity, faster turnaround times, and more flexible routing and staging capabilities. However, these needs are constrained by legacy infrastructure design and limited redundancy across both the rail and roadway systems.

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 (Figure 3). 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).

Figure 3. Regional Resilience Action Plan Vision (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 (Figure 4).

RRAP Goals and Objectives

Figure 4. Regional Structure for Resilience as Framework for the MIRR



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

This framework provides the organization 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 to ensure that project development created balance by positively benefiting each to the extent achievable.

Figure 5. 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 Blount Island include rainfall-induced flooding, coastal flooding due to 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 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 improves the resilience of freight transportation and logistics for the rail and road infrastructure (Item 7). Figure 6 shows the location of the mission critical railway and its lack of redundancy.

Project Need: Enhance Infrastructure Capacity and Delivery Logistics for Future Demand

Figure 6. Risk to Mission Map



Railway Asset Vulnerabilities Creating Risk to Mission

The primary rail connection to Blount Island is the northern line crossing the St. Johns River, serving both MCSF Blount Island and JAXPORT. An additional western segment connects to the Cemex Dames Point site to support port operations. This system operates under a shared ownership structure: CSX owns and operates the rail line up to the river crossing; JAXPORT owns the rail bridge (adjacent to the Blount Island Boulevard bridge) and operates the line to just outside the installation boundary; and MCSF Blount Island operates the remaining segment within the installation.

While the rail segment itself is not highly exposed to direct hazards, it is a critical component of freight movement, particularly for transporting large military equipment and bulk cargo. Its reliability depends on the broader CSX regional network, which is vulnerable to extreme rainfall, storm surge, wildfire, and extreme heat. Disruptions elsewhere in the network could impact operations at MCSF Blount Island, particularly given the limited availability of alternative transport modes for rail-dependent cargo.

Dave Rawls Boulevard provides the primary roadway connection between Blount Island and the mainland, spanning the St. Johns River. Owned by JAXPORT, it is one of only two access points to the island and carries the majority of vehicular traffic, including heavy trucks, employees, and secured military movements. As such, it functions as a mission-critical asset for both military operations and JAXPORT freight activity.

The vehicular bridge connecting Heckscher Drive to Blount Island is vulnerable to storm surge and shows signs of aging infrastructure. Surge conditions present a risk of overtopping, particularly at bridge approaches where elevations are lower. As travel demand continues to increase due to expanding port operations and military requirements, these vulnerabilities present growing risks to reliable access, making near-term resilience improvements increasingly necessary (Table 1).

Table 1. Railway Asset Summary

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

Stakeholders and Current Efforts

Stakeholders are actively involved in advancing improvements along Dave Rawls Boulevard and supporting broader logistics and access operations at Blount Island, reflecting its importance as a critical corridor for both military and port activities. Coordination among these entities supports

efforts to improve traffic flow, reduce congestion, enhance infrastructure resilience, and maintain reliable access for freight and personnel movement.

Key stakeholders include:

- MCSF Blount Island
- Naval Facilities Engineering Systems Command (NAVFAC)
- North Florida Transportation Planning Organization (TPO)
- Florida Department of Transportation (FDOT)
- City of Jacksonville (COJ)
- Jacksonville Port Authority (JAXPORT)
- CSX

Roadway and Access Improvements

MCSF Blount Island, in coordination with JAXPORT and the City of Jacksonville, is advancing targeted improvements along Dave Rawls Boulevard to enhance access for port and military operations. Current efforts focus on improving traffic flow and operational efficiency through capacity enhancements, including the addition of a new southbound lane near the terminal entrance and security plaza to reduce truck queuing and congestion.

At the regional level, the North Florida TPO 2024 Regional Freight Plan and FDOT's Strategic Intermodal System (SIS) program identify and fund projects to increase freight capacity and maintain competitiveness. These include roadway widening along key corridors such as I-295 from Heckscher Drive to US 17, as well as improvements to intermodal connectors that strengthen supply chain resilience. Additional unfunded priorities include grade separation projects, freight signal priority treatments, port gate access improvements, and expanded rail capacity to reduce delays and improve system efficiency.

The City of Jacksonville's Resilient Jacksonville Plan complements these efforts by focusing on maintaining lifeline corridors and ensuring continuity of supply chain operations under stress conditions.

Also, the City of Jacksonville has adopted the *Vision Zero Action Plan* as its guiding transportation safety policy, incorporating Safe System Approach (SSA). The SSA recognizes that human error is inevitable and focuses on designing transportation systems that reduce the likelihood of fatal and serious injury crashes through safer roadway design, improved operations, safer speeds, safer vehicles, and effective post-crash care. Transportation recommendations within the MIRR should be implemented consistent with the City's Vision Zero principles and the Safe System Approach, recognizing that roadway users are vulnerable to human error and that resilient transportation systems should support reducing fatal and serious injury crashes through safer infrastructure, safer operations, safer speeds, multimodal connectivity, and effective post-crash care. This approach aligns with the City of Jacksonville's adopted *Vision Zero Action Plan* while supporting military readiness, workforce mobility, and long-term transportation resilience.

Rail Operations and Resilience Coordination

MCSF Blount Island is open to continued collaboration with CSX and JAXPORT to enhance the resilience of rail transport operations and reduce disruptions to port activities.

Key characteristics of the existing rail system include:

- Generally reliable operations with minimal historic outages
- Limited redundancy, with backup transport primarily relying on maritime shipping
- Ongoing coordination between CSX and JAXPORT, though shared infrastructure governance, presents opportunities for improved coordination
- Rapid emergency response capabilities, with CSX typically able to restore operations within approximately 24 hours following disruptions

While there are currently no major rail capital projects specific to the Blount Island connection beyond routine maintenance and asset management, regional planning efforts continue to emphasize freight system enhancements to accommodate future demand.

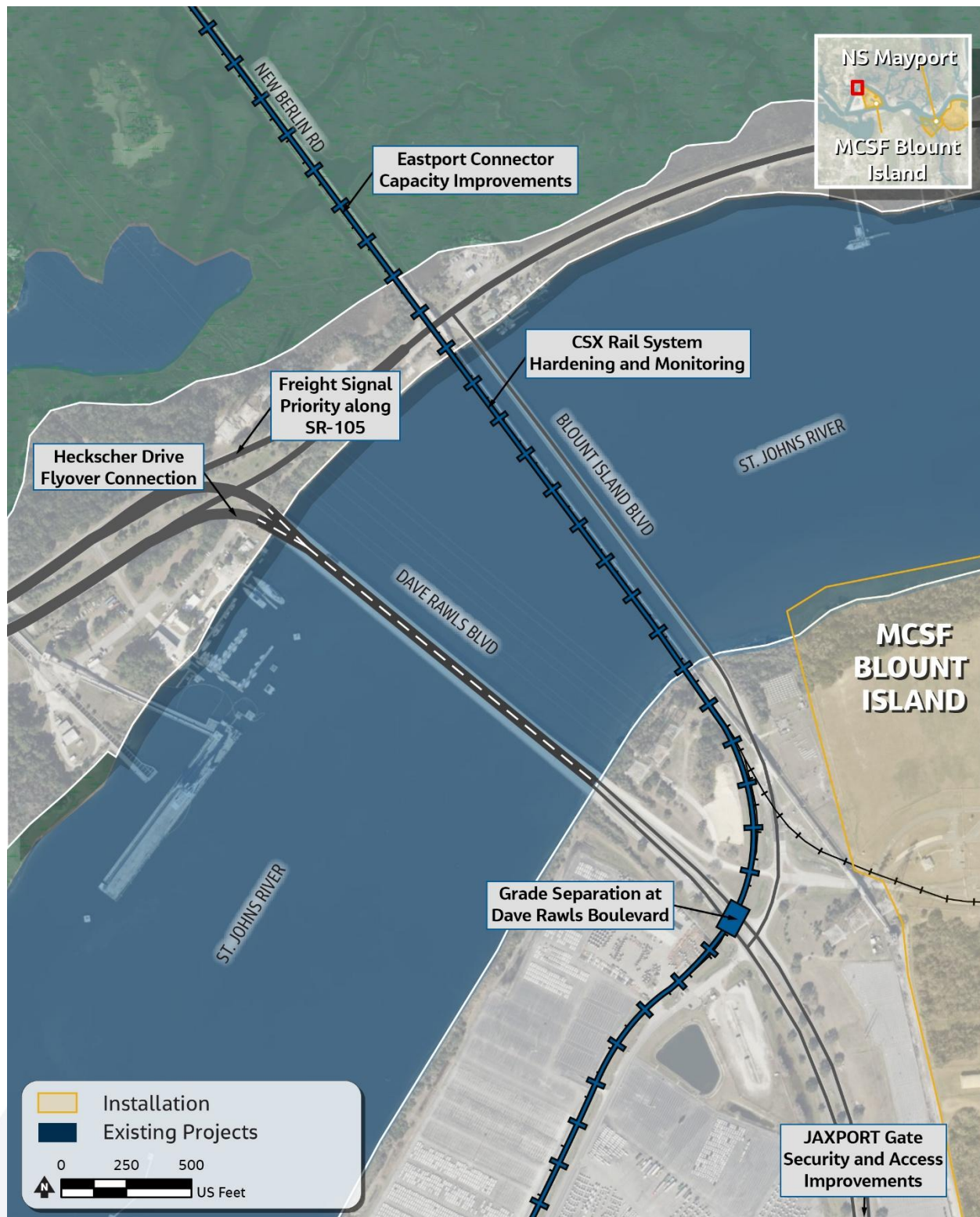
CSX supports logistics resilience through established emergency response procedures, regular drills, and coordination during extreme weather events. The company is also investing in hardening and relocating vulnerable rail assets, while its TRANSFLO program provides rail-to-truck transfer capabilities as a backup logistics option. Ongoing efforts to strengthen continuity planning and partnerships further support the resilience of Blount Island's multimodal freight system.

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 Hecksher Drive

Table 2. Current projects related to Railway and Freight Transport at Blount Island

Existing Project	Entity	Location	Purpose	Timeline
City of Jacksonville's Vision Zero Action Plan	City of Jacksonville Transportation Planning Division	City-wide/Countywide	Guide transportation safety policy, specifically following the Safe System Approach (SSA)	Plan adopted, safety policies ongoing integration into transportation projects (current and future)
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
Gate Security and Access Improvements	JAXPORT	Access Gate to Blount Island Marine Terminal	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
SR 105 (Heckscher Drive) Corridor Study	North Florida TPO	Heckscher Drive Corridor		Complete

Figure 7. Current Projects and Efforts



Review of Strategic Partnerships and Policies

MCSF Blount Island's rail access, which is critical for freight movement and military logistics, is characterized by a reliance on infrastructure owned and operated by CSX and JAXPORT, with limited formal coordination mechanisms in place to address resilience or redundancy. While the North Florida Transportation Planning Organization (TPO) provides a regional forum for multimodal transportation planning, including freight, current Navy participation is limited to an ex officio role. As a result, it is unclear whether the installation's rail-specific needs, particularly related to redundancy and continuity of operations, are consistently elevated within broader regional planning and prioritization processes.

At present, no formal or informal agreement has been identified between MCSF Blount Island stakeholders and CSX to address vulnerabilities in the rail network. This lack of coordination is significant given the installation's reliance on a system that functions largely as a single point of failure. In the event of disruption, whether due to flooding, infrastructure failure, or congestion, there are limited alternative pathways to maintain mission-critical rail operations. Existing regional coordination structures, such as the TPO, may indirectly account for freight considerations, but they do not substitute for direct engagement with the rail operator responsible for infrastructure performance and investment.

Looking forward, projected increases in rainfall and flooding pose a growing risk to rail reliability in the region. Without a formal mechanism to coordinate resilience planning or capital improvements with CSX, it is uncertain whether these vulnerabilities will be adequately addressed or prioritized over time. This uncertainty is compounded by the installation's broader transportation constraints, including limited roadway redundancy and regional congestion, which heightened dependence on rail as a reliable logistics mode.

From an efficiency standpoint, improving the installation's ability to elevate freight and rail priorities within the TPO framework may provide some benefit, particularly in aligning state and regional stakeholders around shared infrastructure concerns. However, addressing rail-specific redundancy will likely require a separate and more targeted coordination effort with CSX.

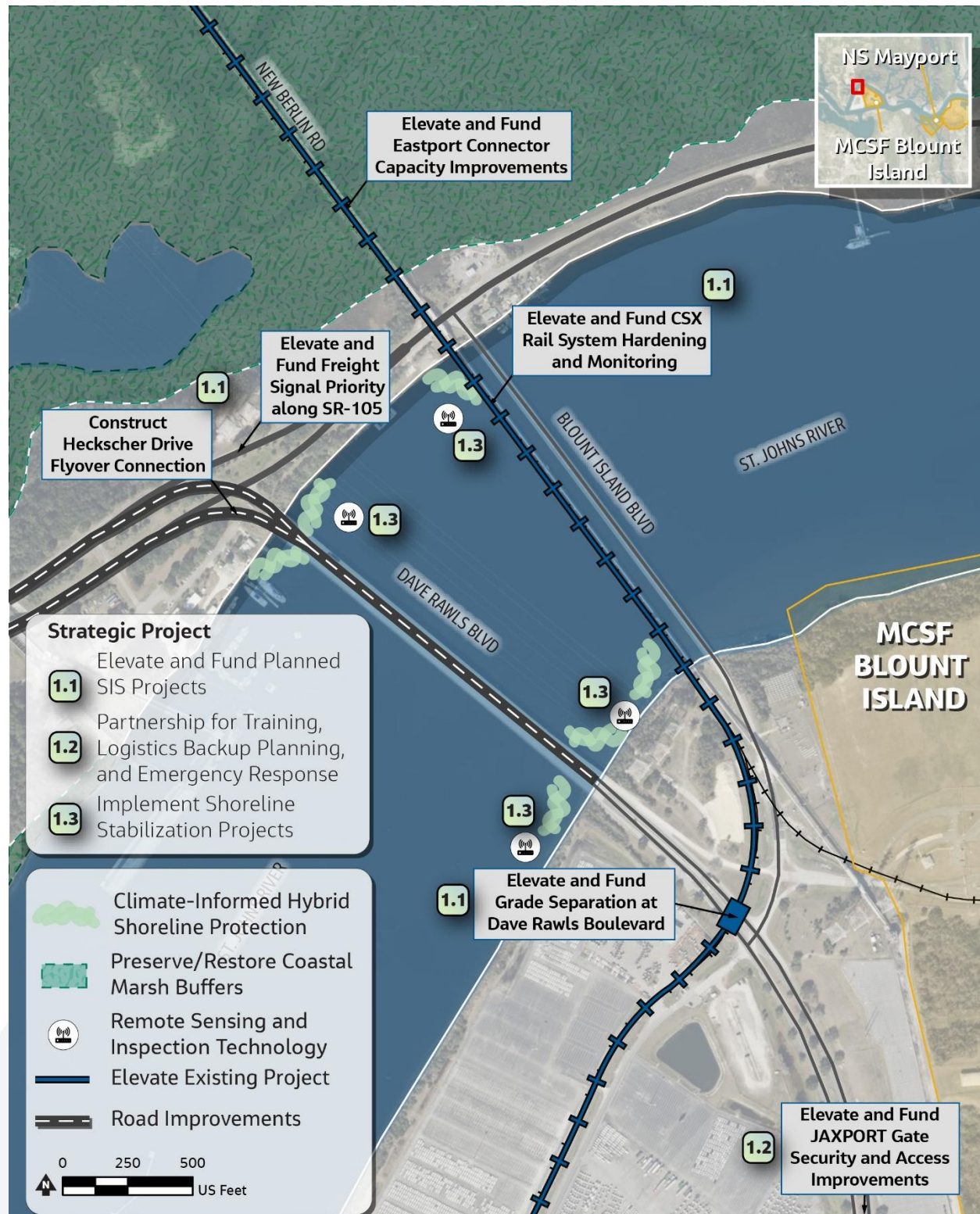
While such agreements can be complex to establish, they offer the most direct path to clarifying roles, identifying shared investment opportunities, and improving system resilience. Given that CSX infrastructure supports multiple regional and military users, there may also be an opportunity to pursue a broader, shared-use approach to coordination that distributes effort while maximizing impact.

Table 3. Blount Island Freight Transportation Policy Recommendations

Strategy	Issue(s)	Relevant Parties	Description	Current Policies	Policy Change
S-1: Pursue a Formalized Living Shoreline Permitting Pathway	Coastal Hazards Erosion Permitting	NEFRC FDEP Installations	Convene and advocate for a clear, streamlined FDEP permitting pathway for living shorelines in the Lower St. Johns Basin, including projects exceeding 500 linear feet, rather than relying on case-by-case executive discretion.	FDEP permitting is a major implementation barrier: living shorelines over 500 linear feet have historically required executive discretion rather than a clear regulatory pathway (the Floridatown permit took ~2 years; similar delays are ongoing in Jacksonville). Florida SB 302, signed March 2026 and effective July 1, 2026, promotes nature-based solutions and directs FDEP to create a streamlined permitting track and general permits for projects that avoid significant adverse impacts.	NEFRC coordinates a regional ask to FDEP for (1) a clear way to demonstrate no water quality or environmental impacts for living shorelines in the Lower St. Johns Basin, and (2) a formal permitting pathway for projects exceeding 500 feet. NEFRC and the installations engage in the SB 302 rulemaking window to advocate for Lower St. Johns Basin-specific guidance and to prioritize expansion of the s. 373.4131 general permit.
S-2: Pursue Conservation Easements Along Wetland Migration Corridors	Coastal Hazards Conservation Sea Level Rise Marsh Migration	NEFRC SJRWMD City of Jacksonville Installations	Work with SJRWMD to identify and prioritize parcels adjacent to installation-adjacent wetland systems where acquisition or conservation easements would create inland marsh migration corridors.	Installation boundaries define the waterward edge while surrounding development defines the landward edge, leaving no room for marsh migration; without easements, living shoreline projects become fixed points in a retreating system. SJRWMD already operates land acquisition and restoration programs targeting floodplain and coastal wetlands as non-structural flood mitigation and maintains a five-year land acquisition plan.	NEFRC facilitates conversations among SJRWMD, the City of Jacksonville, and the installations to pre-position easements along priority reaches (e.g., the Blount Island living shoreline initiative area and Mayport's estuarine shoreline), shortening project development timelines if FDEP permitting improves (see S-1).
S-3: Integrate Military Shoreline Vulnerability into Jacksonville's Suitability Model and Adaptation Plan	Coastal Hazards Erosion Data/ Planning Gap	City of Jacksonville Installation Federal	Incorporate military installation shorelines - particularly federally owned segments at NS Mayport and NAS Jacksonville that share boundaries with city-managed areas - into the City of Jacksonville Office of Resilience's geospatial suitability model.	The City's Office of Resilience is developing a geospatial suitability model for more than 300 miles of St. Johns River watershed shoreline, identifying where grey versus green solutions are appropriate.	Ensure federally owned installation shorelines are included in the analysis rather than treated as outside the City's scope, which would create an artificial boundary that does not reflect how water moves across jurisdictional lines. The A1A corridor and the airfield boundary at Mayport are the most concrete shared-boundary examples.
S-4: Adopt an Accommodation Strategy for NAS Jacksonville Low-Criticality Areas	Coastal Hazards Stormwater Sea Level Rise	NEFRC City of Jacksonville NAS Jacksonville	Support incorporating accommodation - rather than uniform hardening - as a shoreline hazard mitigation strategy for NAS Jacksonville's low-criticality areas into regional planning documents.	The NEFL MIRR Adaptation Strategies white paper concluded that NAS Jacksonville's strongest long-term strategy is accommodation: allowing controlled flooding of low-critical open space, increasing stormwater retention capacity, improving drainage flexibility, and adapting operations around predictable tidal flood conditions. Duval County's Comprehensive Plan CCME Goal 13 already establishes Adaptation Action Area provisions requiring five-year sea level rise and vulnerability updates and side-by-side evaluation of soft and hard infrastructure options.	NEFRC and Duval County extend the CCME Goal 13 Adaptation Action Area approach explicitly to installation-adjacent areas, reinforcing accommodation as an adopted regional shoreline hazard mitigation strategy.

Adaptable Built Infrastructure Projects

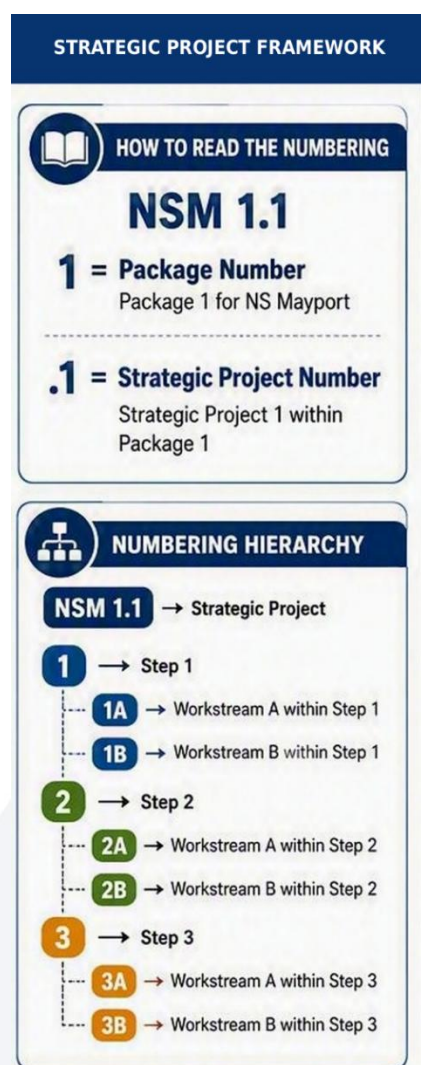
Figure 8. Adaptation Strategies Map



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 8. 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 1.1 Elevate and Fund Planned SIS Projects

Potential Project Leads and Partners

- MCSF Blount Island
- Jacksonville Port Authority (JAXPORT)
- CSX
- North Florida Transportation Planning Organization (NFTPO)
- Florida Department of Transportation (FDOT)
- Eastport stakeholders and neighborhood representatives
- City of Jacksonville Transportation Planning Division (Pedestrian & Bicycle Planning)

Estimated Cost

To be determined by owners

Step 1: Elevate and Fund Planned Projects

1A: Elevate and Fund Eastport Connector Capacity Improvements

- Elevate and fund the NFTPO SIS Needs Project 2253 to expand rail capacity along the five-mile Eastport Connector through track additions and approximately 9 acres of switchyard upgrades in collaboration with CSX, Eastport, JAXPORT, and MCSF Blount Island. This project will increase intermodal throughput along a critical segment and introduce greater routing flexibility, reducing dependence on constrained rail corridors and improving overall delivery reliability.

1B: Elevate and Fund Grade Separation at Dave Rawls Boulevard

- Elevate and fund NFTPO Additional Needs Project 20 to construct an approximately 1,500 foot grade-separated crossing over the CSX rail line at Dave Rawls Boulevard. By eliminating at-grade conflicts between rail and roadway traffic, this project removes a key chokepoint, reduces delays, and improves the predictability of freight flows across both truck and rail networks. Future multimodal transportation improvements should consider nationally recognized guidance, including the *Don't Give Up at the Intersection* principles developed by the National Association of City Transportation Officials (NACTO), the 2024 *Guide for the Development of Bicycle Facilities* published by the American Association of State Highway and Transportation Officials (AASHTO), the Manual on Uniform Traffic Control Devices (MUTCD), and other applicable federal and state design guidance, as appropriate.

1C: Elevate and Fund JAXPORT Gate Security and Access Improvements

- Elevate and fund NFTPO Additional Needs Project 17—identified upgrades to JAXPORT gate security and access systems in coordination with CSX and MCSF Blount Island. These improvements will streamline freight entry processes, reduce congestion at access points, prevent queue spillback onto surrounding roadways, and improve synchronization between modal transfers.

1D: Elevate and Fund Freight Signal Priority along SR-105

- Elevate and fund NF-TPO Additional Needs Project 25 to implement freight signal priority along SR-105 (Heckscher Drive) between I-95 and Dave Rawls Boulevard in partnership FDOT. This project will improve truck travel times along a key freight corridor, strengthen connectivity to port and rail facilities, and reduce delays that disrupt coordinated cargo movement.

1E: Elevate and Fund Regional Intermodal Transportation Strategies

- Elevate and fund NF-TPO and FDOT Strategic Intermodal System (SIS) initiatives that enhance multimodal connectivity critical to Blount Island operations. Transportation improvements should emphasize continuous multimodal network development by connecting individual corridor improvements into an integrated regional system serving military installations, surrounding neighborhoods, transit facilities, employment centers, parks, schools, and regional trail systems. Connected multimodal networks improve transportation resilience by expanding routing options during emergencies while encouraging walking, bicycling, transit use, and other transportation alternatives. This step focuses on aligning local investments with regional freight strategies to ensure long-term system integration, improve coordination across modes, and strengthen resilience across the broader transportation network.
- Transportation technology investments should support not only congestion management and operational efficiency, but also post-crash care by improving incident detection, emergency vehicle routing, signal preemption/prioritization, interoperable communications, and coordinated emergency response. These technologies can improve survivability, reduce secondary crashes, and strengthen transportation system resilience during both routine incidents and large-scale emergencies.

1F: Elevate and Fund CSX Rail System Hardening and Monitoring

- Elevate and fund CSX-led efforts to implement rail system hardening measures, including real-time monitoring and the adoption of resilience-focused design and maintenance practices. These improvements will enhance infrastructure reliability, improve incident response capabilities, and reduce the risk of service disruptions across critical rail segments supporting freight delivery.
- Suggested Technologies:
 - Integrated Monitoring, Control, and Predictive Operations: Deploys sensors and monitoring systems to track structural integrity, detect faults, and provide early warning alerts, reducing risk of unexpected failure.
 - Adaptive Rail Automation and Self-Healing Network Capability: Enables automatic isolation of disrupted segments and dynamic rerouting, maintaining operations despite localized failures.

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

This project aims to strengthen the operational resilience, readiness, and coordination of critical freight transportation assets supporting military logistics through a strategic partnership between Marine Corps Support Facility (MCSF) Blount Island, Jacksonville Port Authority (JAXPORT), and CSX. By leveraging shared expertise, advanced simulation technology, and collaborative planning, the initiative will enhance the ability of these organizations to prepare for and respond to freight disruptions, surge deployment requirements, and emergency events. Through scenario-based training, recurring multi-agency exercises, performance-driven continuous improvement, and the integration of virtual training into routine readiness programs, the partnership will build a more agile, coordinated, and resilient logistics network that supports both national defense missions and regional transportation operations.

Potential Project Leads and Partners

- MCSF Blount Island
- Jacksonville Port Authority (JAXPORT)
- CSX

Estimated Cost

To be determined by owners

Step 1. Strengthening 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

- Collaborate with CSX to design customized training scenarios that reflect MCSF Blount Island's freight delivery patterns, including deployment surges, peak throughput conditions, and constrained-capacity events. Incorporate emergency response scenarios such as rail disruptions, intermodal bottlenecks, and coordination challenges to strengthen preparedness across partners.

1B. Conduct Recurring Multi-Agency Training Exercises Using CSX Platform

- Implement regular virtual training exercises led by MCSF Blount Island and JAXPORT using CSX's simulation platform. Engage rail operators, port personnel, and relevant regional partners to practice coordinated logistics operations and emergency response. Focus on improving communication, decision-making, and synchronization across rail, port, and roadway systems.

1C. Establish Performance Monitoring and Feedback Loop

- Utilize analytics from CSX's virtual training system to track performance metrics such as response times, throughput efficiency, and coordination effectiveness. Conduct post-exercise reviews to identify gaps, refine procedures, and inform both operational improvements and future infrastructure investments. Maintain a continuous feedback loop to enhance readiness over time.

1D. Institutionalize Virtual Training within Readiness Programs

- Integrate participation in CSX's virtual logistics training into routine readiness, contingency planning, and pre-deployment activities at MCSF Blount Island and JAXPORT. Ensure consistent use of the platform to maintain proficiency, improve interagency coordination, and reinforce the role of operational preparedness in overall freight delivery resilience.

Strategic Project BI 1.3. Implement Shoreline Stabilization Projects

This project elevates and accelerates implementation of two complementary planned initiatives that strengthen the resilience and performance of the Blount Island access corridor: (1) the City of Jacksonville's shoreline protection and living shoreline recommendations identified in the Jacksonville Living Shoreline Suitability Analysis, and (2) the JAXPORT and FDOT planned flyover connection to Heckscher Drive. Together, these efforts address both coastal vulnerability and transportation system performance along a mission-critical corridor supporting JAXPORT operations and MCSF Blount Island.

The City of Jacksonville effort focuses on stabilizing vulnerable shorelines and protecting bridge approaches through a combination of living shorelines, revetments, and marsh preservation strategies. These improvements are designed to reduce erosion, attenuate storm surge, and preserve natural coastal buffers that protect critical roadway infrastructure from ongoing degradation and future sea level rise.

The JAXPORT and FDOT flyover project focuses on improving traffic circulation and freight mobility by introducing a grade-separated connection to Heckscher Drive. This investment reduces congestion, minimizes conflict points between heavy truck and commuter traffic, and enhances operational efficiency at one of the most critical access nodes serving the port and military installation.

By advancing these projects together, this initiative creates a comprehensive resilience and mobility solution that integrates nature-based coastal protection with engineered transportation improvements. This coordinated approach strengthens infrastructure reliability, supports economic activity and military readiness, and ensures long-term performance of the Blount Island access network under increasing demand and coastal risk conditions.

Potential Project Leads and Partners

- Florida Department of Transportation (FDOT)
- North Florida Transportation Planning Organization (NFTPO)
- City of Jacksonville
- Jacksonville Port Authority (JAXPORT)
- Naval Facilities Engineering Systems Command (NAVFAC)
- Marine Corps Support Facility (MCSF) Blount Island – Public Works Department (PWD)
- Environmental Resource Agencies (e.g., FDEP, NOAA, USACE)

Estimated Cost

To be determined by owners

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

1A. Advance Shoreline Protection Design at Bridge Approaches

- The City of Jacksonville, in coordination with FDOT, can advance design of shoreline stabilization measures identified in the Jacksonville Living Shoreline Suitability Analysis. These efforts focus on vulnerable segments near bridge approaches, where erosion and wave action threaten roadway stability. Design alternatives can include a combination of hardened revetments and living shoreline systems to reduce erosion, stabilize sediments, and protect critical infrastructure.

1B. Integrate Climate-Informed Design Standards

- Agencies can incorporate sea level rise projections, storm surge modeling, and evolving coastal dynamics into the design of shoreline protection systems and bridge approach improvements. This ensures that investments provide long-term protection and reduce the need for repeated repairs or retrofits as conditions change.

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

2A. Implement Living Shorelines and Revetment Systems

- The City of Jacksonville, in coordination with environmental agencies, can implement hybrid shoreline protection systems along the St. Johns River and adjacent creeks near critical access points. These systems can combine engineered revetments with natural vegetation to reduce erosion, dissipate wave energy, and protect bridge approaches from storm surge.

2B. Preserve and Restore Coastal Marsh Buffers

- Agencies can protect and restore marshes and shoreline systems to maintain natural coastal buffers that attenuate storm surge and reduce long-term erosion pressure on roadway and bridge infrastructure. Strengthening these natural systems supports both ecological health and infrastructure resilience by reducing direct exposure to wave and surge forces.

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

3.1 Construct Heckscher Drive Flyover Connection

- FDOT, in coordination with JAXPORT, can design and construct a flyover connection to Heckscher Drive to improve traffic circulation and reduce congestion at key freight access points. This grade-separated facility can enhance safety by reducing conflict points between heavy trucks, commuter traffic, and turning movements.
- The flyover can improve freight efficiency by minimizing delays caused by queuing and signalized intersections, while also increasing reliability for time-sensitive port and military operations. By reducing congestion near vulnerable bridge approaches, the project can also improve operational safety during storm events when conditions are already constrained.

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

4.1 Deploy Remote Sensing and Inspection Technologies

- Agencies can use drones, LiDAR, and other remote sensing technologies to monitor shoreline change, erosion patterns, vegetation health, and post-storm impacts. These tools can support ongoing assessment of shoreline performance and identify areas requiring maintenance or adaptive improvements.

4.2 Implement Adaptive Infrastructure Management

- Data collected through monitoring systems can inform adaptive management strategies, allowing agencies to refine shoreline protection approaches, maintain structural performance, and respond to changing environmental conditions. This ensures long-term effectiveness of both natural and engineered resilience measures.

Alignment and Support of the Regional Resilience Action Plan

Figure 9. Alignment with the RRAP

SCALE	ACTION	DESCRIPTION
	3	Maintain healthy air quality and reduce greenhouse emissions
	5	Promote the conservation and restoration of ecologically significant natural ecosystems
	8	Support regional transportation networks
	9	Support regional supply chains and provide logistical support for commerce
	13	Facilitate partnerships to advance resilience work
	16	Identify adaptation options for critical infrastructure to enhance resilience
	17	Support shoreline stabilization of natural and modified shorelines
	19	Promote diverse transportation options and support safe multimodal transportation
	20	Support economic growth throughout the region
	23	Recommend innovative emergency preparedness practices and processes
	26	Promote public health and quality of life
	27	Create an inventory of projects utilizing nature-based solutions



Facilitate



Guide



Analyze

This project advances RRAP Actions 3, 5, 8, 9, 13, 16, 17, 19, 20, 23, 26 and 27 by strengthening the multimodal freight system serving MCSF Blount Island and the JAXPORT Blount Island Marine Terminal, where rail access depends on a single northern line crossing the

St. Johns River under a shared CSX-JAXPORT installation ownership structure, and roadway access depends on Dave Rawls Boulevard and its 1967 bridge. Strategic Project BI 2.1 elevates and seeks funding for planned but unfunded North Florida TPO and FDOT Strategic Intermodal System projects, including Eastport Connector track and switchyard expansion, grade separation at the Dave Rawls Boulevard rail crossing, JAXPORT gate security and access improvements, and freight signal priority along SR-105. These measures implement Action 8 (Support Regional Transportation Networks), specifically, Subaction 8.2 on supporting improvements to and investment in existing, regionally significant transportation assets, which names JAXPORT and regional railroads as essential services warranting continued investment, and Subaction 8.3 on encouraging investment in regionally significant transit.

The project delivers the MIRR portfolio's most-direct alignment with Action 9 (Support Regional Supply Chains and Provide Logistical Support for Commerce). Expanded intermodal throughput, reduced chokepoints, and improved routing flexibility strengthen the reliability of goods movement into and out of Northeast Florida, advancing Subaction 9.2 on encouraging commerce into and out of the region through partnerships with distributors. CSX's TRANSFLO rail-to-truck transfer capability and the diversification of backup delivery logistics addressed in this package respond to Subaction 9.1 on maintaining reserves and continuity capacity so that services can be sustained during supply chain failure.

Strategic Project BI 2.2 establishes scenario-based training modules, recurring multi-agency exercises using CSX's simulation platform, performance monitoring, and institutionalized virtual training within readiness programs implementing Subaction 23.3 on supporting advanced training opportunities and facilitating peer learning among emergency managers across the region and Subaction 13.1 on advancing public-private partnerships to leverage expertise that the public sector cannot procure alone.

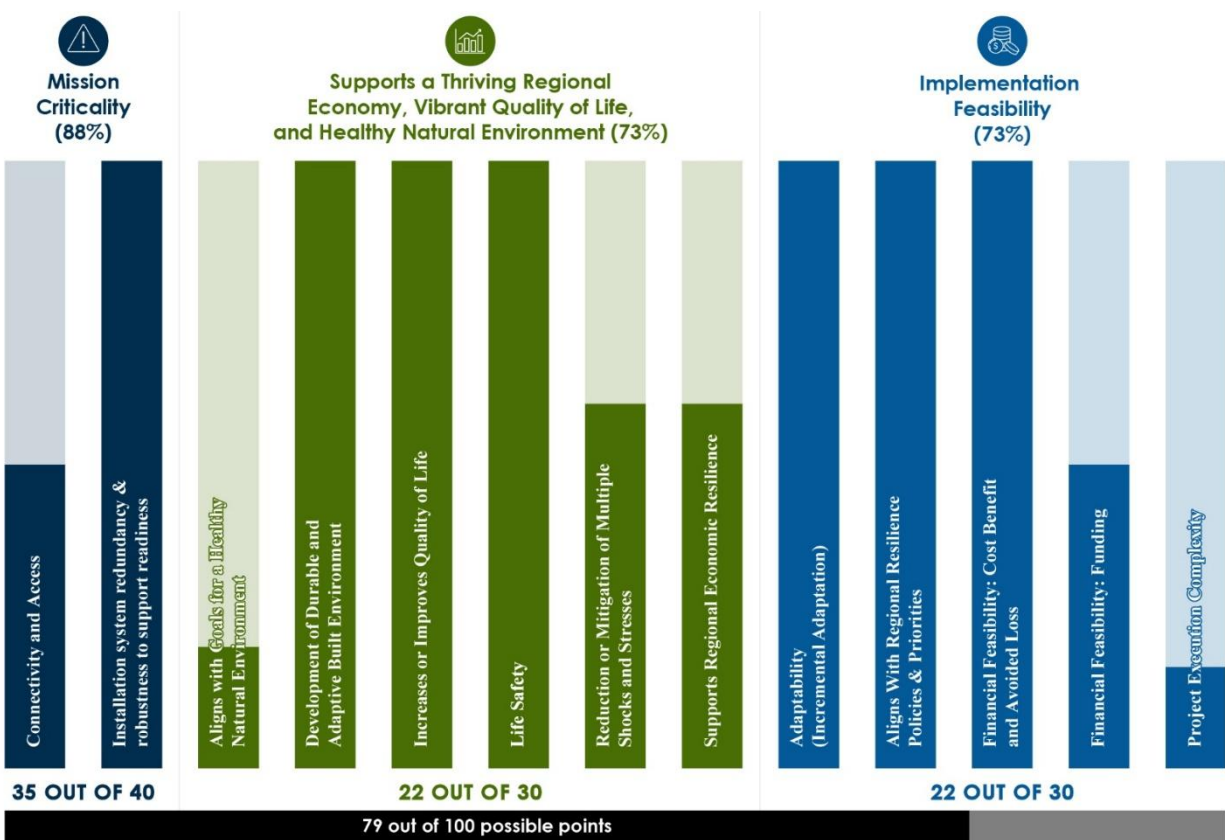
Strategic Project BI 2.3 pairs transportation capacity improvements with coastal protection, advancing the RRAP's Natural Environment goal alongside its Built Environment goal. Implementation of living shorelines and hybrid revetment systems at bridge approaches, drawn from the Duval County Living Shoreline Suitability Analysis, implements Subaction 17.2 on encouraging nature-based solutions where conditions are appropriate and Subaction 17.1 on aligning shoreline stabilization practice with regulatory frameworks, including Environmental Resource Permitting and Section 404. Preservation and restoration of adjacent marsh buffers supports Subaction 5.1 on conserving estuarine wetlands, recognizing the RRAP's finding that coastal wetlands provide substantial storm surge attenuation and erosion protection.

Climate-informed design standards incorporating sea level rise projections and storm surge modeling implement Subaction 16.1, while remote sensing, LiDAR monitoring, and adaptive management of shoreline performance generate the kind of project-level data the Collaborative compiles under Action 27. The modal-shift benefits of reliable rail with lower emissions, reduced highway congestion, and decreased roadway wear relative to truck freight support Subaction 3.2 on promoting activities that reduce greenhouse gas emissions, and the resulting strengthening of Jacksonville's competitiveness as a logistics hub advances Subaction 20.2 on supporting local commerce, including commercial and industrial enterprises, through improved preparedness for disruptive events.

Metrics Score

The MCSF Blount Island Resilient Railway project was evaluated against a robust series of metrics to determine the appropriateness, viability, and achievement of goals (Figure 10). 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 10. 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).

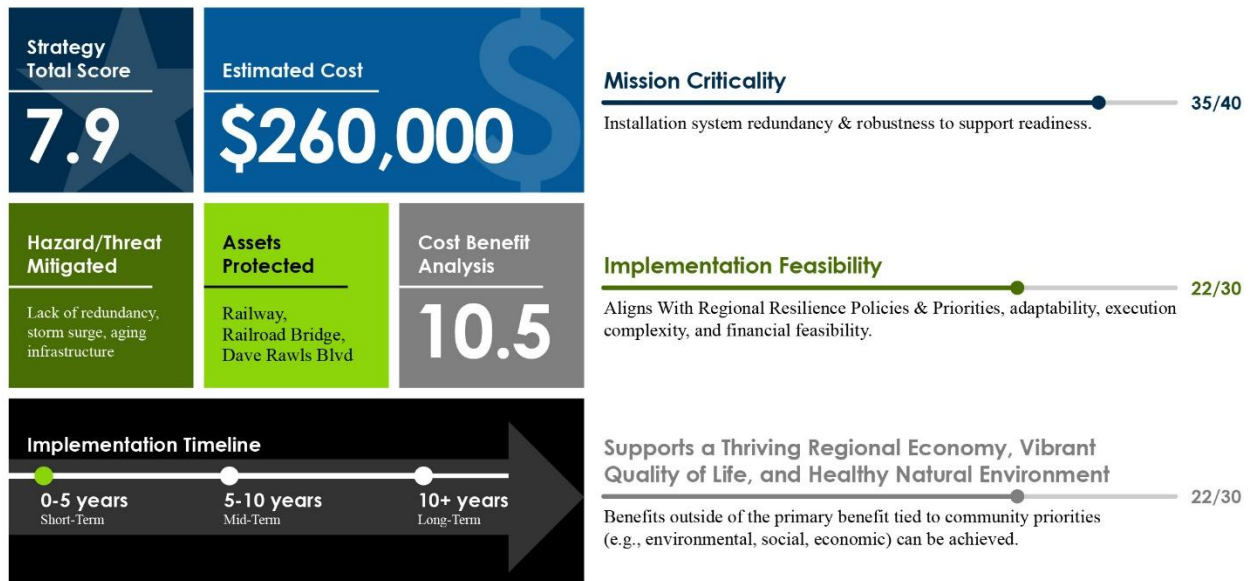
Adaptation project costs were costed to include project construction and design costs, where feasible. Project benefits were costed to include direct (construction or repair costs) and indirect (social, economic, and environmental) costs whenever feasible.

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 11. 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.

Align Military Access Routes with the FDOT Work Program and TPO Priorities (Near-term)

Since most of the roadway projects sit on FDOT-owned facilities, the highest-leverage near-term action is not a new grant but placement in the pipelines that already fund state roads. Steps include:

- Working with FDOT and the North Florida TPO to align MIRR roadway projects with the FDOT Work Program and the TPO's long-range plan and priority lists, so that resilience upgrades fit into existing corridor and access investments rather than competing as standalone initiatives.
- Using MIRR vulnerability data to inform project scoping, site selection, and the case for prioritization within those programs.
- Embedding resilience and critical-access criteria (flood exposure, installation access, redundancy) into local and regional transportation planning frameworks.

Leverage Defense-Specific Transportation Funding (Near-term)

The installation-access purpose of these routes makes them eligible for funding that general roadway projects cannot reach. The FHWA Defense Access Road (DAR) program provides a mechanism for the Department of Defense to fund public highway improvements necessitated by defense activities, which is a direct fit for access routes such as Mayport Road and the Blount Island corridors. Near-term steps include engaging the installations and DoD early to document the defense necessity that DAR requires, and identifying which access-route projects are strongest candidates. The Defense Community Infrastructure Program (DCIP), discussed under Resilient Utilities, can also fund qualifying off-base transportation projects that support an installation.

Bundle Roadway and Freight-Rail Projects for Federal Discretionary Funding (Near-term)

Federal discretionary programs increasingly favor bundled, regionally coordinated applications, and the region can begin organizing project scopes now even where construction is years out.

Near-term steps include:

- Developing a bundled project list focused on installation access routes, freight corridors, and flood-prone transportation nodes.
- Positioning candidate projects for US DOT's BUILD/RAISE and INFRA programs (the latter awarded through the Multimodal Project Discretionary Grant NOFO), which fund road elevation, bridges, freight rail, and multimodal work.
- Coordinating across FDOT, the TPO, CSX, and JAXPORT to align scopes, permitting, and timelines so joint applications and cost-share agreements are ready when rounds open.

Notes: The current federal surface transportation authorization (IIJA) expires September 30, 2026, and future BUILD/RAISE and INFRA rounds depend on reauthorization.

Explore Value Capture and Partnerships in Freight and Growth Corridors (Near-term)

Corridors serving the port and freight network are likely to see rising land values and continued private investment, which creates room for value capture and private participation over a longer horizon. In the near term, the region can conduct a scan of where tax increment financing, mobility fees, or special assessments may be viable, and begin early conversations with private beneficiaries such as JAXPORT tenants, logistics firms, and CSX about co-investment in shared freight-corridor resilience. Full deployment of these tools requires multi-year planning and, in some cases, legislative action, so this is scoping-and-feasibility work now that informs the longer-term strategies.

Transportation & Mobility Longer-term Implementation

As noted earlier, transportation and mobility projects should be carried forward through integration into agency and asset owner investment processes. The key implementation challenge is that mission-related transportation vulnerabilities do not automatically align with established investment priorities. They consequently need to be framed and pursued in ways aligning with those regional priorities.

For roadway and access projects, this may translate into identifying the specific consequences of disruption to mission readiness and positioning projects for the next decision point where they may be advanced. For projects that are already connected to FDOT and the TPO, these should be positioned with the documentation needed for project prioritization and funding consideration.

Freight, port, rail, and aviation needs require similar translation, but through different delivery systems. Port and freight-related priorities may, for example, be framed around topics of regional importance such as shoreline exposure or operational resilience, where those issues intersect with JAXPORT infrastructure planning. Rail-related priorities require early coordination and planning

with CSX, with public investment opportunities framed around public benefits while accounting for CSX ownership, operations, and long-term capital planning.

Over time, the strongest adaptation project candidates will be those with a clearly documented readiness consequence, an identified owner or sponsor, established plans, and sufficient scoping to compete for design, capital, or discretionary transportation funding.

Implementation Funding

Table 4. Transportation Funding Options						
Agency/Org	Program	Description	Available Funding	General Eligibility	Example Eligible Projects	Timeline
US DOT	Better Utilizing Investments to Leverage Development (BUILD) Grant Program (formerly RAISE)	Provides discretionary funding for transportation projects that promote safety, environmental sustainability, quality of life, and economic competitiveness.	~\$1.5 billion available for FY2026. (transportation.gov/BUILDgrants)	State and local governments, MPOs, transit agencies, port authorities	Complete streets, road elevation, bridges, rail planning, multimodal mobility hubs	FY2026 NOFO published Dec 15, 2025; applications due Feb 24, 2026 (letters of support through Mar 13, 2026). Note: IIJA authorization expires Sept 30, 2026 — future rounds depend on reauthorization. (transportation.gov)
US DOT	INFRA Grant Program	Funds large-scale infrastructure projects that improve the movement of freight and people across the country.	~\$1.6 billion/year	States, MPOs, local governments, tribal governments	Highway modernization, road widening, interchanges, freight rail	Awarded through the combined Multimodal Project Discretionary Grant (MPDG) NOFO (INFRA/Mega/Rural); FY2026 round active. IIJA expires Sept 30, 2026. (transportation.gov/grants/mpdg-program)
US DOT	Safe Streets and Roads for All (SS4A) Grant Program	Supports regional, local, and tribal initiatives to prevent roadway deaths and serious injuries through comprehensive safety planning and implementation.	~\$993.5 million for FY2026 (~\$687.8M Implementation, ~\$305.7M Planning & Demonstration). (transportation.gov/grants/SS4A)	Local, regional, tribal governments	Road safety audits, protected bike lanes, speed management systems, crosswalk improvements	FY2026 NOFO closed May 26, 2026. Likely the final SS4A round — IIJA expires Sept 30, 2026. (transportation.gov; visionzeronetwork.org)
FDOT	Transportation Alternatives (TA) Set-Aside Program	Provides funding for smaller-scale transportation projects such as pedestrian and bicycle facilities, recreational trails, and safe routes to school programs.	Approximately \$5.1 million annually.	Local governments, regional transportation authorities, transit agencies, natural resource or public land agencies, school districts, and tribal governments.	Construction of on-road and off-road trail facilities for pedestrians, bicyclists, and other non-motorized forms of transportation.	Annual competitive application process; specific deadlines vary by FDOT district.
FDOT	Transportation Regional Incentive Program (TRIP)	Encourages regional planning by providing state funds to improve regionally significant transportation facilities in regional transportation areas.	State funds cover up to 50% of the non-federal share of project costs.	Projects must be identified in the capital improvements element of a local government comprehensive plan and be consistent with the MPO’s Long-Range Transportation Plan.	Improvements to regionally significant roadways, public transportation facilities, and intermodal facilities.	Application cycles and deadlines are managed by FDOT districts
FTA	Urbanized Area Formula Grants	Provides formula funding to support public transportation in urbanized areas (pop. > 50,000), including capital, planning, and limited operating expenses.	Over \$6.5 billion annually (nationally). Federal funding not to exceed 80% of total project costs.	Public transit agencies, states, and designated recipients in urbanized areas.	Bus and rail capital investments, mobility hubs, transit planning, fare collection systems.	Funding apportioned based on legislative formulas; funds are apportioned annually.
FTA	Pilot Program for Transit-Oriented Development (TOD) Planning	Supports planning efforts near transit corridors to foster compact, mixed-use development and maximize transit access.	~\$29 million in FY26	Transit project sponsors with eligible capital projects	Planning for mobility hubs, affordable housing near transit, station area design.	Annual discretionary grant; FY26 NOFO issued on 5/11/26. Applications are due by 7/10/2026.

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