

Naval Air Station Jacksonville

Adaptation Package #4: Improving Wastewater Utility System Resilience

This package includes one strategic project for improving wastewater utility resilience for NAS Jacksonville. It encompasses wastewater infrastructure improvement recommendations that can be led by state, regional, and local authorities and agencies as well as utility service providers.



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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:

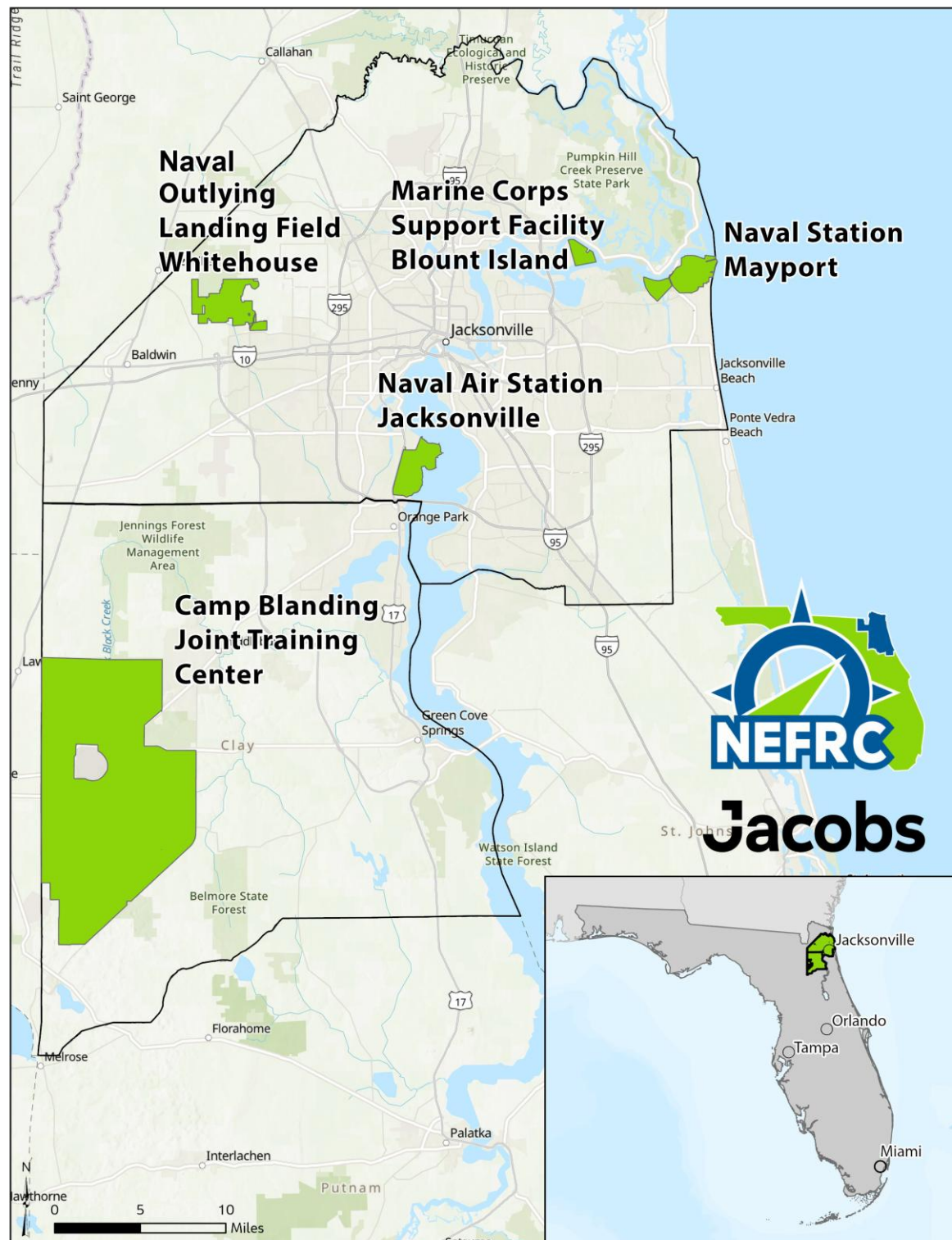
- **Shocks and Stresses** affecting the mission-critical asset
- **Project Objective**, which captures the adaptation goal for the following recommendations to support mission readiness through community resilience
- **Stakeholders and Current Efforts** highlighting successful foundational work upon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

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 (DoD) 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 Blount Island, Naval Station Mayport, and Naval Air Station (NAS) 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.

NAS Jacksonville

NAS Jacksonville covers more than 3,800 acres along the west bank of the St. Johns River in Jacksonville, Florida. It is located north of Interstate 295 (I-295) and the Buckman Bridge, east of the Ortega River and Roosevelt Boulevard, and south of downtown Jacksonville. The installation's large area provides space for military operations, training, and support activities and commands. The installation's area of responsibility also includes Naval Outlying Landing Field (NOLF) Whitehouse and the Pinecastle Range Complex (PRC), which consists of three constituent ranges in central Florida. The proximity of NAS Jacksonville to the NOLF and the PRC supports aviation training activities, while its proximity to Naval Station Mayport supports operational and training activities.

Mission

NAS Jacksonville's mission is to "provide the premier platform for generating and projecting naval power from the shore" (Commander, Navy Region Southeast, n.d.). As the largest installation in Navy Region Southeast, NAS Jacksonville is a key naval aviation hub that supports maritime patrol and reconnaissance, rotary-wing fleet support, naval aviation depot sustainment and fifth-generation capability, regional command and logistics, medical support, and aviation training, range, and airspace operations for aligned installations across the eastern United States (refer to Figure 1). These mission areas provide a basis for identifying the mission-essential functions affected by the loss of an asset or service, how quickly a disruption would affect military output, the level of service that must be maintained or restored, and whether a proposed mitigation reduces the resulting mission consequence.

The installation houses seven fixed-wing patrol (VP) squadrons consisting of P-8A Poseidon aircraft, multiple reserve-duty squadrons, and other entities, with more than 100 aircraft operating out of the installation. Patrol Squadron Thirty (VP-30) provides P-8A and MQ-4C Triton unmanned aircraft training. VP-30 is the Navy's largest aviation squadron and the only site that conducts maritime patrol fleet replacement training. Patrol and reconnaissance operations are supported by key tenants, including Patrol and Reconnaissance Wing 11. The installation also supports rotary-wing fleet operations and the broader aviation training, range, and airspace enterprise.

The Fleet Readiness Center Southeast (FRCSE) represents a major and growing national-level naval aviation sustainment mission at NAS Jacksonville. FRCSE employs approximately 5,000

civilian, military, and contract personnel and performs depot-level maintenance, repair, overhaul, modification, and technical support for aircraft, engines, and aeronautical components supporting Navy, Marine Corps, and joint aviation readiness. FRCSE is establishing significant F-35 aircraft and F135 engine maintenance capacity. Navy projections anticipate F135 production ramping through 2034 toward approximately 600 mini-modules and 120 power modules annually, representing roughly 600,000 maintenance labor hours per year at maximum production. Supporting investments include approximately 300,000 square feet of planned F135 maintenance capacity and expansion of engine-test capability. This growth increases the strategic importance of reliable electric power, transportation access, wastewater service, communications, workforce mobility, and other supporting infrastructure at NAS Jacksonville.

Logistical activities, led by NAVSUP Fleet Logistics Center Jacksonville and the Defense Logistics Agency, support Navy Region Southeast. Secondary missions include Naval Hospital Jacksonville, community and homeland defense, provision of emergency staging sites, and installation support for regional commands. Naval Hospital Jacksonville provides healthcare for military personnel and veterans throughout the region. Community and homeland defense activities are supported by U.S. Customs and Border Protection, which operates aircraft out of the installation. Both NAS Jacksonville's and NOLF Whitehouse's airfields are used as staging sites for the Federal Emergency Management Agency as part of disaster-response activities. Numerous tenants based out of the installation support regional activities, such as Naval Facilities Engineering Systems Command Southeast.

Installation Interconnections

The NAS Jacksonville linkage overlays, as shown on the webpage, illustrate the installation's role as one of Florida's most important naval aviation, command-support, and sustainment hubs. The maps show how NAS Jacksonville connects locally to Naval Station Mayport, regional Navy installations, training ranges, medical and logistics nodes, and nationally to Navy command, aviation, maintenance, communications, and supply enterprises. Together, the layers demonstrate that NAS Jacksonville is not an isolated air station, but a central operating platform that supports maritime patrol and reconnaissance, helicopter maritime strike forces, aviation maintenance, fleet logistics, medical readiness, communications, and installation support across the Southeast and beyond.

The broader strategic value of NAS Jacksonville is especially clear in its global linkages. Its maritime patrol and reconnaissance forces connect the installation to P-8A, MQ-4C, and allied training networks across U.S. and overseas operating locations; its rotary-wing squadrons support Atlantic Fleet ships and deployed naval operations; and Fleet Readiness Center Southeast provides aviation sustainment with reach across the Navy, Marine Corps, and joint force. When viewed as a combined overlay, the maps show NAS Jacksonville as a key node in national defense readiness, linking Florida's military infrastructure to fleet operations, international partnerships, homeland defense, and global maritime security.

Identification of Priority Assets for NAS Jacksonville

Priorities for the installation were based on the direct assets and local services required to support the missions. This includes the roadways required to access the installation, the lands around NAS Jacksonville and NOLF Whitehouse that protect the installations and their operations from encroachment hazards, and the utilities (electric power, water, and wastewater) that support installation operations. These assets were evaluated for exposure to shocks and stresses (Figure 2).

Primary Mission Critical asset types for conducting training and operations, and logistical and maintenance support

- Location-Specific Positioning
 - Conservation lands
 - Shorelines
 - Assets Providing Direct Support
 - Electric Production and Supply Facilities
 - Roads and Bridges
 - Railway systems
 - Cecil Airfield
 - Airspace
 - Natural gas supply systems
 - Regional fire stations

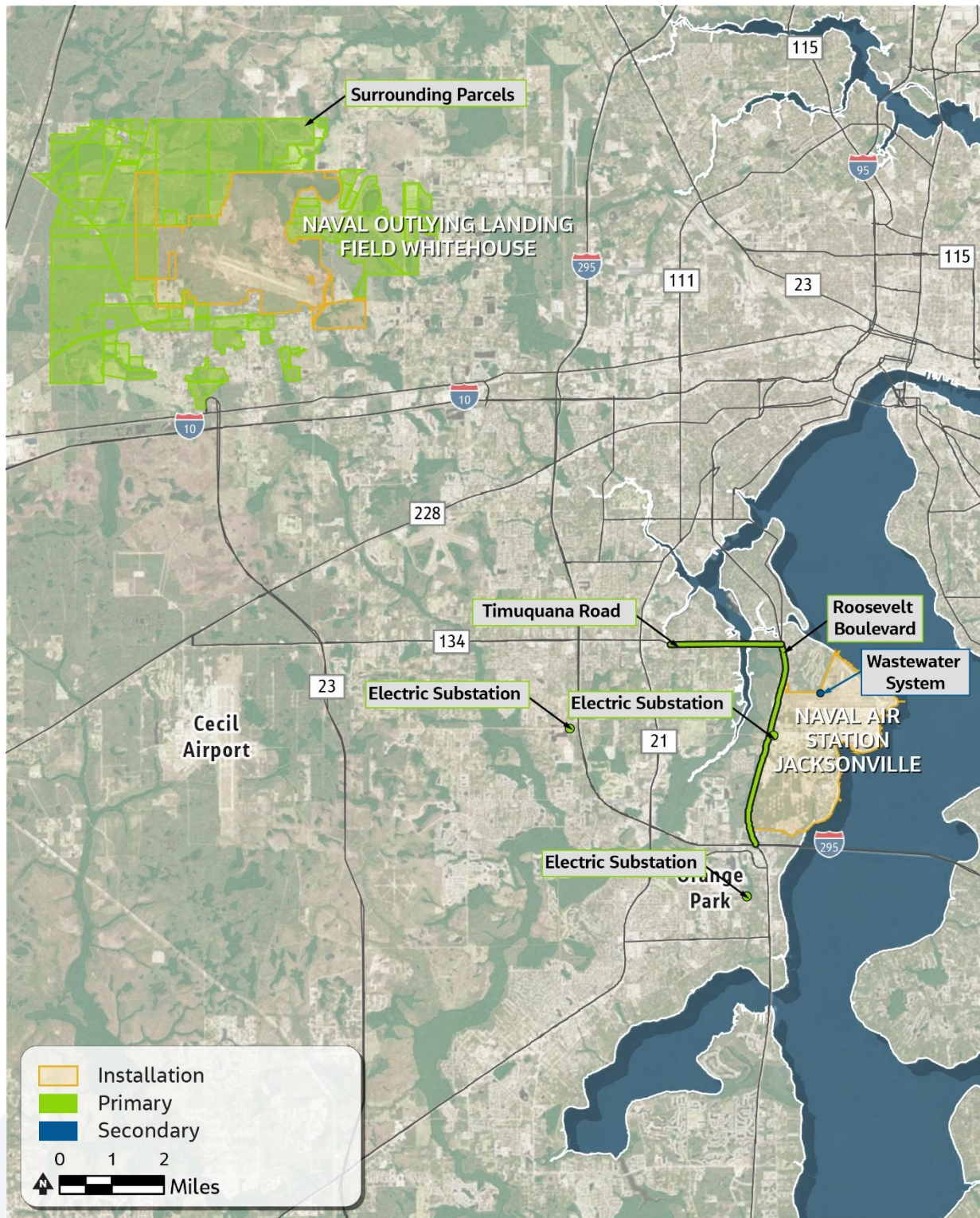
Secondary Mission Critical asset types for drone operations, Naval Hospital, support regional commands, community and homeland defense

- Assets Providing Direct Support
 - Water systems
 - Wastewater systems
 - Communications systems
 - Regional hospitals

Mission Supportive asset types 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
 - Stormwater systems

Figure 2. Primary and Secondary Mission Critical Assets for NAS Jacksonville



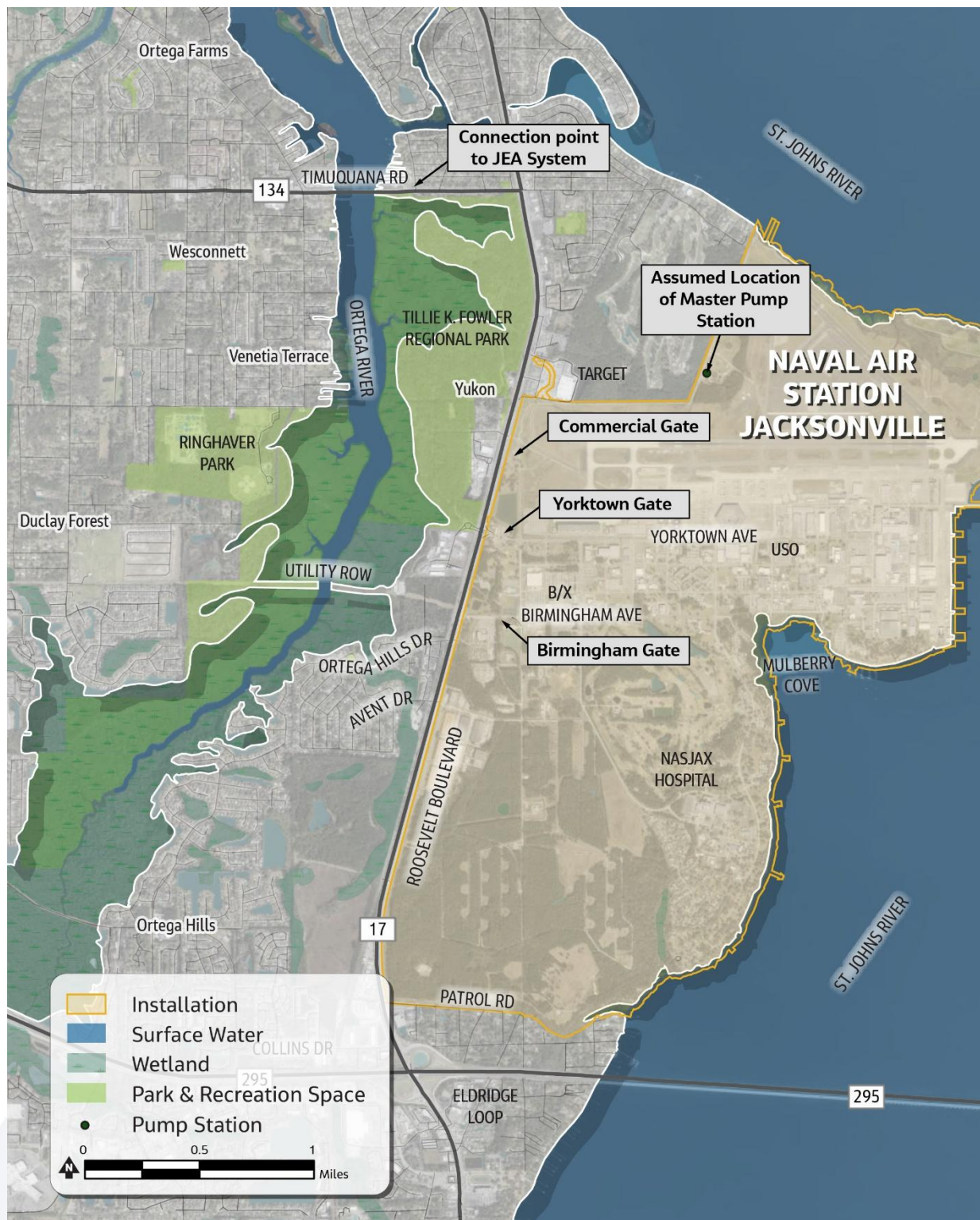
This package addresses the specific shocks and stresses of the mission-critical wastewater assets that support NAS Jacksonville.

Current Conditions That Affect the Wastewater System

The on-base wastewater infrastructure, currently owned and operated by the Navy, has been developed and expanded over time to accommodate changing operational requirements, resulting in a network of gravity mains, lift stations, and related conveyance facilities that vary in age, condition, and configuration. While the system is generally capable of supporting current installation needs, portions of the infrastructure are influenced by age-related maintenance requirements, capacity considerations, and the need for ongoing rehabilitation and modernization.

Wastewater generated throughout the installation is collected through the on-base system and conveyed to the JEA regional wastewater system for treatment and disposal. As a result, wastewater service at NAS Jacksonville is dependent on both the condition of the Navy's internal collection infrastructure and the available capacity within JEA's regional sewer network. JEA operates one of the largest wastewater systems in northeast Florida, providing regional collection and treatment services throughout the Jacksonville area. Continued coordination between NAS Jacksonville and JEA is therefore important to ensure capacity, operational reliability, and long-term resiliency in support of the installation's mission requirements.

Figure 3. Wastewater System 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 (Figure 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 (Figure 5).

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



Environment

Natural Environment

The wastewater system serving NAS Jacksonville is closely connected to the surrounding **Ortega River watershed and tidal environments**, where treated effluent and system performance directly influence regional water quality and ecological health. The system operates within a hydrologically sensitive landscape characterized by low elevations, groundwater interaction, and proximity to estuarine waters. These conditions increase the importance of maintaining system integrity, as overflows or system failures can impact wetlands, aquatic habitats, and downstream ecosystems that support fisheries and coastal biodiversity.



Quality of Life

Quality of Life

The reliability of the wastewater system is essential to maintaining public health, environmental quality, and daily operations for both NAS Jacksonville and surrounding communities. A properly functioning system prevents sanitary sewer overflows, protects drinking water sources, and supports safe living conditions for military personnel, civilian employees, and nearby residents. System disruptions—particularly during heavy rainfall or tidal events—can affect service continuity, create public health risks, and limit operational functionality on the installation. Maintaining wastewater system resilience directly contributes to overall quality of life and mission continuity.



Economic

Regional Economy

The wastewater system represents critical infrastructure that supports the economic stability of NAS Jacksonville and the surrounding region. Reliable wastewater management enables uninterrupted base operations, workforce productivity, and supporting commercial activity. Failures or system inefficiencies can result in costly environmental remediation, infrastructure repairs, and operational disruptions. Additionally, effective wastewater treatment and conveyance protect regional water resources, reducing long-term costs associated with water quality degradation and ensuring continued economic value from recreation, fisheries, and adjacent property uses tied to the Ortega River system.



Infrastructure

Adaptive Built Environment

The wastewater system serving NAS Jacksonville is a key component of the region's adaptive infrastructure, yet it faces increasing challenges from **aging facilities, groundwater infiltration, heavy rainfall, and tidal backflow conditions**. These stressors can reduce system capacity and increase the likelihood of overflows during extreme weather events. Enhancing resilience may include upgrades to pump stations, expansion of storage capacity, reduction of inflow and infiltration, and incorporation of smart monitoring systems for real-time system management. Integrating these improvements with broader stormwater and flood mitigation strategies will strengthen system performance, reduce environmental risk, and ensure continued operation under conditions of flooding, sea level rise, and increased precipitation intensity.



Recommendations



Documenting Shocks and Stresses with a Vulnerability Assessment

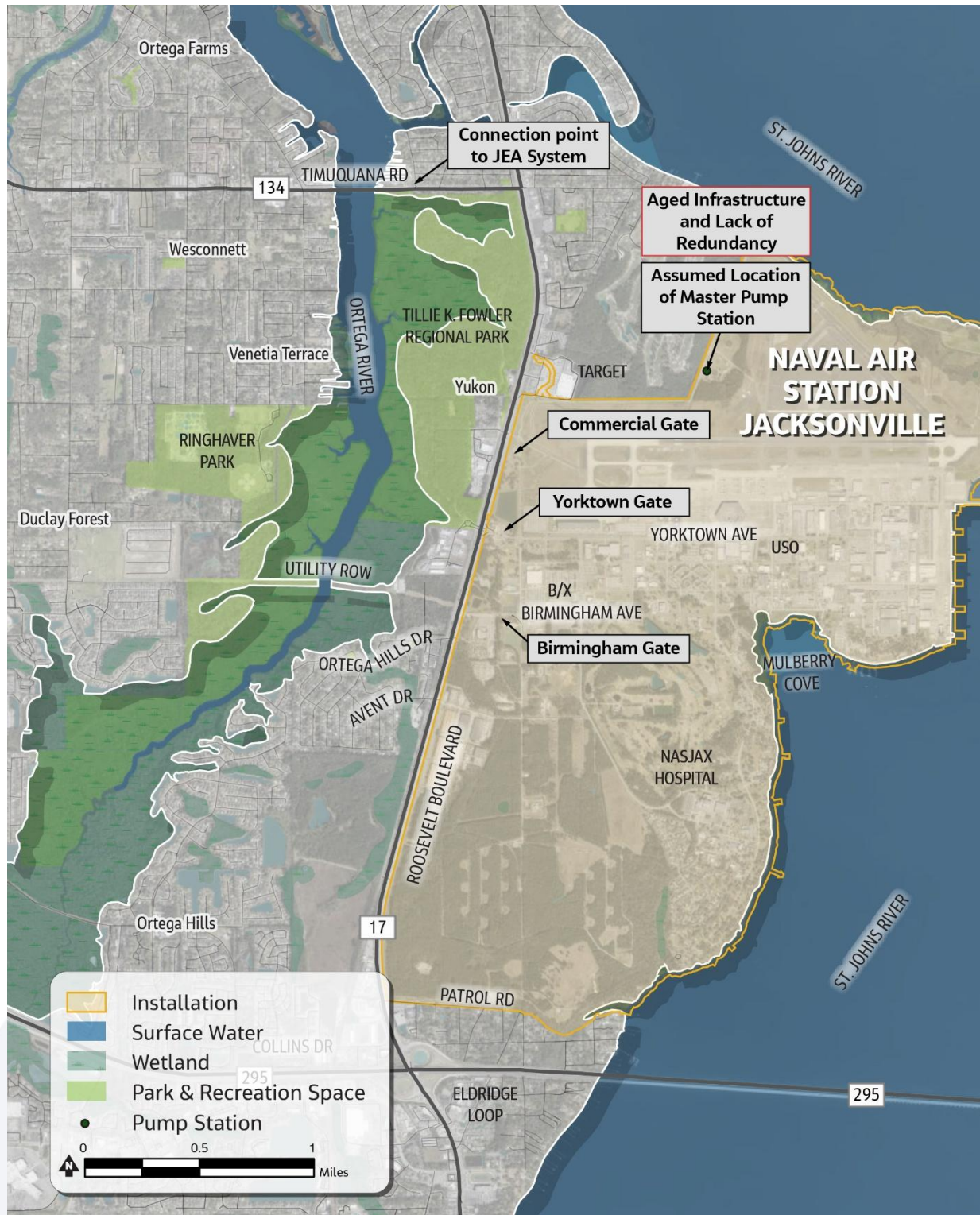
Shocks and stresses to the mission-critical assets supporting NAS Jacksonville include rainfall-induced flooding, coastal flooding from sea level rise (SLR), transportation congestion, lack of redundancy in transportation and utility system connection points, regulatory pressures, encroachment potential from development pressure, and light pollution in areas where dark skies are necessary.

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

This project package addresses the resilience of the wastewater system (item 4) for the installation.

Project Need: Wastewater System Redundancy & Resilience Upgrade

Figure 7. Risk to Mission Map



Vulnerabilities Creating Risk to Mission for this Asset

The installation's wastewater system, which is a secondary mission-critical asset, does not have any interconnections with external utilities or systems. In the event of system failure, the installation would lack wastewater service for the duration of the outage. This lack of redundancy, coupled with regulatory pressures, poses a moderate risk to mission for the installation (Figure 7).

Given these factors, addressing the lack of wastewater redundancy at NAS Jacksonville is an urgent priority to ensure consistent, resilient power service (Table 1).

Table 1. NAS Jacksonville Wastewater Asset Summary

Asset Name	Owner	Location	Mission Criticality	Relevant Shocks & Stresses	Level of Urgency
Wastewater System	NAS JAX	On-base	Secondary	Lack of redundancy, aged infrastructure, regulatory pressure	Near-term

Stakeholders and Current Efforts Identified

Leadership at Naval Air Station Jacksonville has expressed interest in evaluating the feasibility of privatizing the installation's water and wastewater systems, including transferring operations and maintenance responsibilities to a private sector entity. The installation is slated to conduct a business case analysis for water and wastewater system privatization in FY 27.

One option that has been explored is leveraging the installation's existing partnership with JEA to close the on-base WWTP and redirect wastewater to JEA's Southwest Water Reclamation Facility (WRF). As of 2025, concepts have been developed for a master pump station and force main that would tie into JEA's existing system (Figure 8). A master pump station would be constructed north of the airfield with a 16-inch force main that travels northward on Roosevelt Boulevard that ties into JEA's system on Timuquana Road. This project would require additional expansion of JEA's Southwest WRF, which has a current capacity of 16 million gallons per day.

Figure 8. Preliminary Conveyance Concept



Review of Current Strategic Partnerships and Policies

Naval Air Station Jacksonville's wastewater system is primarily supported by an on-installation treatment plant owned and operated by the Navy, with JEA providing utility services under an existing Intergovernmental Support Agreement (IGSA) focused on operations and maintenance. While this arrangement ensures reliable day-to-day service delivery, it does not address wastewater system resilience or redundancy, nor does it establish formal coordination for managing system vulnerabilities tied to off-installation dependencies or regional stressors.

As currently structured, there are no formal agreements or partnerships in place to address the installation's lack of wastewater redundancy or to support coordinated planning for disruptions such as flooding, system failure, or capacity limitations. Although the IGSA provides a durable framework for utility-related services, its scope does not extend to resilience planning, leaving gaps in coordinated approaches to risk mitigation. This is particularly relevant given that, while treatment occurs on base, the system may still rely on external infrastructure, regulatory coordination, and watershed-level considerations.

Looking ahead, the IGSA offers a strong foundation that could be expanded to better address future needs. Strengthening coordination either through an expanded scope or complementary agreements would improve the installation's ability to proactively manage increasing environmental and operational risks.

Regional Coordination, Data Integration, and Pilot Implementation

To enhance wastewater system resilience and address the lack of redundancy, NAS Jacksonville could pursue a more integrated, regional approach. This would involve establishing a formal coordination structure among NAVFAC, NAS Jacksonville utilities, JEA, the St. Johns River Water Management District (SJRWMD), the Florida Department of Environmental Protection (FDEP), and the local health department. A key component of this effort would be the development of a unified data framework, including an inventory of sewer infrastructure, pump stations, system capacities, and ownership boundaries, to improve visibility into interdependencies and vulnerabilities both on and off the installation. From an efficiency standpoint, leveraging and expanding the existing IGSA framework provides a practical pathway to implement these efforts while minimizing administrative burden. Even if major capital investments require separate agreements, enhancing coordination through existing partnerships would significantly strengthen NAS Jacksonville's ability to address wastewater system vulnerabilities and ensure long-term operational resilience.

In parallel, scenario-based feasibility planning and pilot implementation supported by additional project partners would help validate potential solutions. This could include modeling system performance under stress conditions such as flooding, high groundwater, and outages; evaluating regulatory pathways (e.g., interconnections or alternative disposal methods like deep well injection); and deploying pilot technologies such as portable treatment units and smart sensors at permitted off-base locations. These efforts would help ensure that proposed solutions are technically feasible, operationally effective, and aligned with regulatory requirements.

Table 2. NAS Jacksonville Wastewater Policy Recommendations

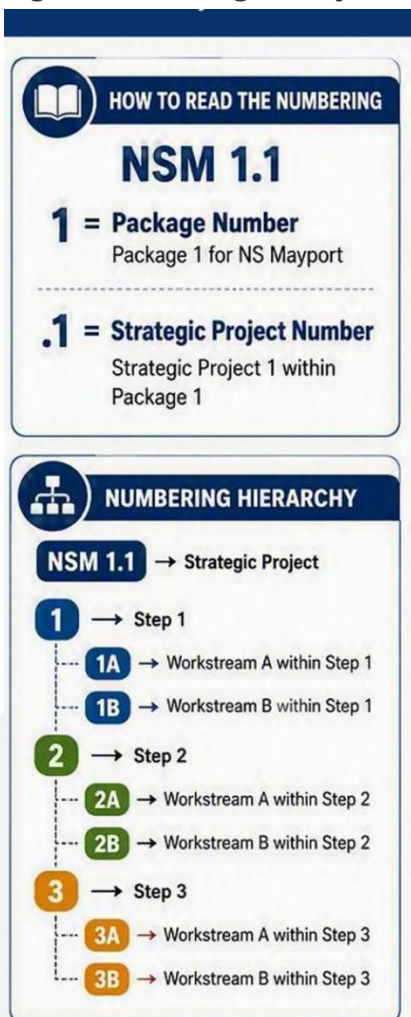
Strategy	Issue(s)	Relevant Parties	Description	Current Policies	Policy Change
OW-1: Explore Opportunities for Enhanced Collaboration on Water Resources Management Among Military and Regional Stakeholders	Water Supply Water Infrastructure Regional Coordination	Installations Clay County City of Jacksonville NEFRC SJRWMD Utilities	Formalize, enhance, or develop new coordination pathways among military and regional stakeholders on water resource management, building on the NEFRC Regional Resilience Action Plan (p.44-45).	Regional water management operates through a patchwork of utility service areas and providers (JEA, CCUA, Green Cove Springs); SJRWMD coordinates via consumptive use permitting and regional supply planning; project-level planning often occurs on a utility- or jurisdiction-specific basis with limited cross-system coordination. The North Florida Regional Water Supply Plan (SJRWMD, 2023) and Clay County Water Supply Facilities Work Plan provide existing structures. Clay County Conservation Element Policy 1.3.7 requires decadal coordination among the County, CCUA, and SJRWMD.	Encourage multi-directional participation in regional One Water planning; empower a body to carry out the North Florida RWSP recommendations; develop formal MSAs/MOAs between installations and water authorities (with NEFRC potentially a party); and establish county/local policies requiring more frequent (e.g., every five years) coordination on sustainable water sources and uses.
OW-2: Improve Regional Coordination for Water Quality and Watershed Protection	Water Quality Conservation Regional Coordination	Installations Clay County City of Jacksonville NEFRC SJRWMD Utilities	Form regional watershed protection agreements and expand data-sharing to protect shared water resources from saltwater intrusion, contamination, over-extraction, and degradation.	FDEP-led BMAPs provide a water quality restoration framework for impaired waters. The RRAP (p.45) identifies aging septic systems as a significant regional threat to water quality; septic vulnerability assessments from St. Augustine and Jacksonville can serve as models.	Form regional watershed protection agreements including installations, counties, municipalities, and utilities; expand data-sharing protocols (e.g., via MSAs) for real-time monitoring; incorporate water quality protection into regional watershed management plans; expand low-impact BMPs on public and private property; and complete regional septic vulnerability assessments to advance septic-to-sewer conversions.
OW-3: Modernize Water Infrastructure to Support an Integrated One Water System	Water Infrastructure Aging Infrastructure	Installations Clay County City of Jacksonville NEFRC SJRWMD Utilities	Upgrade aging or undersized drinking water, wastewater, and stormwater infrastructure - on installations and across counties, municipalities, and utilities - to align with regional One Water priorities.	Water systems with outdated infrastructure face failure concerns compounded by extreme weather, rapid growth, and rising construction costs. NAS Jacksonville has documented wastewater capacity and drinking water interconnection/redundancy needs.	Explore upgrades such as a feasibility study for a proposed forced main connection from NASJAX to an off-base JEA plant; pursue formal (project partnering) or informal (letters of support) teaming to increase funding competitiveness; and implement smart water management technologies for efficiency, leak detection, and resource allocation.
OW-4: Align Watershed-Based Stormwater and Flood Control Strategies	Stormwater Coastal Hazards Flood Resilience	Installations Clay County City of Jacksonville NEFRC SJRWMD Utilities	Align stormwater management plans across installation, county, municipal, and utility levels with shared flood mitigation and resilience efforts.	Resilient Jacksonville commits the City to managing wastewater overflow risk and integrating green stormwater infrastructure into capital programming, with the Office of Resilience developing a green infrastructure prioritization process based on the compound flood model.	Align stormwater plans for consistent cross-jurisdictional flood control; implement multi-benefit stormwater infrastructure (green systems, permeable pavement, retention wetlands), bundling or partnering to enhance competitiveness; and strengthen regional floodplain management policies that incorporate military base vulnerabilities.
OW-5: Increase Water Efficiency and Resilience	Water Supply Water Demand Water Infrastructure	Installations Clay County City of Jacksonville NEFRC SJRWMD Utilities	Implement water efficiency retrofits, synchronize conservation plans, expand reuse/recycling, and assess redundant water infrastructure across military and civilian systems.	Rapid population growth, new development, and industrial activity are straining utilities and reducing groundwater reliability, with particular concern in areas susceptible to saltwater intrusion. A potable water interconnection is being established between NS Mayport and the City of Atlantic Beach.	Implement efficiency retrofits (leak detection, high-efficiency fixtures, optimized irrigation); synchronize conservation plans across stakeholders; expand reuse of treated effluent (e.g., NAS JAX to JEA via the 6B pipeline) for non-potable uses; and assess redundant infrastructure (e.g., the Mayport-Atlantic Beach interconnection as a model; a feasibility study to recommission JEA's White Shell Cove plant as backup for JAXPORT/MCSF Blount Island).
OW-6: Ensure Emergency Water Security Through Regional Coordination	Water Supply Emergency Preparedness	Installations Clay County City of Jacksonville NEFRC SJRWMD Utilities	Strengthen backup water storage and develop emergency water supply contingency agreements between installations and local utilities.	Installations and communities depend on reliable interconnections; NS Mayport's privately maintained on-base water and wastewater systems create a need for backup interconnections and coordinated planning.	Strengthen backup water storage on- and off-base; and develop emergency water supply contingency agreements listing prioritized uses (e.g., critical operations) to facilitate rapid response during fires, droughts, contamination events, or system failures.

Adaptable Built Infrastructure Projects

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 two to three 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 NJ 4.1. Wastewater System Resilience Feasibility Study for NAS Jacksonville

This project describes the steps for a targeted feasibility and resilience planning study to evaluate and enhance the long-term performance of the wastewater system at NAS Jacksonville to the DoD's definition of resilient critical infrastructure for mission readiness.

DoDI 4715.28 – Military Installation Resilience (2024)

This instruction establishes policy and procedures for ensuring:

- Military installation resilience
- Energy resilience
- **Water resilience**
- Continuity of critical missions during disruptions

The instruction specifically identifies resilience planning for installation infrastructure supporting mission execution and directs the assessment of risks to mission from infrastructure vulnerabilities.

Implication for water/wastewater: If an installation depends entirely on a single provider (i.e. municipal water utility or a regional wastewater treatment provider or internally), resilience planning must address the risk of losing those services. The logical resilience objective is to maintain water production, storage, distribution, sewer conveyance, and wastewater treatment sufficient to support critical missions when single systems fail.

Therefore, this effort is centered on identifying and implementing a viable way to provide redundant wastewater service for operations and life safety to support mission readiness.

NAS Jacksonville and JEA, the wastewater utility provider, can confirm the study will assess system vulnerabilities to flooding, sea level rise, groundwater intrusion, and operational capacity constraints, and develop a prioritized framework for future infrastructure investment. JEA does not own the utility infrastructure inside the fenceline.

The wastewater system at NAS Jacksonville operates within a low-lying, tidally influenced environment adjacent to the Ortega River, where compound flooding, high groundwater conditions, and aging infrastructure increase the risk of reduced system capacity and service disruption during extreme weather events. These stressors can lead to inflow and infiltration (I&I), system surcharging, and potential sanitary sewer overflows that threaten public health, environmental quality, and mission continuity. The system is not currently privatized, is aging and does not have any interconnections outside the fenceline that provides redundancy.

This project applies a comprehensive, scenario-based feasibility approach, integrating technical evaluation, stakeholder coordination, and forward-looking design to identify resilient and cost-effective solutions. Modeled after leading Florida resilience feasibility studies, the effort emphasizes pre-disaster mitigation, infrastructure modernization, and interagency coordination.

By focusing on mission-critical infrastructure and risk reduction, the project aligns with Military Installation Resilience Review (MIRR) priorities and positions NAS Jacksonville and its supporting utility systems for future implementation funding through federal and state resilience programs.

Current Stakeholder Projects

- N/A

Potential Project Leads and Partners

- NAS Jacksonville (NASJAX)
- JEA (municipal supplier)
- City of Jacksonville: Resilience Office (advisor)
- Florida Department of Environmental Protection (FDEP)
- St. Johns River Water Management District (SJRWMD)
- Northeast Florida Regional Council (NEFRC)
- North Florida Transportation Planning Organization (TPO)

Estimated Cost

\$1,200,000

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

The NAS Jacksonville Resilient Wastewater Feasibility Study represents a coordinated Phase 2—level effort that integrates technical analysis, stakeholder engagement, and resilience planning into a unified framework for decision-making. The study establishes a foundation for identifying the most effective wastewater system strategy to support NAS Jacksonville under current and future environmental and operational conditions.

1A. Identify and Confirm System Ownership, Service Areas, and Demand Projections

- The study should verify system ownership, service responsibilities, and user groups across the wastewater network serving NAS Jacksonville. This includes confirming service boundaries, mapping utility corridors, and projecting wastewater demand associated with installation operations, surrounding development, and future growth scenarios. These projections ensure that system planning aligns with both current mission needs and long-term operational requirements.
- Wastewater demand projections should incorporate programmed FRCSE F-35 and F135 mission growth, including associated maintenance facilities, production workload, support spaces, and workforce requirements. Because the publicly documented 600,000 annual maintenance labor hours represent workload rather than a definitive net personnel increase, future wastewater flow should be derived from FRCSE and NAVFAC facility-design and utility projections rather than generic per-employee assumptions.

1B. Evaluate Existing Infrastructure and Critical System Needs

- A comprehensive evaluation of wastewater collection, conveyance, and treatment system can be conducted to identify aging infrastructure, capacity limitations, and operational constraints. This effort will define critical infrastructure needs and opportunities for modernization, with a focus on improving system performance and reliability under stress conditions. The

evaluation should consider current installation requirements and programmed fifth-generation aviation-sustainment growth through at least 2034.

1C. Assess System Vulnerabilities and Environmental Impacts

- The study will evaluate system vulnerabilities to flooding, groundwater intrusion, tidal backflow, and extreme rainfall events. It will also assess potential environmental impacts associated with system failures, including risks to the Ortega River and surrounding water bodies. This analysis will identify high-risk assets and prioritize areas requiring intervention.

1D. Evaluate Wastewater Treatment and Conveyance Alternatives

- A range of alternatives will be evaluated to improve system resilience and performance, including upgrades to existing facilities, conveyance realignments, increased storage capacity, and regional or decentralized treatment options. These alternatives will be assessed for feasibility, cost-effectiveness, environmental impact, and ability to maintain reliable service during extreme conditions.
- One proposed concept that has been explored by NAS JAX and JEA is development of a master pump station and additional force main that will tie into JEA's existing system on Timuquana Road, conveying eventually to the Southwest WRF (Figure 5). Development of this concept as an initial estimated conceptual cost of \$40,000,000.
- Because this prospective wastewater connection could involve the Roosevelt Boulevard and Timuquana Road area, the alternatives analysis should evaluate correlated risks associated with placing utility infrastructure within or across the installation's principal transportation-access network. The analysis should determine whether flooding, construction, infrastructure failure, roadway incidents, or other disruptions could simultaneously affect wastewater service and mission-essential installation access. Identified risks should be mitigated through routing, hardening, redundancy, operational procedures, or other appropriate measures.

1E. Integrate Stakeholder Coordination and DoD Requirements

- The study will incorporate robust stakeholder engagement to ensure alignment with Department of Defense priorities, including mission assurance, operational continuity, and infrastructure compatibility. Coordination with NAS Jacksonville and regional partners will confirm that all MIRR and DoD criteria are integrated into the study scope and outcomes.

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

Building on the feasibility study, this phase advances the project toward implementation readiness by identifying a preferred solution, aligning infrastructure investments with mission needs, and establishing a clear pathway for funding and execution. This step ensures that recommended improvements are positioned to meet MIRR objectives for mission protection, risk reduction, and long-term resilience.

2A. Identify Preferred Resilient System Alternative and Implementation Strategy

- Based on feasibility findings, JEA will identify the preferred wastewater system configuration that best addresses resilience, system reliability, and environmental performance. The selected

alternative will be evaluated for constructability, scalability, and long-term adaptability to changing climate conditions and operational demands.

2B. Develop Prioritized Capital Improvement and Phasing Plan

- A phased capital improvement plan will be developed to guide implementation of priority projects. This plan will identify upgrades such as pump station hardening, conveyance system improvements, redundancy enhancements, and additional storage capacity, with prioritization focused on maintaining continuous service to NAS Jacksonville during extreme events.
- Construction phasing for roadway and wastewater improvements should be coordinated to avoid simultaneous utility and installation-access disruptions. Associated traffic-control, continuity-of-service, emergency-access, and contingency requirements should be incorporated into project design and construction planning.

2C. Advance Resilience, Environmental, and Regulatory Outcomes

- The preferred alternative will incorporate strategies to reduce system vulnerabilities, improve water quality, and minimize environmental impacts within the Ortega River watershed. These improvements will align with regulatory requirements and regional resilience objectives, supporting long-term system sustainability.

2D. Align Project with MIRR and External Funding Opportunities

- The project will develop a funding strategy that aligns with MIRR and other federal and state resilience programs. This includes preparing grant-ready documentation, cost estimates, and benefit analyses that demonstrate risk reduction, cost avoidance, and mission protection.

2E. Establish Long-Term Coordination and Adaptive Management Framework

- A long-term coordination framework will be established to ensure continued collaboration between the utility owners, providers and operators to and at NAS Jacksonville. This includes development of performance metrics, monitoring systems, and adaptive management strategies to support ongoing system reliability and resilience.

Key Outcomes

- This project delivers a comprehensive feasibility study and implementation roadmap that identifies the most effective strategy for enhancing the resilience of the wastewater system serving NAS Jacksonville. By integrating technical evaluation, stakeholder coordination, and forward-looking design, the study provides the critical foundation for future infrastructure investment.
- The project directly supports mission readiness, environmental protection, and community resilience by reducing risks associated with flooding, system failure, and infrastructure aging. It aligns with MIRR priorities by addressing mission-critical vulnerabilities, strengthening military-community coordination, and advancing cost-effective resilience solutions.
- As a planning-focused initiative grounded in proven utility feasibility approaches, this effort provides potential project leads and partners with documented findings, funding and financing tools, and an implementation roadmap, ensuring long-term wastewater infrastructure can reliably support installation operations under current and future climate conditions.

Alignment and Support of the Regional Resilience Action Plan

Figure 10. Alignment with the RRAP

SCALE	ACTION	DESCRIPTION
	1	Conserve and protect the region's water resources
	6	Support resilient utilities
	13	Facilitate partnerships to advance resilience work
	16	Identify adaptation options for critical infrastructure to enhance resilience
	32	Inventory critical and significant assets

	Facilitate		Guide		Analyze
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This project advances RRAP Actions 1, 6, 13, and 16 by addressing an on-installation wastewater treatment plant with no interconnection to external utilities, situated in a low-lying, tidally influenced environment adjacent to the Ortega River where compound flooding, high groundwater, and aging infrastructure raise the risk of inflow and infiltration, system surcharging, and sanitary sewer overflows. Strategic Project NSJ 4.1 establishes a JEA-led feasibility study evaluating system vulnerabilities, conveyance and treatment alternatives, and a prioritized capital improvement and phasing plan, including pump station hardening, conveyance improvements, redundancy enhancements, and additional storage capacity. These measures implement Action 16 (Identify Adaptation Options for Critical Infrastructure to Enhance Resilience), specifically, Subaction 16.1 on protecting critical assets through hardening and waterproofing where relocation is impractical, applying cost-benefit and life-cycle analysis to identify the most effective and sustainable protective measures.

The project's water resource dimension advances Action 1 (Conserve and Protect the Region's Water Resources). Reducing sanitary sewer overflows and limiting inflow and infiltration during storm events protects the Ortega River and the lower St. Johns River basin from contamination, implementing Subaction 1.1 on promoting practices that improve water quality to protect groundwater and surface waters, the subaction grounded in the Chapter 403.067 for the Florida Statutes framework governing impaired waters, Total Maximum Daily Loads, and Basin Management Action Plans, and which notes that increasing flooding frequency exacerbates water quality risks by mobilizing pollutants from aging infrastructure. The alternative under evaluation, closing the on-base treatment plant and redirecting flow through a master pump station and force main to JEA's Southwest Water Reclamation Facility, engages the reclaimed water and reuse

strategies contemplated under Subaction 1.4 on regional water supply planning, which identifies conservation and reuse as the most cost-effective and environmentally sustainable approaches to meeting future water needs while protecting potable resources. The Collaborative's commitment under Subaction 1.3 to support transparent water quality reporting, including the State of the River Report for the Lower St. Johns River Basin, gives the project's water quality outcomes a regional reporting pathway.

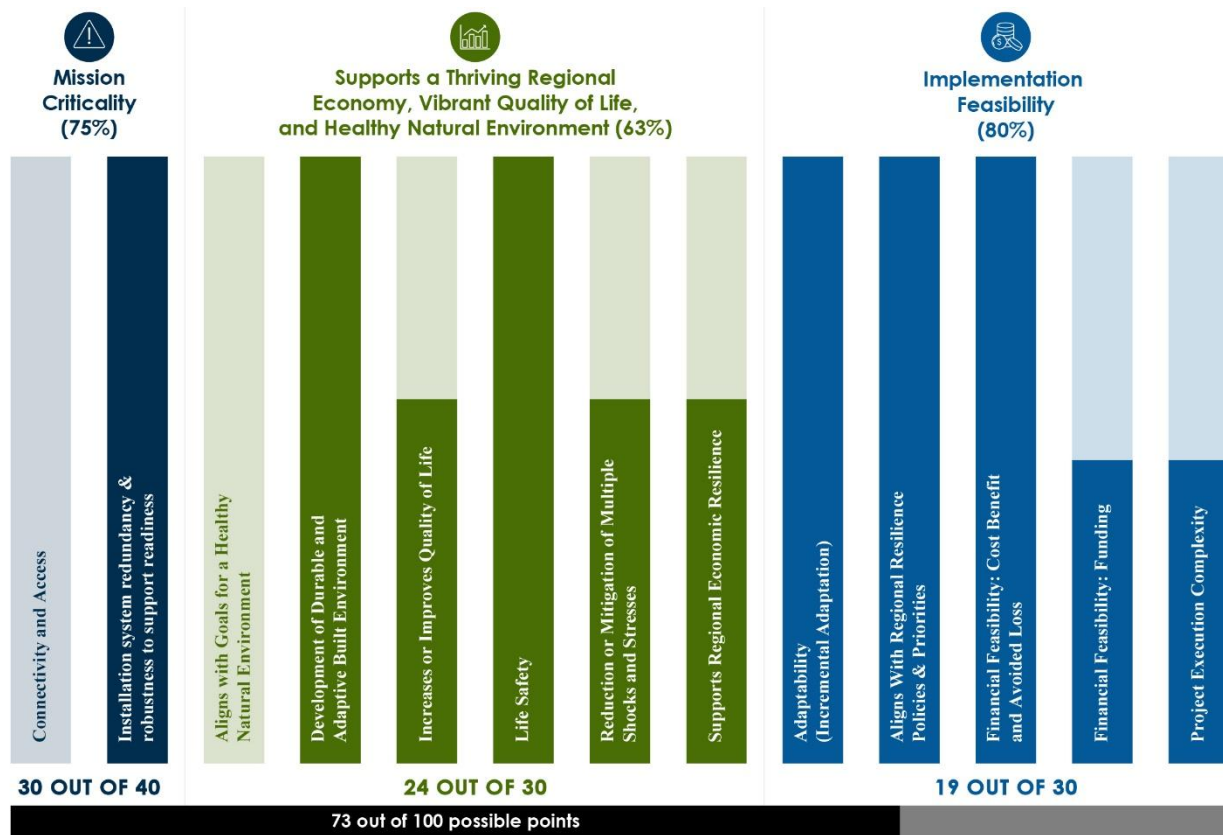
The project's coordination framework implements Actions 6 and 13. The proposed formal coordination structure among NAVFAC, NAS Jacksonville utilities, JEA, SJRWMD, FDEP, and the local health department, together with a unified data framework inventorying sewer infrastructure, pump stations, system capacities, and ownership boundaries, implements Subaction 6.2 on facilitating collaboration between utility providers and local governments to promote resilient measures. Required expansion of JEA's Southwest Water Reclamation Facility beyond its current 16-million-gallon-per-day capacity to accommodate installation flow supports Subaction 6.3 on capacity improvements to accommodate continued population growth and the RRAP's direction that utility planning be coordinated with local governments' comprehensive plans.

The recommendation to expand the existing Intergovernmental Support Agreement, which currently covers operations and maintenance but not resilience or redundancy, implements Subaction 13.1 on advancing public-private partnerships to leverage expertise and funding and Subaction 13.3 on intergovernmental partnerships with state and federal agencies, including the military, to increase regional readiness (the subaction under which the RRAP explicitly recognizes the Council's MIRR process). The project's grant-ready documentation, cost estimates, and benefit analyses position it for the funding opportunities the Collaborative tracks and distributes under Action 34, and documentation of the system's condition and vulnerability contributes to the inventory of regionally significant assets maintained under Subaction 32.2.

Metrics Score

The NAS Jacksonville Resilient Wastewater 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 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).

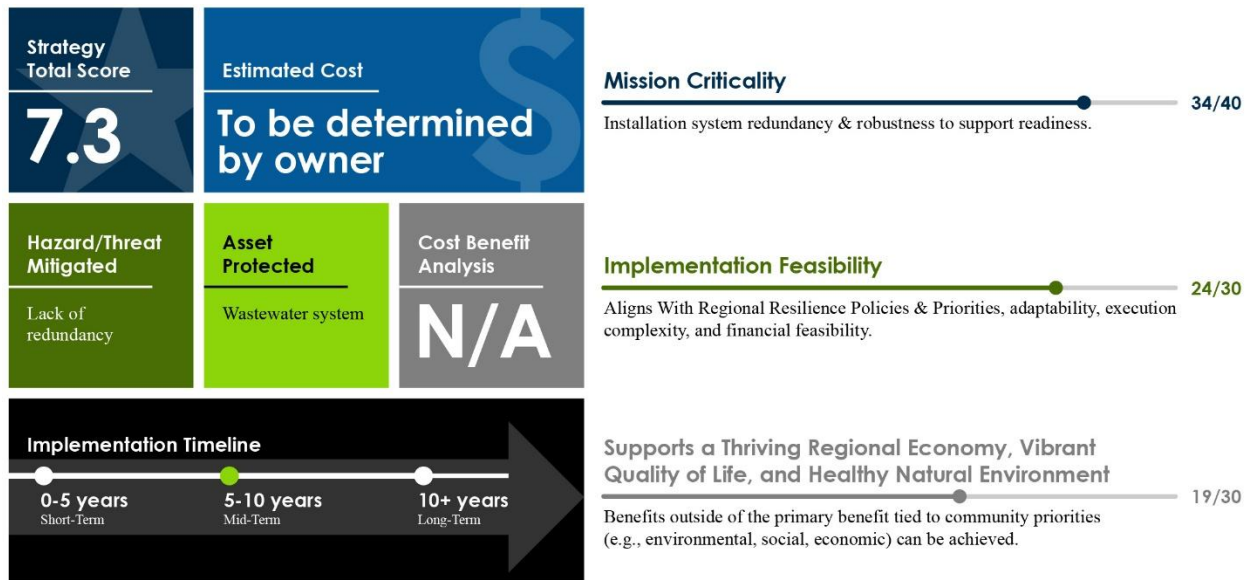
Adaptation project costs were costed to include project construction and design costs, where feasible. Project benefits were costed to include direct (construction or repair costs) and indirect (social, economic, and environmental) costs whenever feasible.

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 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.

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.

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.

One Water Framework

Stormwater, potable supply, and reuse have traditionally been planned and funded as separate systems, but the MIRR portfolio shows how tightly they connect. The water projects on Blount Island, grouped as conveyance capacity and redundancy, center on water reuse, on-site storage, and added reuse capacity at the water treatment plant, and these are owned by JEA. Stormwater upgrades on and around Camp Blanding sit in the same hydrologic and funding conversation.

A One Water approach treats supply, stormwater, and reuse as one system, which reflects the region's hydrology and lets the region use SRF and state water programs more strategically than project-by-project applications allow.

Modernize Utility Revenue and Fee Structures to Support Resilience

Stable, resilience-aligned rate and fee structures are the foundation for both funding projects directly and qualifying for low-cost financing. JEA and the region's stormwater utilities should examine whether current rate models reflect the full cost of service and the investments needed for redundancy and hardening. Modernized structures that fund system hardening, reuse, and storage improve capital planning, reduce long-term borrowing costs, and strengthen a utility's position for SRF and other financing. SJRWMD and NEFRC can support alignment across jurisdictions, and statewide bodies such as the Florida League of Cities can provide technical capacity.

Develop a Coordinated, Funding-Focused Regional One Water Portfolio

Water and stormwater projects that cross jurisdictional or system boundaries are stronger as a bundled portfolio than as individual submissions, because bundling opens co-financing, joint applications, and phased delivery. Near-term actions include:

- Having a regional convener (RFC Partners or SJRWMD) for a One Water project inventory that maintains a pipeline of shovel-ready and conceptual projects reflecting cross-system needs.
- Bundling the Blount Island reuse, storage, and treatment-capacity work with related stormwater and redundancy improvements wherever they share a watershed or a funding pathway.
- Using the coordinated portfolio to inform joint State Revolving Fund (SRF) applications and more competitive proposals, particularly in watersheds tied to the installations' missions.

Increase Access to SRFs and Other Water Financing Tools

Florida's SRFs are the central mechanism for water and reuse infrastructure, but access is often constrained by the administrative capacity to assemble competitive applications. Many eligible projects can go unfunded or are submitted individually when bundling would improve competitiveness. Near-term steps include:

- Providing technical assistance to develop SRF-compliant scopes and coordinate joint submissions across the FL DEP Clean Water and Drinking Water SRFs.
- Screening larger conveyance and treatment-capacity projects for EPA's WIFIA and SWIFIA credit programs, which are structured for higher-cost water infrastructure.
- Pursuing FL DEP Alternative Water Supply grants for reuse, aquifer recharge, and conservation components of the portfolio.
- Pairing SRF loans with local revenue sources such as user fees or developer contributions to reduce repayment risk and improve financial sustainability.

Strengthen Institutional Capacity for Regional Water Governance

Integrated water planning depends on institutions that can coordinate investment, permitting, and operations across boundaries. Near-term actions include expanding the role of regional conveners such as NEFRC or SJRWMD in aligning investment, and building staff capacity within JEA and partner local governments to manage cross-jurisdictional infrastructure. Exploratory working groups can lay the groundwork for the more durable governance structures discussed in the longer-term strategies.

One Water priorities should be planned as an integrated system, but implementation will depend on more targeted funding and financing options tied to specific assets, revenue sources, eligibility requirements and governance jurisdiction. For example, projects with specific owners, funding sources, and capital need are positioned for capital investment planning, SRF financing, rate-supported investment, or other financing tools; whereas, projects with broader flood-reduction, watershed, or stormwater benefits are better tied to options like local stormwater programs or grant-based implementation.

This structure preserves the benefits of One Water planning while recognizing that funding and financing options often remain tied to specific asset types, owners, revenue sources, and eligibility requirements.

Funding Opportunities

Table 3. Water Infrastructure and Stormwater Funding Options

Agency/Org	Program	Description	Available Funding	General Eligibility	Example Eligible Projects	Timeline
US Economic Development Administration	Public Works and Economic Adjustment Assistance Programs	The U.S. Economic Development Administration’s (EDA) Economic Adjustment Assistance (EAA) program invests \$500 million in American Rescue Plan funding to help plan, build, innovate, and put people into quality jobs in hundreds of communities across the nation. As part of the suite of EDA American Rescue Plan programs, the EAA program is funding 256 grantees that will implement projects in 48 states, Puerto Rico, and the District of Columbia	PWEAA/EAA remains active and accepting applications in FY2026. The ARP supplemental (~\$500M nationally, incl. ~\$19M FY23) has concluded; standard Public Works & Economic Adjustment Assistance appropriations continue. (eda.gov)	Must be in economically distressed areas & tied to permanent private sector jobs and investments. Note: in Jan 2026 EDA indicated changes to economic-distress eligibility criteria would take another year and involve stakeholder input. (eda.gov)	Water and wastewater projects	Rolling/continuous application basis.
USDA	Community Facilities Direct Loan & Grant Program	This program provides affordable funding to develop essential community facilities in rural areas. An essential community facility is defined as a facility that provides an essential service to the local community for the orderly development of the community in a primarily rural area.	Interest rates are set by Rural Development Grant assistance is limited to rural communities with low median household incomes.	Rural areas including cities, villages, townships and towns including Federally Recognized Tribal Lands with no more than 20,000 residents according to the latest U.S. Census Data are eligible for this program. Eligible borrowers include public bodies, community-based non-profit corporations, and federally-recognized Tribes	- Utility services including water and wastewater facilities - Public safety services such as fire departments, police stations, prisons, police vehicles, fire trucks, public works vehicles or equipment - Educational services such as museums, libraries or private schools - Local food systems such as community gardens, food pantries, community kitchens, food banks, food hubs or greenhouses	Open year round
USDA	Emergency Community Water Assistance Grants (ECWG)	This program provides grants to help eligible communities prepare, or recover from, an emergency that threatens the availability of safe, reliable drinking water.	Up to \$150,000 for water distribution line maintenance and up to \$1,000,000 to construct a source, intake or treatment facility.	Public utilities in communities with significant decline in quantity/quality due to emergency including drought.	Eligible emergencies include drought or flood, earthquake, tornado or hurricane, disease outbreak, chemical spill, leak or seepage, and other disasters. A federal disaster declaration is not required to access this funding.	Applications accepted year round
USDA	Water & Waste Disposal Loan & Grant Program	Provides funding for clean and reliable drinking water systems, sanitary sewage disposal, sanitary solid waste disposal, and storm water drainage to households and businesses in eligible rural areas.	Offers direct and guaranteed loans depending on the loan amount and community size. If funds are available, a grant may be combined with a loan if necessary to keep user costs reasonable.	Community must be rural with population of 10,000 or less.	Water, wastewater & storm water projects	Applications are accepted year round
USDA	Water & Waste Disposal Predevelopment Planning Grant	This program assists low-income communities with initial planning and development of applications for USDA Rural Development Water and Waste Disposal direct loan/grant and loan guarantee programs.	Maximum of \$60,000 or 75 percent of the predevelopment planning costs.	Community must be rural with a population of 10,000 or less, and have a median household income below the poverty line or less than 80% of the statewide non-metropolitan median household income.	This program helps eligible low income communities plan and develop applications for proposed USDA Rural Development water or waste disposal projects.	Applications are accepted year round

Table 3. Water Infrastructure and Stormwater Funding Options

Agency/Org	Program	Description	Available Funding	General Eligibility	Example Eligible Projects	Timeline
USDA	Special Evaluation Assistance for Rural Communities and Households (SEARCH) Grant	This program helps very small, financially distressed rural communities with predevelopment feasibility studies, design and technical assistance on proposed water and waste disposal projects		Community must be rural with a population of 2,500 or less, and have a median household income below the poverty line or less than 80% of the statewide non-metropolitan median household income.	▪ Feasibility studies to support applications for funding water or waste disposal projects ▪ Preliminary design and engineering analysis ▪ Technical assistance for the development of an application for financial assistance	Applications for this program are accepted year round through your local RD office.
EPA	Water Infrastructure Finance and Innovation Act (WIFIA)	A federal credit program administered by EPA for eligible water and wastewater infrastructure projects. As of early 2026 the program has closed 152 loans totaling \$23B, supporting \$51B in total project cost. (epa.gov/wifia)	FY2026 NOFO (Nov 2025): est. \$6.5 billion in WIFIA and \$550 million in SWIFIA financing available. ▪ Min. \$20M project size (large communities); \$5M (small). ▪ WIFIA can fund up to 49% of eligible cost (large) / 80% (small). (epa.gov/wifia)	▪ 35 years: Maximum final maturity date from substantial completion. ▪ 5 years: Maximum time that repayment may be deferred after substantial completion of the project. ▪ Interest rate will be equal to or greater than the U.S. Treasury rate of a similar maturity at the date of closing. ▪ Projects must be creditworthy and have a dedicated source of revenue. ▪ NEPA, Davis-Bacon, American Iron and Steel, and all other federal cross-cutter provisions apply.	Projects that are eligible for the DW & CWSRF; enhanced energy efficiency projects at dw and ww facilities; brackish or seawater desalination, aquifer recharge, alternative water supply, and water recycling projects; drought prevention, reduction, or mitigation projects; acquisition of property if it is integral to the project or will mitigate the environmental impact of a project; a combination of projects secured by a common security pledge or submitted under one application by an SRF program.	Letters of interest accepted on a rolling basis (LOIs on/after Dec 29, 2025 scored under the FY2026 NOFA). FY2026 application deadline: July 23, 2026. (federalregister.gov 2025-21446)
EPA	Drinking Water System Infrastructure Resilience and Sustainability Program	Grant to improve resilience to hazards at public water systems.	\$19M was available under the prior RFA; no cost-share required. [Status note (mid-2026): program is currently CLOSED for applications; next NOFO not yet announced — verify at epa.gov/dwcapacity.]	Eligible applicants for this competitive grant program are public water systems, water systems located on areas governed by Tribes, and a State, on behalf of an underserved community. Each applicant must serve a community that is underserved and small or disadvantaged.	Example projects include: ▪ Implementing a leak detection and repair program to reduce lost water; ▪ Interconnecting with other water systems and water reuse; ▪ Adding raw water storage and aquifer recharge; ▪ Developing a conservation program with public outreach; and ▪ Coordinating water usage with neighboring irrigation districts and communities.	FY23 selections announced Summer 2024. No open application cycle as of mid-2026; check EPA for the next Notice of Funding Opportunity. (epa.gov/dwcapacity)
FL DEP	Clean Water State Revolving Fund (CWSRF)	Provides low-interest loans for planning, designing and constructing water pollution control facilities.		Local governments, non-profits, public utilities, and Inter-municipal, interstate, and regional agencies.	Funds the acquisition, construction, improvement, expansion, extension, repair, rehabilitation or security measures of all or part of any facility or system, whether publicly or privately owned for the collection, treatment, or disposal of wastewater, including industrial waste such as the treatment of emerging contaminants and for the control of pollution associated with stormwater runoff	FL DEP adds projects to the project priority list quarterly. Applications are due three months prior to quarterly meeting at which the applicant is seeking to be added to the PPL. Once on the PPL, loan applications are accepted on a rolling basis.

Table 3. Water Infrastructure and Stormwater Funding Options

Agency/Org	Program	Description	Available Funding	General Eligibility	Example Eligible Projects	Timeline
FL DEP	Drinking Water State Revolving Fund (DWSRF)	Provides low-interest loans to eligible entities for planning, designing and constructing public water facilities		Local governments, Water Supply Authorities, non-profit water systems, and privately owned community water systems.	Funds the acquisition, construction, improvement, expansion, extension, repair, rehabilitation or security measures of all or part of any facility or system, whether publicly or privately owned for the supply, treatment, storage, or distribution of drinking water including projects to remove and replace lead service lines and identify and treat emerging contaminants	FL DEP adds projects to the project priority list quarterly. Applications are due three months prior to quarterly meeting at which the applicant is seeking to be added to the PPL. Once on the PPL, loan applications are accepted on a rolling basis.
FL DEP	Water Quality Improvement Grant Program	Funding to Florida's governmental entities (cities, counties, municipalities, etc.) to address wastewater (including septic to sewer), stormwater and agricultural sources of nutrients in waterbodies.	\$389 million awarded in FY2025 (31 high-priority projects funded of 348 submissions requesting >\$2.2B). (flgov.com; floridadep.gov)	Financial assistance is available to Florida's governmental entities for projects that have an established total maximum daily load or are located within a basin management action plan area, a reasonable assurance plan area, an accepted alternative restoration plan area, or a rural area of opportunity.	▪ Retrofits to onsite sewage treatment and disposal systems ▪ Wastewater treatment facility construction, upgrades, or expansion-Connecting OSTDS to central sewer facilities ▪ Stormwater or agricultural sources of nutrients in water bodies ▪ Repairs, upgrades, expansion, or construction of domestic wastewater reuse and collection systems	<u>Proposals submitted via the Protecting Florida Together Water Quality Grants portal, which reopens after the 2026 Legislative Session. The 2026 RESTORE Funded Priority List call opened July 1, 2026.</u> (protectingfloridatogether.gov)
FL DEP	Alternative Water Supply Grants	Supports projects that develop sustainable water supplies to meet existing and future demands, including water reuse and conservation.	Varies annually; ~\$40–50M historically.	Local governments, utilities, and water management districts.	Aquifer storage and recovery, reclaimed water systems, water conservation programs.	Annual funding cycle aligned with DEP’s budget year; call for projects typically opens mid-year.
FL DEP	Springs Restoration Grant Program	Funds capital projects to protect Florida’s springs through water quality improvements and water quantity management.	~\$50M/year. FY2025-26: \$50M awarded for 23 springs restoration projects (reducing Total Nitrogen by >100,000 lbs/yr). (flgov.com)	Local governments, utilities, WMDs in springsheds.	Septic-to-sewer conversions, stormwater treatment retrofits, wastewater upgrades.	Annual call for projects in late spring/summer.
FL DEP	Nonpoint Source Management Grants (319 Grants)	EPA-funded grants supporting efforts to reduce nonpoint source pollution through planning, implementation, and education.	~\$5–10M/year; requires 40% match.	Local governments, nonprofits, educational institutions.	Bioretention, rain gardens, retrofits, green infrastructure.	Annual RFP, typically issued in January or February.
FL DEP	Small Community Wastewater Facility Grants	Provides grants to small communities for planning, design, and construction of wastewater infrastructure projects.	Up to 85% of eligible project costs.	Florida municipalities with populations <10,000.	Wastewater treatment plants, lift stations, collection systems.	Applications accepted on a rolling basis.
Florida Commerce	Community Development Block Grants (CDBG) Program	Federal funding to eligible small cities and counties in Florida for housing and community development activities. The primary objectives are to develop viable communities by providing decent housing, a suitable living environment, and expanding economic opportunities, principally for low- and moderate-income persons.	FloridaCommerce awards ~\$18–\$38M annually from HUD as subgrants to eligible local governments. FloridaCommerce announced ~\$38M available under the FFY2025 Small Cities CDBG program (2026 announcement). (floridajobs.org/)	▪ Cities with fewer than 50,000 residents that have not accepted special entitlement status and have not opted to join an entitlement program. ▪ Counties with fewer than 200,000 residents. ▪ Cities with more than 50,000 residents that have opted out of the urban entitlement program.	Water and sewer improvements, street and sidewalk improvements, drainage improvements, park facilities, housing rehabilitation, commercial and downtown revitalization efforts, economic development initiatives.	Annual cycle. FFY2025 application cycle closed May 16, 2025; FloridaCommerce announced new Small Cities CDBG funding availability in April/May 2026.

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