

Northeast Florida Regional Council
Military Installation Readiness Review



Camp Blanding Joint Training Center

Adaptation Package #5: Improving Wastewater Utility System Resilience

This package includes one strategic project that improves utility resilience for this installation. It encompasses wastewater infrastructure improvement recommendations that can be led by local authorities and agencies as well as private 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:

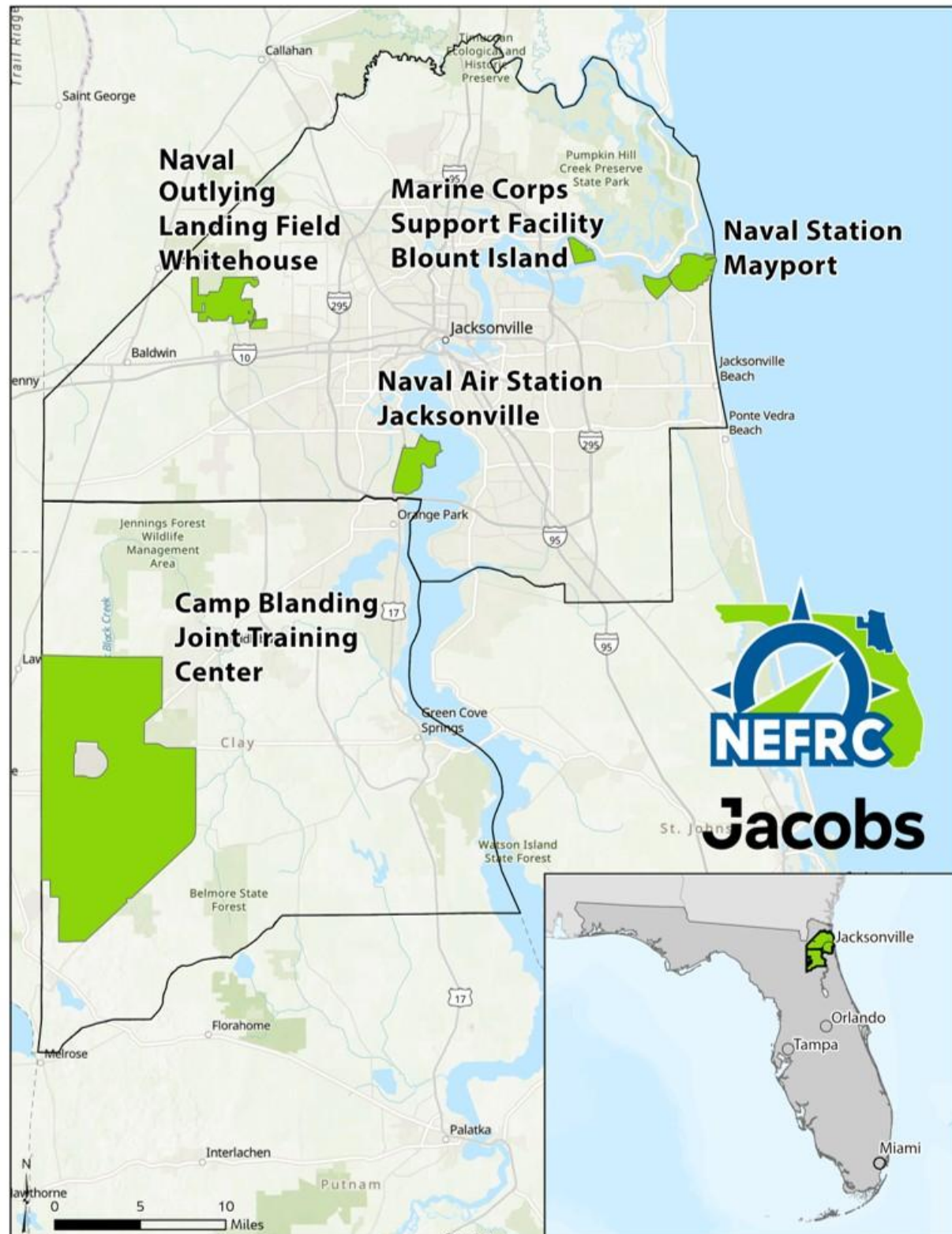
- **Shocks and Stresses** affecting the mission-critical asset
- **Project Objective**, which captures the adaptation goal for the following recommendations to support mission readiness through community resilience
- **Stakeholders and Current Efforts** highlighting successful foundational work upon 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's Office of Local Defense Community Cooperation (OLDCC) 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 Center, Marine Corps Support Facility 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.

Camp Blanding JTC

Camp Blanding Joint Training Center (JTC) is in Clay County, Florida, west of the City of Starke, north of Keystone Heights, and east of the City of Green Cove Springs, along the border of Bradford and Clay counties. The rural setting provides the expansive, undeveloped land necessary to support large-scale ground maneuvers and live-fire training exercises, which was a key reason the site was selected when it was established in 1940 as one of the largest Army training centers in the United States during World War II. At its peak, Camp Blanding processed and trained hundreds of thousands of troops, briefly making it one of the largest population centers in Florida. Following the war, the installation transitioned to a Florida National Guard training site but retained its strategic importance due to its size and flexibility. Today, the cantonment area is primarily accessed via State Road 16, which runs east–west through the installation, connecting Starke to Green Cove Springs, while Keystone Heights Airport just to the south supports installation operations and training activities. The installation's location and surrounding open space remain critical to its mission, enabling dispersed, high-intensity training with minimal encroachment and preserving its historic role as a major military training hub.

Mission

Camp Blanding JTC is a Level II Garrison Training Center and the Florida National Guard's premier training site. The installation spans more than 73,000 acres, including approximately 55,000 acres dedicated to live-weapons and ground-maneuver training. Capable of supporting an Army brigade, Camp Blanding JTC provides year-round combat and civil-support training through ranges, a shoot house, convoy live-fire range, simulation center, education facilities, and maintenance resources.

Secondary mission activities at the installation support national security training and emergency response for a variety of federal and state agencies. Camp Blanding JTC supports military units and federal, state, local, and international partners across the Joint, Interagency, Intergovernmental, and Multinational spectrum. Customers include the Federal Bureau of Investigation, Department of Homeland Security, and Federal Emergency Management Agency. Due to its position as an integrated training hub, the dedicated Multijurisdictional Counterdrug Task Force campus supports law-enforcement training, while joint exercises with Caribbean nations advance international partnerships. The installation averages approximately 10,000 visitors per month.

Camp Blanding also plays a critical role in Florida's continuity and emergency-response operations. It serves as a Continuity of Government site for the Governor and Executive Branch

and as a Continuity of Operations (COOP) site for the Florida Division of Emergency Management (FDEM) and Joint Force Headquarters-Florida. The installation houses the State's backup Emergency Operations Center (EOC) and functions as a Joint Reception, Staging, and Onward Integration (JRSOI) site and Logistical Support Base, providing command, logistics, and staging support before, during, and after emergencies. It also hosts emergency-management academies for county officials.

State and federal investments support facility improvements, new ranges, and mobilization capabilities for homeland-defense and overseas missions. Florida's continued investment in the Operational Readiness Training Complex will expand battalion-scale training support and help attain and sustain the infrastructure standards associated with Level II Garrison Training Center capability.

Partnerships with Keystone Airpark, the Clay County Development Authority, and the Clay County Economic Development Corporation further strengthen infrastructure and operational readiness, reinforcing Camp Blanding JTC's position as a leading southeastern training and emergency-response hub.

Installation Interconnections

The Camp Blanding linkage overlays illustrate the installation's role as Florida's central land-domain readiness, National Guard, and civil-support platform. The maps demonstrate how Camp Blanding JTC connects to Joint Force Headquarters-Florida, the Florida Department of Military Affairs, the Florida Department of Emergency Management, major Florida Army National Guard commands, readiness centers, armories, aviation support facilities, specialized units, and other support nodes across the state. Together, the layers demonstrate that Camp Blanding JTC is not just a training area near Starke, but the geographic and operational hub of a statewide Guard readiness network that ties together command, mobilization, training, logistics, aviation, special operations, sustainment, and unit readiness across Florida, in addition to its role as a key continuity of operations and government function for the state government.

The broader strategic value of Camp Blanding JTC is underscored in its dual military and state response roles. Its Florida Army National Guard readiness and training network links the installation to major commands and armories from the Panhandle through South Florida, while its Camp-based nodes support training, mobilization, emergency response, civil support, logistics-staging, and continuity functions. While not necessarily standing linkages, National Guard and mobilization forces from around the country often leverage Camp Blanding JTC's capabilities as well.

When viewed as a combined overlay, the maps reveal Camp Blanding JTC as a statewide readiness anchor that supports not just National Guard force generation, but more broadly, disaster-response capacity, emergency-management continuity, interagency operations, and defense support to civil authorities, making it one of Florida's most important military assets for both national defense and state resilience.

Identified Priority Assets for Camp Blanding JTC

Priorities for the installation were based on the direct assets and local services required to support the missions. This includes the lands that provide buffers between training activities and the general population, the electricity required for training activities and emergency response, the water required for firefighting, and the transportation infrastructure needed to access the installation. These assets were evaluated for exposure to shocks and stresses (Figure 2).

Primary Mission Critical asset types that support live weapons and maneuver training ranges and house the FL National Guard Training Center

- Location-Specific Positioning
 - Conservation lands
- Assets Providing Direct Support
 - Electric Production and Supply Facilities
 - Roads and Bridges
 - Railway systems
 - Communications systems
 - Fire stations
 - Police stations
 - Stormwater systems
 - Clay County EOC

Secondary Mission Critical asset types that support various state and federal activities, including disaster response and various trainings

- Assets Providing Direct Support
 - Water systems
 - Wastewater systems

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

Figure 2. Primary and Secondary Mission Critical Assets for Camp Blanding JTC



This package addresses the specific shocks and stresses of the mission-critical wastewater system at Camp Blanding.

This package addresses the specific shocks and stresses of the mission-critical wastewater assets for Camp Blanding.

Current Conditions that affect the Wastewater System at Camp Blanding JTC

Camp Blanding's wastewater system is currently in good condition and has sufficient capacity to meet existing operational demands on the installation. Because the wastewater collection and treatment infrastructure is located entirely on base, Camp Blanding maintains local control over system operations and management. The system is capable of serving current users without identified capacity constraints and continues to provide reliable wastewater service for military training, administrative, and support facilities.

While the system is generally functioning well, heavy rainfall events can affect performance by increasing inflow and infiltration into the collection system. During intense rainfall, excess stormwater entering the wastewater network can contribute to temporary overflows or operational challenges. As a result, extreme weather events remain the primary factor influencing wastewater system conditions, although the system otherwise has adequate capacity and is not currently experiencing service limitations.

MIRR 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. 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 (Figures 4 and 5) into coordinated action (NEFRC 2025).

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

RRAP Goals and Objectives

Figure 3. Regional Resilience Action Plan (NEFRC 2025)

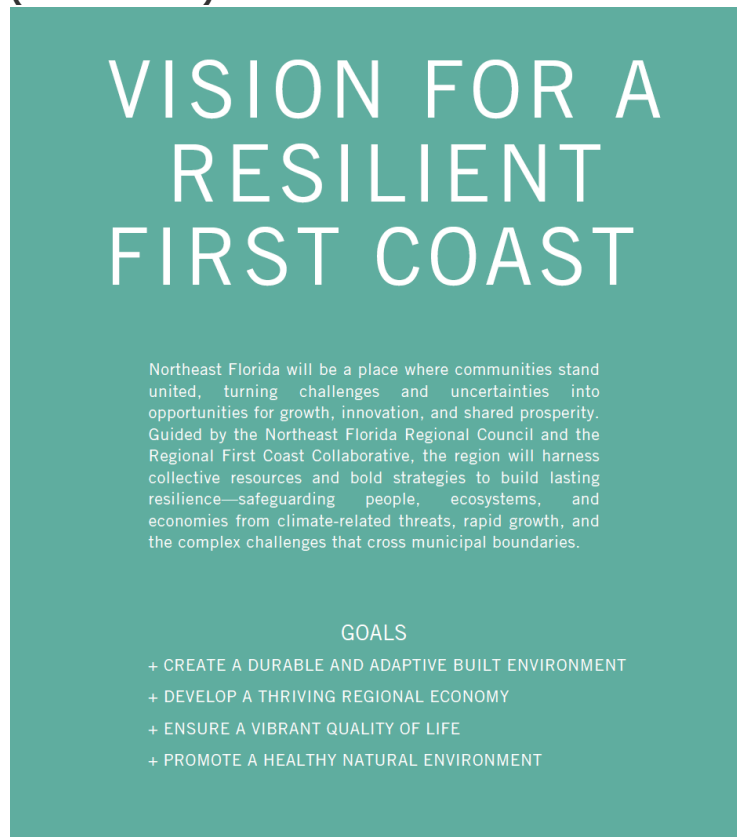


Figure 4. Regional Structure for Resilience as Framework for the MIRR

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 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 6. Connection of This Asset to the Community



Environment

Natural Environment

Camp Blanding's wastewater system interacts with surrounding groundwater, lakes, wetlands, and watersheds through the collection, treatment, and disposal of wastewater. Reliable treatment and modern conveyance infrastructure help prevent overflows, reduce pollutant and nutrient discharges, and protect water quality near Kingsley Lake and within the broader regional watershed. Expanding reuse, improving inflow and infiltration controls, and maintaining compliant disposal methods can further conserve water resources and protect sensitive natural systems.



Quality of Life

Quality of Life

Dependable wastewater service protects public health and sanitation for military personnel, authorized visitors, emergency responders, and others using Camp Blanding's facilities. A resilient system helps maintain safe living, working, and training conditions during heavy rainfall, equipment failures, and emergency operations. A redundant connection to regional utility infrastructure could also improve service continuity and strengthen coordination between the installation and surrounding communities.



Economic

Regional Economy

The wastewater system supports Camp Blanding's training, administration, and statewide emergency-response functions, which contribute to regional employment, contracting, and economic activity. Improving system reliability and regulatory compliance can reduce the risk of costly service disruptions, emergency repairs, and interruptions to installation operations.



Infrastructure

Adaptive Built Environment

Camp Blanding's on-installation wastewater system is essential infrastructure supporting daily operations and mission continuity, but its lack of redundancy creates a potential single point of failure.



Recommendations



Documenting Shocks and Stresses with a Vulnerability Assessment

Shocks and stresses to the mission-critical assets supporting Camp Blanding JTC include wildfire, rainfall-induced flooding that overwhelms stormwater infrastructure, extreme heat impacts to transportation assets and personnel executing outdoor training, and lack of redundancy, aging infrastructure, and regulatory pressures on utility infrastructure. Notably, the predominant threat to the installation's mission is encroachment from incompatible land uses.

1. Remaining unprotected priority parcels, fragmented ownership, and gaps in buffer continuity leave portions of the installation boundary exposed to incompatible development and wildfire-management constraints.
2. On-installation wildfire is a well-managed risk. Installation personnel, in collaboration with the Florida Forest Service, regularly conduct prescribed burns as a means of fuels management. Off installation, however, wildfire hazards are managed by a variety of entities (state, local, or private). Wildfire risk is greater on private property that is not well-managed. This can result in fire hazards entering other properties and eventually the installation, threatening operations.
3. Stormwater flooding is a risk on-installation (which has stormwater infrastructure past the end of its service life) and on SR 16, impacting base access.
4. Extreme heat threatens regional railways and roadways, potentially causing buckling and impacting the movement of personnel and equipment.
5. The installation's electrical supply lacks redundancy and wildfire threaten nearby electrical substations.
6. **The installation's wastewater lacks redundancy and faces regulatory pressures from existing state legislation.** Senate Bill 64, signed into law in 2021 and enacted as Chapter 2021-168 and amending Florida Statute 403.064, requires that the wastewater utilities eliminate nonbeneficial surface water discharges by 2032.

This project package addresses redundancy for improved wastewater system resilience for the installation (item 6).

Project Need: Enhancement of Wastewater System Redundancy, Resilience, and Regulatory Compliance

Figure 7. Risk to Mission Map



Wastewater Asset Vulnerabilities Creating Risk to Mission

The wastewater treatment plant serving Camp Blanding was originally constructed in the 1940s and is located within the installation’s fenceline. The facility is owned, operated, and maintained by Camp Blanding, and it continues to provide essential wastewater services for the entire installation. While the plant has supported operations for decades, it now represents aging infrastructure that is increasingly challenged by both operational demands and evolving regulatory requirements (Figure 7).

Given its critical role in supporting mission readiness, the lack of system redundancy presents a notable vulnerability. Any disruption to the existing treatment system—whether due to equipment failure, maintenance activities, or unforeseen events—could impact the installation’s ability to sustain operations. As such, there is a clear need to establish a redundant backup wastewater connection to ensure continuity of service and maintain operational resilience across the installation.

In addition to operational concerns, regulatory pressures are expected to increase in the future. Legislative actions such as Chapter 2021-168, Laws of Florida (previously known as SB64), are anticipated to impose more stringent requirements on wastewater systems, further emphasizing the importance of reliability, compliance, and risk mitigation. Proactively identifying and implementing alternative and backup wastewater solutions positions Camp Blanding to better adapt to these regulatory changes while reducing long-term compliance risk.

To address these challenges, the development of an external connection to a regional utility provider such as the Clay County Utility Authority (CCUA), should be considered as a strategic long-term solution. Establishing this connection would provide redundancy, improve system resilience, and offer additional operational flexibility. By diversifying wastewater treatment and conveyance options, Camp Blanding can strengthen its infrastructure, ensure uninterrupted service, and better support its mission under both routine and emergency conditions.

Table 1 gives an overview of the wastewater assets at the installation.

Table 1. Wastewater System Asset Vulnerability Overview

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

Stakeholders and Current Efforts Identified

Currently, there are no formal or informal agreements in place between Camp Blanding and CCUA regarding wastewater service. However, both entities have expressed mutual interest in further exploring potential collaboration opportunities. At present, aside from ongoing routine maintenance, there are no major upgrades or capacity expansions planned for the on-installation wastewater treatment plant, reinforcing the importance of evaluating future alternatives to support long-term system reliability and growth.

CCUA has several community-based wastewater initiatives underway that could present opportunities for regional coordination. These include a wastewater treatment plant near Keystone Heights that is approaching capacity and has completed 100% design, with current efforts focused on advancing improvements to support anticipated development.

Additional CCUA assets may also offer future connectivity potential. The utility operates rapid infiltration basins (RIBs) in the Keystone Heights area with a current capacity of approximately 200,000 gallons per day and available space for expansion. In addition, CCUA maintains a force main at Penny Farms that conveys flow to the Asbury wastewater treatment plant. Expansion of this conveyance system could be evaluated as a possible option to serve Camp Blanding, contingent on feasibility, cost considerations, and the level of installation interest. Collectively, these ongoing and planned projects provide a foundation for continued dialogue and potential partnership opportunities between CCUA and Camp Blanding.

Review of Strategic Partnerships and Policies

Camp Blanding currently lacks formal partnerships or coordination mechanisms specifically addressing the resilience and redundancy of its wastewater system. No intergovernmental agreements, procurement arrangements, or utility coordination frameworks were identified with local or regional partners, including Clay County, which would typically play a role in wastewater planning and regulatory compliance. As a result, the installation's wastewater infrastructure operates without the benefit of external collaboration or shared planning to address system vulnerabilities.

This absence of partnership limits the effectiveness of current efforts to manage risk. The wastewater system—like the installation's stormwater infrastructure—lacks redundancy and interconnection, creating potential single points of failure. Without a formal coordination structure, there is no established mechanism to jointly plan for capacity upgrades, emergency response, regulatory compliance, or system continuity during disruptions. This gap is particularly notable given that wastewater systems are subject to environmental regulations that may require coordinated solutions, especially in the event of system stress or failure.

Looking ahead, the lack of redundancy in the wastewater system may become more consequential as environmental pressures intensify and operational demands evolve. Increased rainfall, flooding, and potential system strain could expose vulnerabilities that are more difficult to address without pre-existing agreements or shared planning frameworks. At present, these risks remain largely unmitigated through formal partnerships, leaving the installation to address challenges independently unless coordination is established.

From an efficiency standpoint, pursuing a formal agreement with Clay County or another appropriate local entity represents a practical path forward. Similar to opportunities identified for electrical infrastructure, establishing a coordination mechanism—such as an IGSA or memorandum of understanding—could define roles, support compliance efforts, and facilitate planning for redundancy or interconnection. Leveraging existing local expertise and infrastructure planning processes would likely provide meaningful resilience benefits relative to the level of effort required, while positioning the installation to more proactively address future wastewater system challenges.

Table 2. Camp Blanding 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. Approximate, 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.

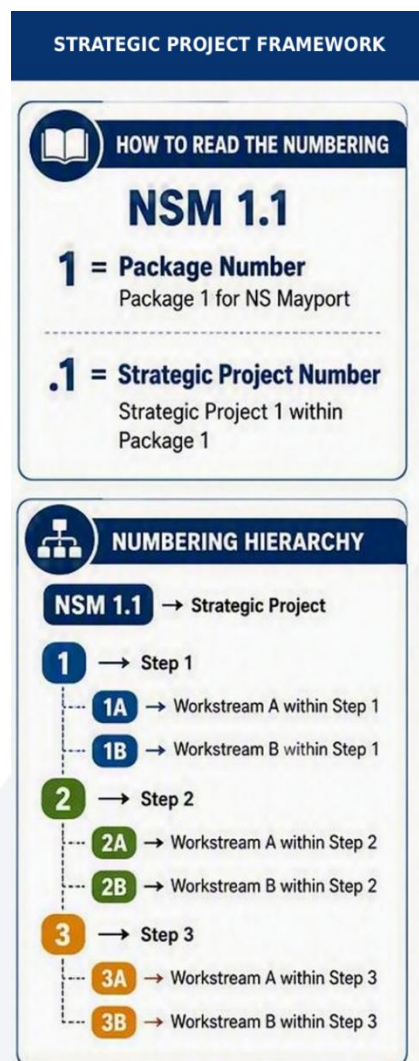


Figure 8. Strategic Project Framework

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.

Figure 9. Adaptation Strategies Map



Strategic Project CB 5.1. Wastewater System Resilience and Force Main Feasibility Study for Camp Blanding

This project establishes a targeted feasibility and resilience planning study to evaluate wastewater infrastructure needs and identify optimal alternatives for constructing a new force main connection serving Camp Blanding JTC. This project can be led by CCUA, Camp Blanding JTC, and USACE, to assess system capacity, conveyance constraints, and long-term infrastructure needs, and develop a prioritized framework for enhancing reliability, redundancy, and operational resilience.

The wastewater system serving Camp Blanding operates within a rural and semi-developed landscape experiencing increasing growth pressure in surrounding areas. Existing systems may face capacity limitations, aging infrastructure concerns, and limited redundancy, which can affect system performance during peak demand or emergency conditions. Establishing a new force main connection provides an opportunity to improve system resilience, operational flexibility, and service reliability, while supporting both installation operations and regional development.

This project applies a comprehensive, scenario-based feasibility approach, integrating engineering analysis, stakeholder coordination, and forward-looking system design to evaluate multiple conveyance alternatives for a new force main. Modeled after leading Florida utility feasibility studies, the effort emphasizes infrastructure modernization, redundancy planning, and coordination between military and civilian systems to assist in bringing the wastewater supply serving Camp Blanding JTC 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 municipal water utility or a regional wastewater treatment provider, resilience planning must address the risk of losing those external services. The logical resilience objective is to maintain water production, storage, distribution, sewer conveyance, and wastewater treatment sufficient to support critical missions when external systems fail.

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

By focusing on mission-critical utility infrastructure and long-term service reliability, the project aligns with Military Installation Readiness Review (MIRR) priorities and positions Camp

Blanding and CCUA for future implementation funding through federal and state resilience programs. Prior to kicking off the study, security requirements for handling data and communications should be confirmed with installation representatives.

Current Stakeholder Projects

- N/A

Potential Project Leads and Partners

- Clay County Utility Authority (CCUA)
- U.S. Army Corps of Engineers (USACE)
- Camp Blanding Joint Training Center (JTC)
- Clay County
- Florida Department of Environmental Protection (FDEP)
- St. Johns River Water Management District (SJRWMD)
- Northeast Florida Regional Council (NEFRC)
- Florida National Guard / DoD stakeholders
- Private landowners (as applicable for easements and corridors)

Estimated Cost

\$1,500,000

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

The Camp Blanding Resilient Wastewater Feasibility Study represents a coordinated analysis integrating technical evaluation, stakeholder engagement, and infrastructure planning to determine the most effective strategy for improving wastewater conveyance through development of a new force main connection.

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

- CCUA can evaluate current service areas, system ownership, and user groups associated with Camp Blanding and surrounding lands. This includes projecting wastewater demand based on current installation operations, training activities, and anticipated regional growth to ensure that the system can accommodate future needs.

1B. Evaluate Existing Wastewater Infrastructure and Capacity Constraints

- A detailed assessment of existing wastewater collection and conveyance infrastructure will identify capacity limitations, operational constraints, and system vulnerabilities. This analysis will define the need for expanded conveyance capacity and improved system connectivity.

1C. Assess Environmental, Permitting, and Corridor Constraints

- The study will evaluate environmental conditions, permitting requirements, and land use considerations associated with potential force main alignments. This includes identifying constraints related to wetlands, conservation lands, and groundwater systems, as well as opportunities to co-locate infrastructure within existing or planned utility corridors.

1D. Evaluate Force Main Routing and Conveyance Alternatives

- Multiple alternatives will be developed and analyzed for the new force main connection, including alignment options, connection points, system configurations, and capacity scenarios. Each alternative will be evaluated for constructability, cost, environmental impact, and ability to provide reliable, redundant service to Camp Blanding.

1E. Integrate Stakeholder Coordination and DoD Requirements

- The study will incorporate coordination with Camp Blanding leadership, DoD stakeholders, and regional partners to ensure alignment with mission requirements, operational needs, and infrastructure compatibility. This includes confirming that MIRR and DoD resilience criteria are fully integrated into the study framework.

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

Building on feasibility findings, this phase advances the project toward implementation readiness by identifying a preferred force main alternative and establishing a clear strategy for design, funding, and construction.

2A. Identify Preferred Force Main Alignment and System Configuration

- Based on technical and environmental evaluation, CCUA will identify the preferred force main alignment and system configuration that best meets operational, cost, and resilience objectives. The selected alternative will provide improved conveyance capacity and system redundancy.

2B. Develop Prioritized Capital Improvement and Phasing Plan

- A phased implementation plan will be developed to guide design and construction of the new force main and associated infrastructure. This plan will prioritize segments based on system need, constructability, and ability to support Camp Blanding operations.

2C. Advance Resilience and System Reliability Outcomes

- The preferred solution will incorporate design features that enhance system reliability and resilience, including redundancy, improved conveyance efficiency, and capacity to accommodate future demand. These improvements reduce the risk of service disruption and support long-term system performance.

2D. Align Project with MIRR and External Funding Opportunities

- The project will establish a strategy to pursue funding through MIRR and other state and federal programs. This includes development of cost estimates, benefit analyses, and grant-ready documentation demonstrating mission support, infrastructure resilience, and cost avoidance.

2E. Establish Long-Term Coordination and Operational Framework

- A coordination framework will be established to ensure ongoing collaboration between CCUA, Camp Blanding, and regional partners. This includes defining operational responsibilities, maintenance strategies, and long-term system management approaches.

Key Outcomes

- This project delivers a comprehensive feasibility study and implementation roadmap for development of a new force main connection serving Camp Blanding. By evaluating alternatives and identifying a preferred conveyance strategy, the study provides the foundation for infrastructure investment that enhances system reliability, redundancy, and resilience.
- The project directly supports mission readiness and operational continuity by ensuring dependable wastewater service for Camp Blanding while accommodating future growth and system demand. It aligns with MIRR priorities by addressing infrastructure vulnerabilities, improving interagency coordination, and advancing cost-effective, resilient solutions.
- As a planning-focused initiative grounded in proven utility feasibility approaches, the project positions Camp Blanding and CCUA for future construction funding, ensuring long-term wastewater system performance and reliability in support of military and community needs.

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
	34	Identify grants and funding opportunities for resilience work

	Facilitate		Guide		Analyze
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This project advances RRAP Actions 1, 6, 13, and 16 by addressing a wastewater treatment plant originally constructed in the 1940s (owned and operated entirely by the installation) with no redundant conveyance or treatment pathway and a compliance deadline of 2032 under existing state legislation. Strategic Project CB 4.1 establishes a feasibility study led by CCUA evaluating force main alignments, connection points, system configurations, and capacity scenarios that would establish an external connection to regional utility infrastructure. These measures implement Action 16 (Identify Adaptation Options for Critical Infrastructure to Enhance Resilience), specifically, Subaction 16.1 on protecting critical assets where relocation is impractical, applying cost-benefit and life-cycle analysis to identify effective and sustainable measures. Because Camp Blanding houses the State's backup Emergency Operations Center and serves as a logistical support base for emergency staging, continuity of sanitation service is a precondition for the installation's role in statewide disaster response, giving this alignment weight beyond routine utility reliability.

The project's water resource dimension advances Action 1 (Conserve and Protect the Region's Water Resources). Florida Senate Bill 64's requirement that the installation adjust its wastewater disposal methods responds to the same regulatory framework the RRAP describes under Subaction 1.1, which addresses protection of groundwater and surface waters from aging infrastructure and accumulated pollutant loading and cites the Chapter 403.067 of the Florida Statutes framework governing impaired waters, Total Maximum Daily Loads, and Basin

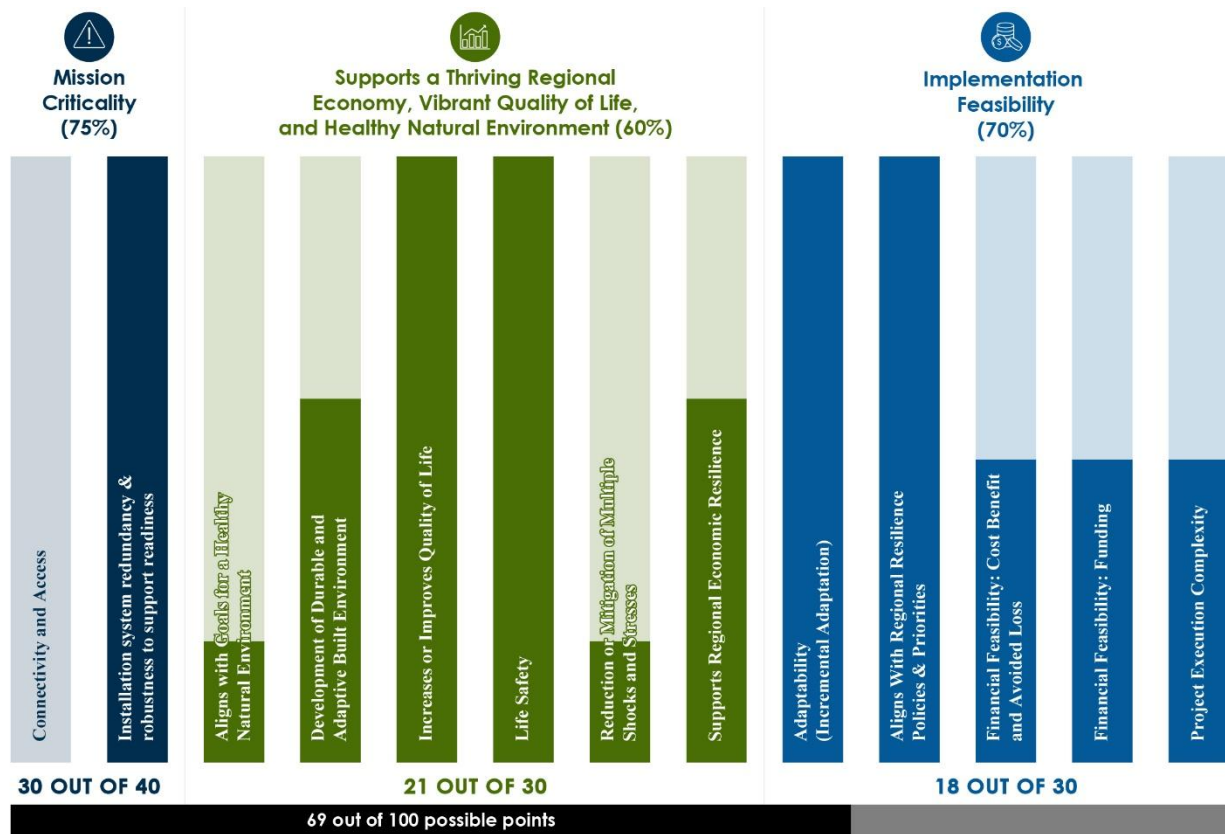
Management Action Plans. Evaluation of CCUA's rapid infiltration basins near Keystone Heights and the Asbury conveyance system as potential connection pathways engages the recharge and reuse strategies contemplated under Subaction 1.4 on regional water supply planning, which identifies conservation and reclaimed water as the most cost-effective approaches to meeting future demand while protecting potable resources. Given the installation's position atop the sandhill terrain of Florida's Central Ridge, where surface systems connect directly to the Floridan aquifer, protecting groundwater quality through modernized wastewater conveyance carries regional significance for the aquifer that supplies the surrounding communities.

The project's coordination framework implements Actions 6 and 13. Establishing a formal relationship between Camp Blanding and the CCUA, where none currently exists, advances Subaction 6.2 on facilitating collaboration between utility providers and local governments to promote resilient measures and Subaction 6.3 on supporting capacity improvements that accommodate continued population growth, relevant here given CCUA's planned expansion of the Keystone Heights facility from approximately 74,000 to 200,000 gallons per day. The recommendation to formalize coordination through an Intergovernmental Support Agreement or memorandum of understanding defining roles, compliance responsibilities, and joint planning for 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 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 Camp Blanding JTC Resilient Wastewater project was evaluated against a robust series of metrics to determine the appropriateness, viability, and achievement of goals. The metric categories are given a percentage weight to indicate the comparative importance for the MIRR, with Mission Criticality being the highest. High and mid-range scores across all metric categories indicate that implementing the strategies and policy recommendations within this project will promote mission assurance for the installation (Figure 11).

Figure 11. Metric 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).

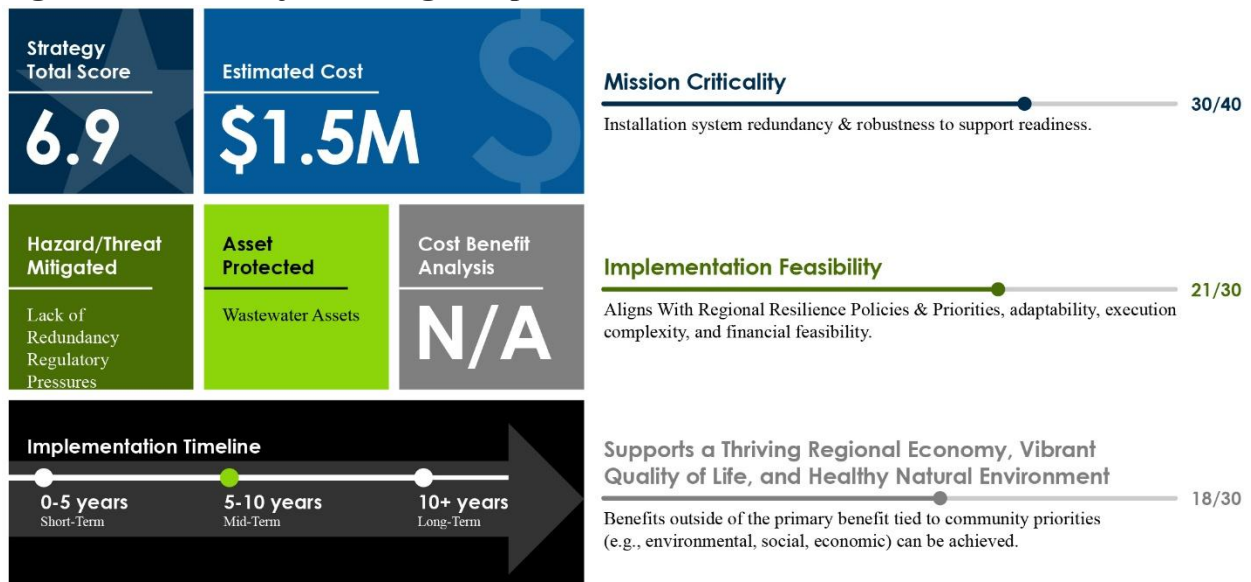
Adaptation project costs were costed to include project construction and design costs, where feasible. Project benefits were costed to include direct (construction or repair costs) and indirect (social, economic, and environmental) costs whenever feasible.

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 Options

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

Agency/Org	Program	Description	Available Funding	General Eligibility	Example Eligible Projects	Timeline
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
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)

Agency/Org	Program	Description	Available Funding	General Eligibility	Example Eligible Projects	Timeline
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.
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	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. (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.

Agency/Org	Program	Description	Available Funding	General Eligibility	Example Eligible Projects	Timeline
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.	Florida Commerce awards ~\$18–\$38M annually from HUD as subgrants to eligible local governments. Florida Commerce 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.

References

One Lagoon. n.d. “Animals and Plants.” Accessed August 6, 2025. <https://onelagoon.org/the-lagoon/animals-and-plants>

Camp Blanding Joint Training Center. (n.d.). *Installation information and mission overview*. Florida Department of Military Affairs. <https://dma.myflorida.com>

Clay County. (2024). *Clay County comprehensive plan*. Clay County Board of County Commissioners.

Clay County Utility Authority. (2025). *Wastewater system planning and capital improvement program*. Clay County Utility Authority.

Federal Emergency Management Agency. (2023). *Hazus: Risk modeling for natural hazards*. U.S. Department of Homeland Security. <https://www.fema.gov/flood-maps/products-tools/hazus>

Florida Department of Environmental Protection. (2025). *Clean Water State Revolving Fund program*. <https://floridadep.gov>

Florida Department of Environmental Protection. (2025). *Drinking Water State Revolving Fund program*. <https://floridadep.gov>

Florida Department of Environmental Protection. (2025). *Water quality improvement grant program*. <https://floridadep.gov>

Florida Department of Environmental Protection. (2025). *Basin management action plans (BMAPs): Florida water quality restoration program*. <https://floridadep.gov>

Florida Department of Military Affairs. (2025). *Camp Blanding Joint Training Center master plan*. Florida Department of Military Affairs.

Florida Division of Emergency Management. (2025). *State hazard mitigation plan*. Tallahassee, FL: Florida Division of Emergency Management.

Florida Legislature. (2021). *Senate Bill 64: Reclaimed water*. Chapter 2021-168, Laws of Florida. <https://www.flsenate.gov>

Florida Statutes. (2025). *Section 403.064, Reuse of reclaimed water*. State of Florida. <https://www.leg.state.fl.us>

Florida Statutes. (2025). *Section 403.067, Establishment and implementation of Total Maximum Daily Loads*. State of Florida. <https://www.leg.state.fl.us>

Northeast Florida Regional Council. (2025). *Regional resilience action plan*. Northeast Florida Regional Council.

Northeast Florida Regional Council. (2025). *Technical Memo 10: Implementation strategy and investment pathways*. Northeast Florida Regional Council.

North Florida Transportation Planning Organization. (2025). *Path Forward 2050: Long-range transportation plan*. North Florida Transportation Planning Organization.

Office of Local Defense Community Cooperation. (2024). *Military installation resilience review (MIRR) program guidance*. U.S. Department of Defense. <https://oldcc.gov>

Office of Local Defense Community Cooperation. (2025). *Defense Community Infrastructure Program (DCIP) guidance*. U.S. Department of Defense. <https://oldcc.gov>

One Lagoon. (n.d.). *Animals and plants*. Indian River Lagoon National Estuary Program. Retrieved August 6, 2025, from <https://onelagoon.org/the-lagoon/animals-and-plants>

St. Johns River Water Management District. (2023). *North Florida regional water supply plan*. St. Johns River Water Management District. <https://www.sjrwmd.com>

St. Johns River Water Management District. (2025). *Water supply planning and conservation resources*. <https://www.sjrwmd.com>

U.S. Army Corps of Engineers. (2024). *Engineering and infrastructure planning guidance for water and wastewater systems*. U.S. Army Corps of Engineers.

U.S. Department of Agriculture Rural Development. (2025). *Emergency Community Water Assistance Grants*. <https://www.rd.usda.gov>

U.S. Department of Agriculture Rural Development. (2025). *Water and Waste Disposal Loan and Grant Program*. <https://www.rd.usda.gov>

U.S. Department of Commerce, Economic Development Administration. (2025). *Public works and economic adjustment assistance programs*. <https://www.eda.gov>

U.S. Department of Defense. (2024). *Department of Defense Instruction (DoDI) 4715.28: Military installation resilience*. Washington, DC: Department of Defense.

U.S. Department of Transportation. (2023). *Transportation resilience and adaptation center*. <https://www.transportation.gov/climate/sustainability/resilience>

U.S. Environmental Protection Agency. (2024). *One Water framework for integrated water management*. <https://www.epa.gov>

U.S. Environmental Protection Agency. (2025). *Clean Water State Revolving Fund overview*. <https://www.epa.gov/cwsrf>

U.S. Environmental Protection Agency. (2025). *Drinking Water State Revolving Fund overview*. <https://www.epa.gov/dwsrf>

U.S. Environmental Protection Agency. (2025). *Water Infrastructure Finance and Innovation Act (WIFIA) program handbook*. <https://www.epa.gov/wifia>

U.S. Geological Survey. (2025). *Groundwater and aquifer resources in Florida*. <https://www.usgs.gov>

