NARRAGANSETT BAY ESTUARY PROGRAM

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FY2024 – FY2025 Workplan

Infrastructure Investment and Jobs Act Funds

Narragansett Bay Estuary Program

Applicant:	Roger Williams University
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QA/QC Plan Required:	Yes
Project Period:	October 1, 2024 – September 30, 2029
Resources Requested:	This is a new award. Total budget is $1,819,600. Attachment A provides the FY2024-FY2025 budget summary and itemized budget for this award.
Federal Cost:	Current request: $1,819,600 (FY2024 and FY2025 funds)
Non-Federal Match:	None (waiver granted)
Abstract:	This Narragansett Bay Estuary Program (NBEP or program) Narrative Workplan (workplan) includes 2 objectives and 3 tasks that will be undertaken with this FY2024 and FY2025 allocation of funds to its host Roger Williams University (RWU) from the Infrastructure

Investment and Jobs Act (IIJA) during the first two years of this multi-year Cooperative Agreement with EPA that starts Oct 1, 2024. The agreement has a 5-year project period (October 1, 2024–September 30, 2029). This "NBEP IIJA Workplan" for FY2024 and FY2025 will fund partners to advance projects that address pollution, degraded habitat, and other priority issues identified in the NBEP Comprehensive Conservation and Management Plan (CCMP). This plan includes efforts that the Narragansett Bay Estuary Program has the authority, capability, and funding to complete, has been approved by the NBEP Steering Committee, and will advance NBEP's mission and CCMP for the program's study area of Narragansett Bay, Little Narragansett Bay, and Coastal Ponds, and their watersheds in Rhode Island, Massachusetts, and Connecticut.

SHORT SUMMARY

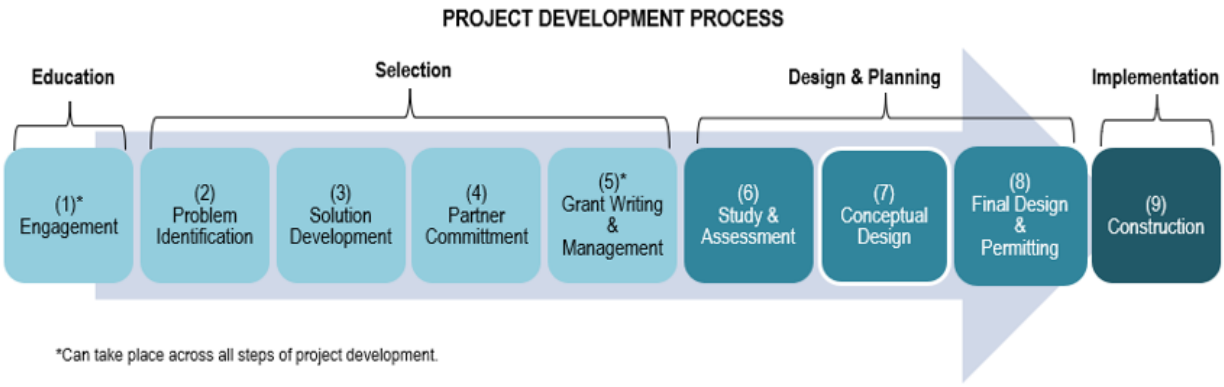
This workplan includes 2 objectives and 3 tasks that align with NBEP's mission, CCMP, capabilities, and funding. Through this plan, NBEP will provide funding to partners with the local expertise and trust to develop high-quality projects that reduce pollution and restore habitat.

Summary of NBEP FY2024 – FY2025 IIJA Workplan

Objective	Task	Location	Funding
1. Advance **design and planning** for priority habitat connectivity projects.	a. Fund the **Wood-Pawcatuck Watershed Association** to support existing staff and hire an engineering consultant to design, survey, and permit the Hillsdale Road Culvert expansion in the watershed's headwaters in RI.	Richmond, RI	$212,740
	b. Fund the **Nature Conservancy of Rhode Island** to hire an engineering consultant to complete 60% designs for fish passage at the Elizabeth Webbing dam on the lower Blackstone River in RI.	Central Falls and Pawtucket, RI	$282,000
2. Support **development of projects** consistent with our CCMP.	a. Fund project development through use of at least one Request for Proposals that is responsive to progress in Years 1-2 and is aligned with the NBEP CCMP.	Narragansett Bay, Little Narragansett Bay, Coastal Ponds and their watersheds.	$1,268,160

CONTEXT FOR PLAN OF WORK

For decades, NBEP has funded a wide range of projects—from staffing to research to planning to on-the-ground projects. Based on the results of extensive outreach over the past five years, progressing outward from Steering Committee members to interests and people we have historically not engaged, a lack of local capacity was viewed as the single biggest barrier to new project development in our study area. For the purposes of this workplan, "projects" are those that reduce pollution and restore habitat. "Project development" is the process of advancing projects through the 4-phased, 9-step process from problem to construction described in the graphic below.



Municipalities and community groups do not currently have the staff, time, and expertise to pursue funding for project development (e.g., State Revolving Fund, Clean Water Act 319, MA Municipal Vulnerability Preparedness Program, RI Municipal Resilience Program). Simply put, our study area is not prepared to get its fair share of state and federal financial resources and resulting improvements to environmental and socioeconomic health.

NBEP directly addressed local capacity-building needs with direct awards to multiple organizations across the watershed with Years 1 and 2 of IIJA funding. NBEP has chosen to use Year 3 and 4 of its IIJA funds to boost project development by providing direct and competitive subawards to partners with the proven knowledge and agency to act locally. Note that staff time at NBEP and RWU to develop and manage subawards will be covered by §320 funds under a separate workplan.

Completion of an activity that advances a project at least 1 step forward in the 9-step project development process will constitute a "project advanced" for the purposes of this workplan. Projects advanced is a primary output/metric for tracking progress under this plan. For subawardees where what is meant by projects advanced is not clear at the start, a Project Development Framework (see Appendix B) will be a required deliverable. This Project Development Framework will specify what comprises project advancement for each project (by describing the starting and expected finishing step) and anticipated next steps to get the effort to implementation. The collective outcomes expected from this workplan are described in the table below. Outputs and outcomes by task are provided later in this plan.

Term	Outcomes
Short (2 years)	60 percent designs and permitting for one culvert replacement and one dam; up to 14 quality projects advanced closer to implementation.
Medium (5 years)	A more secure network of local staff and expertise.
	Conditions in place to bring in more federal funds and implement more projects in the study area.
Long (10+ years)	More high-quality projects are constructed and maintained in the region.

NBEP will continue to evaluate success achieving outputs and outcomes to inform whether to maintain this approach or make refinements during or after the project period to assure we are truly assisting and accelerating project development.

OBJECTIVES

The 2 objectives in this work plan provide funding, through subawards, to partners with the local expertise and trust to advance development of projects that reduce pollution and restore habitat. Each objective

includes specific tasks, target completion dates, outputs, and outcomes. Objectives 1 and 2 will be initiated in Year 3 of this award while Year 4 will focus on Objective 2. The main CCMP goals addressed are also listed for each objective.

OBJECTIVE 1: ADVANCE PLANNING FOR PRIORITY HABITAT CONNECTIVITY PROJECTS.

Primary 2012 CCMP Goals Addressed:

Section 1: Protect and Restore Clean Water

- Goal 4: Manage estuaries, rivers, streams and lakes to prevent degradation and restore beneficial uses.
- Goal 4.2: Fully utilize watershed-based plans, such as stakeholder-based plans, NPS plans, TMDLs, and special area management plans to coordinate prioritized actions to protect, restore and manage the land and water (including groundwater) resources within watersheds.
- Goal 4.3: Build and increase capacity of NGOs in implementing protection and restoration actions.

Section 2: Manage Land for Conservation and Community

- Goal 6: Increase the role of watershed organizations and municipalities to serve critical partners in watershed management.
- Goal 6.2: Provide technical assistance to local NGOs and watershed groups to support local implementation of environmental improvement projects.

Section 3: Protect and Restore Fish, Wildlife, and Habitats

- Goal 2: Restore degraded or lost habitats and habitat functions.
- Goal 2.1: Improve river connectivity and habitat by removing dams, upgrading culverts and creating structural fish ways to restore free-flowing rivers and anadromous fish passage; implement state fish passage plans.
- Goal 3: Manage habitats to sustain and enhance habitat function.
- Goal 3.7: Identify and protect cold water fishery streams/headwater areas using Clean Water Act tools, state, federal, and non-profit land acquisition programs and other strategies.

Task 1a: Wood-Pawcatuck Watershed Association Hillsdale Road Culvert Subaward

Provide a direct subaward to the Wood-Pawcatuck Watershed Association (WPWA) to support staff and a consultant to undertake planning activities that sustain mostly undisturbed free-flowing cold-water streams on protected lands in this coastal watershed in RI.

Since 1983, the WPWA has worked to preserve land and water through education, land protection and habitat restoration, and advocacy. WPWA seeks to implement the *Wood-Pawcatuck Cold-Water Stream Restoration Plan for the Upper River and Beaver River,* the main deliverable from WPWA's Year 1 BIL funding. This restoration plan prioritizes and details the projects that will implement the Wood-Pawcatuck Flood Resiliency Management Plan. The NBEP subaward will provide funding to complete project planning (through permitting, step 8 on the Project Development Process above) to expand the culvert on Hillsdale Road (Richmond, RI) which is the first obstruction to aquatic organism passage upstream of the confluence of the Beaver and Wood Rivers. Trout and other cold water-dependent species will have access to an additional 2.5 miles of stream habitat where much of the associated streambank habitat on both sides is held in conservation. In addition, the expanded culvert will reduce flooding to the roadway. The current culvert is so undersized that the river overtops the road when the river flow exceeds a 10-year flow event. Funding will be used to compensate WPWA staff to lead a project team (e.g., The Nature Conservancy, RIDEM, municipalities), oversee planning, obtain municipal approval, and engage a consultant to complete all design, surveying, and permitting required to replace the culvert on Hillsdale Road. The project team will also collaborate to develop grant applications to support construction of other prioritized projects. Task 1a will be accomplished through a subaward.

Task 1b: Nature Conservancy in Rhode Island Elizabeth Webbing Dam Subaward

Provide a direct subaward to The Nature Conservancy of Rhode Island (TNC-RI) to hire an engineering consultant to complete design work for fish passage on Elizabeth Webbing Dam, the third of four dams preventing fish passage between Narragansett Bay and Lonsdale Marsh on the lower Blackstone River in Pawtucket, RI.

For more than 50 years, TNC-RI has worked to protect lands and waters in the state. A particular focus of the RI state program is cultivating and managing fish passage and connectivity projects. Since the dawn of the Industrial Revolution, dams on the lower Blackstone River have blocked passage of river herring, American shad, and American eel from historic habitat and limited river connectivity for ecosystems and communities along the river downstream. Four dams, Main Street, Old Slater Mill, Elizabeth Webbing, and Valley Falls, located from Pawtucket to Central Falls, RI, currently do not accommodate diadromous fish passage between Narragansett Bay to the newly restored Lonsdale Marsh in Lincoln, RI above Valley Falls, which provides 80 percent of the habitat in this lower section. All told, estimates say passage past these dams would open up 206 acres of spawning nursery habitat, generate over 200,000 adult spawning river herring and 10,000 adult spawning shad per year, generate forage fish for commercial species in the Bay, and create new recreational and educational opportunities in the region. When implemented in the future, this project would constitute the largest fish passage project in the Narragansett Bay watershed.

Dedicated efforts pursued in fits and starts over the last 20 years to restore this system failed to accomplish implementation of fish passage. The urban setting, engineering complexity, public and private landownership, Federal Energy Regulatory Commission (FERC) permitting decisions, high construction costs, and lack of transparent process and trust among stakeholders have all hindered progress. At the request of RIDEM, NBEP led a process beginning in the summer of 2021 to re-boot the fish passage effort with a systematic approach. NBEP staff reviewed past planning documents, interviewed stakeholders, formed and led two meetings of a Core Team of 16 key entities (government, NGOs, dam owners, elected officials), and facilitated one-on-one meetings between RIDEM and key stakeholders and funders, all with the intent of identifying a path forward that maximized consensus and achievement of stakeholder needs. After nearly a year of work with the new Core Team that resulted in significant progress addressing the many long-standing challenges, RIDEM leadership determined that advancing designs for fish passage at all four dams as one package was the best way to overcome the many complexities and confounding “chicken or egg” issues (e.g., can’t fund without a plan, can’t plan without implementation funds) that have plagued this project.

RIDEM and TNC-RI are working under an existing cooperative agreement in which TNC-RI leads the implementation of fish passage at Main Street and Slater Mill dams. Since 2016, they have worked with Fuss & O’Neill to conduct field surveys and assess fish passage alternatives for the Main Street and Slater Mill dams. Fuss & O’Neill will continue this work and provide 60 percent design for the preferred fish passage structure (vertical slot fish ladder positioned overland around both dams), regulatory applications and permitting support, and NEPA Section 106 Compliance.

TNC-RI continues to spend Year 1 NBEP BIL funds to pursue fish passage alternatives for the third dam (Elizabeth Webbing). Year 3 funds will identify the preferred fish passage alternative, provide 60 percent designs, permits, regulatory applications, permitting support, and NEPA Section 106 Compliance for Elizabeth Webbing Dam. Thus, the first three dams in Blackstone River Fish Passage Phase 1 will be ready for bidding and construction of fish passage. The fourth dam, Valley Falls, will be addressed by the owner under the FERC license. The Core Team, now the Fish Passage Advisory Committee, will be involved throughout the design process—from the scope of work to the final design. BIL monies from NBEP, EPA, NOAA and others are potential future sources of funding for final design work and construction. Task 1b will be accomplished through a subaward.

Objective 1 Contacts, Target Completion Dates, Outputs, and Outcomes

Task and Staff	Target Completion Date	Outputs*	Outcome
Task 1a: WPWA Subaward (NBEP Staff Scientist, RWU Research and Sponsored Programs)	June 2025	One scope of work, budget, and agreement. Compensation for one existing WPWA staff. One set of designs, surveys, and permits for one culvert replacement.	Plans and permits in place for aquatic organism passage to be expanded, and road flooding reduced.
Task 1b: TNC-RI Subaward (NBEP Executive Director, RWU Research and Sponsored Programs)	September 2025	One scope of work, budget, and agreement. 60% designs, studies, permits, and construction bid materials for Elizabeth Webbing Dam.	60% design plans and permits in place for the largest fish passage project in Narragansett Bay watershed history that can help attract implementation funding.

*Additional outputs may be included in the formal agreements.

OBJECTIVE 2: FUND PROJECT DEVELOPMENT CONSISTENT WITH CCMP IN YEARS 3 AND 4.

Primary 2012 CCMP Goals Addressed:

Section 1: Protect and Restore Clean Water

- Goal 1.4: Reduce the impacts of residential and commercial septic systems on water quality by implementing inspection, maintenance and financial assistance programs, and promoting adoption of more effective treatment technologies.
- Goal 1.8: Determine areas where advanced septic system treatment systems should be required to protect sensitive waters and other resources.
- Goal 2: Reduce pollution from stormwater sources.
- Goal 2.1: Provide enhanced funding and technical assistance to municipalities in key areas of stormwater management – operations and maintenance, assessment, illicit detection, stormwater system retrofits, public communications, and financing.
- Goal 2.2: Prioritize retrofitting of BMPs to areas most affected by stormwater impacts, using LID and including physical and habitat restoration where feasible to achieve water quality goals.
- Goal 2.7: Ensure that data systems capture information on stormwater BMPs to assess effectiveness and track performance.
- Goal 3.3: Identify and implement LID and urban green infrastructure programs and practices that will optimize the performance of CSO abatement projects.
- Goal 4: Manage estuaries, rivers, streams and lakes to prevent degradation and restore beneficial uses.
- Goal 4.2: Fully utilize watershed-based plans, such as stakeholder-based plans, NPS plans, TMDLs, and special area management plans to coordinate prioritized actions to protect, restore and manage the land and water (including groundwater) resources within watersheds.
- Goal 4.3: Build and increase capacity of nongovernmental organizations in implementing protection and restoration actions.
- Goal 5.5: Develop mechanism (e.g., regional workgroup) to examine local capacity to implement required environmental programs; examine regional solutions; report on funding issues related to local capacity to implement.
- Goal 6: Improve information, science and analysis that support management efforts necessary to restore and protect.
- Goal 6.1: Effectively manage, analyze, synthesize and make available data to support management decision-making, characterize environmental condition trends linked to ecological indicators,

prioritize investments and communicate to the public. Continue development of data driven analytical tools, e.g., predictive models, biological indices.
- Goal 6.3: Support and develop volunteer monitoring programs where appropriate, building on existing volunteer monitoring programs; where feasible ensure resulting data helps fill gaps and has adequate quality assurance / quality control parameters to be used for state purposes.

Section 2: Manage Land for Conservation and Community

- Goal 1: Implement low impact development.
- Goal 1.1: Develop and adopt state and local policies, regulations, and ordinances as needed to fully implement low impact development approaches to development and redevelopment.
- Goal 1.2: Provide technical assistance to municipalities to identify and implement green infrastructure and LID techniques; agencies should assign designated staff as point of contact on LID issues (permits, training, technical assistance, etc.).
- Goal 2: Preserve open space and natural systems.
- Goal 2.1: Identify and prioritize areas for acquisition, protection and restoration on an interstate basis; target acquisition of priority areas.
- Goal 2.2: Prioritize and permanently protect open space areas in both states that are now under non-permanent protection status (time-limited development rights, etc.).
- Goal 2.3: Provide technical assistance, grants and financial and permitting incentives to expand use of conservation development designs and ordinances.
- Goal 3.3: Enhance existing or develop new mechanisms to provide planning resources to communities.
- Goal 4: Increase and maintain regional recreation opportunities and public access to shorelines and waterfronts.
- Goal 4.1: Increase public access to watershed resources by developing public water and land trail systems that enable a range of user opportunities.
- Goal 4.3: Continue to plan and develop public fishing piers, boat ramps and other forms of public access to fresh and salt waters in the Narragansett Bay Region.
- Goal 5: Improve science, information and communication to support effective land use management.
- Goal 5.1: Use communications and outreach efforts to promote important watershed resources and ways in which citizens and governments can protect and restore the value of these resources.
- Goal 6: Increase the role of watershed organizations and municipalities to serve critical partners in watershed management.
- Goal 6.2: Provide technical assistance to local NGOs and watershed groups to support local implementation of environmental improvement projects; include structuring state and federal funding opportunities in ways that facilitate participation by those groups.
- Goal 6.6: Support bi-state cooperative work by nongovernmental organizations like the Blackstone River Coalition and the Taunton River Watershed Alliance.

Section 3: Protect and Restore Fish, Wildlife, and Habitats

- Goal 1: Conserve existing natural landscapes that have been and will be adversely affected by development and invasive species.
- Goal 1.2: Improve and coordinate both state and federal habitat protection and restoration policies.
- Goal 2: Restore degraded or lost habits and habitat functions.
- Goal 2.1: Improve river connectivity and habitat by removing dams, upgrading culverts and creating structural fish ways to restore free-flowing rivers and anadromous fish passage; implement state fish passage plans.
- Goal 3: Manage habitats to sustain and enhance habitat function.
- Goal 3.6: Educate land owners, resource users and the public regarding habitat and wildlife conservation.

- Goal 3.7: Identify and protect cold water fishery streams/headwater areas using Clean Water Act tools, state, federal, and non-profit land acquisition programs and other strategies.
- Goal 5: Improve science, communication, and information to guide management of habitats and biodiversity.
- Goal 6: Build capacity to implement ecological restoration at state and local levels and improve interstate coordination.
- Goal 6.4: Maintain and expand state-wide and regional mapping of critical watershed and coastal habitats including biodiversity hot spots; use data to support restoration, conservation planning, and enhanced enforcement.

Task 2a: Support development of projects consistent with CCMP.

Fund project development in Years 3 and 4 that is responsive to Years 1-2 efforts described in the previous Workplan, this Workplan, and our CCMP. NBEP will develop at least one Request for Proposals (RFP), utilize the Grants Subcommittee to review and select projects, and issue subawards to up to 12 entities that serve our study area (individual awards likely from $50,000 to $200,000) that advance projects in line with both local priorities and our CCMP. Task 2a will be accomplished through subawards.

Objective 2 Contacts, Target Completion Dates, Outputs, and Outcomes

Task and Staff	Target Completion Date	Outputs*	Outcomes
Task 2a: Project Development RFP(s) and Subawards (NBEP Executive Director, NBEP Staff Scientist, RWU Research and Sponsored Programs)	September 2029	One or more Request for Proposals documents. Up to 12 scopes of work, budgets, and agreements. Up to 25 projects advanced.	More projects are poised to seek implementation funding.

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APPENDICES

APPENDIX A: NEW SUBAWARDS USING FY2024-FY2025 BIL FUNDING

Task	Project	Amount	Outputs	Procurement	Funding Close
Task 1a	WPWA cold-water stream connectivity design project in Wood-Pawcatuck Watershed, RI	$212,740	One (1) scope of work, budget, and agreement. Compensation for one existing WPWA staff. 60% designs and permits for one high-priority road culvert.	Subaward	September 30, 2029
Task 1b	TNC-RI lower Blackstone RI dam fishway project, Pawtucket, RI	$282,000	One (1) scope of work, budget, and agreement. 60% designs, studies, permits, construction cost opinion, and permit applications for Elizabeth Webbing Dam.	Subaward	September 30, 2029
Task 2a	Subawards to entities for project development in the NBEP study area based on response to one or more Requests for Proposals.	$1,276,260	One or more Request for Proposals documents. One or more final lists of selected subawardees. Up to 12 scopes of work, budgets, and agreements. One (1) *Project Development Framework* as appropriate for each subawardee. Up to 25 projects advanced.	Subawards	September 30, 2029

APPENDIX B: PROJECT DEVELOPMENT FRAMEWORK

The nine (9) steps in NBEP's Project Development Process are included in the graphic on the page 3 of this document. This framework is intended to help NBEP and those developing projects communicate what is expected pre-subaward, what is actually delivered when the subaward is closed, and in turn, assure required outputs in project paperwork reflects these expectations. For each project developed, please enter the project name, the development step occupied by the project at start, the development step expected at the end of the subaward, and proposed next steps to get to full project implementation. If you do not have specific information at project start, include as much information as you are able to assist in tracking against required outputs in your scope of work (e.g., number of projects advanced, specific deliverables provided). Complete and submit this framework at the start of the project with your scope of work and at project close with your final report.

Project Name	Starting Step	Finishing Step	Proposed Next Steps to Get to Implementation

Narragansett Bay Estuary Program
FY2024-FY2025 Infrastructure Investment and Jobs Act (IIJA) Funding and Expenditures
Revised: 6/21/2024

GRANT FUNDING	
Description	**Total**
FY2024-FY2025 IIJA U.S. Environmental Protection Agency Cooperative Agreement	$1,819,600
Total Grant Funding	**$1,819,600**

EXPENSES						
Category	**Notes**		**FY2024**	**FY2025**	**Total**	**Match**
Personnel	**Position**	**Full/Part**	**$0**	**$0**	**$0**	**$0**
Darcy Young	Executive Director	Full-time	-	-	-	-
Courtney Schmidt	Staff Scientist	Full-time	-	-	-	-
New Hire	Watershed Outreach Manager	Full-time	-	-	-	-
Mariel Sorlien	Geospatial Analysis and Design Manager	Full-time	-	-	-	-
New Hire	Ecologist	Full-time	-	-	-	-
Undergraduate Intern	RWU Interns	Part-time	-	-	-	-
Fringe (40.69% FT, 8.66% PT)	**Notes**		**$0**	**$0**	**$0**	**$0**
			-	-	-	-
Travel	**Notes**		**$0**	**$0**	**$0**	**$0**
			-	-	-	-
Supplies	**Notes**		**$0**	**$0**	**$0**	**$0**
			-	-	-	-
Contracts	**Notes**		**$0**	**$0**	**$0**	**$0**
			-	-	-	-
Other	**Notes**		**$885,500**	**$877,400**	**$1,762,900**	**$0**
The Nature Conservancy of Rhode Island	Direct award		$282,000		$282,000	-
Wood-Pawcatuck Watershed Association	Direct award		$212,740		$212,740	-
Project Subawards to Advance the CCMP	RFP		$390,760	$877,400	$1,268,160	-
Total Direct Costs			**$885,500**	**$877,400**	**$1,762,900**	**$0**
Indirect Costs*	16.2% on salaries, fringe, travel, supplies, consultants, and first $25K on subawards. Does not include participant support costs.		**$24,300**	**$32,400**	**$285,590**	
Total Expenses			**$909,800**	**$909,800**	**$1,819,600**	**$0**
Match (0%)			**$0**	**$0**	**$0**	**$0**
Total Project	Total Expenses + Match		**$909,800**	**$909,800**	**$1,819,600**	**$0**

*Assume up to 4 subawards via RFP in FY24 and up to 8 subawards via RFP in FY25.