

Lake Pontchartrain Basin Restoration Program FY21 & FY22 REQUEST FOR PROPOSALS



Overview

The University of New Orleans Research and Technology Foundation (UNORTF) seeks written proposals for restoration projects and related scientific and public education projects for the Lake Pontchartrain Basin Restoration Program (PRP). This funding opportunity is made through the U.S. Environmental Protection Agency Region 6.

Announcement Date:	March 11, 2024
Federal Funding:	<i>Approximately \$1,952,746</i>
Project Length:	12-36 months
Project Cost Guidelines:	Projects costs may range between \$25,000 and \$350,000. *Some projects may be outside the recommended range and may be negotiated on a case-by-case basis.
Local Match Requirement:	25%
Eligibility:	Federal, state, interstate, local governments, Tribal governments (must be federally recognized), regional water pollution control agencies, and other public or nonprofit private agencies, institutions, and organizations; public and private institutions of higher education. Eligible applicants may be located outside of the Lake Pontchartrain Basin, but projects must be located inside the Basin. Private profit-making entities, and individuals are not eligible. Non-profit organizations described in Section 501(c)(4) of the Internal Revenue Code that engage in lobbying activities as defined in Section 3 of the Lobbying Disclosure Act of 1995 are not eligible.
Proposal Format:	Proposals must follow RFP guidelines and submitted electronically. Project workplans should not have a start date earlier than September 1, 2024 , and should include the elements identified in Section III of the RFP and the workplan template.
Delivery Format:	Email proposals to PRPgrant@thebeachuno.org .
Receipt Deadline:	Thursday, April 11, 2024 (no later than 4pm) Late proposals will not be accepted.
Please Direct Inquiries To:	Blair Bourgeois at (504) 280-1044 or bbourgeois@thebeachuno.org

Table 1. General Information

Table of Contents

- I. Lake Pontchartrain Basin Restoration Program Information
- II. Programmatic Investment Areas
- III. Key Proposal Elements
- IV. Selection Criteria
- V. Application Review and Selection Process
- VI. Geographic Focus
- VII. Appendices
 - a. Appendix A – Instructions for Identifying a Disadvantaged Community
 - b. Appendix B – Examples of Project Activities
 - c. Appendix C – Examples of Project Outputs, Outcomes, and Metrics

Section I: Lake Pontchartrain Basin Restoration Program Information

Purpose of the Program

The purpose of the Lake Pontchartrain Basin Restoration Program (PRP) is to restore the ecological health of the Basin by developing and funding restoration projects and related scientific and public education projects to reduce the risk of pollution. Program activities vary, but typically include ecosystem and habitat restoration, water quality improvements, nutrient reduction, climate resilience, environmental education and outreach and local capacity building.

Statutory Authority

The PRP program is authorized by the Clean Water Act Section 121 (33 U.S.C. 1273). The PRP program is authorized by the Federal Water Pollution Control Act as amended under Section 121 (33 U.S.C. 1273) of the Estuaries and Clean Waters Act of 2000, and the Lake Pontchartrain Basin Restoration Act of 2000, 2 CFR 200, 2 CFR 1500, AND 40 CFR 33. The program is codified under CFDA Number 66.125.

Section II: Programmatic Investment Areas

The PRP's *Comprehensive Conservation Management Plan* ([CCMP](#)) provides recommendations and strategies for project implementation to address environmental challenges within the Basin and help guide program investments. The CCMP identifies three key challenges within the Basin: 1) Sewage and Agricultural Runoff, 2) Stormwater Runoff, and 3) Saltwater Intrusion/Wetland Loss. Applicants should address one or more challenges described in the CCMP in their proposals.

A. CCMP Investment Areas

The CCMP grouped the major environmental challenges in the Basin in three categories:

1. **Sewage and Agricultural Runoff:** *Sewage and agricultural runoff are major sources of pollution within the Basin. These sources are known to contribute to elevated levels of and fecal coliform bacteria, resulting in water quality impairments. Potential sources of high bacteria count in these waterbodies include community sewage treatment plants, stormwater runoff from urbanized areas, sewage by-passes, broken sewer lines, dairy and cattle farms, and wildlife.*
2. **Stormwater Runoff:** *Stormwater runoff, a form of non-point source (NPS) pollution, is the largest single source of pollution in Lake Pontchartrain. Stormwater runoff occurs when rainfall--which can scour litter, animal droppings, particulates, and other contaminants that have settled on the ground, roofs or paved areas and carry them into the drainage system--is pumped into Lake Pontchartrain. Major pollutants in stormwater include sediments, nutrients, bacteria (pathogens), organics, metals, and pesticides.*
3. **Saltwater Intrusion and Wetland Loss:** *Saltwater intrusion and wetland loss are usually the result of a combination of natural and human-induced causes. Some of the natural causes include subsidence, or "settling," of wetlands; sea level rise; the Mississippi River levee network; and natural abandonment of former deltas of the Mississippi. Human-induced causes include canal construction, alterations to the natural surface hydrology, saltwater intrusion, shoreline erosion and dredging.*

In 2006, the PRP developed the Comprehensive Habitat Management Plan ([CHMP](#)) as an addendum to the CCMP, which helps expand on habitat management concerns and recommendations for the Basin. Please reference the CHMP for more information regarding habitat management. For purposes of this RFP, the CCMP and CHMP will be identified as the "CCMP."

Examples of projects included in the CCMP include:

- (a) Infrastructure improvements to un- and poorly-sewered communities along both the north and south shores of Lake Pontchartrain.
- (b) Expansion of household waste education programs and project that will evaluate individual home sewage system performance.
- (c) Technical assistance to rural agricultural communities (e.g., dairy farmers, cattle ranches).
- (d) Expand programs to eliminate inflow, overflows, and bypasses to stormwater drainage systems.
- (e) Implement bioremediation practices to reduce pollution (particularly pathogens) in urban stormwater.
- (f) Conservation to preserve critical ecosystem elements to sustain wetland habitat.

- (g) Evaluate accelerated and sustained programs to reduce the invasive species from refuges or wildlife management areas.

B. Addressing 2023 Stakeholder Meeting Investment Areas

On May 23, 2023, EPA conducted a stakeholder meeting to discuss funding opportunities and obtain input on investment priorities within the Basin. Stakeholders identified the areas below as priorities for program investments. Applicants are encouraged to develop proposals that address these recently identified investment areas in addition to linking their project directly to the CCMP:

- Eliminate and/or reduce pollution and water quality impairments ([link to Louisiana Department of Environmental Quality's presentation on water quality impairments within the Basin](#));
- Reduce stormwater runoff;
- Protect and restore habitat and wetlands;
- Promote and implement green infrastructure practices;
- Restore abandoned gravel mines;
- Address climate resilience and mitigation;
- Benefit disadvantaged communities; and
- Access to green space and recreation areas (ex. Lincoln Beach).

These are only *examples* of investment areas; project proposals addressing other investment areas will be considered if they are consistent with the CCMP.

C. Incorporating Climate Resilience Challenges and/or Disadvantaged Community Benefits

Deteriorating coastal conditions and storm surges pose major threats to the Basin, and communities are significantly affected by this changing environment. Flood events and the harms associated with these impacts affect all communities of the Basin, but disproportionately affect the communities who are under resourced to prepare for and recover from such events. The PRP will support opportunities to implement projects which provide communities with resiliency to the effects of climate change.

Disadvantaged communities are those who are marginalized, underserved, and overburdened by pollution. Applicants proposing projects in disadvantaged communities and/or addressing climate resilience will receive additional consideration. Please visit the [EPA's EJScreen: Environmental Justice Screening & Mapping Tool](#), and reference Appendix A of this RFP to find disadvantaged communities in your area. For more information about how to incorporate climate adaptation into a project, please reference the [EPAs 2021 Climate Adaptation Plan](#).

Section III: Key Proposal Elements

(Proposal should be submitted on the linked [workplan/budget](#) template.)

A. Proposal Details

Project workplans **should not** *have a start date earlier than September 1, 2024*, and should include the following elements:

1. **Project Name**
2. **Organization Name**
3. **Points of Contact**
4. **Amount of Funds Requested:** Individual awards are expected to range between \$25,000 and \$1,500,000; proposals above or below the ranges listed will be evaluated on a case-by-case basis. All funding decisions are subject to funding availability, quality of applications, and other applicable considerations.
5. **Expected Project Period:** It is UNORTF's expectation that the award will have a maximum period of performance of up to three years.
6. **Specific Project Location:** Physical address, latitude and longitude coordinates, service area, HUC 12 watershed and other relevant location information as needed.
7. **Project Objectives:** Describe specific goals and objectives of the proposal. For example, "The objectives are to restore *x acres/mi2* of habitat and reduce nonpoint source runoff."
8. **Project Activities:** See Appendix B for a list of potential PRP activities. Each activity must be listed as a separate task, and include:
 - a. Description of activities;
 - b. Estimated milestones and tasks;
 - c. Anticipated outputs, outcomes and metrics;
 - d. Cost per task;
 - e. Specific schedule for each task; and
 - f. Link to CCMP and EPA Strategic Plan.
9. **Past Performance:** Please describe previous grants you have completed through funds from UNORTF or other assistance agreements, if applicable, including:
 - a. Significant outputs and outcomes.
 - b. Key environmental and programmatic accomplishments.
10. **Project Leads, Partners, and Roles**

11. **Detailed Budget:** please use EPA budget class categories (include 25% nonfederal match).

B. CCMP Linkage

The activities to be funded under this RFP must be identified in the CCMP and support Sewage and Agricultural Runoff, Stormwater Runoff and Saltwater Intrusion/Wetland loss (habitat management). Applicants are also encouraged to develop projects that will benefit disadvantaged communities and/or address climate resilience.

C. EPA Strategic Plan Linkage

The activities to be funded under this solicitation must support the [FY 2022-2026 Strategic Plan](#). Awards made under this solicitation will support:

- Goal 5 “Ensure Clean and Safe Water for All Communities,” Objective 5.2 – Protect and Restore Waterbodies and Watersheds;
- Goal 2 “Take Decisive Action to Advance Environmental Justice and Civil Rights,” Objective 2.2 – Embed Environmental Justice and Civil Rights into EPA’s Programs, Policies, and Activities; and
- Goal 1 “Tackle the Climate Crisis,” Objective 1.2 – “Accelerate Resilience and Adaptation to Climate Change Impacts of the Strategic Plan.”

D. Outputs, Outcomes, and Metrics

Output- The term “*output*” means an environmental activity, effort, and/or associated work product related to an environmental goal or objective that will be produced or provided over a period of time or by a specified date. Outputs may be quantitative or qualitative but must be measurable over the term of the grant funding period.

Outcome- The term “*outcome*” means the result, effect, or consequence that will be achieved by carrying out an environmental activity, effort, and/or associated work product that is related to an environmental or programmatic goal or objective. Outcomes may be environmental, behavioral, health-related, or programmatic in nature, must be quantitative, and may not necessarily be achievable within a grant funding period. For this RFP, outcomes describe the project metrics and conditions that the recipient aims to achieve for the Basin that are found in the CCMP, the Stakeholder Meeting Investment Areas and/or Benefits to Disadvantaged Communities and/or Climate Change Resilience. Efforts to achieve these outcomes will steer the actions necessary to meet specific targets.

Metrics- The term “*metrics*” refers to specific, trackable measures specified in Appendix C (see Appendix C for a list of potential project metrics). Applicants must incorporate metrics reporting into their workplan. Please note, selected recipients shall work with UNORTF to determine final metrics for the recipient to track and report on through the life of the grant.

Section IV: Selection Criteria

Projects will be reviewed using the following criteria.

Criterion	Description
<p align="center">Benefits to Disadvantaged Communities and Increased Climate Resiliency</p>	<p>Since this is a national priority, applicant will be evaluated based on the quality and extent to which they demonstrate:</p> <ul style="list-style-type: none"> • A plan for meaningful engagement of EPA-defined disadvantaged communities and explain in detail the project’s benefit to these disadvantaged communities. See the EPA EJScreen: Environmental Justice Screening & Mapping Tool, and Appendix A for additional information. • Include project tasks which mitigate effects of climate change and/or promote climate change resilience. See the EPA 2021 Climate Adaptation Plan and Region 6 Final Implementation Plan
<p align="center">Project Design</p>	<p>Applicants will be evaluated based on the extent and quality of:</p> <ul style="list-style-type: none"> • The overall proposed project and relevancy to the request for proposals; and • Demonstration of an innovative approach to perform the project or deliver results. This may include concepts, approaches, methods, or any combination to reflect the recommendations of the CCMP and/or stakeholder priorities. This may be substantiated by environmental data provided by the State. • Anticipated public benefits to be derived from the project, including describing the degree to which the project will have application towards improving the ecological health of the Basin, and likelihood of this occurring.

<p style="text-align: center;">Environmental Results:</p> <p style="text-align: center;">Outcomes, Outputs and Performance Measures for Improving the Ecological Health of the Basin</p>	<p>Applicants will be evaluated based on the extent and quality of:</p> <ul style="list-style-type: none"> • Anticipated environmental results: outputs and outcomes; and • How the workplan addresses the needs of the Basin as identified by the current RFP, and CCMP, CHMP, and published data from the State. • How the workplans goals clearly align with the EPA’s Strategic Plan. • A workplans methodology for qualitative and quantitative measuring, tracking, data collection, and reporting of results. • A clearly articulated milestone schedule for project tasks, including key milestones for specific tasks and the likelihood of completion of the project’s goals and objectives by project end.
<p style="text-align: center;">Collaboration, Communication and Dissemination of Results</p>	<p>Applicants will be evaluated based on the extent to which they demonstrate:</p> <ul style="list-style-type: none"> • Diverse and unique partnerships, particularly those that contribute to expected environmental results and help build capacity. • A clear communications plan that will actively transfer and disseminate project-related information to appropriate audiences and relevant stakeholders, with the goal of expanding adoption of successful approaches.
<p style="text-align: center;">Programmatic Capability/Technical Experience/Qualifications</p>	<p>Under this criterion, applications will be evaluated based on the applicant’s ability to successfully manage and complete the proposed project considering their:</p> <ul style="list-style-type: none"> • Organizational and programmatic preparedness related to the proposed project: infrastructure, training, relevant codes, ordinances, permits, design plans, and team building, and other related attributes that help implement the proposed project in a successful way, within the approved deadline. • Follow the approved scope of work and communicate quickly with UNORTF on any issues. Submit deliverables to grantee on time and on budget. • Education and qualifications, staff and management experience, and ability to perform

	<p>the proposed work and meet milestones in a timely manner.</p> <ul style="list-style-type: none"> Past performance: <i>If applicable, has the applicant successfully completed EPA agreements, which includes timely reporting, and demonstration of progress tracking towards achieving outputs and outcomes?</i>
--	---

Table 2. Selection Criteria

Section V: Application Review and Selection Process

A. How to Apply

Submit electronic proposals to Blair Bourgeois via e-mail at PRPgrant@thebeachuno.org.

B. Review and Selection Schedule

The schedule below is subject to change. Please check the program page of the UNORTF website (<https://thebeachuno.org/lake-pontchartrain-basin-restoration-program/>) for the most current dates and information.

Proposal Due Date	April 11, 2024 no later than 4:00 pm, cst
Announcement of Recommendations	May 16, 2024 at PRP Stakeholders Meeting

Table 3. Important Timelines and Deadlines

C. Review and Approval Process

UNORTF will conduct a threshold review to ensure that applicants have the capacity and experience necessary to complete the projects. Projects will be reviewed to ensure that they are restoration projects and studies identified in the CCMP approved for the Basin and public education projects recommended by the management conference. Finally, the EPA will review selected projects to ensure they are technically sound as well as eligible, reasonable, and allocable before UNORTF begins the subaward agreement phase. The process will take approximately 90 days.

D. Final Approval

UNORTF will prepare and send Subaward Agreements for execution by the applicant's authorized officials. Project work may only begin after a Subaward Agreement has been fully executed. No sampling may begin without an approved Quality Assurance Project Plan (QAPP).

Section VI: Geographic Focus



Figure 1. United States, Louisiana: Lake Pontchartrain Basin

Louisiana Parishes

Ascension	St. James	East Baton Rouge	St. John the Baptist
Iberville	St. Tammany	Jefferson	Tangipahoa
Livingston	Washington	Plaquemines	St. Helena
St. Bernard	Orleans	St. Charles	East Feliciana

Mississippi Counties

Lincoln	Pike	Amite	Wilkinson
---------	------	-------	-----------

Table 4. Parishes/Counties Eligible for PRP Funding

Appendix A: Instructions for Identifying a Disadvantaged Community

Step 1.

Go to the EPA EJScreen: Environmental Justice Screening and Mapping Tool website:
<https://www.epa.gov/ejscreen>

Step 2.

Click “Launch the EJScreen Tool” on the right side of the page:



An official website of the United States government [Here's how you know](#) ▾

EPA United States Environmental Protection Agency

Search EPA.gov 🔍

Environmental Topics ▾ Laws & Regulations ▾ Report a Violation ▾ About EPA ▾

CONTACT US

EJScreen: Environmental Justice Screening and Mapping Tool

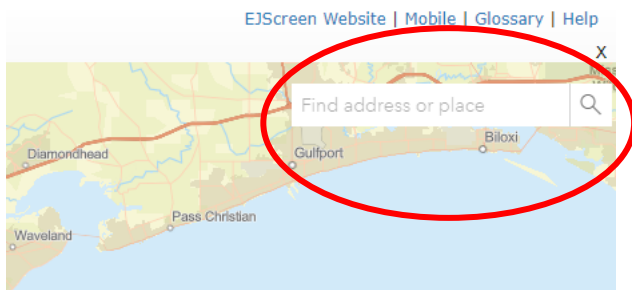
Launch the EJScreen Tool

[Explore EPA's environmental justice screening and mapping tool](#)

In order to better meet the Agency's responsibilities related to the protection of public health and the environment, EPA has developed a new environmental justice (EJ) mapping and screening tool called EJScreen. It is based on nationally consistent data and an approach that combines environmental and demographic indicators in maps and reports. [Learn more about Environmental Justice at EPA.](#)

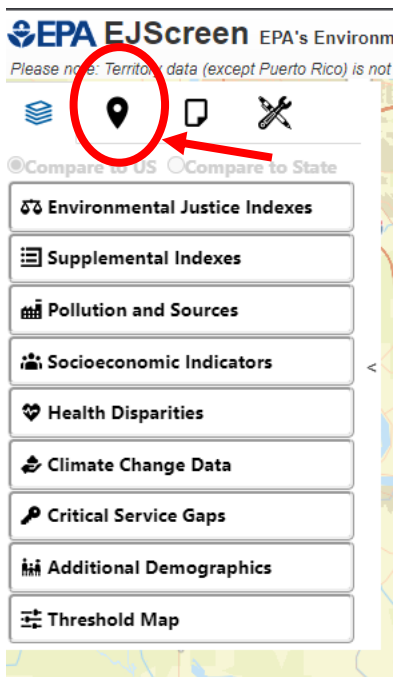
Step 3.

In the top right on the next page, you will type in your address:



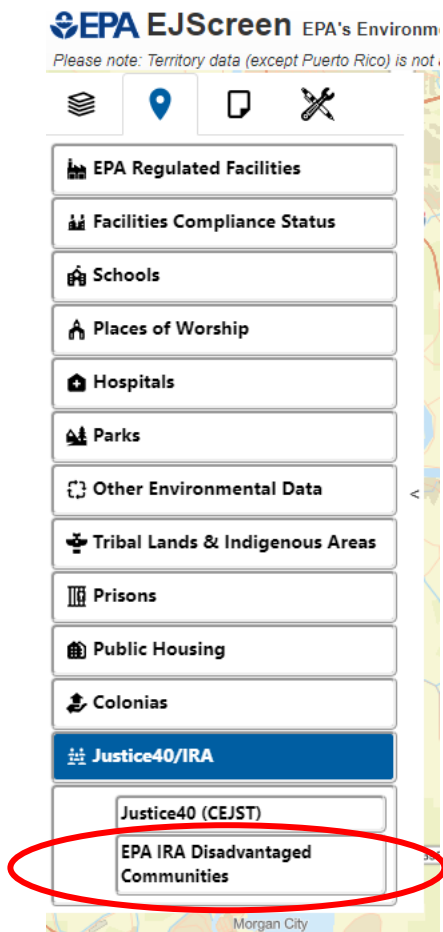
Step 4.

Once you have typed in your address and the map zooms to the area of interest, you will then click on the "Places" Icon:



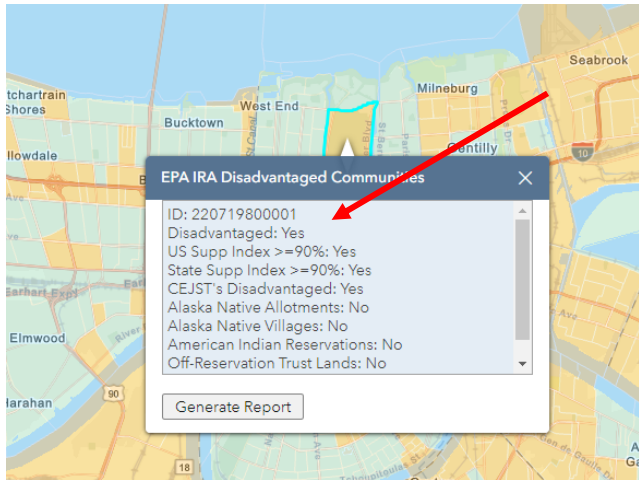
Step 5.

After clicking the "Places" icon, you now will go the bottom of the list, and click on "Justic40/IRA", and then click on "EPA IRA Disadvantaged Communities":



Step 6.

Now you can see all the disadvantaged communities “labeled in orange” in your area. Click individually on the orange areas/census blocks to learn more about a particular community, such as to find out what the ID# is:



Note: If you have any troubles completing this exercise, please contact the grantee.

Appendix B: Examples of Project Activities

Project Activities

Habitat Management

- Habitat restoration and or protection of important and or critical habitats, for example:
 - Longleaf pine (*Pinus palustris*) savannahs
 - Bald cypress - Tupelo (*Taxodium distichum* – *Nyssa aquatica*) swamps
 - Canebrake habitats of the upland sub-basin composed largely of giant cane (*Arundinaria gigantea*)
 - Hydrologic restoration to re-establish the natural migration of fish, including threatened and endangered species
 - Increasing the habitat range of freshwater mussels
 - The basins wetlands/riparian/stream habitats
- Implementing conservation practices into a city's development code that prioritize environmentally sensitive areas and limit the development of natural habitat during construction, respective to type of habitat and wildlife species present, such as grasslands, upland forest habitat, riparian areas, and wetlands/deep water habitat.
- Use of artificial reefs and habitat structures.
- Restoration and remediation of mines sites including sand and gravel dredging operations.
- Research and monitoring related to understanding and protecting habitat and wildlife.

Reducing Water Quality Impairments

- Green Infrastructure (GI) /Bioremediation such as:
 - Large scale projects - regional, city wide, or neighborhood scale that work to filter, infiltrate, and slow down, retain and detain stormwater before it may enter a storm drain, or local stream/wetland. Such projects may also work with water as a resource to encourage and enhance habitat quality and promote biological diversity.
 - Creating Development Codes that require developers to use green infrastructure and treat for water quality volume of runoff leaving a site, and to limit the cubic feet per second (CFS) of discharge leaving a site as runoff (treating for water quality and quantity).
 - Capital Improvement Planning within a city to integrate green infrastructure into the city's infrastructure plan, such as creating green streets during major road repair projects, allowing road medians and right of ways to receive and infiltrate stormwater, and tie into the municipal stormwater system. A city may also apply best management practices to stormwater retention and detention basins, and design/allow them to have more natural features and native vegetation.

- Implementing conservation areas or grow zones within city ordinance or code. Some areas may be managed with an ecosystem restoration approach, incorporating ground preparation, native seeding and or plantings, and conservation practices integrated with maintenance strategies.
 - This may involve converting drainage swales and areas within parks and other public spaces into places for low maintenance grow zones.
 - Projects that work at a small scale and closer to the source of pollution, such as rain gardens, bioswales, pervious surfaces etc.
 - Technical assistance to help local communities build capacity to plan for or to implement green infrastructure.
- Installation of decentralized on-site wastewater treatment systems that more effectively treat pollutants.
 - Low-cost retrofits of wastewater treatment facilities such as optimization and process improvements.
 - Alternatives to chemical and nitrogen-intensive turf and landscaping, and to fertilizer and pesticide and herbicide use.
 - Use of structural BMPs such as bags and barriers at inlets, especially for areas that receive runoff from automotive areas and places that work with hazardous chemicals and waste.
 - Reduction of litter and floatables found in the waterway via debris/trash collection devices in drainage ways.
 - Watershed planning addressing water quality issues and specific parameters within the basin, such as bacteria [please reference the [Louisiana's Department of Environmental Quality's 2022 Integrated Report](#) to learn more about impairments in watersheds].
 - In – stream restoration to increase nutrient processing, and to reduce erosion.
 - Replacing or right-sizing stormwater infrastructure to reduce downstream erosion of nutrients.
 - Projects to accelerate adoption of agricultural conservation practices that reduce nutrient and bacterial runoff such as:
 - Technical assistance or technical service to engage rural landowners and farmers in design and delivery of nitrogen and bacterial prevention projects.
 - Regenerative agriculture practices.
 - Soil health practices and management systems that combine improved tillage and/or pasture management, cover crops, crop and livestock rotations, and other practices to increase soil fertility while improving the capacity of crops and soils to reduce runoff and increase nutrient uptake.

- Precision nutrient management systems that fine-tune the rate, source, method, and timing of nutrient applications to maintain or increase crop yields, minimize nutrient input costs and nutrient losses to surface and groundwater.

Education & Outreach

- Public engagement in stewardship of local natural resources and biotic hotspots
- Educate public about hotspots known for biological diversity
- To include restoration for upland forests, and in particular the longleaf pine habitats and the importance of prescribed burns.
- Conducting field trips, student programs, and creating and disseminating online education & outreach material that support learning about the basins ecology
- Educate public to reduce demand for cypress wood products, especially mulch
- Education of the public on the value of wetlands and methods for minimizing urban impacts through land use planning
- Create public awareness and educational opportunities related to the cultural and historical links between Bayou St. John and the development of New Orleans
- Identify and create public awareness and educational opportunities related to bayou and estuarine ecology along Bayou St. John
- Education and outreach about watersheds, stormwater systems and MS4 permits
- Education material about point and nonpoint sources of pollution
- Help educate homeowners about their septic systems, and about how to inspect and maintain them
- Education & outreach about bacteria impairments, and alerts for the public to know when it's safe to enter the water
- Programs that foster, support, or develop community buy-in and meaningful inclusion in local environmental management projects
- Programs to increase appreciation of the basin including in underprivileged and disadvantaged communities
- Environmental Justice initiatives and collaborations that promote equitable access, appreciation and understanding of Lake Pontchartrain Basin
- Campaigns and activities to build public awareness and direct engagement reducing use and impact of plastic and other water/land-based consumer debris, abandoned and lost fishing/aquaculture gear, microplastics and microfibers prevention or reduction
- Native plant landscaping guidance and training that encourages alternatives to chemical and nutrient intensive landscapes

- Lake Pontchartrain Basin environmental and conservation-related classroom or informal instruction

Benefits to Disadvantaged Communities & Increasing Climate Resiliency

- Restoring or enhancing habitat to improve community resilience including proposals that provide natural and nature-based solutions to protect coastal and inland communities from the impact of storms, floods, and other natural hazards and to enable them to recover more quickly. For coastal communities, some examples of projects may include restoration of coastal marshes and wetlands, coastal forests, barrier islands, living shorelines, and oyster reefs. For inland communities, examples of projects may include hazard-focused stormwater management approaches that reduce localized flooding from high precipitation events and floodplain restoration and reconnection with measurable downstream flood reduction benefits.
- Green infrastructure/Low impact development proposals that combine gray infrastructure with nature-based solutions to create hybrid systems that improve habitat and community resilience to climate impacts by increasing stormwater storage, reducing flooding and enhancing community green space.
- New or updated municipal, watershed or regional resilience/sustainability/natural hazard mitigation plans that evaluate the vulnerability of critical community infrastructure and natural areas and develop strategies for making this infrastructure and these areas resilient to hazardous events (sea level rise, flood and/or weather events).
- Technical assistance to help local communities plan for or implement resilience through nature-based infrastructure.

The term “nature-based solutions” is defined as natural, engineered and hybrid (“green-gray”) approaches that strategically protect, restore, sustainably manage or mimic ecosystems to conserve or restore ecosystem functions and natural processes with the goal of reducing community exposure to natural hazards and climate stressors and enhancing habitats for fish and wildlife.

Appendix C: Examples of Project Outputs, Outcomes and Metrics

Appendix C

Example of Quantitative Outputs and Outcomes Related to Project Activity

Implementation Projects		
Saltwater Intrusion/Wetland Loss (Habitat Management)		
Project Activity	Project Outputs	Project Outcomes
Floodplain Restoration	# of Acres restored	Improved water quality, increased biological diversity, decrease flood events and flood and hurricane impacts, and increased climate resilience
Marine habitat restoration	# of Acres restored	
Habitat Restoration (Inland)	# of Acres restored	
Beach and dune habitat improvements	# of Acres restored	
Wetland/Streams restoration	# of Acres restored	
Riparian restoration	# of Acres restored	
Recreation		
Access Improvement	# of Acres with public access	Increased recreational opportunities, great community health and wellbeing, creation of spaces for socializing
Access Improvement	# of site locations	
Stormwater Runoff		
Green Infrastructure Implementation	# of GI features within a project, acres of watershed treated, and volume of stormwater prevented	Improved water quality, increased biological diversity, decrease flood events and flood and hurricane impacts, and increased climate resilience
Trash/litter removal	Lbs of trash removed	Improve water and habitat quality, and the aesthetics of an area
Erosion control	Linear feet restored	Reduced sediment deposition, turbidity, TDS, protection of critical infrastructure
Water Quality Monitoring	Number of sites monitored, location (latitude/longitude), frequency sampled, duration sampled for, and complete data upload to WQX	EPA approved Quality Assurance Project Plan (QAPP), contribute to understanding long-term trends, and local pollution sources, provide data used for the development of plans to achieve water quality improvement
Sewerage & Agricultural Runoff		
Home Septic System Inspection, Maintenance and Update	# of residences served based off service	Improved water and habitat quality
Use of agricultural best management practices (BMPs)	# of BMPs implemented	Improved water and habitat quality

Education & Outreach		
Outreach/Education/Technical Assistance	# of organizations contributing to goals	Increased community development and knowledge, as well as coordination, providing aid to help start planning, research, monitoring and implementation projects, and other education & outreach projects
Outreach/Education/Technical Assistance	# of people reach by outreach, training, or technical assistance	
Volunteer Participation	# of volunteers	
Outreach/Education/Technical Assistance	# of workshops, webinars, meetings, and events	
Planning, Research, and Design		
Management or Governance, or Research	# of plans developed	Material and resources available for implementation projects to help manage the basins natural resources for current and future generations
Planning	# of acres accessed for improved management	
Planning	# of engineering and design plans developed	
Planning	# of maintenance plans developed	
Benefits to Disadvantaged Communities and Increasing Climate Resiliency		
Disadvantaged Communities Benefited	# of defined disadvantaged communities, ID# of disadvantaged community	Increased access to ecosystem services and greater sense of health and wellbeing, enhanced community development and partnerships
Nature-Based Flood Projects	# of projects, # of nature-based solutions and Green Infrastructure features used, location of sites and features, modeled proof of removal from flood plains – conditional letter of map revision from Federal Emergency Management Agency (FEMA)	Improved water quality, increased biological diversity, decrease flood events and flood and hurricane impacts, and increased climate resilience
Shoreline Protection and Hurricane Resiliency	# of coastal wetland protection, dune, beach and land bridge restoration, and structural BMPs used, and location, and modeled data showing efficacy, as available.	Improved water quality, increased biological diversity, decrease flood events and flood and hurricane impacts, and increased climate resilience

Additional quantitative and qualitative metrics may be reported as outputs and outcomes as well. Please coordinate with UNORTF on metric reporting for each project to help ensure all relevant metrics, data and information is reported correctly.

For instance, important qualitative information could be related to different bio, geo, physical, and chemical processes, to include land cover, soil formations and type, landforms, plant species names,

identified host species, and information about endangered and threatened species, respective to project. Water quality measures may have bio indicators, or other causes related to water quality, such as human activity, that are important for documentation.

Other important quantitative measures may include weather data, stream flow data, species observed, etc.