

PIEDMONT TRIAD REGIONAL WATER AUTHORITY

BIL-DWSRF Emerging Contaminants
PFAS Evaluation / Assessment Studies
Reverse Osmosis Treatment System



October 2, 2023



North Carolina Department of Environmental Quality
Division of Water Infrastructure
Application for Funding

(Last updated: July 2023)



1. General Information

Applicant Name Piedmont Triad Regional Water Authority	County Randolph	Unique Entity Identifier (UEI) C1NHGYHS3MJ9												
Project Name PFAS Evaluation/Assessment Study – Reverse Osmosis Treatment System	Federal Tax ID # 56-1564414	PWSID or NPDES # (if applicable) NC3076010												
Applicant Type <table><tr><td>☐ Municipality</td><td>☐ Metropolitan Water/Sewerage District</td></tr><tr><td>☐ County</td><td>☐ Non-Profit Water Corporation</td></tr><tr><td>☐ Water and Sewer District</td><td>☐ Investor-Owned Drinking Water Corporation</td></tr><tr><td>☒ Water and Sewer Authority</td><td>☐ Council of Government</td></tr><tr><td>☐ Sanitary District</td><td>☐ Other (Specify:)</td></tr></table>		☐ Municipality	☐ Metropolitan Water/Sewerage District	☐ County	☐ Non-Profit Water Corporation	☐ Water and Sewer District	☐ Investor-Owned Drinking Water Corporation	☒ Water and Sewer Authority	☐ Council of Government	☐ Sanitary District	☐ Other (Specify:)	<table><tr><td>Funding Amount Requested \$500,000</td></tr><tr><td>Total Project Cost \$500,000</td></tr></table>	Funding Amount Requested \$500,000	Total Project Cost \$500,000
☐ Municipality	☐ Metropolitan Water/Sewerage District													
☐ County	☐ Non-Profit Water Corporation													
☐ Water and Sewer District	☐ Investor-Owned Drinking Water Corporation													
☒ Water and Sewer Authority	☐ Council of Government													
☐ Sanitary District	☐ Other (Specify:)													
Funding Amount Requested \$500,000														
Total Project Cost \$500,000														

Funding Type(s) Requested

Drinking Water or Wastewater Planning ☐ Asset Inventory and Assessment (AIA) ☐ Merger/Regionalization Feasibility (MRF) Study ☒ Emerging Contaminants Evaluation/Assessment Study (PFAS project)	Construction Project ☐ Drinking Water ☐ Drinking Water Emerging Contaminants (PFAS project) ☐ Wastewater ☐ Wastewater Emerging Contaminants (PFAS project) ☐ CWSRF Green Project: stream restoration, stormwater SCM, reclaimed water ☐ Stormwater Construction (LASII) ☐ CDBG-Infrastructure (CDBG-I)
Stormwater Planning ☐ Stormwater Planning (LASII) ☐ Developing and Implementing a New Stormwater Utility (LASII)	

CDBG-I only:
LMI Determination Method: ☐ ACS ☐ Survey
LMI Percentage:

Acceptance of Funding Offer (for Construction Projects)

This question will be used to identify the best funding fit.

- I will only accept a funding offer if a minimum of \$250,000 is offered as a grant or principal forgiveness (PF). I will accept the rest as loan. I understand that I will not be offered any funding if the minimum requested grant/PF amount cannot be offered.
Enter \$0 if you are willing to accept a loan offer with no grant or principal forgiveness. Please read the Instructions for details.

2. Drinking Water and Wastewater System Parameters (Not applicable for stormwater projects)

Residential Sewer Connections 0	Residential Water Connections 0	
Non-Residential Sewer Connections 0	Non-Residential Water Connections 6	
Monthly Sewer Bill for 5,000 gallons N/A	Monthly Water Bill for 5,000 gallons \$6.06	
Percentage of Utility Bills Collected and Rate Increase Percentages		
Year	Percentage of Utility Bills Collected	Rate Increase Percentage
Fiscal Year 2022 - 2023	100%	3.5%
Fiscal Year 2021 - 2022	100%	2.75%
Fiscal Year 2020 - 2021	100%	0.0%
Fiscal Year 2019 - 2020	100%	3.5%
Fiscal Year 2018 - 2019	100%	3.5%

3. Applicant Contact Information (See Instructions regarding the Authorized Representative)	
Authorized Representative Name:	Gregory T. Flory
Authorized Representative Title:	Executive Director
Mailing Address Line 1:	PO Box 1326
Mailing Address Line 2:	
City:	Randleman
State:	NC
Zip Code:	27317
Physical Address Line 1:	7297 Adams Farm Road
Physical Address Line 2:	
Physical Address City:	Randleman
Physical Address State:	NC
Physical Address Zip Code:	27317
Phone Number:	336-498-5510
Email Address:	gflory@ptrwa.org
4. Application Preparer Contact Information	
Firm Name:	Piedmont Triad Regional Water Authority
Contact Name:	Gregory T. Flory
Phone Number:	336-498-5510
Email Address:	gflory@ptrwa.org
5. Engineer Contact Information	
Is the engineering firm different from the application preparer?	☒ Yes ☐ No
Engineering Firm Name:	PER Complete – Currently Soliciting PDB Partner for Study
Contact Name:	
Phone Number:	
Email Address:	

6. Project Description (see Instructions)

The Piedmont Triad Regional Water Authority (PTRWA) is a wholesale water supplier providing potable water to its member governments at entry point meters to their distribution systems. The member governments who are currently allocated water from PTRWA's John Franklin Kime Water Treatment Plant (JFK WTP) are the Cities of Archdale, Greensboro, High Point, and Randleman, as well as the Town of Jamestown and Randolph County. Perfluoroalkyl and Polyfluoroalkyl (PFAS) substances have been detected in Randleman Lake (raw water source for the JFK WTP) in an amount which exceeds the recently proposed EPA Maximum Contaminant Levels (MCL) of 4 ppt (parts per trillion). Additionally, concentrations of 1,4-Dioxane which exceed the 1×10^{-6} cancer risk level have also been detected in Randleman Lake. The upstream watershed is an urban industrialized setting with potential industrial contaminant sources including the City of High Point's Wastewater Discharge, a chemical disposal Superfund Remediation Site, retired and active landfills, airport operating activities and manufacturing and industrial facilities. PTRWA has conducted extensive studies on PFAS and removal technologies and determined that Reverse Osmosis Treatment is the best available treatment technology for removing PFAS, 1,4 Dioxane and other potential emerging compounds from the water supply. At the September 12, 2023 meeting of the PTRWA's Board of Directors, the Board authorized moving forward with a Progressive Design Build Contract for Construction of a Post Filtration Reverse Osmosis Treatment Facility.

The sole purpose of this project is to evaluate the removal efficiencies of various different reverse osmosis treatment strategies and evaluate the overall performance of reverse osmosis modules from different manufacturers. The project consists of engineering design of treatment stages associated with reverse osmosis treatment, evaluation of multiple manufacturer products for performance testing of equipment, oversight of the sampling and test results, determination of long-term efficacy, and consideration of operational challenges, secondary water quality benefits, and capital and operational costs. Pilot equipment rental will be required for the duration of the study along with the associated chemicals and supplies to operate the pilot plant. Outside laboratory services will also be necessary for processing collected samples. A final engineer's report will be completed and used by the design-build team for implementation consideration in the upcoming installation of emerging compound treatment at the JFK WTP.

Estimated number of new connections served by Drinking Water or Wastewater construction, Emerging Contaminants (PFAS), or CDBG-I project:

0

☐ **50% or more of the project budget is to directly benefit a Disadvantaged Area.** Both the Application Budget and Narrative must demonstrate that the project area includes a Disadvantaged Area and that 50% or more of the project budget directly benefits the Disadvantaged Area. See Application Guidance for Line Item 4.C.4 for details on the minimum documentation to be included in the Budget and Narrative.

For Drinking Water and Wastewater construction, Emerging Contaminants (PFAS), CWSRF Green Project, and CDBG-I:

- ☐ The proposed project is a result of an Asset Inventory and Assessment grant previously awarded by the Division.
- ☐ The proposed project is a result of a Merger / Regionalization Feasibility Study grant previously awarded by the Division.
- ☒ None of the above.

7. Additional Information for Consideration

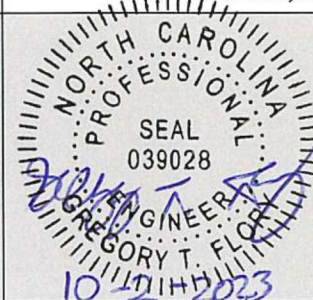
8a. Project Budget for All Construction Projects and for Emerging Contaminants Evaluation/Assessment Studies Do not use for other planning studies.

1. Drinking Water/Wastewater: Costs for portions of the project that will fulfill the requirements related to rehabilitating or replacing waterlines, old infrastructure, lead service lines, or emerging contaminants (DW/WW Priority Rating System Line Items 1.C.1, 1.D.1, 1.J.1, 1.J.2, 1.J.3, or 2.B.2) must be labeled and shown separately to successfully claim points.
2. All: Costs for portions of the project that will directly benefit disadvantaged areas (DW/WW Priority Rating Systems Line Items 1.E or 4.C.4) must be labeled and shown separately to successfully claim points.

Indicate construction costs by line item (e.g., linear feet of different-sized lines, each type of stormwater control measure, each stream restoration reach). Include a more detailed construction cost budget if needed.	Division Funding Requested	Other Secured Funding Source(s)	Total Cost Amount
Construction Costs			
Contingency (10% of construction costs):			
Construction Subtotal:			
Engineering Costs (Line 1.J.3)			
Engineering Design – Reverse Osmosis Post Filtration Treatment Pilot Study	\$205,000	0	\$205,000
Permitting			
Land Surveying Costs			
Other:			
Engineering Subtotal:	\$205,000	0	\$205,000
Administration Costs (Line 1.J.3)			
Planning (pre-construction costs)			
Easement/Land Acquisition Costs			
Engineering Report Preparation	\$125,000	0	\$125,000
Environmental Documentation Preparation (if applicable)			
Legal Costs			
Project Funding Administration (if applicable)			
Other: Pilot Plant Rental/Supplies	\$80,000	0	\$80,000
Other: Outside Laboratory Services (sample testing)	\$90,000	0	\$90,000
Administration Subtotal:	\$295,000	0	\$295,000
TOTAL FUNDING REQUESTED AND PROJECT COST:	\$500,000	0	\$500,000

A Professional Engineer seal, signature, and date for the estimate must be provided in the space to the right for the application to be considered complete.

(Note: If not using DocuSign to seal and sign the budget, put the seal/signature on the Word document or use a wet seal/signature with a scan of the wet seal/signature.)



8b. Project Budget for AIA and MRF Grants Do not use for any type of LASII Stormwater project.	
Add additional lines as needed. Only include items that are intended to be included in the Scope of Work for the project.	
	Division Funding Requested
TOTAL DIVISION FUNDING REQUESTED:	

8c. Project Budget for Stormwater Planning Grant (LASII) and Grant to Develop and Implement a New Stormwater Utility (LASII). Do not use for any other project type, including stormwater construction (LASII).	
1. If the application includes a request for funds to <u>both</u> Develop and Implement a New Stormwater Utility <u>and</u> other Stormwater Planning work, <u>the budget shown below must be labeled and shown separately.</u> 2. Add additional lines as needed.	
	Division Funding Requested
TOTAL DIVISION FUNDING REQUESTED FOR STORMWATER PLANNING GRANT (LASII):	
TOTAL DIVISION FUNDING REQUESTED TO DEVELOP AND IMPLEMENT A NEW STORMWATER UTILITY (LASII):	

Certification by Authorized Representative

The attached statements and exhibits are hereby made part of this application, and the undersigned representative of the Applicant certifies that the information in this application and the attached statements and exhibits are true, correct, and complete to the best of his/her knowledge and belief. By initialing each item and signature at the end of this application, he/she further certifies that:

BSA

1. as Authorized Representative, I have been authorized to file this application by formal action of the governing body (e.g., by resolution) or as defined in this application as the Authorized Representative in Section 3 following the Instructions;

BSA

2. the governing body agrees to provide for proper short-term and long-term maintenance and operation of the approved project after its completion;

BSA

3. the Applicant has substantially complied with or will comply with all federal, state, and local laws, rules, regulations, ordinances, and funding conditions as applicable to this project;

BSA

4. the Applicant will adopt and place into effect on or before the completion of the project a schedule of fees and charges which will provide for the adequate and proper operation, maintenance, and administration and repayment of all principal and interest on loans (if applicable) of the project [if not applicable, initial "N/A"];

BSA

5. the Applicant has followed proper accounting and fiscal reporting procedures, as evidenced by the Applicant's most recent audit report, and that the Applicant is in substantial compliance with provision of the general fiscal control laws of the State;

BSA

6. the Project Budget for all construction projects provided in this application form (Section 8a, if applicable) includes all funding requested from all sources of funding proposed for this project;

BSA

7. the (Town or County), North Carolina is organized and chartered under the laws of North Carolina, or the special purpose unit of local government is incorporated under the laws of North Carolina. All officials and employees are aware of, and in full compliance with NCGS 14-234, "Public officers or employees benefiting from public contracts; exceptions." (For units of local government only. All others should initial "N/A");

BSA

8. the Applicant acknowledges that all loans and Viable Utility Reserve grants are subject to approval by the Local Government Commission (not applicable for CDBG-I or stormwater planning projects);

BSA

9. the Applicant acknowledges that if the application is for a drinking water or wastewater project and any one of the local government units involved in the project is designated as distressed by the State Water Infrastructure Authority and the Local Government Commission, the local government unit(s) must complete the viable utility requirements in NCGS 159G-45(b) by conducting an asset assessment and rate study, participate in a training program, and develop a short-term and long-term action plan considering infrastructure repair, maintenance, and management, continuing education, and long-term financial management plan. Additional conditions may be imposed on the local government(s) designated as distressed by the State Water Infrastructure Authority and/or the Local Government Commission. (Initial "N/A" if does not apply to project type or all local governments involved in the project); and

BSA

10. the Applicant acknowledges that, in accordance with G.S. 120-157.2, for local government debt to be issued greater than \$1,000,000, the local government must report to Committee Chairs, Committee Assistant, and the Fiscal Research Division of the General Assembly at least 45 days prior to presentation before the Local Government Commission (For units of local government only. All others, and CDBG-I applicants should initial "N/A").

Completeness Checklist

In addition to this application, the following items must be included in the application package to be eligible or to successfully claim priority points. **Failure to include or properly document an item marked with * will result in an incomplete and ineligible application which will not be considered for funding.** Please initial that each item is included in this submittal. If not applicable for the project, please initial "N/A".

BA

Resolution by Governing Body of Applicant and the Form for Certification by the Recording Officer * †

BA

Comprehensive Narrative to Claim Points in the Priority Rating System *

BA

Documentation to Support the Comprehensive Narratives, including maps or images as needed

BA

Applicable Priority Rating System Form to Claim Points †

BA

Affordability Calculator † or handwritten affordability calculations (not applicable to CDBG-I or LASII stormwater planning)

BA

Fund Transfer Certification with appropriate box checked * † (not applicable to CDBG-I or LASII stormwater)

BA

Water & Sewer Financial Information Form † (not applicable to LASII stormwater projects)

N/A

Stormwater Entity Eligibility Certification form * † (only for LASII stormwater applications)

N/A

Commitment of Other Funds Form, Low to Moderate Income Documentation, and all Tab 8 Documents * † (only for CDBG-I applications). These documents must be complete per CDBG-I PRS Guidance.

BA

Current water and wastewater rate sheets in effect on application deadline (for both water and sewer if the utility provides both water and sewer, or for water or sewer depending on the utility service; not applicable to LASII stormwater)

BA

Professional Engineer seal with signature and date on Project Budget * (for Construction Projects and for Emerging Contaminants Evaluation/Assessment Studies only)

* **Required** in the application package. Failure to include or properly document will result in an incomplete and ineligible application which will not be considered for funding.

† Forms and templates are available separately on the [Division's application webpage](#).

Submittal Information

All application packages must be submitted electronically at
<https://edocs.deq.nc.gov/Forms/Fall2023DWIFunding>

See Instructions on completing the form online.

Online submittal of the application package is sufficient for all applications, except for CDBG-Infrastructure applications.

For CDBG-Infrastructure applications only: in addition to submitting the application package electronically at the link above, you must **send one (1) original hard copy*** of the application package to:

Physical Address (FedEx, UPS)†

Division of Water Infrastructure – 8th Floor, Archdale Building
512 North Salisbury Street
Raleigh, NC 27604
919.707.9160

* Provide a hard copy that is bound (3-ring binders). No paper clips, staples or binder clasps.

† For all courier services, please use the physical address, as having a courier deliver to the mailing address will delay package delivery.

Application Signature

Original signature is required for the application.
Application with no signature is incomplete and ineligible for consideration.



SIGNATURE OF TOP ELECTED OFFICIAL, TOP ADMINISTRATIVE OFFICIAL, OR AUTHORIZED REPRESENTATIVE AS NAMED IN
RESOLUTION*

Gregory T. Flory
TYPED NAME

Executive Director
TYPED TITLE

10/02/2023
DATE

***Note:** For the CDBG-I program, signature must be of the Authorized Representative who must be named in the Resolution, regardless of their title.