

3807 - Bluestone River Water Treatment Plant Retention Project

Application Details

Funding Opportunity:

3293-Virginia Community Flood Preparedness Fund - Project Grants - CY25 Round 6

Funding Opportunity Due Date: Dec 1, 2025 11:59 PM

Program Area: Virginia Community Flood Preparedness Fund

Status: Under Review

Stage: Final Application

Initial Submit Date: Dec 1, 2025 7:58 PM

Initially Submitted By: Bethany Whitfield

Last Submit Date:

Last Submitted By:

Contact Information

Primary Contact Information

Active User*: Yes

Type: External User

Name*: Mrs. Bethany Middle Name Whitfield
Salutation First Name Last Name

Title: Manager, Proposal Management Office

Email*: bwhitfield@res.us

Address*: 1408 Roseneath Rd
Suite B

Richmond Virginia 23230
City State/Province Postal Code/Zip

Phone*: 989-709-8428 Ext.
Phone

###-###-####

Fax: ####-####-####

Comments:

Organization Information

Status*: Approved

Name*: Tazewell County

Organization Type*: Local Government

Tax ID*: 54-6001649

Unique Entity Identifier (UEI)*: K7EPDEL2B141

Organization Website:

Address*: 197 Main Street

City Tazewell **State/Province** Virginia **Postal Code/Zip** 24651-

Phone*: (276) 385-1208 Ext.
####-####-#####

Fax: ####-####-#####

Benefactor:

Vendor ID:

Comments:

VCFPF Applicant Information

Project Description

Name of Local Government*: Tazewell County

Your locality's CID number can be found at the following link: [Community Status Book Report](#)

NFIP/DCR Community 510160

Identification Number (CID)*:

If a state or federally recognized Indian tribe,

Name of Tribe:

Authorized Individual*: Eric Young
First Name Last Name

Mailing Address*: 197 Main Street
Address Line 1
Address Line 2
Tazewell Virginia 24651
City State Zip Code

Telephone Number*: 276-385-1208

Cell Phone Number*: 276-385-1208

Email*: eyoung@tazewellcounty.org

Is the contact person different than the authorized individual?

Contact Person*: No

Enter a description of the project for which you are applying to this funding opportunity

Project Description*:

Tazewell County's Bluefield Flood Study (CFPF-24-04-65) identified chronic flooding along Bluestone River. The proposed project will dredge and restore the existing reservoir, add a CMAC-controlled outfall, and build an upstream floodplain retention pond. The project will be incorporated with the Town's Park Masterplan to provide nature trails and open water recreational activity within the proposed Bluestone River Park and supports the 2023 Flood Resilience Plan's mitigation goals.

Low-income geographic area means any locality, or community within a locality, that has a median household income that is not greater than 80 percent of the local median household income, or any area in the Commonwealth designated as a qualified opportunity zone by the U.S. Secretary of the Treasury via his delegation of authority to the Internal Revenue Service. A project of any size within a low-income geographic area will be considered.

Is the proposal in this application intended to benefit a low-income geographic area as defined above?

Benefit a low-income geographic area*: Yes

Information regarding your census block(s) can be found at census.gov

Census Block(s) Where Project will Occur*: 511850211004 (Census Tract 211)

Is Project Located in an NFIP Participating Community?*: Yes

Is Project Located in a Special Flood Hazard Area?*: Yes

Flood Zone(s) (if applicable): Zone AE/Zone X

Flood Insurance Rate Map Number(s) (if applicable): 51185C0231D

Eligibility CFPF - Round 4 - Projects

Eligibility

Is the applicant a local government (including counties, cities, towns, municipal corporations, authorities, districts, commissions, or political subdivisions created by the General Assembly or pursuant to the Constitution or laws of the Commonwealth, or any combination of these)?

Local Government*: Yes

Yes - Eligible for consideration

No - Not eligible for consideration

Does the local government have an approved resilience plan and has provided a copy or link to the plan with this application?

Resilience Plan*: Yes

Yes - Eligible for consideration under all categories

No - Eligible for consideration for studies, capacity building, and planning only

If the applicant is not a town, city, or county, are letters of support from all affected local governments included in this application?

Letters of Support*: Yes
Yes - Eligible for consideration
No - Not eligible for consideration
N/A - Not applicable

Has this or any portion of this project been included in any application or program previously funded by the Department?

Previously Funded*: No
Yes - Not eligible for consideration
No - Eligible for consideration

Has the applicant provided evidence of an ability to provide the required matching funds?

Evidence of Match Funds*: Yes
Yes - Eligible for consideration
No - Not eligible for consideration
N/A - Match not required

Scoring Criteria for Flood Prevention and Protection Projects - Round 4

Scoring

Category Scoring:

Hold CTRL to select multiple options

Project Category*:

All hybrid approaches whose end result is a nature-based solution, Floodplain restoration

Is the project area socially vulnerable? (based on ADAPT Virginia's Social Vulnerability Index Score)

Social Vulnerability Scoring:

Very High Social Vulnerability (More than 1.5)

High Social Vulnerability (1.0 to 1.5)

Moderate Social Vulnerability (0.0 to 1.0)

Low Social Vulnerability (-1.0 to 0.0)

Very Low Social Vulnerability (Less than -1.0)

Socially Vulnerable*: Moderate Social Vulnerability

Is the proposed project part of an effort to join or remedy the community's probation or suspension from the NFIP?

NFIP*: No

Is the proposed project in a low-income geographic area as defined below?

"Low-income geographic area" means any locality, or community within a locality, that has a median household income that is not greater than 80 percent of the local median household income, or any area in the Commonwealth designated as a qualified opportunity zone by the U.S. Secretary of the Treasury via his delegation of authority to the Internal Revenue Service. A project of any size within a low-income geographic area will be considered.

Low-Income Geographic Area*: Yes

Projects eligible for funding may also reduce nutrient and sediment pollution to local waters and the Chesapeake Bay and assist the Commonwealth in achieving local and/or Chesapeake Bay TMDLs. Does the proposed project include implementation of one or more best management practices with a nitrogen, phosphorus, or sediment reduction efficiency established by the Virginia Department of Environmental Quality or the Chesapeake Bay Program

Partnership in support of the Chesapeake Bay TMDL Phase III Watershed Implementation Plan?

Reduction of Nutrient and Sediment Pollution*: Yes

Does this project provide “community scale” benefits?

Community Scale Benefits*: 25-49% of the census block

Expected Lifespan of Project

Expected Lifespan of Project*: Over 20 Years

Comments:

Scope of Work - Projects - Round 4

Scope of Work

Upload your Scope of Work

Please refer to Part IV, Section B. of the grant manual for guidance on how to create your scope of work

Scope of Work*: CID510160_Tazewell County_CFPF-6_SOW_Bluestone River.pdf

Comments:

Budget Narrative

Budget Narrative Attachment*: CID510160_CFPF Round 6_Budget Narrative_Bluestone River.pdf

Comments:

Scope of Work Supporting Information - Projects

Supporting Information - Projects

Provide population data for the local government in which the project is taking place

Population*: 5096.00

Provide information on the flood risk of the project area, including whether the project is in a mapped floodplain, what flood zone it is in, and when it was last mapped. If the property or area around it has been flooded before, share information on the dates of past flood events and the amount of damage sustained

Historic Flooding data and

Hydrologic Studies*:

CID510160_CFPF Round 6_Historic Flooding data and Hydrologic Studies_Bluestone River.pdf

Include studies, data, reports that demonstrate the proposed project minimizes flood vulnerabilities and does not create flooding or increased flooding (adverse impact) to other properties

No Adverse Impact*: CID510160_CFPF Round 6_No Adverse Impact_Bluestone River.pdf

Include supporting documents demonstrating the local government's ability to provide its share of the project costs. This must include an estimate of the total project cost, a description of the source of the funds being used, evidence of the local government's ability to pay for the project in full or quarterly prior to reimbursement, and a signed pledge agreement from each contributing organization

Ability to Provide Share of Cost*: CID510160_Letter of Authorization and Match-Bluefield.pdf

A benefit-cost analysis must be submitted with the project application

Benefit-Cost Analysis*: CID510160_CFPF Round 6_Benefit Cost Analysis_Bluestone River.pdf

If applicable, provide the Department with the current floodplain ordinance by link or attachment.

Local Floodplain Management

Regulations:

CID510160_CFPF Round 6_Floodplain Management Regulations_Bluestone River.pdf

Provide a list of repetitive loss and/or severe repetitive loss properties. Do not provide the addresses for the properties, but include an exact number of repetitive loss and/or severe repetitive loss structures within the project area

Repetitive Loss and/or Severe CID510160_CFPF Round 6_Rep Loss_Bluestone River.pdf

Repetitive Loss Properties*:

Describe the residential and commercial structures impacted by this project, including how they contribute to the community such as historic, economic, or social value. Provide an exact number of residential structures and commercial structures in the project area

Residential and/or Commercial

Structures*:

Implementation of the Bluestone River Water Treatment Plant Retention Project will provide flood storage on the Bluestone River that will positively benefit 226 properties that are downstream prior to confluence with Beaver Pond Creek at a location just downstream of Downtown Bluefield.

If there are critical facilities/infrastructure within the project area, describe each facility

Critical Facilities/Infrastructure*:

The flood storage aims to reduce the base flood elevations and reduce the limits of the 100-year inundation on these properties. Additionally, the project could eliminate the need for stream and floodplain restoration work at the Reynolds Avenue and Dudley Street neighborhood and upgrades to the Montrose Avenue Bridge construction, which frequently floods and blocks access at this bridge.

Explain the local government's financial and staff resources. How many relevant staff members does the local government have? To what relevant software does the local government have access? What are the local government's capabilities?

Financial and Staff Resources*:

Tazewell County and Town of Bluefield have developed a Planning Team that plays an important role throughout the flood resiliency planning process. Members included a broad range of stakeholders vested in flood control, preparedness, and resilience, including community leaders and emergency response, building, and floodplain management officials. Regional planners from the Cumberland Plateau Planning District Commission (CPPDC), and State Representatives (e.g., Virginia Department of Conservation and Recreation (DCR) and Virginia Department of Emergency Management) were engaged and invited to participate on the Planning Team. Planning Team members met regularly (approximately bi-monthly) and were responsible for providing input throughout the planning process such as understanding of existing and planned projects, plans, and data, review of draft materials, and project prioritization. Some of the planning team members that will be involved with decisions for this project are:

Robyn Boyd, Executive Director, Clinch Valley Community Action

Andrew Hanson, Manager, Town of Bluefield

Eric Young, County Administrator, Tazewell County

Barry Brooks, Fire Chief, Tazewell County Emergency Management

Jeff Buchanan, VDOT

Jane Cordle, Stormwater, Tazewell County

Kenneth Dunford, Director of Engineering, Tazewell County

Brad Gibson, GIS/Mapping, Tazewell County

Gary Jackson, Building Official, Tazewell County

Charlie Perkins, Planner II, CPPDC

Shanna Plaster, Board of Supervisors, Tazewell County

If the project proposed does not employ a nature-based or hybrid solution and the total project cost is greater than \$2 million, describe at least one alternative that could reasonably address the issue identified. Please also consider the No Action Option as a third alternative as part of the analysis. Explain these alternatives and the reason the proposed project was selected.

Alternatives:

Identify and describe the goals and objectives of the project. Include a description of the expected results of the completed project and explain the expected benefits of the project. This may include financial benefits, increased awareness, decreased risk, etc.

Goals and Objectives*:

Tazewell County was awarded the Bluefield Flood Study (CFPF-24-04-65) in 2024 and has mostly completed the study. Based on its results, the Town of Bluefield is proposing a flood mitigation project upstream along the Bluestone River to provide flood storage and reduce impacts on downstream neighborhoods and businesses. The study was developed in response to long-standing flooding issues in the Bluefield area, where repeated flood events disrupt businesses and pose safety risks in a low-income community. The study evaluated the root causes of persistent flooding, existing conditions, and potential mitigation strategies, with a focus on nature-based solutions. As a low-income area with a moderate social vulnerability index score, the project will help promote community health, safety, and resilience. Identified as a priority in the 2023 Tazewell County Flood Resilience Plan, the study supports long-term, science-based, nature-focused solutions that account for climate change. A baseline 2D model was developed for the Bluestone River and contributing tributaries, calibrated to historic flooding to understand extents and infrastructure constraints. Based on alternatives analysis and post-project modeling, the Bluestone River Water Treatment property was identified as a suitable location for in-line and floodplain retention improvements. The existing in-line storage facility at the treatment plant intake is proposed to be dredged to restore capacity and retrofitted with a CMAC system. CMAC will draw down storage ahead of storms to increase available flood capacity and then slowly release stored water after peak flows pass. Stored water may also be pumped to the adjacent water treatment facility for supply needs.

An upstream floodplain retention pond is also proposed on Town-owned open space. An overflow channel will divert flows from storm events exceeding the 1-year return period into the retention pond. This pond will also include CMAC valves to manage storage and timed releases back to the restored Bluestone River downstream. The retention area will become an aesthetic and recreational feature as part of the Town's Park Masterplan, incorporating nature trails and open-water amenities.

CFPF funding will support full development and implementation of the Bluestone River Water Treatment Plant Retention Project, including design, modeling, permitting, construction documentation, and funding for construction of the restoration and flood mitigation components.

Outline a plan of action laying out the scope and detail of how the proposed work will be accomplished with a timeline identifying expected completion dates. Determine milestones for the project that will be used to track progress.

Explain what deliverables can be expected at each milestone, and what the final project deliverables will be. Identify other project partners

Approach, Milestones, and

Deliverables*:

CID510160_CFPF Round 6_Milestones and Deliverables_Bluestone River.pdf

Where applicable, briefly describe the relationship between this project and other past, current, or future resilience projects. If the applicant has received or applied for any other grants or loans, please identify those projects, and, if applicable, describe any problems that arose with meeting the obligations of the grant and how the obligations of this project will be met

Relationship to Other Projects*:

Bluestone River Water Treatment Plant Retention Project is being developed through the Tazewell County (CID#510160) Resiliency Plan funded by the 2022 CFPF Grant Award and the Town of Bluefield Flood Study (CFPF-24-04-65) funded by the 2024 CFPF Grant Award. Through the resiliency study, re-occurring flood issues were identified and documented through review of historical rainfall and flooding data, analysis of existing flood

mapping and studies, and community engagement. The Bluefield Flood Study developed detailed HEC-HMS and rain on grid hydrologic studies and 2-D HEC-RAS modeling utilizing historic rain and runoff events to calibrate the model with documented flood stage observations. Through communication with the Town of Bluefield, properties owned or controlled by the Town were evaluated for flood storage options to reduce or delay the flood peaks that often result in flooding of neighborhoods and businesses. Implementation of the Bluestone River Water Treatment Plant Retention Project will also add numerous recreational benefits planned as part of the Town of Bluefield Parks and Recreational Master Plan to the Bluefield City Park property by creating nature trails, and open water recreation.

For ongoing projects or projects that will require future maintenance, such as infrastructure, flood warning and response systems, signs, websites, or flood risk applications, a maintenance, management, and monitoring plan for the projects must be provided

Maintenance Plan*: CID510160_CFPF Round 6_Maintenance Plan_Bluestone River.pdf

Describe how the project meets each of the applicable scoring criteria contained in Appendix B. Documentation can be incorporated into the Scope of Work Narrative

Criteria*:

1. Eligible Projects

The project centers on floodplain restoration and creation of two retention ponds (one offline and one existing in-line pond), both integrated into the Bluestone River flood system. Activities include dredging, channel stabilization, floodplain reconnection, and native replanting. These are all nature-based flood mitigation strategies that restore floodplain function, improve hydrology, and reduce downstream flooding impacts.

The integration of a continuous monitoring and automated control (CMAC) system strengthens long-term performance but remains within the scope of a nature-based restoration rather than a hybrid (engineered) project.

2. Social Vulnerability Index

The Town of Bluefield is in a low-income geographic area with a moderate SVI score. This corresponds to the ? Moderate Social Vulnerability (0.0 to 1.0)? range.

3. Community Scale of Benefits

The proposed retention ponds and overflow channels will benefit multiple neighborhoods, business corridors, and roadway intersections, notably providing safer ingress/egress for the Mobile Estates community. This indicates a community-scale benefit spanning multiple census blocks, including residential, commercial, and public service areas.

4. Expected Lifespan of Project

The project includes comprehensive design, long-term sediment and water management (via CMAC), and native vegetation, making it a sustainable flood mitigation measure expected to remain effective for over 20 years with routine maintenance and monitoring.

5. Remedy for NFIP Probation or Suspension

The project does not remedy NFIP probation or suspension.

6. Low-Income Geographic Area

The Town of Bluefield is a low-income area with social vulnerability concerns with flood risks posing disproportionate impacts. The project's mitigation directly improves safety and accessibility for these residents.

7. Chesapeake Bay TMDL BMP Implementation

The floodplain and pond restoration will reduce sediment and nutrient runoff through dredging, vegetated buffers, and controlled stormwater release-qualifying as Chesapeake Bay TMDL Best Management Practices (BMPs).

Budget

Budget Summary

Grant Matching Requirement*:

LOW INCOME - Projects that will result in nature-based solutions - Fund 95%/Match 5%

Is a match waiver being requested?

Match Waiver Request No

Note: only low-income communities are eligible for a match waiver.

*:

I certify that my project is in a low-income geographic area: Yes

Total Project Amount (Request + Match)*: \$4,651,835.00
**This amount should equal the sum of your request and match figures

REQUIRED Match Percentage Amount: \$232,591.75

BUDGET TOTALS

Before submitting your application be sure that you meet the match requirements for your project type.

Match Percentage:

5.00%

Verify that your match percentage matches your required match percentage amount above.

Total Requested Fund Amount: \$4,419,244.25

Total Match Amount: \$232,591.75

TOTAL: \$4,651,836.00

Personnel

Description	Requested Fund Amount	Match Fund Amount	Match Source
Personnel hours were estimated to complete the proposed scope of work and personnel budget estimated	\$447,869.80	\$49,050.76	In kind
	\$447,869.80	\$49,050.76	

Fringe Benefits

Description	Requested Fund Amount	Match Fund Amount	Match Source
	\$191,944.20	\$21,021.76	

Description	Requested Fund Amount	Match Amount	Match Source
Fringe benefits associated with the personnel hours were estimated to complete the proposed scope of	\$191,944.20	\$21,021.76	In kind
	\$191,944.20	\$21,021.76	

Travel

Description	Requested Fund Amount	Match Amount	Match Source
Travel expenses were estimated based on mileage and lodging during the proposed scope of work phase.	\$22,805.12	\$0.00	In kind
	\$22,805.12	\$0.00	

Equipment

Description	Requested Fund Amount	Match Amount	Match Source
Equipment needed for geotechnical, survey, and field assessments were estimated based on the project	\$15,360.00	\$0.00	In kind
	\$15,360.00	\$0.00	

Supplies

Description	Requested Fund Amount	Match Amount	Match Source
Supplies needed for geotechnical, survey, and other field assessments were estimated based on the pr	\$10,355.00	\$0.00	In kind
	\$10,355.00	\$0.00	

Construction

Description	Requested Fund Amount	Match Amount	Match Source
Includes labor, materials, equipment, supplies, and travel cost required to implement the project. B	\$3,446,522.50	\$0.00	In kind
	\$3,446,522.50	\$0.00	

Contracts

Description	Requested Fund Amount	Match Amount	Match Source
No Data for Table			

Maintenance Costs

Description	Requested Fund Amount	Match Amount	Match Source
No Data for Table			

Description	Requested Fund Amount	Match Amount	Match Source
	No Data for Table		

PreAward and Startup Costs

Description	Requested Fund Amount	Match Amount	Match Source
	No Data for Table		

Other Direct Costs

Description	Requested Fund Amount	Match Amount	Match Source
This includes other direct costs quantified as contingency that may be available for additional labo	\$284,387.63	\$162,519.23	In kind
	\$284,387.63	\$162,519.23	

Long and Short Term Loan Budget - Projects - VCFPF

Budget Summary

Are you applying for a short term, long term, or no loan as part of your application?

If you are not applying for a loan, select "not applying for loan" and leave all other fields on this screen blank

Long or Short Term*: Not Applying for Loan

Total Project Amount: \$0.00

Total Requested Fund Amount: \$0.00

TOTAL: \$0.00

Salaries

Description	Requested Fund Amount
	No Data for Table

Fringe Benefits

Description	Requested Fund Amount
	No Data for Table

Travel

Description	Requested Fund Amount
	No Data for Table

Equipment

Description	Requested Fund Amount
	No Data for Table

Supplies

Description	Requested Fund Amount
	No Data for Table

Construction

Description	Requested Fund Amount
	No Data for Table

Contracts

Description	Requested Fund Amount
	No Data for Table

Other Direct Costs

Description	Requested Fund Amount
	No Data for Table

Supporting Documentation

Supporting Documentation

Named Attachment	Required Description	File Name	Type	Size	Upload Date
Detailed map of the project area(s) (Projects/Studies)	Concept Map	CID510160_CFPF Round 6_Bluestone River Retention Ponds Concept -.pdf	pdf	1 MB	12/01/2025 07:43 PM
FIRMette of the project area(s) (Projects/Studies)	FIRMette	CID510160_FIRMette_Bluestone.png	png	1 MB	12/01/2025 07:37 PM
Historic flood damage data and/or images (Projects/Studies)					
A link to or a copy of the current floodplain ordinance	Floodplain Ordinance	CID510160_Tazewell County_CFPF-6_Ordinance.pdf	pdf	225 KB	12/01/2025 07:08 PM
Maintenance and management plan for project					

Named Attachment	Required Description	File Name	Type	Size	Upload Date
A link to or a copy of the current hazard mitigation plan	Hazard Mitigation Plan	CID510160_Tazewell County_CFPF-6_HMP.pdf	pdf	13 MB	12/01/2025 07:08 PM
A link to or a copy of the current comprehensive plan					
Social vulnerability index score(s) for the project area					
Authorization to request funding from the Fund from governing body or chief executive of the local government	Authorization Letter	CID510160_Letter of Authorization and Match-Bluefield.pdf	pdf	66 KB	12/01/2025 07:37 PM
Signed pledge agreement from each contributing organization					
Maintenance Plan					
<i>Benefit-cost analysis must be submitted with project applications over \$2,000,000. in lieu of using the FEMA benefit-cost analysis tool, applicants may submit a narrative to describe in detail the cost benefits and value. The narrative must explicitly indicate the risk reduction benefits of a flood mitigation project and compares those benefits to its cost-effectiveness.</i>					
Benefit Cost Analysis	Benefit Cost Analysis	CID510160_CFPF Round 6_Benefit Cost Analysis_Bluestone River.pdf	pdf	716 KB	12/01/2025 07:38 PM
Other Relevant Attachments					

Letters of Support

Description	File Name	Type	Size	Upload Date
Letter of Support	CID510160_Tazewell County_CFPF-6_Support letter for Bluefield Flood Retention Projects.pdf	pdf	64 KB	12/01/2025 07:38 PM
Letter of Support 2	Scanned from a Xerox Multifunction Printer 3.pdf	pdf	65 KB	12/05/2025 10:44 AM

Resilience Plan

Resilience Plan

Description	File Name	Type	Size	Upload Date
Resilience Plan	CID510160_Tazewell County_CFPF-6_ResiliencePlan.pdf	pdf	4 MB	12/01/2025 07:07 PM

