

# BUCHANAN COUNTY BOARD OF SUPERVISORS

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August 31, 2021



Robert Craig Horn  
County Administrator

Lawrence L. Moise, III Esq.  
County Attorney

Wendy Howard-Cooper  
Director for Dam Safety and Floodplain Management  
Department of Recreation and Conservation  
600 East Main Street, 24<sup>th</sup> Floor  
Richmond VA 23219

Re: Authorization of Buchanan County CFPF Application

Dear Ms. Howard-Cooper and Members of the Review Team:

Buchanan County is proud to submit the enclosed application to the inaugural grant round of the Community Flood Preparedness Fund. We firmly believe that the capacity-building and planning that will result from this project, should you choose to support it, will enable the people of Buchanan County to work toward a more resilient community.

Buchanan County and our neighbors in Southwest Virginia have experienced devastating recurrent flooding that has increased in recent years. Flooding is often thought of as a coastal problem, but we are pleased to see that DCR seeks to direct some of this new fund to mountainous and disadvantaged communities such as ours.

Please accept this letter as my authorization of the request for CFPF funding.

Also, please reach out to me, County Attorney Lee Moise, or any of our team with questions. We look forward to working with you.

Sincerely,

Robert Craig Horn  
County Administrator

Administrative Office, 4447, Suite 310, Slate Creek Road, GRUNDY, VIRGINIA 24614

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Mailing Address (1): 4447 Slate Creek Road, Suite 310

Mailing Address (2): PO Box 950

City: Grundy State: VA Zip: 24614

Telephone Number: (276) 935-6533 Cell Phone Number: (    )                     

Email Address: [REDACTED]

Is the proposal in this application intended to benefit a low-income geographic area as defined in the Part 1 Definitions? Yes  No

**Categories (select applicable project):**

**Project Grants (Check All that Apply)**

- Acquisition of property (or interests therein) and/or structures for purposes of allowing floodwater inundation, strategic retreat of existing land uses from areas vulnerable to flooding; the conservation or enhancement of natural flood resilience resources; or acquisition of structures, provided the acquired property will be protected in perpetuity from further development.
- Wetland restoration.
- Floodplain restoration.
- Construction of swales and settling ponds.
- Living shorelines and vegetated buffers.
- Structural floodwalls, levees, berms, flood gates, structural conveyances.
- Storm water system upgrades.
- Medium and large scale Low Impact Development (LID) in urban areas.
- Permanent conservation of undeveloped lands identified as having flood resilience value by *ConserveVirginia* Floodplain and Flooding Resilience layer or a similar data driven analytic tool.
- Dam restoration or removal.
- Stream bank restoration or stabilization.
- Restoration of floodplains to natural and beneficial function.
- Developing flood warning and response systems, which may include gauge installation, to notify residents of potential emergency flooding events.

**Study Grants (Check All that Apply)**

- Studies to aid in updating floodplain ordinances to maintain compliance with the NFIP or to incorporate higher standards that may reduce the risk of flood damage. This must include establishing processes for implementing the ordinance, including but not limited to, permitting, record retention, violations, and variances. This may include revising a floodplain ordinance when the community is getting new Flood Insurance Rate Maps (FIRMs), updating a floodplain ordinance to include floodplain setbacks or freeboard, or correcting issues identified in a Corrective Action Plan.
- Revising other land use ordinances to incorporate flood protection and mitigation goals, standards and practices.
- Conducting hydrologic and hydraulic studies of floodplains. Applicants who create new maps must apply for a Letter of Map Revision or a Physical Map Revision through the Federal Emergency Management Agency (FEMA). For example, a local government might conduct a hydrologic and hydraulic study for an area that had not been studied because the watershed is less than one square mile. Modeling the floodplain in an area that has numerous letters of map change that suggest the current map might not be fully accurate or doing a detailed flood study for an A Zone is another example.
- Studies and Data Collection of Statewide and Regional Significance.
- Revisions to existing resilience plans and modifications to existing comprehensive and hazard.
- Other relevant flood prevention and protection project or study.

**Capacity Building and Planning Grants**

- Floodplain Staff Capacity.
- Resilience Plan Development
  - Revisions to existing resilience plans and modifications to existing comprehensive and hazard mitigation plans.
  - Resource assessments, planning, strategies and development.
    - Policy management and/or development.
    - Stakeholder engagement and strategies.

**Location of Project (Include Maps):** Buchanan County, VA (see maps attached)

**NFIP Community Identification Number (CID#):(See appendix**

**F 510024**

**Is Project Located in an NFIP Participating Community?**    Yes    No

**Is Project Located in a Special Flood Hazard Area?**    Yes    No

**Flood Zone(s) (If Applicable):** n/a

**Flood Insurance Rate Map Number(s) (If Applicable):** n/a

**Total Cost of Project:** \$387,500

**Total Amount Requested** \$348,750

## Scope of Work Narrative

Buchanan County has long experienced challenging riverine flooding that impacts its community landmarks, its homes and businesses, and the coal mines that have long been the economic backbone of the county. However, the County has rarely had the resources to properly address impacts of flooding and plan new approaches for the future. The Community Flood Preparedness Fund offers Buchanan County an opportunity to build toward a more resilient future, and thus the County is applying to the CFPF inaugural round in the Capacity Building and Planning Category.

### Proposal

The proposed project includes a professional engineering analysis and planning effort engaging stakeholders throughout the County, along with training for a key member of the County staff to become a Certified Floodplain Manager. By working with a consultant that can help the County build this effort toward greater community-based natural resource management, Buchanan will lay strong groundwork for future resilience projects.

### Today's Flooding Hotspots

In today's weather patterns, Buchanan's transportation network and its adjacent homes and businesses have proven to be key vulnerabilities and are anticipated to be among the priorities revealed by the engineering analysis and plan development. The maps and FIRMettes in the supporting documentation (Attachments 1, overview map, 2.1-2.6, aerial maps, and 3.1-3.6, FIRMettes) illustrate these known hotspots, but do not predetermine the projects to be selected by the plan. Brief overviews of each hotspot are:

1. Greenbrier
  - a. Primary road meets a secondary road (Rt. 83 meets Rt. 611)
  - b. Flooding creates significant public safety hazard due to interrupted primary public roadway access
2. Elk Creek
  - a. Buchanan County spends \$100k in clean up annually here
  - b. There are 80 homes up Elk Creek Road that are blockaded during flooding
3. Hurley Park
  - a. Typically twice a year the road is completely blocked by flooding
4. Heritage Hall
  - a. A nursing home sits at this flooding site
  - b. The County Municipal Building is on this road and thus government service is impeded
  - c. The local understanding is that the creek and riverbeds have over 6' of additional sediment as fill impeding water flow
5. Appalachian Pharmacy School
  - a. 2" of rain turns the school's parking lot into a pond
6. Millcreek
  - a. 2" of rain creates an impasse and reduces public safety

These hotspots of the modern era are further demonstrated by a flash flood that occurred the very week of this grant submission, on the morning of August 30, 2021. Swift-water rescues were performed, 20 houses were knocked from their foundations, and some children who had already gone to school for the day could not return to their homes. A major water line was disrupted and county officials estimate

it will take a year to restore water to the impacted area. For an example of news coverage, see Attachment 4.

For additional recent history of flash flooding due to rain events, see news coverage of the Sept. 2020 flood in Buchanan County, including two video news stories at these links:

- <https://wcyb.com/news/local/buchanan-county-residents-face-tens-of-thousands-dollars-worth-of-flooding-damages>
- <https://wcyb.com/news/local/emergency-management-reports-nearly-four-dozen-homes-impacted-by-buchanan-county-flooding>

Given this level of urgency, local elected officials and concerned citizens have begun seeking more proactive solutions. This effort has the active support of Delegate Will Morefield, Third District, as demonstrated in his letter of support (Attachment 5).

### Historic Floods and Delayed Remediation

Historic flood damage is still in the process of being remediated. For example, the US Army Corps of Engineers is currently undertaking work to fulfill agreements in response to damage caused in 1977, when a flood inundated the Hurley High School and the Buchanan County Career and Technical Center. A \$235.6 million federal project in Buchanan was just announced last year, to relocate these community institutions and support voluntary floodproofing and acquisition for other businesses and homes. More on this project is at these links:

- <https://www.lrh.usace.army.mil/Missions/Civil-Works/Buchanan-County/>
- [https://heraldcourier.com/news/local/corps-allocates-286-9-million-for-sw-va-flood-control-project/article\\_6a4ba560-48c7-5dcd-a361-6fdc95803e0b.html](https://heraldcourier.com/news/local/corps-allocates-286-9-million-for-sw-va-flood-control-project/article_6a4ba560-48c7-5dcd-a361-6fdc95803e0b.html)
- <https://www.warner.senate.gov/public/index.cfm/2020/1/warner-kaine-announce-more-than-286-million-to-combat-flooding-in-buchanan-dickenson-counties>
- [https://swvatoday.com/richland\\_clinch\\_valley/article\\_fd4e7858-de7b-11eb-a382-fb9d6b6fc0d9.html](https://swvatoday.com/richland_clinch_valley/article_fd4e7858-de7b-11eb-a382-fb9d6b6fc0d9.html)

Actions to answer vulnerabilities revealed in the past must have counterpart efforts to plan for the future. Thus, the CFPF-supported capacity-building project will be a perfect fit alongside the USACE project.

### Existing Policies

Buchanan County has a floodplain ordinance, Attachment 6 in the supporting documentation. In developing this ordinance, the County's goals were "to prevent the loss of life and property, the creation of health and safety hazards, the disruption of commerce and governmental services, the extraordinary and unnecessary expenditure of public funds for flood protection and relief and the impairment of the tax base[.]" Those goals continue to underlie the County's flood resilience efforts today, including with this grant application.

The floodplain ordinance complements the Buchanan County Comprehensive Plan and the hazard mitigation plan for the entire Cumberland Plateau Planning District Commission, linked here:

- <https://www.buchanancountyonline.com/comprehensiveplan.pdf>
- <http://cppdc.org/Reports/Mitigation%20Plan%20Edit.pdf>

## Case for Support

Buchanan County is the type of low-income community that the CFPF was designed to support. The median household income in the County is less than half that of the Virginia median -- \$31,956 per year, versus \$74,222 per year, in 2019 dollars according to the US Census Bureau (Attachment 7). With this household income level, Buchanan County meets the CFPF definition of a low-income community.

Buchanan County's case for support is also demonstrated in the VIMS Social Vulnerability Index. The County's 7 census tracts fall into the Very High, High, and Moderate categories of the Index, including one score as high as 1.8. The Index categories are shown in the map in the supporting documentation (Attachment 8). Characteristics cited in the Index's assessment of housing the county typically include fragile stock, high percentage of mobile homes, low values and rents, lacking plumbing, vacant, and long term owners. These residents will benefit from the state's assistance with plans to reduce their flooding vulnerability and improve their communities' resilience.

One of Buchanan County's census tracts, 103 or Vansant, is a federal designated Opportunity Zone (Attachment 9). The County's top priority among the preliminary identified flooding hotspots, Greenbrier Creek, is located in the Opportunity Zone. More priority resilience projects may be identified within the Opportunity Zone during the analysis and planning process, in addition to locations in the Very High and High category tracts in the Social Vulnerability Index. Thus the plan is expected to benefit not only the exceptionally vulnerable areas of the County, but also provide community-scale benefits as the capacity and resources of the entire County are lifted.

This Scope of Work Narrative will now present further details of the proposed activities to be undertaken by Buchanan County and its project partners.

## Proposed Activities

Buchanan County, working with contractors First Earth|2030 and Stantec, will undertake a process to build capacity and develop an actionable resilience plan. This process is expected to take approximately 12 months following a CFPF grant award and contractual notice to proceed.

### Task 1: Initiate the Project

#### Task 1A: Orientation Meeting

The project partners will facilitate a project orientation meeting to review scope, schedule, and resources with a small core team, led by Lee Moise, County Attorney and Flood Plain Coordinator of Buchanan County, also including Marcus Stiltner, County Road Engineer, and Sonny Riggsby, County Mapping Technician. The goals of the project will also be reviewed. At a minimum, goals for the plan are to:

- Understand flood risk and identification of projects for flood preparedness, control, and resilience
- Incorporate green, grey, and blue projects with an emphasis on nature-based solutions
- Integrate the whole community, regardless of socioeconomics or race
- Coordinate with existing and planned relevant projects, plans, activities
- Leverage best available science and incorporation of current and future flood data

- Develop a plan that provides a pathway to uninterrupted primary public roadway access, increased public safety, and less flooding

Key outcomes of this meeting will be to determine the Flood Resilience Planning Team members and to determine the kickoff meeting date for developing the Resilience Plan.

The project lead (Lee Moise) will also provide monthly reporting to DCR on progress and financial status.

#### Task 1B: Form the Planning Team

A Buchanan County Flood Resilience Planning Team will be formed to participate throughout the process. The Planning Team is intended to include a broad range of stakeholders vested in flood control, preparedness and resilience, including County staff, staff from the Town of Grundy and other communities within the County, community leaders, emergency response and floodplain management officials, regional planners from the Cumberland Plateau Planning District Commission and state (e.g., Virginia Department of Conservation and Recreation (DCR) and Virginia Department of Emergency Management), technical experts, representatives of residents and real property owners, and the business community. Planning Team members will meet regularly (approximately monthly) and will be 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 weighting criteria (See Task 3 for more on stakeholder and community engagement).

#### Task 2: Data Collection and Review

In Task 2, the County will collect data and information and conduct a review of plans, data, and projects, capacities, and capabilities at the County and Town of Grundy (as applicable) levels. Outcomes of this task include a draft existing conditions assessment and a capability and capacity needs assessment.

##### Task 2A: Data Collection and Review

###### *Plans, Projects, Policies, Activities*

A review of the County's existing plans, projects and activities, as well as any of the same available from the Town of Grundy, will be conducted to integrate information from these plans and inform community flood vulnerability, capabilities, and deficiencies. Plans to be reviewed and incorporated include but are not limited to the Cumberland Plateau Planning District Commission Hazard Mitigation Plan, local floodplain ordinance, Capital Improvement Plan, comprehensive plan, stormwater plan, and other documents with potential flood relevance. Further, County participation in programs that reduce flood impacts, such as the National Flood Insurance Program Community Rating System, will be reviewed.

###### *Financial, Human, Technical Assistance, Training Resources*

The team will conduct a review of available resources in this category to develop and manage flood mitigation projects. The County will likely need ongoing dedicated funding to support ongoing work. In addition, this proposed capacity-building project will enable Buchanan County to have a Certified Floodplain Manager on staff by providing funds for Mr. Lee Moise, who has volunteered for the role, to train for and take the CFM exam concurrently within this planning process.

### *Built and Living Infrastructure and System Data*

Next, GIS information will be gathered for green and gray infrastructure, systems, and assets. This includes data such as residential and non-residential structures, green space and wetlands (including identified ecosystems/wetlands/floodplains suitable for permanent protection), community dam safety inventory and risk assessment posed by the location and condition of dams, and transportation data. An understanding of criticality (those assets that provide essential services and functions) will be collected. Data will be collected in collaboration with the community stakeholder leaders, county and municipal staff, and project leadership. Once critical facilities and assets are determined, asset data (e.g., condition, location, age, material) will be collected from respective departments or utilities.

### *Current and Future Flood Hazard Data*

Flood and climate data will be collected and reviewed to support the proposed vulnerability, risk, and resilience assessments and project identification. Flood data will be collected from local, regional, state, and Federal agency sources, including any FEMA Flood Hazard Products, streamflow and gage data, flood studies, flood models, drainage analyses and H&H studies, as available. Data may also be available from the county staff's engineering firm, Tetra Tech, and from the Virginia Department of Mines, Minerals, and Energy (DMME).

Best available climate data for the areas will be used to understand future flood-risk hazards. The data collected will be influenced by planning period, availability, and security sensitivity. Default data will be any community GIS data supplemented by federal data typically available to support community hazard planning, local and state climatological records of extreme events, historical records of severe weather, newspapers articles, online reports, severe event databases, and academic studies.

Existing data will be reviewed for completeness (i.e., coverage of impacted and potential project areas) and the ability to support resilience planning.

Planning Team members and stakeholders will be consulted throughout the Data Collection and Review task to understand available information and project status.

## Task 2B Summarizing Data Review

### *Existing Conditions Summary*

The data review and collection task will be summarized into an Existing Conditions assessment. The assessment will include:

- Existing community characteristics, including demographic, social, and economic factors
- Natural and social community stressors that contribute to vulnerability
- Geographic conditions and natural resources, such as those that provide natural flood-risk reduction services like wetlands, natural areas, and preservation areas
- Understanding of current flood “hot spots” throughout the county, including hot spots known through experience such as the Hurley area, areas around primary and secondary roads, and mine voids or abandoned mines (such as the abandoned sites called “dog holes” or “punch outs” that can provide access points for maintenance and prevention of blowouts.
- Documentation of any flood data limitations (best available data will be leverage but no new data will be developed as part of the plan)
- Existing capabilities and deficiencies in flood resilience

### *Capability and Capacity Needs Assessment*

Building on the information above, the County and Stantec will also prepare a Capability and Capacity Needs Assessment. This assessment will document any deficiencies or limitations in flood resilience (e.g., staff, training, data, policy, funding, technical assistance, etc.), and recommend strategies to increase overall capacity and capability. This includes reviewing flood-related policies and providing recommendations for revisions or new policy to enhance the County's capability in floodplain management. Of note, the assessment will also include a policy review, including identified incentives for restoring riparian and wetland vegetation. A lead will be identified to track capacity building and each strategy will be assigned to a responsible party and a timeline for completion will be included.

A long-term strategy to maintain capacity and capabilities will be determined, such as regular staff training and cross-training as well as potential budget strategies to support staff in that work and to maintain the newly achieved CFM certification noted above.

### Task 3: Engage the Stakeholders

Stakeholders include the Planning Team, members of the public and those with an interest or need for flood protection and prevention. Stakeholders will be engaged concurrently throughout the resilience planning process via workshops, meetings, online presence, and targeted interviews, for example. This includes stakeholder education on how flood mitigation can be leveraged to achieve their vision for their community results through publicly supported, implementable flood mitigation projects. The project partners intend to provide a dedicated webpage for the project to keep the public and stakeholders apprised on draft plan and meeting information.

Of note, standard outreach methods such as public meetings, informational interviews, and surveys will need to be tailored to COVID-19 precautions, local internet capacity, and county residents' preferred methods of input to achieve whole community participation. These methods will be defined at the onset of the planning process and with input from the planning team.

#### Planning Team Kick-off Meeting

Once the Planning Team has been formed (Task 1B), the County project leads will facilitate a kick-off meeting to develop a project framework that establishes a successful process for community engagement and capacity building, as well as data collection and technical analysis regarding assets, climate data, and vulnerability assessments. The purpose of the meeting is to provide a detailed introduction to the project, introduce participants, identify targeted (and measurable) outcomes, define Planning Team member roles, and review project milestones and schedule. A key outcome of the meeting will be to review and refine the project's goals and objectives for whole community protection and prevention.

#### Public Kick-off Meeting

The County will facilitate a kick-off meeting to introduce the project, key milestones, and public participation input mechanisms.

#### Public Risk Assessment Results and Priority Area Identification Workshop

A joint workshop of the Planning Team and stakeholders will be held once a draft of the existing conditions and risk assessment (Task 4 below) is completed. Outcomes of the meeting include identifying high priority locations in which to focus project development.

#### Public Project Alternatives Review (Priority Area-Specific) Workshops

These joint workshops for the Planning Team and stakeholders will be held once project alternatives have been identified for each priority area. Workshops will then be held for priority areas (grouping areas where it's feasible) to review and refine projects. Outcomes of the workshop include gaining project buy-in from the stakeholders while informing project prioritization. Up to three workshops will be held.

#### Public Project Prioritization (Priority Area-Specific)

These joint workshops for the Planning Team and stakeholders will be held once project alternatives have been prioritized for each priority area. Workshops will then be held for priority areas (grouping areas where it's feasible). Outcomes of the workshop include gaining final stakeholder/public buy-in on projects. Up to three workshops will be held.

#### Draft Plan Review

This review is anticipated to be virtual, with posting and comment collection through the project website and social media.

### Task 4: Assess Problems and Risk

Assessing risk and vulnerability is essential for identifying and prioritizing locations and projects for risk reduction. Collected and/or developed data will be used to assess risk and vulnerability, including from the concurrent public/stakeholder engagement noted in the previous section. Risk posed by flooding from riverine, pluvial (urban), and precipitation-induced mudflows will be included. Assessment of these flood hazards will include consideration of:

- A description of possible flood hazards within the community
- Descriptions of previous impacts, including property and infrastructure damages, life safety impacts, and disruptions to businesses and services, as available
- Current and projected flood risks trends including frequency and intensity
- Mapping of areas impacted by flood hazards and a description of areas impacted
- Potential impacts from cascading hazard events, such as wildfires and hurricane or tropical storm remnants
- Existing flood control measures and structures including dams/levees

Vulnerability of identified critical facilities and assets will be assessed by mapping flood hazards with critical facilities/assets to determine exposure, along with assessment of potential impacts such as physical and social vulnerability with respect to existing mitigation measures. Community stressors that contribute to vulnerability will also be considered.

#### Task 4.A: Identify Priority Areas

Once risk and vulnerability have been assessed, priority areas will be identified using a developed scoring methodology. At a minimum, this methodology will include factors such as flood exposure (e.g., high-risk areas), vulnerability, adaptive capacity, and social vulnerability. The federally recognized Census Tract 103/Vansant Opportunity Zone, areas identified in the Floodplains and Flooding Resilience Category of ConserveVirginia, and vulnerable population areas will also be factors in project identification and prioritization.

#### Task 4.B: Identify Priority Projects

Using risk assessment results, stakeholder feedback, and priority areas, flood mitigation projects will be identified and prioritized. A wide range of project types will be considered, including but not limited to:

- Planning (e.g., land use and floodplain management ordinances, conservation overlays and easements, riparian buffers);
- Future studies - identification of future studies and analysis needed (e.g., H &H for future conditions);
- Policies and programs (buy-outs/land acquisition, Community Rating System, elevation);
- Natural stream and wetland restoration or preservation;
- Structural (hardening, culvert upgrades and replacements, slope stabilization);
- Strategies to address other natural hazards that would cause, affect, or result from flooding events including:
  - Mine blow-outs
  - Earthquakes.
  - Storage of hazardous materials
  - Landslides/mud/debris flow/rock falls.
  - Prevention of wildfires that would result in denuded lands making flooding, mudslides or similar events more likely.
  - Preparations for severe weather events including tropical storms or other severe storms, including winter storms,
- Emergency Response; and,
- Community Outreach and Education (e.g., education for community leaders, outreach materials for the public), including strategies for creating and supporting knowledgeable, inclusive community leaders and networks

Once projects have been identified, they will be prioritized using various metrics. Different weights may be applied to metrics as appropriate. Prioritization metrics to be considered in the plan include:

- Risk reduction (e.g., losses avoided)
- Nature-based solution
- Equity-based
- Within priority area
- Within Census Tract 103/Vansant Opportunity Zone
- Cost-effectiveness (determined via planning level costs analysis and/or benefit-cost analysis)
- Political feasibility
- Time needed for implementation

- Other special consideration as necessary (e.g., historic or cultural)
- Co-benefits (e.g., water quality, habitat preservation or restoration, community amenities)

These projects will be presented to the planning team and the public via stakeholder workshops.

### Task 5: Draft the Plan

The County will draft an actionable flood resilience plan to meet the goals of the project. The resilience plan will include the elements DCR defines for a successful resilience plan:

- Be project-based with projects focused on flood control and resilience
- Incorporate nature-based infrastructure to the maximum extent possible
- Consider all parts of Buchanan County and its communities regardless of socioeconomics or race
- Coordinate with other local and inter-jurisdictional projects, plans, and activities
- Clearly articulate a timeline and/or phasing for implementation, and
- Be based on the best available science, incorporating climate change, changes in precipitation events, and current and/or revised flood maps.

The following sections are envisioned:

- Introduction
- Background and Goals
- Planning Process (including stakeholder engagement)
- Existing Conditions (demographics, capabilities, issue understanding)
- Capacity and Capability Needs Assessment
- Risk and Vulnerability Assessment
- Priority Area Identification
- Prioritized Flood Risk-Reduction Actions
- Plan Implementation and Maintenance

### Measuring Success

Performance Output	Measurement
An actionable plan	DCR-approved
Identified capability/capacity needs with strategies to remedy	Increase in staff, financial, and/or technical capacity to manage flood risk such as CFM on staff, risk communication program
Prioritized Projects	Wide range of project types (e.g., planning, policy, structure, NBS, etc.); Linkable to a funding source
Plan maintenance procedures	Procedures agreed upon by the project partners for regular meeting of the Planning Team, project status reviews, and plan updates.

A completed Scoring Criteria Sheet for this proposed project (using Appendix D for Capacity Building and Planning) is in the supporting documentation, Attachment 10.

## Budget Narrative

The estimated total cost to bring the project to completion is \$387,500.

Because of Buchanan County's household median income level, it meets the CFPF definition of a low-income community, and therefore this application requests 90% support from the Fund and offers a 10% match.

- The amount of grant assistance requested from the Fund is \$348,750.
- The amount of cash funds available and pledged as match is \$38,750. The source of these funds is First Earth|2030's operational funds, held at Virginia National Bank.

The budget table on the following page provides detailed additional information about the intended expenditures to implement this planning and capacity-building project.

The rate cards from First Earth|2030 and Stantec, the two third-party contractors, further illustrate the breakdown of expenditures.

Please see the cover letter to this application package as the required authorization to request funding from the Fund from Craig Horn, County Administrator, the chief executive of the local government.

Please also see Attachment 11 for a signed pledge agreement with First Earth|2030 as the contributing organization.

**BUCHANAN COUNTY FLOOD SCOPE**  
**Budget Summary**  
September 2, 2021  
**FINAL ESTIMATE**

TASK #	TASK / TASK NAME	PROJECT TOTAL	Direct Expenses			SUBTOTAL	MATCH	Buchanan County
			COUNTY	FIRST EARTH (FE)	STANTEC			Applicant
								REQUESTED CFPF FUNDS
<b>TASK 1: INITIATE THE PROJECT</b>								
	Task 1A: Orientation Meeting	\$15,000	\$0	\$9,000	\$6,000			
	Task 1B: Form the Planning Team	\$4,500	\$0	\$3,000	\$1,500			
					\$19,500	\$2,550		\$16,950
<b>TASK 2: DATA COLLECTION AND REVIEW</b>								
	Task 2A: Data Collection and Review							
	Plans, Projects, Policies, Activities	\$12,000	\$0	\$3,000	\$9,000			
	Financial, Human, Technical Assistance, Training Resources	\$9,000	\$0	\$3,000	\$6,000			
	Built and Living Infrastructure and System Data	\$6,000	\$0	\$0	\$6,000			
	Current and Future Flood Hazard Data	\$18,000	\$0	\$0	\$18,000			
					\$45,000	\$0		\$45,000
	Task 2B: Summarizing the Data							
	Existing Conditions Summary	\$13,500	\$0	\$1,500	\$12,000			
	Capability and Capacity Needs Assessment	\$9,000	\$0	\$3,000	\$6,000			
					\$22,500	\$0		\$22,500
<b>TASK 3: ENGAGE THE STAKEHOLDERS</b>								
	Planning Team Kickoff	\$16,500	\$0	\$7,500	\$9,000			
	Public Kickoff Meeting	\$18,000	\$0	\$9,000	\$9,000			
	Public Risk Assessment and Priority Area ID Workshop	\$11,500	\$0	\$2,500	\$9,000			
	Public Project Alternatives Review (Priority Area-Specific) Workshops	\$25,500	\$0	\$7,500	\$18,000			
	Public Prioritization (Priority-Area Specific)	\$23,500	\$0	\$5,500	\$18,000			
	Draft Plan Review	\$8,500	\$0	\$2,500	\$6,000			
					\$103,500	\$20,000		\$83,500
<b>TASK 4: ASSESS PROBLEMS AND RISK</b>								
	Task 4A: Identify Priority Areas	\$40,500	\$0	\$4,500	\$36,000			
	Task 4B: Identify Priority Projects	\$66,000	\$0	\$6,000	\$60,000			
					\$106,500	\$10,500		\$96,000
<b>TASK 5: DRAFT THE PLAN</b>								
		\$28,000	\$0	\$10,000	\$18,000			
					\$28,000	\$5,700		\$22,300
ADDITIONAL ITEMS								
<b>TASK 6: PROJECT MANAGEMENT</b>								
		\$60,000	\$0	\$50,000	\$10,000			
					\$60,000	\$0		\$60,000
<b>TASK 7: CFM TRAINING</b>								
		\$2,500	\$2,500	\$0	\$0			
					\$2,500	\$0		\$2,500
		<b>\$387,500</b>	<b>\$2,500</b>	<b>\$127,500</b>	<b>\$257,500</b>	<b>\$38,750</b>		<b>\$348,750</b>



FIRST EARTH | 2030  
3800 Grove Ave  
Richmond | Virginia  
[firstearth2030.com](http://firstearth2030.com)  
804.687.1869

**Hiring FE 2030:**

We provide unique and high-quality services for our clients. Our fees are based on transactional work or service fees. Rates are dependent on scope of work and opportunity.

**Scope of Work Considerations:**

- Length of contract
- Geographic focus
- Augmentation of project with grant writing/management and submission
- Federal, State, and Local obstacles/permitting
- Specialized resources, expertise, and/or use of intermediaries

**FE 2030 rates are determined by the type of client engagement:**

- *One-time fee* - fee based transactional work for the client
- *Monthly/Yearly retainer* - sources all investment opportunities in the time contracted, advises on projects, and provides continual service support
- *Specific project-based fee* - could involve property advice, grant writing, tax credit planning, property management, providing best use options
- *Percentage fee* – percentage of investment dependent on scope of work
- *Other* - fee specifically designed for client or project that may be based on blended and/or geographically diverse work and focus

**FE general consulting rates which may vary depending on the project:**

Program Manager	\$250.00/ hr
Senior Project Manager	\$200.00/ hr.
Project Manager	\$175.00/ hr.
GIS/ Data Analyst	\$120.00/ hr.
Grant Specialist	\$85.00/ hr.
Technician	\$75.00/ hr.
Travel Time	Quarter rate
Expenses	Bill at cost

# Solutions & Offerings

First Earth | 2030 has originated and transacted over \$100,000,000 of market activity for our clients by analyzing opportunities with experienced guidance and skilled management. Our goal has been to deliver financial value on important properties while simultaneously conserving, enhancing, and protecting the land's significant ecosystems.

First Earth | 2030 is a results-based environmental asset management firm delivering customized outcomes for public and private clients. Our team provides innovative conservation techniques and solutions that result in environmental and economic project lift.

---

FE delivers ecosystem service solutions that enhance and protect the value of open space lands, working farms, timberlands, shorelines and wetlands. We optimize our clients' eco-asset potentials of their land, water and air to generate:

- Strong risk adjusted returns
- Improved conservation values
- Increased real property values

Project costs managed by FE can often be reduced by delivering return mechanisms that include incentives such as federal and state tax deductions/ credits, carbon finance, mitigation finance, grants and project completion investment contracts.

## Land Asset Management Solution Sets

- Open space, mine land and timber land solutions
- Flood preparedness & living shoreline solutions
- Outdoor recreation as economic development solutions
- Renewable energy generation solutions

## Service Offerings

- Program Requirement Scoping Services
- Initial Project Design
- Project Management & Delivery
- Grant Writing
- Post Construction Monitoring & Stewardship Services

## BUCHANAN COUNTY & FIRST EARTH 2030

### Professional Staff

Labor Category	Hourly Rate	Labor Category	Hourly Rate
Senior Technical Advisor	\$300	Senior Technical Lead	\$220
Senior Principal	\$220	Senior Project Manager	\$240
Principal	\$185	Project Manager	\$175
Senior Process Engineer	\$190	Process Engineer	\$175
Engineer	Staff - \$155	Engineer-in-Training	\$150
	Mid-Level - \$195		
	Senior- \$240		
Environmental Planner	Staff - \$105	Environmental Specialist	Staff- \$105
	Mid-Level - \$155		Mid-Level - \$155
	Senior- \$185		Senior- \$185
Regulatory Specialist	Staff- \$105	Ecologist	Staff- \$105
	Mid-Level - \$155		Mid-Level - \$155
	Senior- \$185		Senior- \$185
Landscape Architect	Staff- \$105	GIS Coordinator	\$175
	Mid-Level - \$155		
	Senior- \$185		
CAD Designer	\$150	CAD/GIS Technician	\$125

### Technical and Administrative Staff

Labor Category	Hourly Rate	Labor Category	Hourly Rate
Environmental Technician	\$105	Engineering Technician	\$125
Project Administrator	\$110	Clerical	\$90

## Reimbursable Expenses

### Reproduction

Black & White Copies	\$0.06 each	Color Copies	\$1 each
In-House Plots	\$10 each	Other Reproduction	At Cost*
Mileage	\$0.545/mile (subject to change based on IRS standard)		
Travel and Expenses	At Cost		

\* There is a 15% handling fee added unless exception provided in written agreement.

### Field Equipment

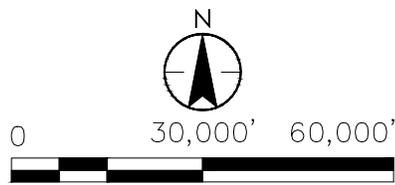
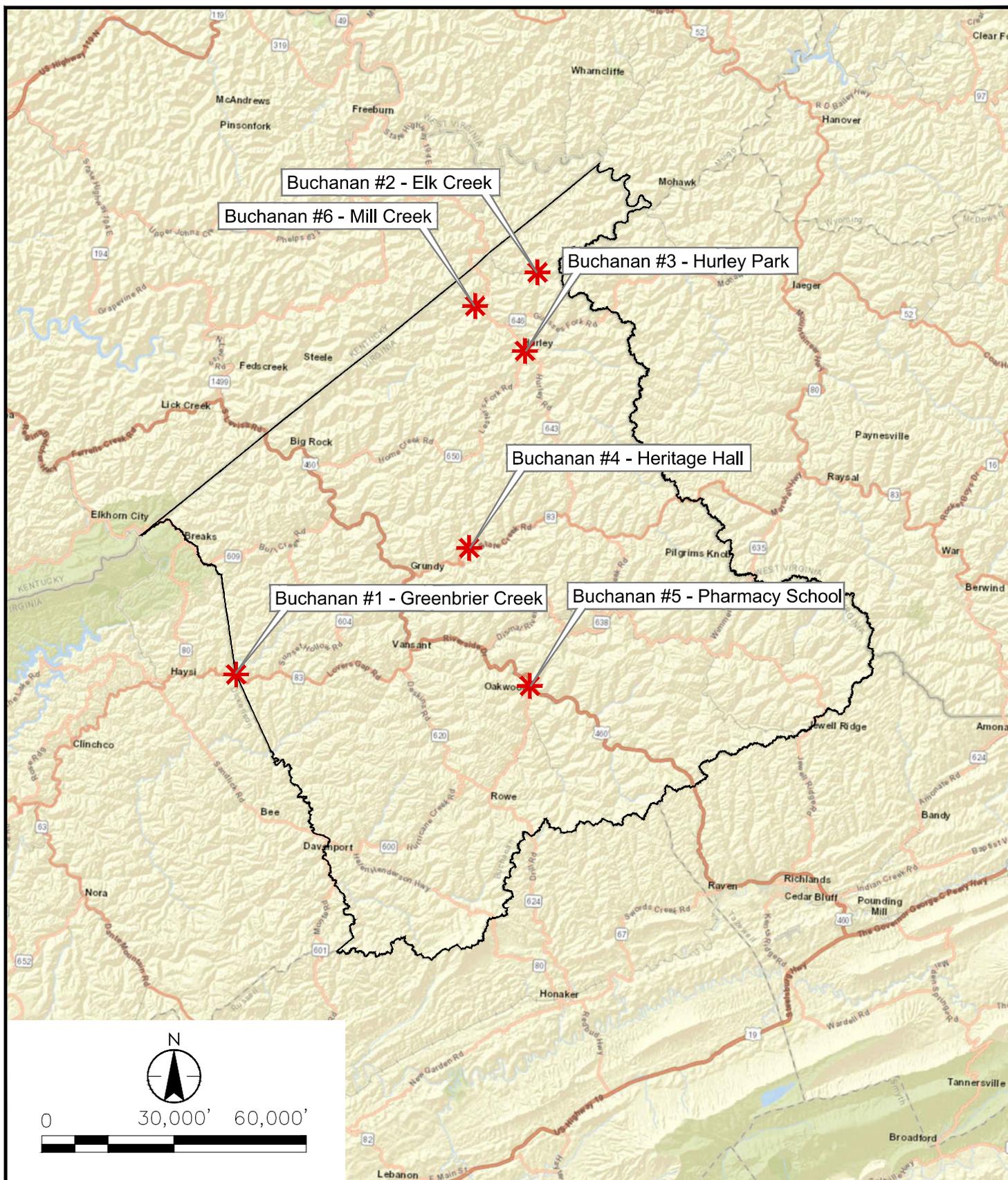
GPS Unit (sub-meter)	\$25/day	Data Collection Equipment	\$20/day
Laser Level	\$20/day	Laser Range Finder	\$20/day
Gator/ATV	\$75/day	ARGO	\$100/day
Boat	\$250/day	Canoe	\$20/day
High Pressure Spray Rig	\$25/day	Backpack Sprayer	\$10/day
Hatchet Injector	\$10/day	Brush Cutter/Chainsaw	\$20/day
Field Consumables	\$5/day	Water Quality/Flow Meter	\$15/day
Total Station	\$50/day	Polaris ATV	\$50/day

### Archeological Specific Rates

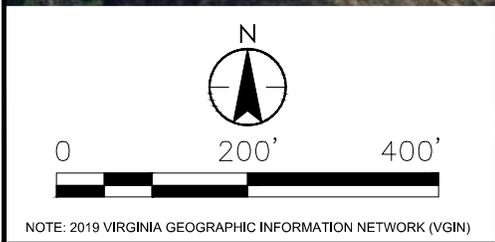
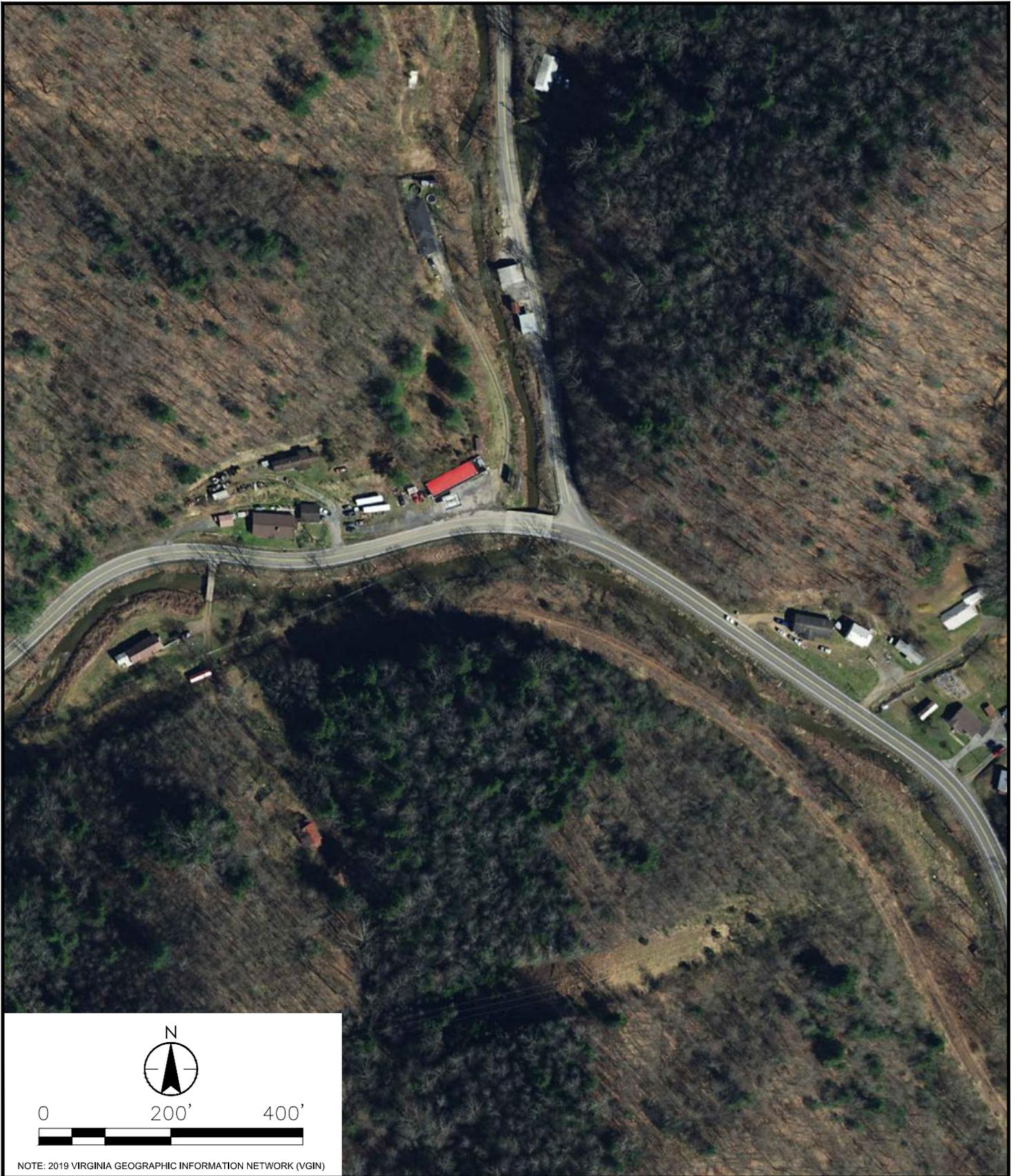
Field Supply Charge	\$25.50/week	Lab Fee	\$15.50/week
Balloon	\$36 each	DHR Archival Photos	\$1 each

### Other Direct Rates

Lab Fee	\$50/day	Lamination	\$3/sheet
Report Supplies	At Cost	Shipping	At Cost



 5209 Center Street Williamsburg, VA 23188 PHONE: (757) 220-6869 FAX: (757) 229-4507	FOR: FIRSEARTH 2030 BUCHANAN COUNTY, VIRGINIA		BUCHANAN COUNTY OVERALL		FIGURE: 1
	JOB NUMBER: 1996859974	DRAWN BY: RC	CHECKED BY: SS	APPROVED BY: TC	DATE: AUGUST 2021



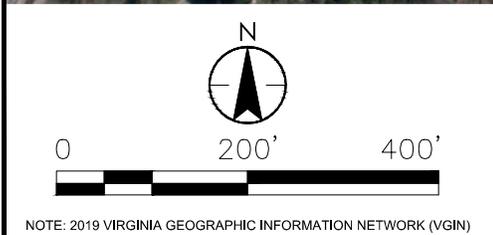
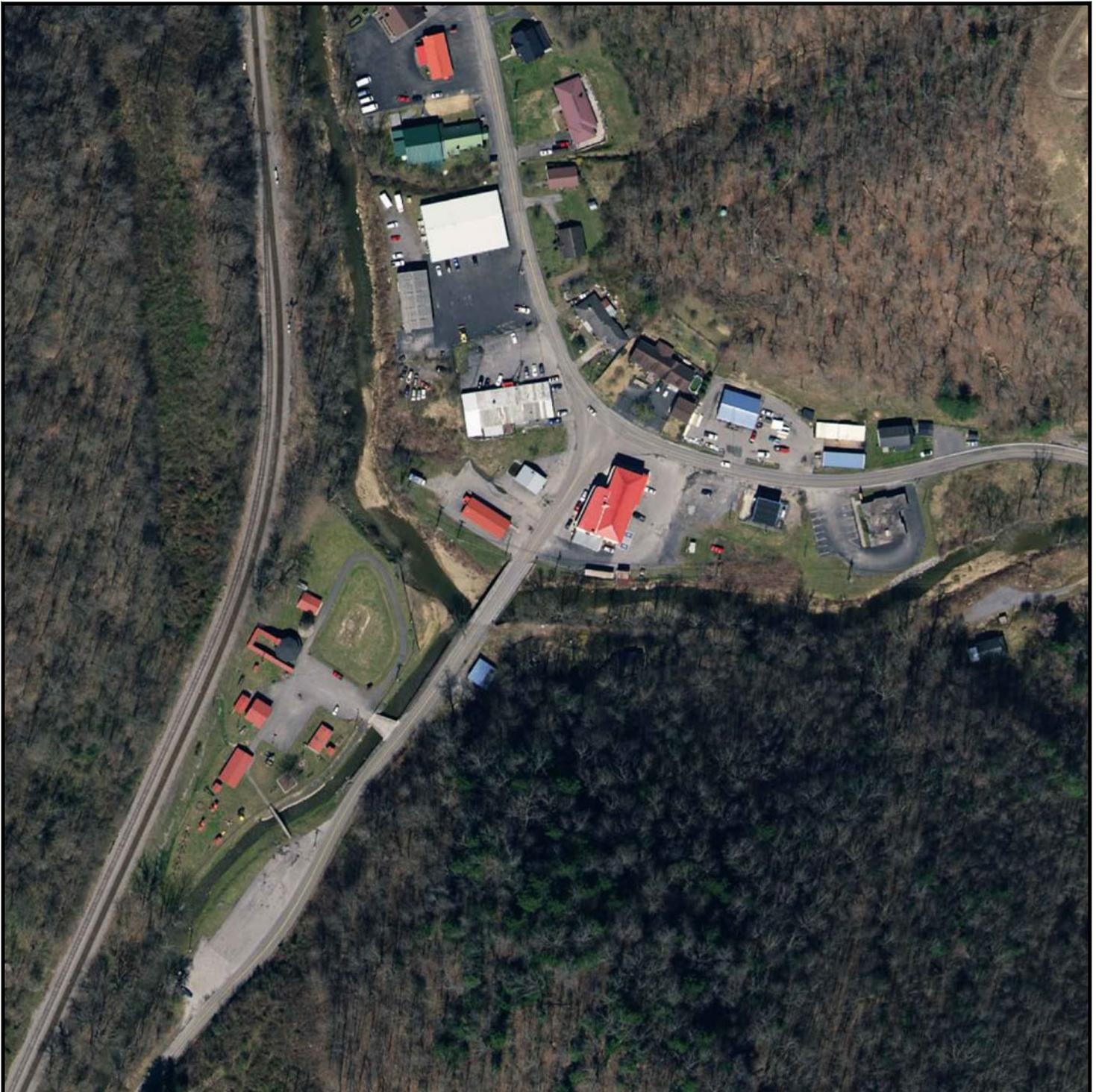
 5209 Center Street Williamsburg, VA 23188 PHONE: (757) 220-6869 FAX: (757) 229-4507	FOR: FIRSEARTH 2030 BUCHANAN COUNTY, VIRGINIA		BUCHANAN #1 - GREENBRIER CREEK		FIGURE: 2
	JOB NUMBER: 1996859974	DRAWN BY: RC	CHECKED BY: SS	APPROVED BY: TC	DATE: AUGUST 2021



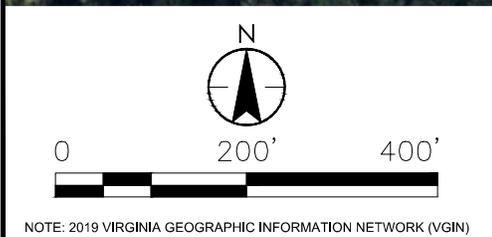
N  
  
 0      200'      400'  


NOTE: 2019 VIRGINIA GEOGRAPHIC INFORMATION NETWORK (VGIN)

 5209 Center Street Williamsburg, VA 23188 PHONE: (757) 220-6869    FAX: (757) 229-4507	FOR: FIRSEARTH 2030 BUCHANAN COUNTY, VIRGINIA		BUCHANAN #2 - ELK CREEK		FIGURE: <span style="font-size: 2em; font-weight: bold;">3</span>
	JOB NUMBER: 1996859974	DRAWN BY: RC	CHECKED BY: SS	APPROVED BY: TC	DATE: AUGUST 2021



 5209 Center Street Williamsburg, VA 23188 PHONE: (757) 220-6869 FAX: (757) 229-4507	FOR: FIRSEARTH 2030 BUCHANAN COUNTY, VIRGINIA		BUCHANAN #3 - HURLEY PARK		FIGURE: 4
	JOB NUMBER: 1996859974	DRAWN BY: RC	CHECKED BY: SS	APPROVED BY: TC	DATE: AUGUST 2021

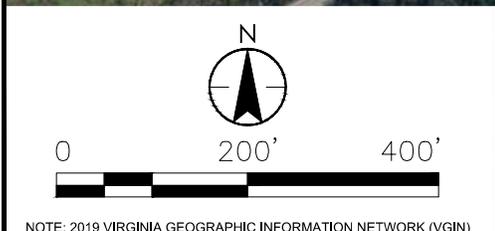


 5209 Center Street Williamsburg, VA 23188 PHONE: (757) 220-6869 FAX: (757) 229-4507	FOR: FIRSEARTH 2030 BUCHANAN COUNTY, VIRGINIA		BUCHANAN #4 - HERITAGE HALL		FIGURE: <b>5</b>
	JOB NUMBER: 1996859974	DRAWN BY: RC	CHECKED BY: SS	APPROVED BY: TC	DATE: AUGUST 2021



NOTE: 2019 VIRGINIA GEOGRAPHIC INFORMATION NETWORK (VGIN)

 5209 Center Street Williamsburg, VA 23188 PHONE: (757) 220-6869 FAX: (757) 229-4507	FOR: FIRSEARTH 2030 BUCHANAN COUNTY, VIRGINIA		BUCHANAN #5 - PHARMACY SCHOOL		FIGURE: 6
	JOB NUMBER: 1996859974	DRAWN BY: RC	CHECKED BY: SS	APPROVED BY: TC	DATE: AUGUST 2021



 5209 Center Street Williamsburg, VA 23188 PHONE: (757) 220-6869 FAX: (757) 229-4507	FOR: FIRSEARTH 2030 BUCHANAN COUNTY, VIRGINIA		BUCHANAN #6 - MILL CREEK		FIGURE: 7
	JOB NUMBER: 1996859974	DRAWN BY: RC	CHECKED BY: SS	APPROVED BY: TC	DATE: AUGUST 2021

# National Flood Hazard Layer FIRMMette



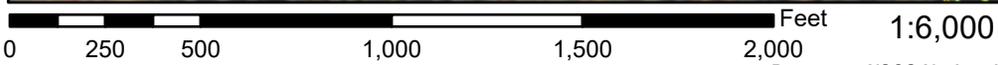
82°14'28"W 37°12'58"N



## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		8 Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
MAP PANELS		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

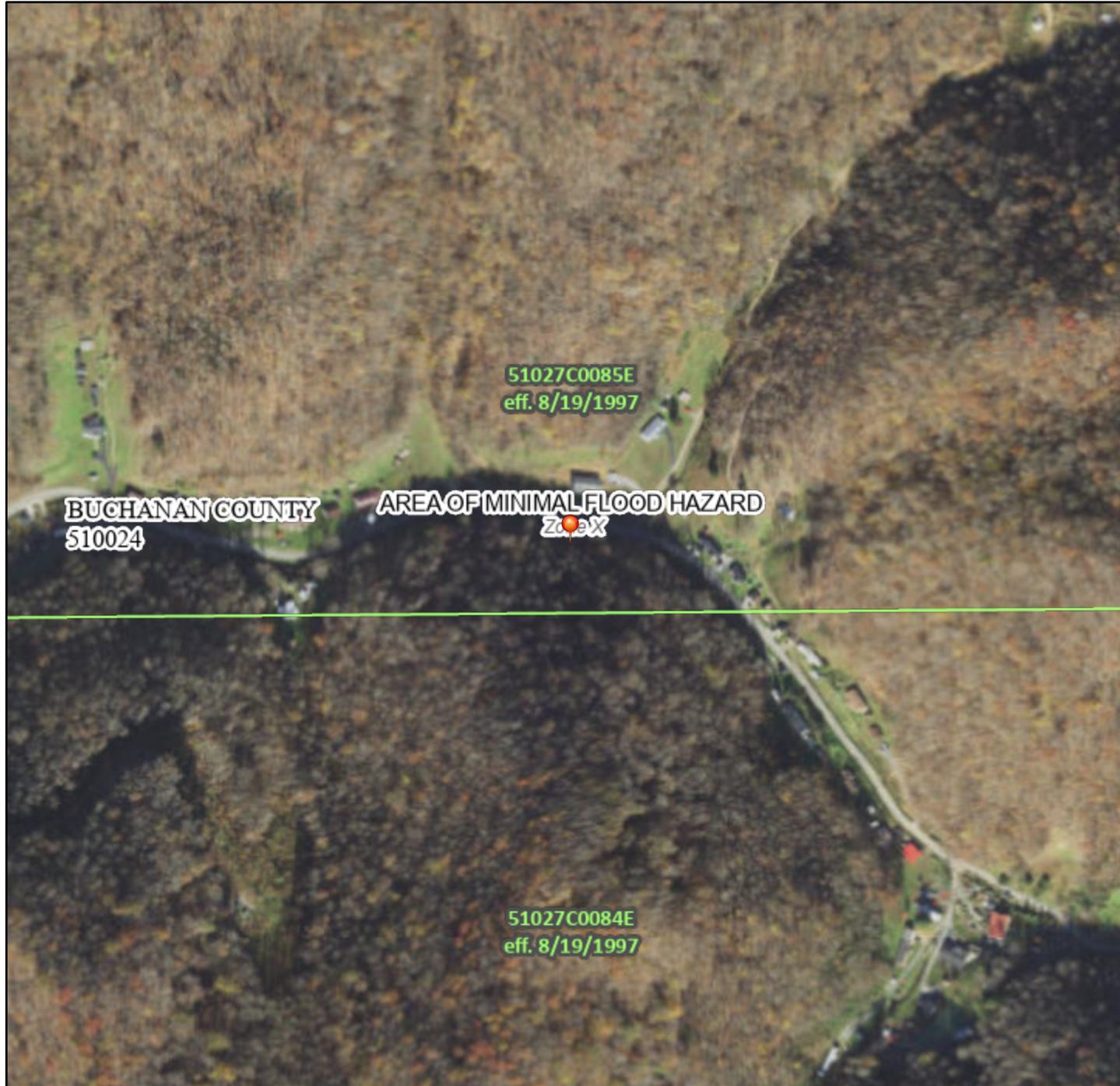
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/28/2021 at 12:44 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

# National Flood Hazard Layer FIRMMette



82°1'12"W 37°28'23"N



82°0'34"W 37°27'54"N

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

- |                                    |  |  |
|------------------------------------|--|--|
| <b>SPECIAL FLOOD HAZARD AREAS</b>  |  | Without Base Flood Elevation (BFE)<br><i>Zone A, V, A99</i>  |
|                                    |  | With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>   |
|                                    |  | Regulatory Floodway  |
| <b>OTHER AREAS OF FLOOD HAZARD</b> |  | 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i> |
|                                    |  | Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>  |
|                                    |  | Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>  |
|                                    |  | Area with Flood Risk due to Levee <i>Zone D</i>  |
| <b>OTHER AREAS</b>                 |  | NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>   |
|                                    |  | Effective LOMRs  |
| <b>GENERAL STRUCTURES</b>          |  | Area of Undetermined Flood Hazard <i>Zone D</i>  |
|                                    |  | Channel, Culvert, or Storm Sewer   |
|                                    |  | Levee, Dike, or Floodwall  |
| <b>OTHER FEATURES</b>              |  | Cross Sections with 1% Annual Chance Water Surface Elevation   |
|                                    |  | Coastal Transect   |
|                                    |  | Base Flood Elevation Line (BFE)  |
|                                    |  | Limit of Study   |
|                                    |  | Jurisdiction Boundary  |
| <b>MAP PANELS</b>                  |  | Coastal Transect Baseline  |
|                                    |  | Profile Baseline   |
|                                    |  | Hydrographic Feature   |
|                                    |  | Digital Data Available   |
|                                    |  | No Digital Data Available  |
|                                    |  | Unmapped   |
- The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **8/28/2021 at 12:56 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

# National Flood Hazard Layer FIRMette



82°1'34"W 37°25'26"N



## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



0 250 500 1,000 1,500 2,000 Feet 1:6,000

82°0'56"W 37°24'58"N

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/28/2021 at 12:59 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

# National Flood Hazard Layer FIRMMette



82°3'48"W 37°17'59"N



## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance
		17.5 Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



82°3'10"W 37°17'30"N

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

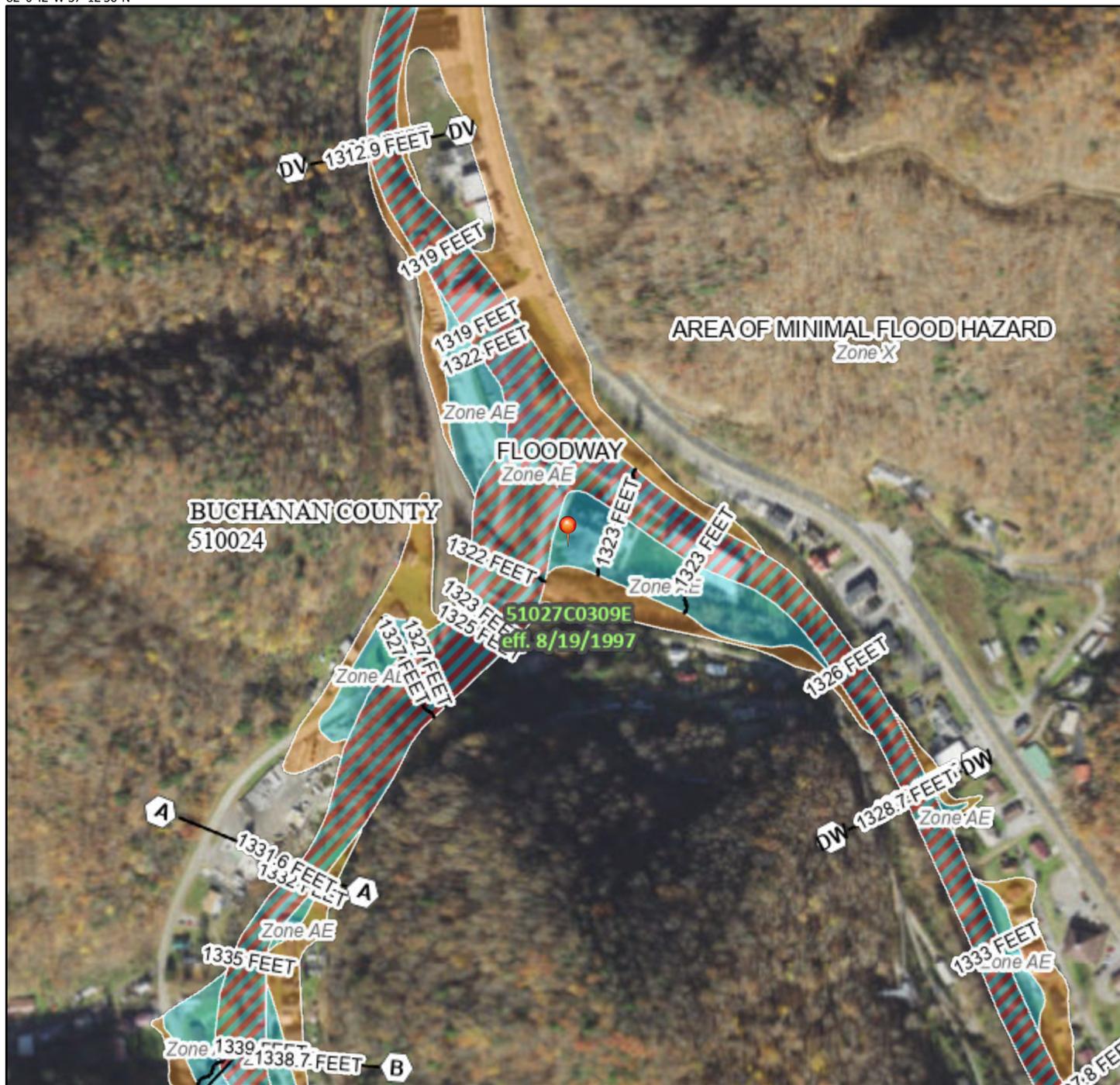
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/28/2021 at 1:02 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

# National Flood Hazard Layer FIRMette



82°0'42"W 37°12'56"N



## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard <i>Zone D</i>
		Channel, Culvert, or Storm Sewer
OTHER FEATURES		Levee, Dike, or Floodwall
		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
MAP PANELS		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



82°0'4"W 37°12'27"N

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/28/2021 at 1:05 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

# National Flood Hazard Layer FIRMMette



82°3'53"W 37°27'6"N



## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

<b>SPECIAL FLOOD HAZARD AREAS</b>	Without Base Flood Elevation (BFE) Zone A, V, A99
	With BFE or Depth Zone AE, AO, AH, VE, AR
	Regulatory Floodway
<b>OTHER AREAS OF FLOOD HAZARD</b>	0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
	Future Conditions 1% Annual Chance Flood Hazard Zone X
	Area with Reduced Flood Risk due to Levee. See Notes. Zone X
	Area with Flood Risk due to Levee Zone D
<b>OTHER AREAS</b>	NO SCREEN Area of Minimal Flood Hazard Zone X
	Effective LOMRs
<b>GENERAL STRUCTURES</b>	Area of Undetermined Flood Hazard Zone D
	Channel, Culvert, or Storm Sewer
	Levee, Dike, or Floodwall
<b>OTHER FEATURES</b>	Cross Sections with 1% Annual Chance Water Surface Elevation 20.2
	Cross Sections with 1% Annual Chance Water Surface Elevation 17.5
	Coastal Transect
	Base Flood Elevation Line (BFE)
	Limit of Study
	Jurisdiction Boundary
	Coastal Transect Baseline
	Profile Baseline
	Hydrographic Feature
<b>MAP PANELS</b>	Digital Data Available
	No Digital Data Available
	Unmapped
	The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 8/28/2021 at 12:57 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

0 250 500 1,000 1,500 2,000 Feet 1:6,000

82°3'15"W 37°26'37"N

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

[https://www.bdonline.com/news/20-houses-destroyed-by-flooding-in-buchanan-county-one-person-still-missing/article\\_abb8dace-0a9f-11ec-8135-9b06ad21213e.html](https://www.bdonline.com/news/20-houses-destroyed-by-flooding-in-buchanan-county-one-person-still-missing/article_abb8dace-0a9f-11ec-8135-9b06ad21213e.html)

FEATURED

## 20 houses destroyed by flooding in Buchanan County, one person still missing

By CHARLES BOOTHE Bluefield Daily Telegraph

Aug 31, 2021



Contributed photograph ...

Buchanan County has declared of state of emergency due to extensive flood damage sustained in the Hurley community, and the threat of more torrential rainfall from the approaching Tropical Depression Ida.



HURLEY, Va. — Rescue workers in Hurley, Va. have wrapped up the task of evacuating residents from Monday's flash flood that destroyed 20 homes, washed out roads and left remaining residents without power.

Chief Deputy Eric Breeding with the Buchanan County Sheriff's Department said that everyone but one person had been accounted for in the impacted area in the Guesses Fork community, with between 45 and 50 residents rescued and taken to a shelter.

"There have been no confirmed fatalities," he said.

Floodwaters poured through the area from a storm that hit at about 9 a.m. Monday morning, he said, as a separate weather system had moved into the area bringing into the region pockets of heavy downpours.

Breeding said when first-responders arrived on the scene the devastation prompted calls to the Virginia State Police, fire and rescue departments and the state Office of Emergency Management.

"Twenty homes are no longer on their foundations," he said. "It's' just mud where the houses used to be."

Breeding said six swift water rescue teams came from across the state and worked all day Monday until darkness forced them to quit, transporting residents who wanted to leave and offering the service to others.

"They resumed operations at 7 a.m. today," he said, working until noon, when rains from Ida started falling heavy enough to possibly pose more danger.

"We have met a goal of going to every house in the Guesses Fork area to give anyone an opportunity to evacuate," he said, adding the community has 364 addresses.

The shelter is at Grundy Baptist Church, he said.

Students from the community who had gone to school Monday at Hurley high and elementary schools had to be transported to Riverview Elementary School in Grundy and all were placed with their families Monday evening.

The state has sent a team from the Office of Emergency Management to assess the damage as cleanup efforts begin.

Breeding said a swift water crew has remained in the area in case they are needed with the rain expected from Ida.

The county has declared of state of emergency due to extensive flood damage sustained in the Hurley community, and the threat of more torrential rainfall from the approaching Tropical Depression Ida.

— Contact Charles Boothe at [REDACTED].

## **TRENDING VIDEO**

[Charles Boothe](#)



COMMONWEALTH OF VIRGINIA  
HOUSE OF DELEGATES  
RICHMOND

**JAMES W. (WILL) MOREFIELD**  
POST OFFICE BOX 828  
NORTH TAZEWELL, VIRGINIA 24630

THIRD DISTRICT

COMMITTEE ASSIGNMENTS:

APPROPRIATIONS  
GENERAL LAWS  
COUNTIES, CITIES, AND TOWNS

August 30, 2021

Wendy Howard-Cooper  
Director for Dam Safety and Floodplain Management  
Department of Recreation and Conservation  
600 East Main Street, 24 th Floor  
Richmond VA 23219

Re: CFPF application from Buchanan County

Dear Ms. Howard-Cooper and Members of the Review Team:

I write to you in enthusiastic support of the application from Buchanan County for a grant in the Capacity Building and Planning category of the Community Flood Preparedness Fund.

I helped connect the County government with the consultants assisting them in this application in hopes of bringing some resources to bear on the recurrent flooding in my district. As we have seen ever more often in recent years, Southwest Virginia's coalfields, abandoned mines, historic towns, and critical roadways are at risk from riverine flooding. Flood damage in my district often falls just under the dollar threshold for assistance. The Community Flood Preparedness Fund offers a great opportunity to repair this imbalance.

By creating a resilience plan with grant support in the coming months, then seeking future grant support to implement the plan, Buchanan County will be able to prevent flooding and stabilize its losses. As one of the lowest-income counties in the state, it will then be able to use its revenues for more beneficial enterprises and prove itself a pilot project for flood resilience in the region. By allocating some of the CFPF's first round to Buchanan County, DCR will prove that this is a funding source that can benefit every area of our Commonwealth.

Thank you for your consideration!

Sincerely,

A handwritten signature in black ink, appearing to read "Will", written over a white background.

## Chapter 34

### FLOOD DAMAGE PREVENTION

- |   |   |
|---|---|
| <p>§ 34-1. Purpose.</p> <p>§ 34-2. Applicability.</p> <p>§ 34-3. Compliance and liability.</p> <p>§ 34-4. Abrogation and greater restrictions.</p> <p>§ 34-5. Definitions.</p> <p>§ 34-6. Description of districts.</p> <p>§ 34-7. Official floodplain map.</p> <p>§ 34-8. District boundary changes.</p> | <p>§ 34-9. Interpretation of district boundaries.</p> <p>§ 34-10. General standards.</p> <p>§ 34-11. Encroachments in Floodway District.</p> <p>§ 34-12. Permitted uses in Floodway District.</p> <p>§ 34-13. Flood-Fringe and Approximated Floodplain Districts.</p> <p>§ 34-14. Variances.</p> <p>§ 34-15. Existing structures.</p> |
|---|---|

[HISTORY: Adopted by the Board of Supervisors of Buchanan County 3-3-1997. Amendments noted where applicable.]

#### GENERAL REFERENCES

[In regard to statutory references, unless the county specifically amends the statutory provisions to the contrary or repeals the statutory provisions, future amendments to said statute shall take effect as provided by law.]

Land use — See Ch. 51.

---

#### § 34-1. Purpose.

The purpose of these provisions is to prevent the loss of life and property, the creation of health and safety hazards, the disruption of commerce and governmental services, the extraordinary and unnecessary expenditure of public funds for flood protection and relief and the impairment of the tax base by:

- A. Regulating uses, activities and development which, alone or in combination with other existing or future uses, activities and development, will cause unacceptable increases in flood heights, velocities and frequencies.
- B. Restricting or prohibiting certain uses, activities and development from locating within districts subject to flooding.
- C. Requiring all those uses, activities and developments that do occur in floodprone districts to be protected and/or floodproofed against flooding and flood damage.
- D. Protecting individuals from buying land and structures, which are unsuited for intended purposes because of flood hazards.

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## BUCHANAN COUNTY CODE

§ 34-5

**§ 34-2. Applicability.**

These provisions shall apply to all lands within the jurisdiction of Buchanan County and identified as being in the one-hundred-year floodplain by the Federal Insurance Administration.

**§ 34-3. Compliance and liability.**

- A. No land shall hereafter be developed and no structure shall be located, relocated, constructed, reconstructed, enlarged or structurally altered except in full compliance with the terms and provisions of this chapter and any other applicable ordinances and regulations which apply to uses within the jurisdiction of this chapter.
- B. The degree of flood protection sought by the provisions of this chapter is considered reasonable for regulatory purposes and is based on acceptable engineering methods of study. Larger floods may occur on rare occasions. Flood heights may be increased by man-made or natural causes, such as ice jams and bridge openings restricted by debris. This chapter does not imply that districts outside the floodplain district or that land uses permitted within such districts will be free from flooding or flood damages.
- C. This chapter shall not create liability on the part of Buchanan County or any officer or employee thereof for any flood damages that result from reliance on this chapter or any administrative decision lawfully made thereunder.

**§ 34-4. Abrogation and greater restrictions.**

This chapter supersedes any ordinance currently in effect in flood-prone districts. However, any underlying ordinance shall remain in full force and effect to the extent that its provisions are more restrictive than this chapter.

**§ 34-5. Definitions.**

As used in this chapter, the following terms shall have the meanings indicated:

**BASE FLOOD/ONE-HUNDRED-YEAR FLOOD** — A flood that, on the average, is likely to occur once every 100 years (i.e., that has a one-percent chance of occurring each year, although the flood may occur in any year).

**BASE FLOOD ELEVATION (BFE)** — The Federal Emergency Management Agency designated one-hundred-year water surface elevation.

**BASEMENT** — Any area of the building having its floor subgrade (below ground level) on all sides.

**DEVELOPMENT** — Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.

**FLOODPLAIN** — Any land area susceptible to being inundated by water from any source.

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## FLOOD DAMAGE PREVENTION

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**FLOODWAY** — The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.

**FREEBOARD** — A factor of safety usually expressed in feet above a flood level for purposes of floodplain management.

**LOWEST FLOOR** — The lowest floor of the lowest enclosed area (including basement).

**PLANNING COMMISSION** — The board appointed to review appeals made by individuals with regard to decisions of the County Administrator in the interpretation of this chapter.

**RECREATIONAL VEHICLE** — A vehicle which is:

- A. Built on a single chassis;
- B. Four hundred square feet or less when measured at the largest horizontal projection;
- C. Designed to be self-propelled or permanently towable by a light-duty truck; and
- D. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational camping, travel or seasonal use.

**SUBSTANTIAL DAMAGE** — Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50% of the market value of the structure before the damage occurred.

**SUBSTANTIAL IMPROVEMENT** — Any reconstruction, rehabilitation, addition or other improvement of a structure, the cost of which equals or exceeds 50% of the market value of the structure before the start of construction of the improvement. This term includes structures which have incurred substantial damage regardless of the actual repair work performed. The term does not, however, include either any project for improvement of a structure to correct existing violations of state or local health, sanitary or safety code specifications which have been identified by the local code enforcement official and which is the minimum necessary to assure safe living conditions or any alteration of a historic structure, provided that the alteration will not preclude the structures continued designation as a historic structure.

#### § 34-6. Description of districts.

Basis of districts. The various floodplain districts shall include areas subject to inundation by waters of the one-hundred-year flood. The basis for the delineation of these districts shall be the Flood Insurance Study (FIS) for Buchanan County prepared by the Federal Emergency Management Agency, Federal Insurance Administration, dated August 15, 1996, as amended.

- A. The Floodway District is delineated, for purposes of this chapter, using the criterion that certain areas within the floodplain must be capable of carrying the waters of the one-hundred-year flood without increasing the water surface elevation of that flood more than one foot at any point. The areas included in this district are specifically defined in Table 2 of the above-referenced Flood Insurance Study and shown on the accompanying Flood Boundary and Floodway Map or Flood Insurance Rate Map.

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## BUCHANAN COUNTY CODE

§ 34-9

- B. The Flood-Fringe District shall be that area of the one-hundred-year floodplain not included in the Floodway District. The basis for the outermost boundary of the district shall be the one-hundred-year flood elevations contained in the flood profiles of the above-referenced Flood Insurance Study and as shown on the accompanying Flood Boundary and Floodway Map or Flood Insurance Rate Map.
- C. The Approximated Floodplain District shall be that floodplain area for which no detailed flood profiles or elevations are provided, but where a one-hundred-year floodplain boundary has been approximated. Such areas are shown as Zone A on the maps accompanying the Flood Insurance Study. For these areas, the one-hundred-year flood elevations and floodway information from federal, state and other acceptable sources shall be used, when available. Where the specific one-hundred-year flood elevation cannot be determined for this area using other sources of data, such as the United States Army Corps of Engineers Floodplain Information Reports, United States Geological Survey Flood-Prone Quadrangles, etc., then the applicant for the proposed use, development and/or activity shall determine this elevation in accordance with hydrologic and hydraulic engineering techniques. Hydrologic and hydraulic analyses shall be undertaken only by professional engineers or others of demonstrated qualifications, who shall certify that the technical methods used correctly reflect currently accepted technical concepts. Studies, analyses, computations, etc., shall be submitted in sufficient detail to allow a thorough review by the Buchanan County.

**§ 34-7. Official floodplain map.**

The boundaries of the Floodplain Districts are established as shown on the Flood Boundary and Floodway Map and/or Flood Insurance Rate Map, which is declared to be a part of this chapter and which shall be kept on file at the Buchanan County offices.

**§ 34-8. District boundary changes.**

The delineation of any of the floodplain districts may be revised by the Board of Supervisors where natural or man-made changes have occurred and/or where more detailed studies have been conducted or undertaken by the United States Army Corps of Engineers or other qualified agency or an individual documents the need for such change. However, prior to any such change, approval must be obtained from the Federal Insurance Administration.

**§ 34-9. Interpretation of district boundaries.**

Initial interpretations of the boundaries of the floodplain districts shall be made by the County Administrator. Should a dispute arise concerning the boundaries of any of the districts, the Planning Commission shall make the necessary determination. The person questioning or contesting the location of the district boundary shall be given a reasonable opportunity to present his case to the Board and to submit his own technical evidence if he so desires.

**§ 34-10. General standards.**

- A. Permit requirement. All uses, activities and development occurring within any floodplain district shall be undertaken only upon the issuance of a building permit. Such development shall be undertaken only in strict compliance with the provisions of this chapter and with all other applicable codes and ordinances, such as the Virginia Uniform Statewide Building Code and the Buchanan County Subdivision Regulations.<sup>1</sup> Prior to the issuance of any such permit, the County Administrator shall require all applications to include compliance with all applicable state and federal laws. Under no circumstances shall any use, activity and/or development adversely affect the capacity of the channels or floodway of any watercourse, drainage ditch or any other drainage facility or system.
- B. Alteration or relocation of watercourse. Prior to any proposed alteration or relocation of any channels or of any watercourse, stream, etc., within this jurisdiction, a permit shall be obtained from the United States Corps of Engineers, the Virginia Department of Environmental Quality and the Virginia Marine Resources Commission (a joint permit application is available from any of these organizations). Furthermore, notification of the proposal shall be given by the applicant to all affected adjacent jurisdictions, the Department of Conservation and Recreation (Division of Soil and Water Conservation) and the Federal Insurance Administration.
- C. Drainage facilities. Storm drainage facilities shall be designed to convey the flow of stormwater runoff in a safe and efficient manner. The system shall ensure proper drainage along streets and provide positive drainage away from buildings. The system shall also be designed to prevent the discharge of excess runoff onto adjacent properties.
- D. Site plans and permit applications. All applications for development in the floodplain district and all building permits issued for the floodplain shall incorporate the following information:
- (1) For structures to be elevated, the elevation of the lowest floor (including basement).
  - (2) For structures to be floodproofed (nonresidential only), the elevation to which the structure will be floodproofed.
  - (3) The elevation of the one-hundred-year flood.
  - (4) Topographic information showing existing and proposed ground elevations.
- E. Recreational vehicles.
- (1) Recreational vehicles placed on sites shall either:
    - (a) Be on the site for fewer than 180 consecutive days, be fully licensed and ready for highway use; or
    - (b) Meet the permit requirements for placement and the elevation and anchoring requirements for manufactured homes as contained in the Uniform Statewide Building Code.

<sup>1</sup> Editor's Note: See Ch. 25, Building Construction; and Ch. 51, Land Use, Art. I, Subdivision of Land.

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## BUCHANAN COUNTY CODE

§ 34-13

- (2) A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick-disconnect-type utilities and security devices and has no permanently attached additions.

**§ 34-11. Encroachments in Floodway District.**

In the Floodway District, no encroachments, including fill, new construction, substantial improvements or other development, shall be permitted unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in the one-hundred-year flood elevation.

**§ 34-12. Permitted uses in Floodway District.**

The following uses and activities are permitted, provided that they are in compliance with the provisions of the underlying area and are not prohibited by any other ordinance, and provided that they do not require structures, fill or storage of materials and equipment:

- A. Agricultural uses, such as general farming, pasture, grazing, outdoor plant nurseries, horticulture, truck farming, forestry, sod farming and wild crop harvesting.
- B. Public and private recreational uses and activities, such as parks, day camps, picnic grounds, golf courses, boat launching and swimming areas, horseback riding and hiking trails, wildlife and nature preserves, game farms, fish hatcheries, trap and skeet game ranges and hunting and fishing areas.
- C. Accessory residential uses, such as yard areas, gardens, play areas and pervious loading areas.
- D. Accessory industrial and commercial uses, such as yard areas, pervious parking and loading areas, airport landing strips, etc.

**§ 34-13. Flood-Fringe and Approximated Floodplain Districts.**

- A. In the Flood-Fringe and Approximated Floodplain Districts, the development and/or use of land shall be permitted in accordance with the regulations of the underlying area, provided that all such uses, activities and/or development shall be undertaken in strict compliance with the floodproofing and related provisions contained in the Virginia Uniform Statewide Building Code and all other applicable codes and ordinances.
- B. Within the Approximated Floodplain District, all new subdivision proposals and other purposed developments (including proposals for manufactured home parks and subdivisions) greater than 50 lots or five acres, whichever is the lesser, shall include within such proposals base flood elevation data. The applicant shall also delineate a floodway area based on the requirement that all existing and future development not increase the one-hundred-year flood elevation more than one foot at any one point. The engineering principle equal reduction of conveyance shall be used to make the determination of increased flood heights.

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## FLOOD DAMAGE PREVENTION

§ 34-14

- C. Within the floodway area delineated by the applicant, the provisions of § 34-11 shall apply.

**§ 34-14. Variances.**

- A. In passing upon applications for variances, the Buchanan County Planning Commission shall satisfy all relevant factors and procedures specified in other sections of Buchanan County's land use ordinances and consider the following additional factors:
- (1) The danger to life and property due to increased flood heights or velocities caused by encroachments. No variance shall be granted for any proposed use, development or activity within any Floodway District that will cause any increase in the one-hundred-year flood elevation.
  - (2) The danger that materials may be swept onto other lands or downstream to the injury of others.
  - (3) The proposed water supply and sanitation systems and the ability of these systems to prevent disease, contamination and unsanitary conditions.
  - (4) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owners.
  - (5) The importance of the services provided by the proposed facility to the community.
  - (6) The requirements of the facility for a waterfront location.
  - (7) The availability of alternative locations not subject to flooding for the proposed use.
  - (8) The compatibility of the proposed use with existing development and development anticipated in the foreseeable future.
  - (9) The relationship of the proposed use to the Comprehensive Plan and floodplain management program for the area.
  - (10) The safety of access by ordinary and emergency vehicles to the property in time of flood.
  - (11) The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters expected at the site.
  - (12) The repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.
  - (13) Such other factors which are relevant to the purposes of this chapter.
- B. The Planning Commission may refer any application and accompanying documentation pertaining to any request for a variance to any engineer or other qualified person or agency for technical assistance in evaluating the proposed project in relation to flood heights and velocities, and the adequacy of the plans for flood protection and other related matters.
- C. Variances shall be issued only after the Planning Commission has determined that the granting of such will not result in unacceptable or prohibited increases in flood heights,

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## BUCHANAN COUNTY CODE

§ 34-15

additional threats to public safety or extraordinary public expense and will not create nuisances, cause fraud or victimization of the public or conflict with local laws or ordinances.

- D. Variances shall be issued only after the Planning Commission has determined that variance will be the minimum required to provide relief from any hardship to the applicant.
- E. The Planning Commission shall notify the applicant for a variance, in writing, that the issuance of a variance to construct a structure below the one-hundred-year flood elevation increases the risks to life and property and will result in increased premium rates for flood insurance.
- F. A record shall be maintained of the above notification as well as all variance actions, including justification for the issuance of the variances. Any variances which are issued shall be noted in the annual or the biennial report submitted to the Federal Insurance Administrator.

**§ 34-15. Existing structures.**

A structure or use of a structure or premises which lawfully existed before the enactment of these provisions, but which is not in conformity with these provisions, may be continued subject to the following conditions:

- A. Existing structures in the Floodway District shall not be expanded or enlarged unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed expansion would not result in any increase in the one-hundred-year flood elevation.
- B. Any modifications, alteration, repair, reconstruction or improvement of any kind to a structure and/or use located in any floodplain area to an extent or amount of less than 50% of its market value, elevation and/or floodproofing should be considered to the greatest extent possible.
- C. The modification, alteration, repair, reconstruction or improvement of any kind to a structure and/or use, regardless of its locations in a floodplain area, to an extent or amount of 50% or more of its market value shall be undertaken only in full compliance with the provisions of this chapter and the Virginia Uniform Statewide Building Code.

**QuickFacts**

**Buchanan County, Virginia; Virginia**

QuickFacts provides statistics for all states and counties, and for cities and towns with a *population of 5,000 or more*.

**Table**

Income & Poverty	Buchanan County, Virginia	Virginia
<b>Population estimates, July 1, 2019, (V2019)</b>	<b>21,004</b>	<b>8,535,519</b>
<b>PEOPLE</b>		
<b>Income &amp; Poverty</b>		
Median household income (in 2019 dollars), 2015-2019	\$31,956	\$74,222
Per capita income in past 12 months (in 2019 dollars), 2015-2019	\$19,496	\$39,278
Persons in poverty, percent	▲ 21.7%	▲ 9.9%

About datasets used in this table

#### Value Notes

 Estimates are not comparable to other geographic levels due to methodology differences that may exist between different data sources.

Some estimates presented here come from sample data, and thus have sampling errors that may render some apparent differences between geographies statistically indistinguishable. Click the Quick Info  icon to the row in TABLE view to learn about sampling error.

The vintage year (e.g., V2019) refers to the final year of the series (2010 thru 2019). *Different vintage years of estimates are not comparable.*

#### Fact Notes

- (a) Includes persons reporting only one race
- (b) Hispanics may be of any race, so also are included in applicable race categories
- (c) Economic Census - Puerto Rico data are not comparable to U.S. Economic Census data

#### Value Flags

- D** Suppressed to avoid disclosure of confidential information
- F** Fewer than 25 firms
- FN** Footnote on this item in place of data
- NA** Not available
- S** Suppressed; does not meet publication standards
- X** Not applicable
- Z** Value greater than zero but less than half unit of measure shown
- Either no or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest or upper in open ended distribution.
- N** Data for this geographic area cannot be displayed because the number of sample cases is too small.

QuickFacts data are derived from: Population Estimates, American Community Survey, Census of Population and Housing, Current Population Survey, Small Area Health Insurance Estimates, Small Area Income and F Estimates, State and County Housing Unit Estimates, County Business Patterns, Nonemployer Statistics, Economic Census, Survey of Business Owners, Building Permits.

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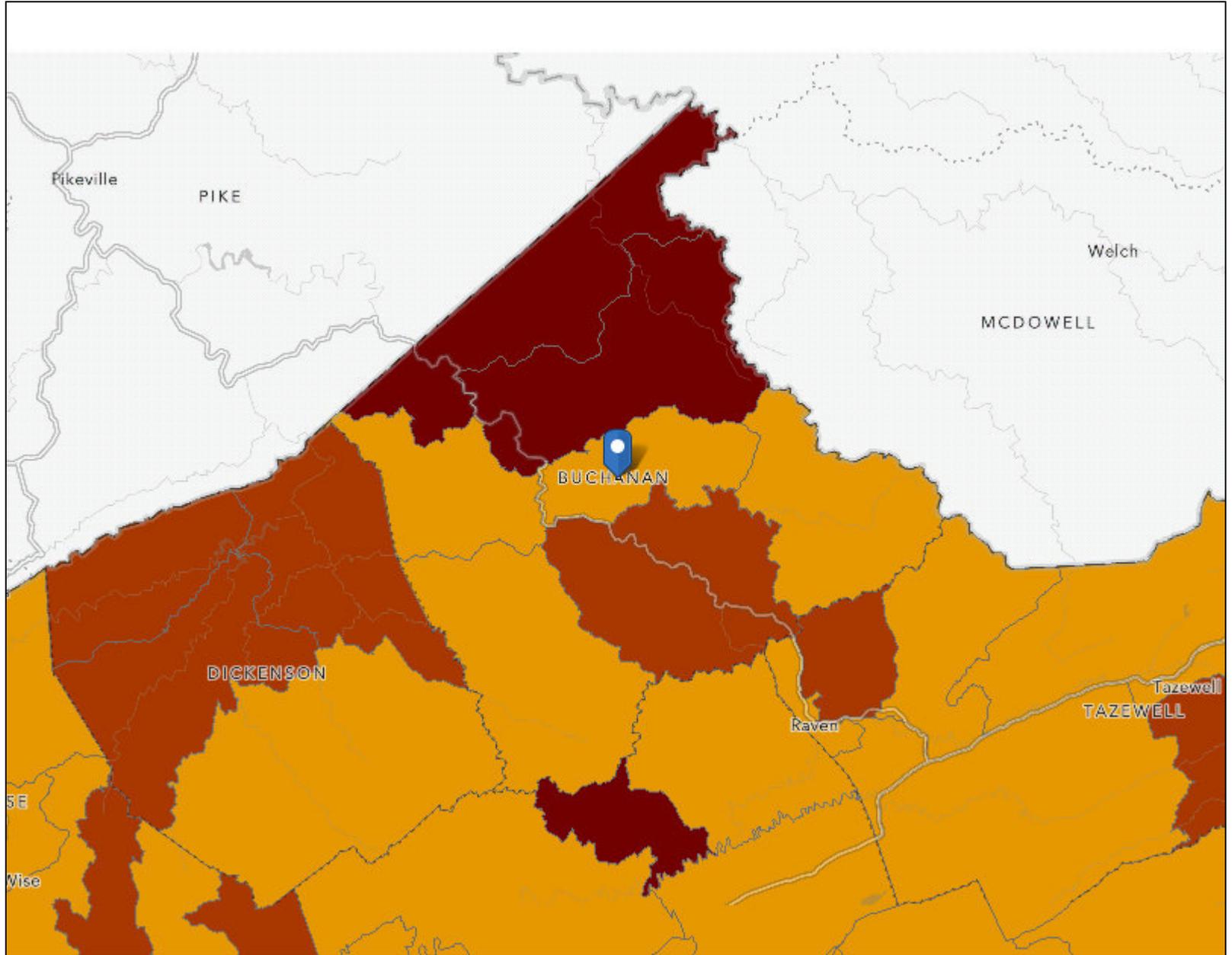
#### CONNECT WITH US

[Accessibility](#) | [Information Quality](#) | [FOIA](#) | [Data Protection and Privacy Policy](#) | [U.S. Department of Commerce](#)

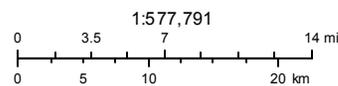
# Buchanan County Social Vulnerability Index

## Social Vulnerability Index Score

-  Very Low Social Vulnerability
-  Low Social Vulnerability
-  Moderate Social Vulnerability
-  High Social Vulnerability
-  Very High Social Vulnerability
-  Not included in the analysis



August 30, 2021



Created from the Virginia Vulnerability Viewer





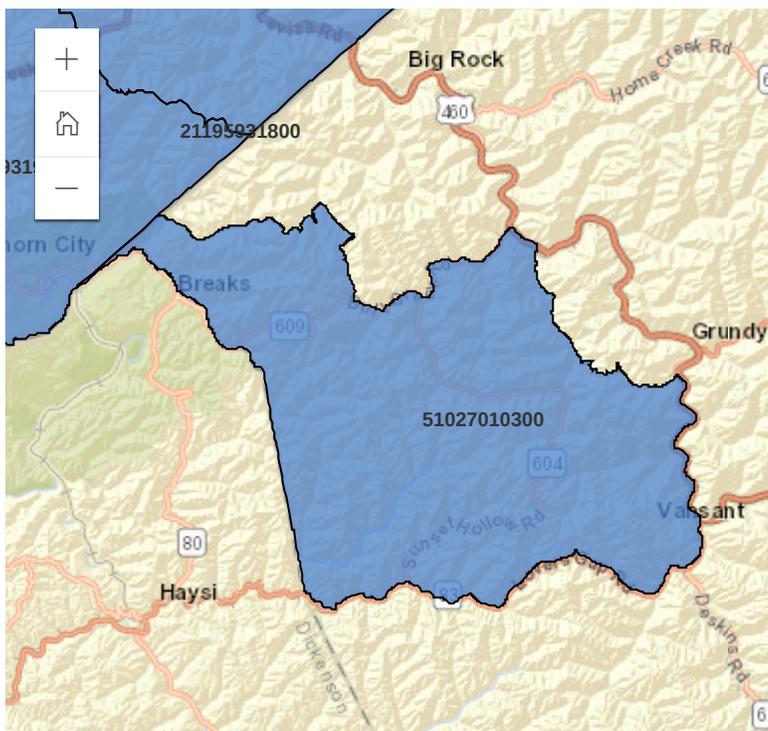
## Census Tract 103, Vansant, Virginia

Census Tract 103 is a **Low-Income Community** Opportunity Zone located in **Vansant, Virginia**.

This **47 square mile** census tract has a population of approximately **3,100** and is the only Opportunity Zone in **Buchanan County**.

The adjacent map shows the location of this Opportunity Zone in Virginia.

- [Opportunity Zone Demographics](#)
- [Virginia OZ Funds](#)
- [List of Similar Opportunity Zones](#)





[View larger map](#)

## Census Tract 103 Demographics

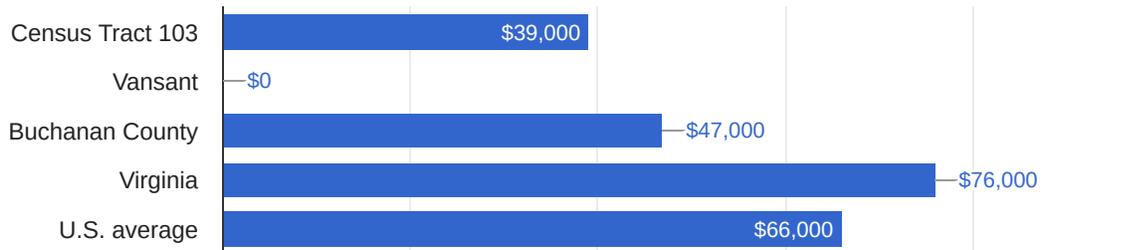
The charts below illustrate how this Opportunity Zone compares to the broader city, county, and state on various socioeconomic indicators:

Advertisement

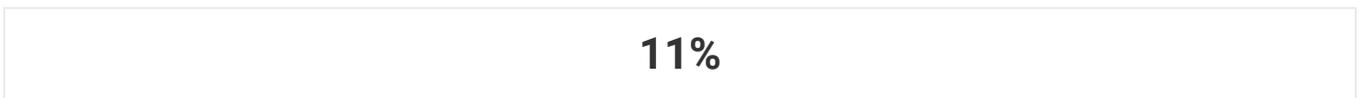
### Median Household Income



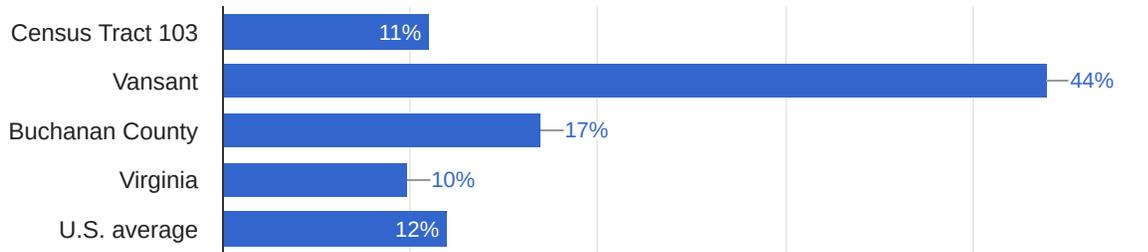
This Opportunity Zone has a **median household income** of approximately **\$39,000**, which is **49% lower** than the median household income for the state of Virginia of **\$76,000**.



### Poverty Rate



The percentage of households below the poverty line in this Opportunity Zone is **11%**, which is **1% higher** than the rate for the state of Virginia of **9.9%**.



### Median Home Value

**\$79K**

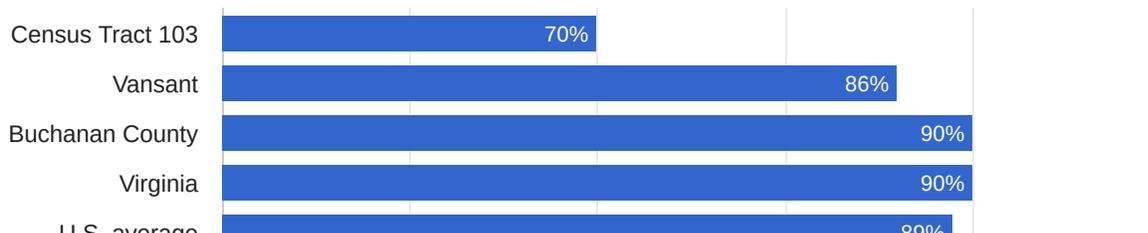
This Opportunity Zone has a **median home value** of approximately **\$79,000**, which is **73% lower** than the median home value for the state of Virginia of **\$290,000**.



### Education

**70%**

This Opportunity Zone has a **percentage of population with high school diploma** of approximately **70%**, which is **20% lower** than the rate for the state of Virginia of **90%**.



U.S. average

39%

## Median Age

49

This Opportunity Zone has a **median age** of approximately **49**, which is **26% higher** than the median age for the state of Virginia of **39**.



## Virginia OZ Funds

There are **13 QOZ Funds** in the OpportunityDb database with an investment objective that specifically identify **Virginia** as a target market. Additional OZ funds may also invest in Virginia; see a complete list of Opportunity Zone Funds [here](#).

Fund Name	Asset Classes	Property Types	Fund Size
<a href="#">CSRA/GS Opportunity Zone V Premium Listing</a>	<a href="#">Real Estate</a>	<a href="#">Multi-Family Housing</a>	\$32M
<a href="#">Accredited Capital</a>	<a href="#">Real Estate</a>	<a href="#">Multi-Family Housing, Residential, Single-Family Housing</a>	\$25M
<a href="#">Allagash Opportunity Zone CRE Fund I</a>	<a href="#">Real Estate</a>	<a href="#">Affordable Housing, Residential, Workforce Housing</a>	\$300M
<a href="#">Blueprint Southeast OZ Fund</a>	<a href="#">Real Estate</a>	<a href="#">Mixed-Use, Multi-Family Housing, Office</a>	\$25M
<a href="#">Community Outcome Fund</a>	<a href="#">Business, Real Estate</a>	<a href="#">Commercial, Infrastructure, Mixed-Use, Residential</a>	\$500M
<a href="#">Local Grown Salads</a>	<a href="#">Business, Real Estate</a>	<a href="#">Farmland, Industrial</a>	\$10M

<a href="#">Baltimore Opportunity Zone Fund</a>	<a href="#">Real Estate</a> Classes	Property Types	Fund Size
<a href="#">Norfolk Solar Qualified Opportunity Zone Fund</a>	<a href="#">Business</a>		\$30M
<a href="#">PrimeCore OpZone Fund II, LP</a>	<a href="#">Real Estate</a>	<a href="#">Hotel</a>	\$20M
<a href="#">Revolution Wealth Opportunity Zone Fund</a>	<a href="#">Business, Real Estate</a>	<a href="#">Energy Development, Infrastructure, Mixed-Use</a>	\$6B
<a href="#">Rivermont Enterprise Emergent Communities Fund</a>	<a href="#">Business, Real Estate</a>	<a href="#">Affordable Housing, Commercial, Hotel, Mixed-Use, Residential, Student Housing, Workforce Housing</a>	\$250M
<a href="#">Strategic Rivermont OZ Fund, LLC</a>	<a href="#">Real Estate</a>	<a href="#">Commercial, Energy Development, Hotel, Mixed-Use, Residential, Stadiums and Arenas, Student Housing</a>	\$100M
<a href="#">Woodforest CEI-Boulos Opportunity Fund</a>	<a href="#">Real Estate</a>	<a href="#">Workforce Housing</a>	\$22M

## Similar Opportunity Zones

- [See all OZs in Virginia](#)
- [See all OZs in Buchanan County](#)
- [See all OZs in Vansant](#)

## Appendix D: Scoring Criteria for Capacity Building & Planning

Virginia Department of Conservation and Recreation  
Virginia Community Flood Preparedness Fund Grant Program

<b>Applicant Name:</b>	Buchanan County	
<b>Eligibility Information</b>		
Criterion	Description	Check One
<b>1. 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)?</b>		
Yes	Eligible for consideration	X
No	Not eligible for consideration	
<b>2. Does the local government have an approved resilience plan and has provided a copy or link to the plan with this application?</b>		
Yes	Eligible for consideration under all categories	X
No	Eligible for consideration for studies, capacity building, and planning only	
<b>3. If the applicant is <u>not</u> a town, city, or county, are letters of support from all affected local governments included in this application?</b>		
Yes	Eligible for consideration	X (n/a)
No	Not eligible for consideration	
<b>4. Has this or any portion of this project been included in any application or program previously funded by the Department?</b>		
Yes	Not eligible for consideration	
No	Eligible for consideration	X
<b>5. Has the applicant provided evidence of an ability to provide the required matching funds?</b>		
Yes	Eligible for consideration	X
No	Not eligible for consideration	
N/A	Match not required	

Capacity Building and Planning Eligible for Consideration		<input checked="" type="checkbox"/> Yes	
		<input type="checkbox"/> No	
Applicant Name:	Buchanan County		
Scoring Information			
Criterion	Point Value	Points Awarded	
<b>6. Eligible Capacity Building and Planning Activities (Select all that apply)</b>			
Revisions to existing resilience plans and modifications to existing comprehensive and hazard mitigation plans.	55		
Development of a new resilience plan.	55	X	55
Resource assessments, planning, strategies and development.	45	X	45
Policy management and/or development.	40	X	40
Stakeholder engagement and strategies.	25	X	25
Goal planning, implementation and evaluation.	25	X	25
Long term maintenance strategy.	25	X	25
Other proposals that will significantly improve protection from flooding on a statewide or regional basis.	15		
<b>7. Is the area within the local government to which the grant is targeted socially vulnerable? (Based on <a href="#">ADAPT VA's Social Vulnerability Index Score.</a>)</b>			
Very High Social Vulnerability (More than 1.5)	15	X	15
High Social Vulnerability (1.0 to 1.5)	12	X	12
Moderate Social Vulnerability (0.0 to 1.0)	8	X	8
Low Social Vulnerability (-1.0 to 0.0)	0		
Very Low Social Vulnerability (Less than -1.0)	0		
<b>8. Is the proposed activity part of an effort to join or remedy the community's probation or suspension from the NFIP?</b>			
Yes	10		
No	0	X	0
<b>9. Is the proposed project in a low-income geographic area as defined in this manual?</b>			
Yes	10	X	10
No	0		
<b>10. Does this project provide "community scale" benefits?</b>			
Yes	20	X	20
No			
<b>Total Points</b>			280

## Appendix D: Checklist All Categories

Virginia Department of Conservation and Recreation

Community Flood Preparedness Fund Grant Program

Buchanan County

Scope of Work Narrative	
Supporting Documentation	Included
Detailed map of the project area(s) (Projects/Studies)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
FIRMette of the project area(s) (Projects/Studies)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Historic flood damage data and/or images (Projects/Studies)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
A link to or a copy of the current floodplain ordinance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Non-Fund financed maintenance and management plan for project extending a minimum of 5 years from project close	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
A link to or a copy of the current hazard mitigation plan	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
A link to or a copy of the current comprehensive plan	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Social vulnerability index score(s) for the project area from <a href="#">ADAPT VA's Virginia Vulnerability Viewer</a>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
If applicant is not a town, city, or county, letters of support from affected communities	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Completed Scoring Criteria Sheet in Appendix B, C, or D	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Budget Narrative	
Supporting Documentation	Included
Authorization to request funding from the Fund from governing body or chief executive of the local government	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Signed pledge agreement from each contributing organization	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

# BUCHANAN COUNTY BOARD OF SUPERVISORS

Drew Keene, Chairman  
 Prater District  
 Jeff Cooper, Vice-Chairman  
 Garden District  
 Tim Hess  
 Hurricane District  
 G. Roger Rife  
 South Grundy District  
 James Carroll Branham  
 North Grundy District  
 Craig Stiltner  
 Rocklick District  
 Trey Adkins  
 Knox District



Robert Craig Horn  
 County Administrator

Lawrence L. Moise, III Esq.  
 County Attorney

August 31, 2021

Wendy Howard-Cooper  
 Director for Dam Safety and Floodplain Management  
 Department of Recreation and Conservation  
 600 East Main Street, 24<sup>th</sup> Floor  
 Richmond VA 23219

Re: Pledge agreement for match of Buchanan County CFPF application

Dear Ms. Howard-Cooper and Members of the Review Team:

Please accept this joint letter as a pledge agreement providing evidence of the matching contribution for Buchanan County's application to the Capacity Building and Planning category of the inaugural round of the Community Flood Preparedness Fund.

The contributor:

**First Earth | 2030, 3800 Grove Ave, Richmond VA 23226, 703-447-9505**

The applicant organization:

**Buchanan County**

The title of the project for which the cash contribution is made:

**Capacity Building and Planning for Flood Resilience in Buchanan County**

The source of funding for the cash contribution:

**First Earth | 2030's operational funds, held at Virginia National Bank**

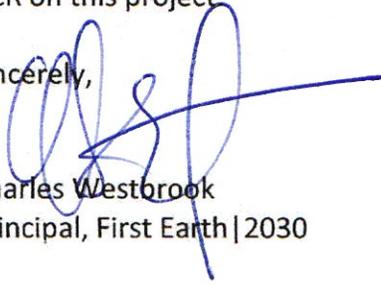
The dollar amount of the cash contribution:

**\$38,750**

With this letter, First Earth | 2030 agrees that if the CFPF grant is awarded, First Earth | 2030 will pay the cash contribution during the agreement period.

Thank you, and please contact either of us with questions. We look forward to working with DCR on this project

Sincerely,

A handwritten signature in blue ink, appearing to be 'CW', with a long horizontal line extending to the right.

Charles Westbrook  
Principal, First Earth | 2030

A handwritten signature in blue ink, appearing to be 'Robert C. Horn', written in a cursive style.

Robert Craig Horn  
County Administrator, Buchanan County



CFPF, rr <cfpf@dcr.virginia.gov>

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## Grant Application for Buchanan County

3 messages

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**Sandy Stiltner** <[REDACTED]>  
To: "cfpf@dcr.virginia.gov" <cfpf@dcr.virginia.gov>  
Cc: Lee Moise <[REDACTED]>

Fri, Sep 3, 2021 at 10:45 AM

Please let me know if this is received.

Thank you.

**Sandy Stiltner**

**Executive Secretary**

**Buchanan County Administrator's Office**

**P.O. Box 950**

**Grundy, VA 24614**

**Phone: 276-935-6508**

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 **CID510024\_BuchananCounty\_CFPF.pdf**  
15144K

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**CFPF, rr** <cfpf@dcr.virginia.gov>  
To: Sandy Stiltner <[REDACTED]>

Fri, Sep 3, 2021 at 10:48 AM

received  
[Quoted text hidden]

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**cfpf@dcr.virginia.gov** <cfpf@dcr.virginia.gov>  
To: [REDACTED]

Fri, Sep 3, 2021 at 10:48 AM

Your message

To: [REDACTED]  
Subject: Grant Application for Buchanan County  
Sent: 9/3/21, 10:45:03 AM AST

was read on 9/3/21, 10:48:53 AM AST