Mount Vernon Dual Corrugated Metal Pipe Culvert Replacement and Optimization

Grant Application

CITY OF ALEXANDRIA, VIRGINIA

Community Flood Preparedness Fund Round 3

April 8, 2022

Image: Mount Vernon Avenue, August 15, 2021

Mount Vernon Dual Corrugated Metal Pipe Culvert Replacement and Optimization

The City of Alexandria (City) is applying for grant assistance under the Virginia Department of Conservation and Recreation (DCR) Community Flood Preparedness Fund (CFPF) Round 3 'Project' category to help mitigate flooding in the Arlandria neighborhood in northeast Alexandria, Virginia. The project, *Mount Vernon and Edison Dual Corrugated Metal Pipe (CMP) Culvert Replacement and Optimization*, will help to contain bigger storm events within the pipes, eliminating the surcharging occurring on Mount Vernon Avenue and greatly improve the health and safety of the community in this equity area. The project will replace existing, deteriorating, undersized dual corrugated metal pipe (CMP) leading from a Mount Vernon Avenue, under the Potomac West Apartments, and leading to the outfall east of Edison Street with a larger dual CMP to convey large flows of water. This work will include the relocation of the existing sanitary sewer line and replacement and upsizing four inlets on Edison Street.

Virginia DCR approved the City of Alexandria's Resilience Plan September 10, 2021. The City has integrated flood mitigation and resilience goals across areas of the local government, with flood resilience a priority addressed holistically through master planning, environmental planning, small area planning, waterfront planning, and capital project planning and implementation, and this project will advance the priorities identified in these various plans. The City has established requirements for development controls in the floodplain through zoning and the local floodplain ordinance. The City's Transportation and Environmental Services Department (T&ES) is implementing resilient stormwater system upgrades informed by the City of Alexandria Storm Sewer Capacity Analysis (CASSCA), neighborhood investigations, and making spot improvements to high priority flood risk areas, along with accelerated frequent operations and maintenance under the Flood Action Alexandria program. Additionally, the City understands the importance of engaging with communities in high-risk areas impacted by frequent urban flooding events. The City performed neighborhood investigations and meeting with residents following a series of intense storm events driven by climate change that caused urban flooding in 2019, 2020, and 2021. The City launched a flood mitigation grant program in August 2021 for property owners to make improvements to, and protect, their private property through flood barrier implementation and structural adaptations. In 2019, the City released an update to the Environmental Action Plan with a roadmap for climate mitigation and resilience activities, accompanied by the Energy and Climate Change Task Force. These initiatives are grounded by the City's new Equity ordinance, which commits to addressing racial, social, and economic disparities in all areas of local government. The project proposed in this application fulfil the requirements and support the goals of each of these resilience planning efforts and accelerate the City's efforts to deliver flood mitigation measures for the Arlandria area of Alexandria.

1. Project Information

In addition to the three severe storms that occurred within a 14-month period (July 2019 to September 2020), the City experienced more severe flash flooding events in 2021 on August 15 (see Figure 1) and September 16. Based on the City's rain gauge network, during the August 15th event, between three to five inches of rain fell in an hour, with very heavy rainfall rates for 30 minutes. The storm caused widespread flooding, as well as power outages, sanitary backups, road closures, displaced manhole covers, traffic light outages, sink holes, and other impacts on City infrastructure. In the neighborhood of Arlandria, one property was particularly hard hit with water entering into at least three basement dwelling units from water breaking through windows, water also rushed into the property from the first floor as it broke through the glass entry way door. This event occurred around midnight, and residents were able to evacuate safely, with reported injuries. The highest rain gauge reading in the City recorded 3.19 inches in

30-minutes, 4.43 inches in one hour, and 5.19 inches in two hours. The August 15 event corresponded to a 200 – 500-year storm event.

Figure 1. August 15, 2021, Edison Street

Arlandria is located within the City's portion of the Four Mile Run watershed. The watershed includes a nine-mile-long stream (Four Mile Run) located in a highly urbanized area in Northern Virginia. It's 19.6 square mile watershed covers portions of Arlington and Fairfax Counties and the Cities of Alexandria and Falls Church. The lower portion of Four Mile Run, from I-395 at the upstream end to National Airport at the mouth, is contained in a hardened flood control channel and marks a rough boundary between Arlington County and the City of Alexandria. Due to the highly urbanized nature of the Four Mile Run watershed, the neighborhoods and businesses adjacent to this portion of the run were subjected to repeated flooding, beginning in the 1940s.

The *Mount Vernon and Edison Dual CMP Culvert Replacement and Optimization* project will achieve the following activities as shown in the Project Vicinity Map, Figure 2:

- Relocate the Edison Street storm drain inlets (four) further north to the low point in the road.
- Relocate the Mount Vernon storm drain pipes so they are more central between the two existing buildings to allow for safer installation and future maintenance access.

- Upsize the Mount Vernon CMP storm drain pipes from 38-inch x 60-inch horizontal ellipses to 48-inch x 76-inch horizontal ellipses.
- Upsize the Mount Vernon storm drain outfall pipes from 51-inch x 66-inch corrugated metal arches to 48-inch x 76-inch horizontal reinforced concrete ellipses.
- Adjust the Mount Vernon storm drain pipes to a uniform two percent (2%) slope.
- Relocation the sanitary sewer line, between Mount Vernon Avenue and Edison Street, to allow for improved hydraulic alignment of the twin culverts.

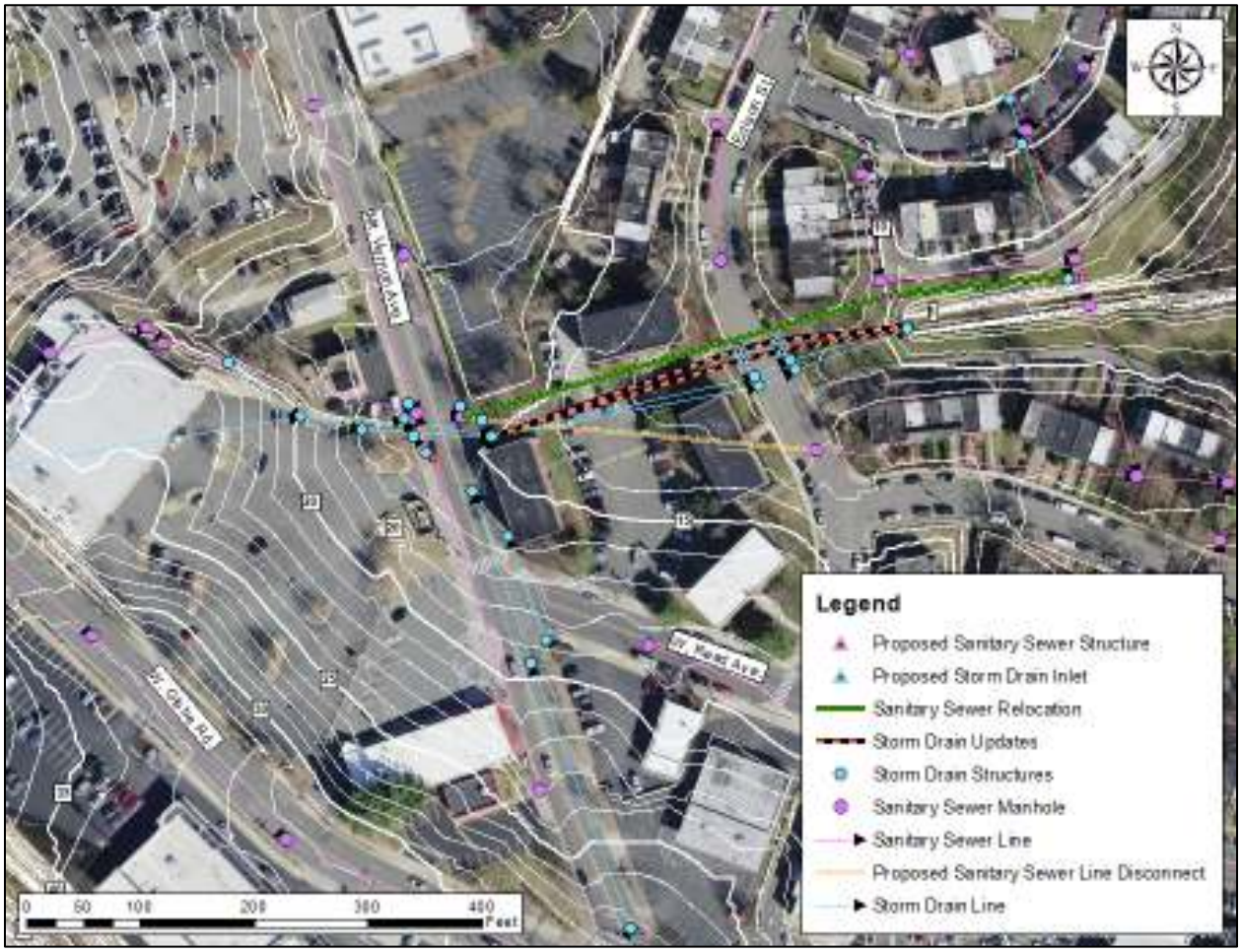


Figure 2. Project Vicinity Map

Arlandria is located within the northern portion of the Four Mile Run watershed model. The proposed optimization of the storm drain line was modeled in the XP-SWMM model by incorporating the *Mount Vernon and Edison Dual CMP Culvert Replacement and Optimization* project conceptual work. The 3-inch, 3-hour synthetic storm and 10-year, 24-hour storm event was used for the analysis. The 3-inch, 3-hour synthetic storm was created to account for the more frequent and high intensity storm events that the City is experiencing. The synthetic storm event was created by the City using Autodesk Storm & Sanitary Analysis (SSA). The program includes a Rainfall Designer, which utilizes site-specific storm information from a database with over 3,500 up-to-date rainfall recording stationing across North America. A comparison between the optimized and existing conditions, shows a decrease in the hydraulic grade line (HGL). The proposed solution would contain the design storm event within the pipes, eliminating the surcharging occurring on Mount Vernon Avenue for the design and greatly improve the health and safety of the community. Furthermore, the *Mount Vernon and Edison Dual CMP Culvert Replacement and*

Optimization project will have a positive impact on the immediate area of Mount Vernon Avenue and Edison Street, the neighborhood of Arlandria, and improve the overall conveyance upstream in Four Mile Run watershed and help create a more resilient City.

a) Population and Equity

Alexandria has a population of 159,467 (U.S. Census Bureau, 2020) and is the densest city in Virginia with a population density of about 9,460 people per square mile. The median household income in Alexandria in 2019 was $100,939. Arlandria is in Census Tract 2012.03 that has a median household income of $60,756, which is less than 80% of the median income of the City, meaning this area meets the grant definition of a "Low-Income Geographic Area". This Census Tract, 2012.03, also has a High Social Vulnerability Index score of 1.1. This 0.4 square mile census tract has a population of approximately 7,800 and is one of four Opportunity Zones in the city. Figure 4 provides an overview of Arlandria' s cultural themes as presented in A Cultural History of Arlandria, September 2021. This Cultural History was collected in coordination with the community's Arlandria-Chirilagua Small Area Plan Process.

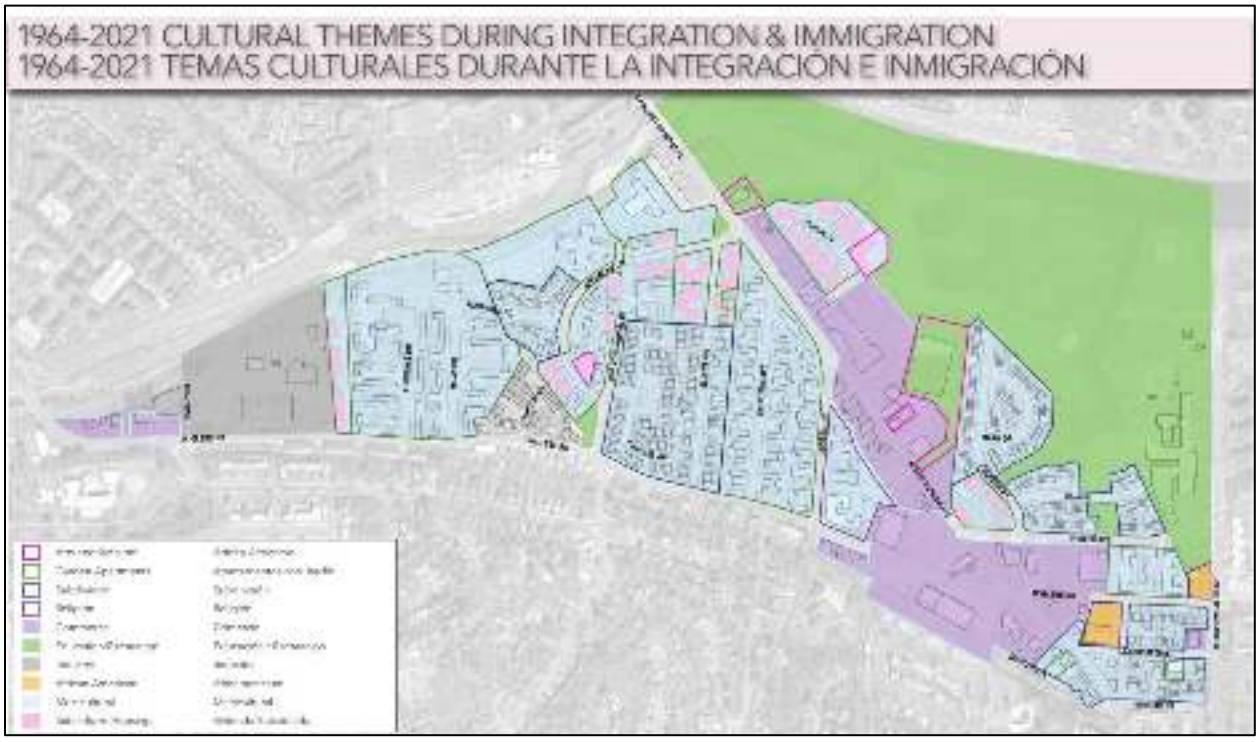


Figure 3. Arlandria Cultural Themes

b) Historic Flooding Data and Hydrologic Studies Projecting Flood Frequency

The City is experiencing more frequent and severe flash flooding from extreme precipitation events which have occurred more frequently in the last few years. These flash flood events damage residential and commercial properties, impact critical assets, and cause day-to-day disruptions and economic losses. The City has experienced several major flooding events since 2019, including July 8, 2019, July 23, 2020, September 10, 2020, and most recently August 15, 2021 and September 16, 2021. These events are characterized between 50 to 500-year level rainstorm events. The City's Intensity-Duration-Frequency (IDF) curves developed in the 1980's were compared to other localities in the region and available climate predictions during the CASSCA study, completed in 2016, and were found to be more conservative than many surrounding localities' design storms, more conservative than the National Atmospheric and Oceanic Administration (NOAA) Atlas-14, and were found to compare favorable to climate predictions available in 2016. The City is currently planning to further analyze these local IDF curves in comparison to regional efforts and more recent climate predictions.

The August and September 2021 storms were recorded by recently installed rain gauges that expand the City's gauge network to gather more localized storm information. Actual accumulation of over 5-inches in two hours, to be between 100 and 500-year level rain when compared to the statistical expectations derived for the City's curves developed in the 1980's for the City, which are more conservative than NOAA's predictions for the region. Meaning, what NOAA would call a 12-hour 25-year rainfall, Alexandria would call it closer to a 15-year rainfall.

c) Ability of Alexandria to Provide its Share of the Project Cost

In response to these recurring flooding events, in May 2021 the City Council unanimously adopted an ordinance to double our Stormwater Utility Fee with a 50% increase in the rate for the May 2021 billing and an additional 50% increase in the rate for the October billing to significantly increase local resources available for investments in our storm sewer infrastructure. The development of the FY 2022 – FY 2031 Stormwater Management Utility Ten Year Plan for funding of operating and capital improvement program (CIP) costs, included the identification and funding schedule for 11 top priority flooding mitigation capacity projects that include a mix of storage, conveyance, and green infrastructure. The 10-Year Plan also includes annually increasing funding for spot improvement projects and increased maintenance activities citywide. The Stormwater Utility Fee, paid by all property owners in the City (including non-taxable properties), will enable an acceleration of major capacity projects and spot improvement projects, an increase in channel maintenance, new state-of-good repair investments, property owner grants, and new staffing in support of these projects. The City confirms that it can cover the Cost Share required for this project with funding identified in the FY 2022 – FY 2031 Stormwater Management CIP under the Storm Sewer Spot Improvement program.

d) Alexandria is an Active Participant in the National Flood Insurance Program

The City began participating in the regular phase of Federal Emergency Management Agency (FEMA) National Flood Insurance Program (NFIP) on May 8, 1970, and is recognized for exceeding the goals of the NFIP Community Rating System (CRS) program. Alexandria is one of two Virginia localities to achieve a Class 6 rating. As a result, residents and businesses purchasing flood insurance for properties in Alexandria are eligible to receive up to a 20% discount on flood insurance premiums. The City also has established a Floodplain Ordinance to regulate development and redevelopment in the floodplain. The FEMA Flood Insurance Rate Map (FIRM) for Arlandria and the *Mount Vernon Dual CMP Culvert Replacement and Optimization* project area is included as Figure 4.

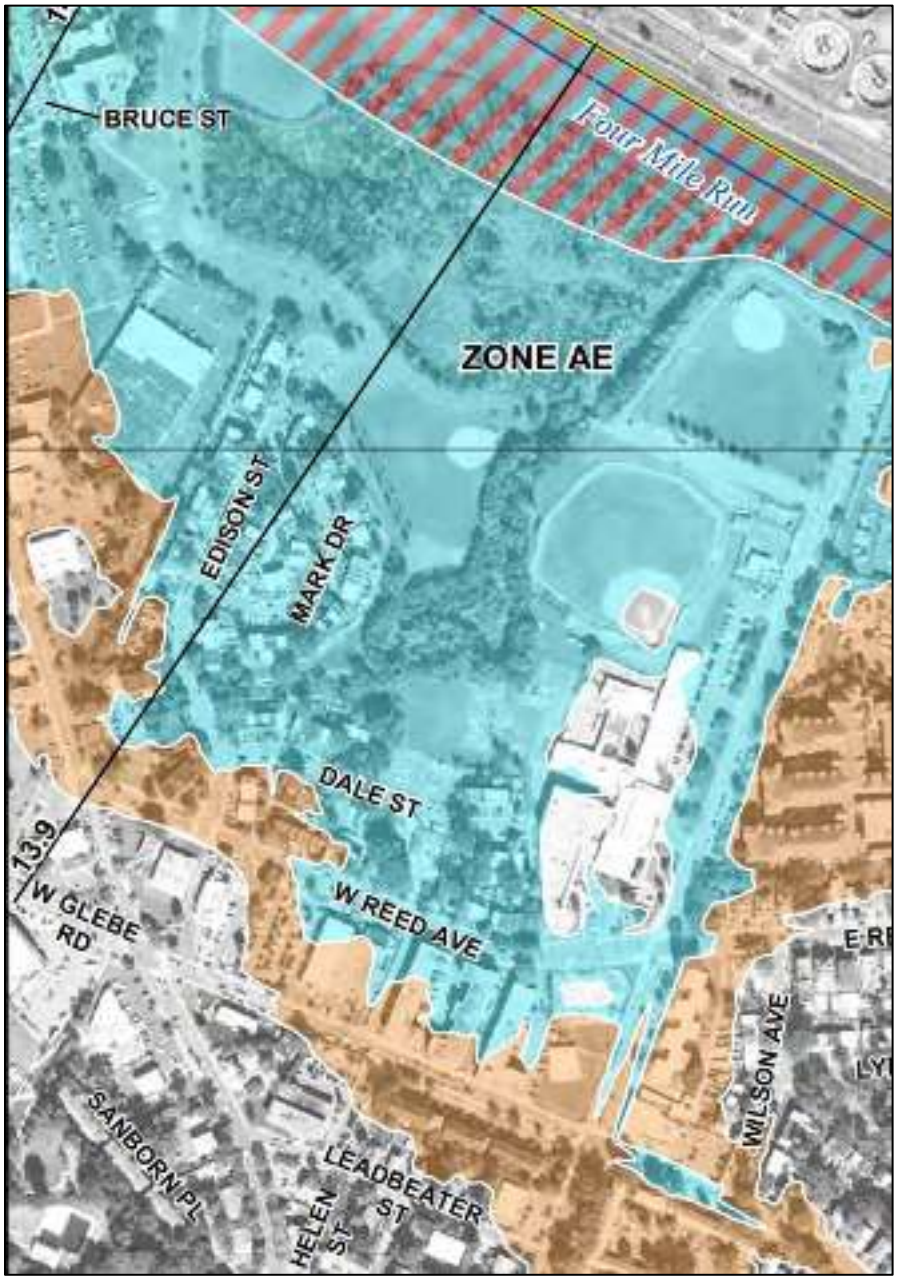


Figure 4. FIRM Map 5155190033F

Repetitive loss is defined by any insurable building for which two or more claims of more than $1,000 were paid by the NFIP within any rolling 10-year period, since 1978. A severe repetitive loss is defined by a family residence that has had four or more claims of more than $5,000 or at least two claims that cumulatively exceed the building value as defined by the Flood Insurance Reform Act of 2004. There were 12 repetitive loss sites in Alexandria as of 2015, of which six are residential and six are non-residential. These 12 repetitive loss sites have experienced a collective 30 losses, with a total payment of $1,871,287 as described in the 2017 Northern Virginia Hazard Mitigation Plan. A more updated list of repetitive losses across the City is forthcoming but preliminary assessment indicates more than 35 properties, more than triple that of 2015.

e) Other Necessary Information to Establish Project Priority

The Northern Virginia Hazard Mitigation Plan identified flooding as one of Alexandria's predominant hazards due to riverine, precipitation, tidal, and storm surge flooding. The Hazard Mitigation Plan ranked natural hazards for Alexandria using historical weather-related events based on the Storm Event Database by the NOAA National Centers for Environmental Information, formerly the National Climatic Data Center (NCDC). Hazards were ranked using a semi-quantitative scoring system that involved grouping the data values (normalized to account for inflation) based on statistical methods (see Figure 5). This method prioritizes hazard risk based on a blend of quantitative factors extracted from NCDC and other available data sources. The parameters considered include:

- Historical occurrences;
- Vulnerability of population in the hazard area; and
- Historical impact, in terms of human lives and property and crop damage.

Table 7.1: Hazard Ranking for Alexandria

Hazard	Flood	Wind	Tornado	Winter Weather	Drought	Earthquake	Landslide	Wildfire	Karst
Ranking	High	High	High	High	Med-High	Med	Low	Med-Low	Med-Low

Figure 5. Hazard Ranking, Northern Virginia Hazard Mitigation Plan, 2017

Alexandria's watersheds have a significant percentage of impervious surfaces. Forty-three percent of the City's surface area is comprised of roads, buildings, parking lots, and sidewalks. Impervious surface contributes to the accumulation of stormwater because water is not able to convey and recharge. This type of flooding threatens the continuous operation of roads, emergency access, and property during precipitation events.

No critical facilities are located within the immediate vicinity of the project area.

2. Need for Assistance

The City has the staff and resources (SWM/SWU CIP), BSEGS 5 rating, CRS Class 6, to implement this project as soon as funding becomes available. DCR's financial support will help create a more resilient Alexandria while enhancing and improving the City's built infrastructure in the Arlandria neighborhood located within Four Mile Run.

a) Goals and Objectives

The purpose of this project is to help mitigate flooding in the Arlandria neighborhood by providing enhanced conveyance along a major storm sewer to its downstream outfall. This project will not only address local area flooding, but also facilitate upstream improvements in the drainage area by ensuring adequate conveyance to support future upgrades. The City cost-share for the project will be funded through the FY 2022 – FY 2031 Stormwater Management CIP under the Storm Sewer Spot Improvement program.

b) Approach, Milestones, and Deliverables

The *Mount Vernon Dual CMP Culvert Replacement and Optimization* project is a multi-faceted project that includes relocation of an existing sanitary sewer and replacement of two deteriorated storm sewer pipes. As such, the project team will include experts from the City of Alexandria's Transportation and Environmental Services Stormwater and Sanitary division. The City's Department of Project Implementation will be responsible for managing and delivering the project. Additional details on the project delivery approach and project teaming will be detailed in a project management plan developed by the City.

The City's project management plan is a living document specific to the project that is continually updated through the design and construction process. Input from the design contractor and construction manager will be included in the document as the project progresses. At a minimum, the project management plan will clearly identify the projects scope, team member roles and responsibilities, critical stakeholders, project risks and the project procurement plan.

The City's Engineer of Record Contract or an equivalent existing procured agreement will be utilized to develop contract documents including design plans, construction specifications costs estimates, a basis of design report and public rendering of impacts and improvements. Staff expect that construction of the project may require an open-bid procurement process.

Project deliverables will undergo a multiphase review at 30% Design, 60% Design and 90% Design before being accepted by the City as the Final Contract Documents.

c) Project Milestones and Deliverables

Table 1 summarizes project milestones for the *Mount Vernon Dual CMP Culvert Replacement and Optimization* project. The deliverables associated with each Milestone are included in Table 2.

Table 1. Project Milestones

Milestone	Fiscal Year (FY)
Project Planning	2023
Design Services Procurement	2023
Design Phase	2023 / 2024
Construction Procurement	2024
Construction	2025
Post-Construction	2025

Table 2. Deliverables by Milestone

Milestone	Deliverable
Project Planning	• Project Charter • Project Management Plan • Project Work Breakdown Structure • Project Schedule
Design Services Procurement	• Task Order Request based on existing contract • Task Order approval • Purchase Order and Notice To Proceed
Design Phase	• Design Plans at 30% and Final Design • Construction Specifications at Final Design • Basis of Design including Hydraulic Calculations at 30% and Final Design • Cost Estimate at 30% and Final Design
Construction Procurement	• Invitation to Bid at contract award • Contractor Proposal at contract award • Purchase Order at contract award
Construction/Post Construction	• Sign & Sealed As-builts following project close out • Site photographs following project close out

3. Relationship to Other Projects

The City has experienced repeated and increasingly frequent flooding from storm events, with several large severe storm event occurring in 2019 and 2020. These events lead to the development of the Flood Action Alexandria initiative. Information gathered via the City's 311 response center regarding flooding complaints and inquiries in addition to the 2016 City of Alexandria Storm Sewer Capacity Analysis (CASSCA) study, provided a roadmap for City staff to undertake neighborhood investigations. Located in the Four Mile Run watershed, with a large footprint within the 100-year and 500-year floodplain, the neighborhood of Arlandria, specifically the Edison Street, Dale Street, and West Reed Avenue, located off of Mount Vernon Avenue, a main throughfare, experienced significant flooding from the storms during 2019 and 2020. The City undertook neighborhood investigations and further engineering assessment and analysis of the storm sewer network in this area beginning in early 2021. However, it was the large storm event that occurred on August 15, 2021, after the launch of the Flood Action Alexandria, that brought the most significant flooding to this area, as described in Section 1, Project Information. Figure 6 provides a snapshot of the 311 requests for services that focused on reporting flooding issues across the City on August 15th.

The *Mount Vernon Dual CMP Culvert Replacement and Optimization* project falls within the City's Flood Action Alexandria initiative which includes a 10-year, $170 million capital improvement plan focused on 11 large capacity projects in addition to numerous spot improvement projects that are currently underway at the neighborhood scale across the City. The proposed project for funding will increase the resiliency of the Arlandria neighborhood, Four Mile Run watershed, and the City of Alexandria. This is a critical need given the City's sensitivity to climate change-induced severe storm events caused by rising global temperatures and increasing humidity.

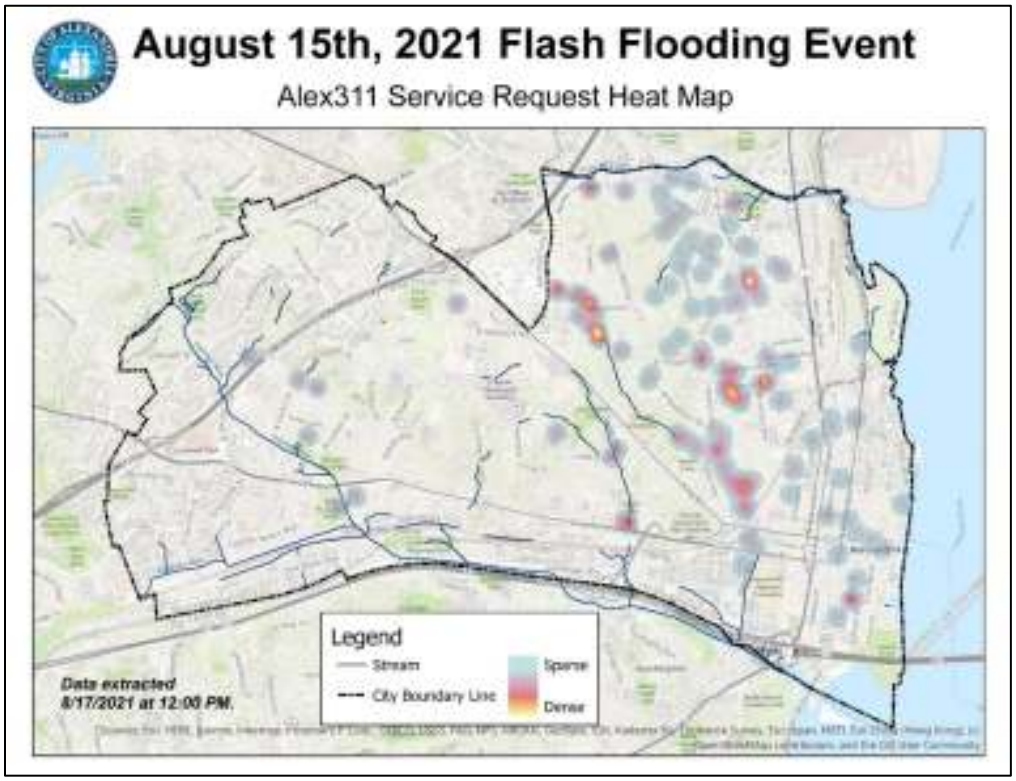


Figure 6. Alex311 Heat Map, August 15, 2021

4. Maintenance Plan

City sewer infrastructure 'state of good repair' program maintenance objectives includes inspection and maintenance on a rotating 3-5 year service schedule. The City also performs inspection and maintenance in response to Alex311 service requests an in advance of forecasted storm events. The initial installation will be inspected early on to ensure proper functioning prior to the routine, rotating schedule being implemented. More information is available on the City's Sewer Maintenance webpage.

5. Criteria

This project scoring criteria is found in Appendix B.

Budget Narrative

The *Mount Vernon Dual CMP Culvert Replacement and Optimization* is budgeted for design and construction for a total cost of $2,500,000. The City respectfully requests 50% of the total project cost to be covered by this grant: $1,250,000. All costs are categorized as Contractual. It is anticipated that 25% of the total Contractual costs will be spent on Project Design ($625,000) and 75% of the total Contractual costs will be spent on Project Construction ($1,875,000)

These projects will help to mitigate flooding and help increase the resiliency of the Arlandria neighborhood, the Four Mile Run watershed, and the City at-large. Project matching funds will come from the CIP section of the City's Stormwater Management Utility 10-Year Plan..

Cost Category	City of Alexandria Match	DCR CFPF Request	Total
Personnel	$0	$0	$0
Fringe Benefits	$0	$0	$0
Travel	$0	$0	$0
Equipment	$0	$0	$0
Supplies	$0	$0	$0
Contractual	$1,250,000	$1,250,000	$2,500,000
Construction	$0	$0	$0
Other	$0	$0	$0
Total Direct Charges	$0	$0	$0
Indirect Charges	$0	$0	$0
Totals	**$1,250,000**	**$1,250,000**	**$2,500,000**

Appendix A – Application Form

Appendix A: Application Form for Grant Requests for All Categories

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

Name of Local Government: City of Alexandria, VA

Category of Grant Being Applied for (check one):

____Capacity Building/Planning

_X____Project

_____Study

NFIP/DCR Community Identification Number (CID): CID515519

If a state or federally recognized Indian tribe, Name of tribe: No

Name of Authorized Official: Jesse Maines, PMP

Signature of Authorized Official: _____

Mailing Address (1): 2900 Business Center Drive

Mailing Address (2): _____

City: Alexandria State: VA Zip: 22314

Telephone Number: 703.746.4643 Cell Phone Number: 571.414.8237

Email Address: jesse.maines@alexandriava.gov

Contact Person (If different from authorized official): Jessica Lassetter

Mailing Address (1): 2900 Business Center Drive

Mailing Address (2): _____

City: Alexandria State: VA Zip: 22314

Telephone Number: 703.746.4127 Cell Phone Number: 703.915.5695

Email Address: jessica.lassetter@alexandriava.gov

Is the proposal in this application intended to benefit a low-income geographic area as defined in the Part 1 Definitions? Yes __X__ 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.
- **X 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): Mt. Vernon Avenue, Edison Street, Arlandria Neighborhood, Alexandria, VA

NFIP Community Identification Number (CID#):(See appendix F CID515519

Is Project Located in an NFIP Participating Community? X Yes □ No

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

Flood Zone(s) (If Applicable): AE

Flood Insurance Rate Map Number(s) (If Applicable): 5155190033F

Total Cost of Project: $2,500,000

Total Amount Requested $1,250,000

Appendix B – Scoring Criteria

Appendix B: Scoring Criteria for Flood Prevention and Protection Projects

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

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

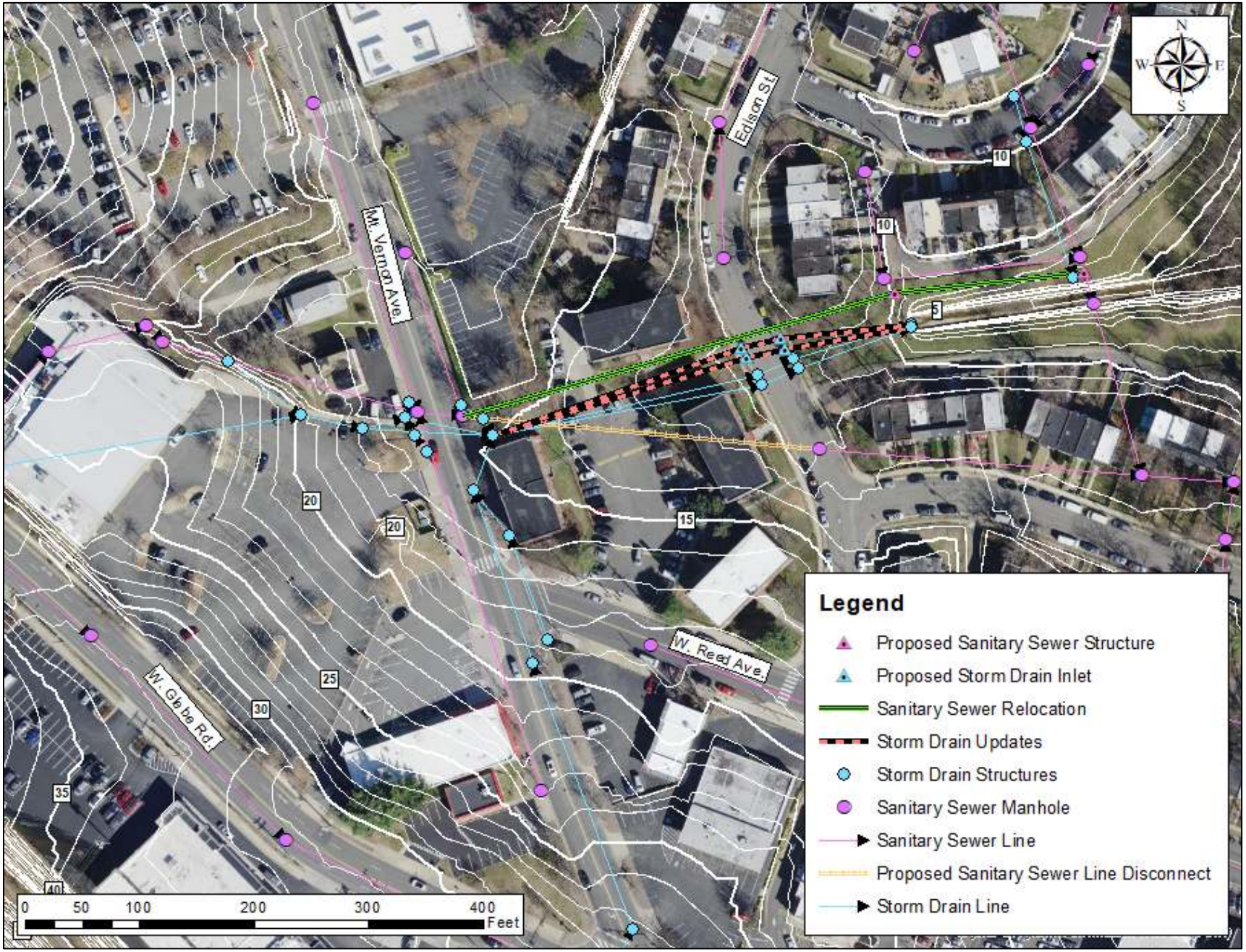
Project Eligible for Consideration		X Yes ☐ No
Applicant Name:	**City of Alexandria, VA**	
Scoring Information		
Criterion	**Point Value**	**Points Awarded**
6. Eligible Projects (Select all that apply)		
Projects may have components of both 1.a. and 1.b. below; however, only one category may be chosen. The category chosen must be the primary project in the application.		
1.a. Acquisition of property consistent with an overall comprehensive local or regional plan for purposes of allowing inundation, retreat, or acquisition of structures.	**50**	
☐ Wetland restoration, floodplain restoration ☐ Living shorelines and vegetated buffers. ☐ 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 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.	**45**	
1.b. any other nature-based approach	**40**	
All hybrid approaches whose end result is a nature-based solution	**35**	
All other projects	**25**	**25**
7. Is the project area socially vulnerable? (Based on ADAPT VA's Social Vulnerability Index Score.)		
Very High Social Vulnerability (More than 1.5)	**15**	
High Social Vulnerability (1.0 to 1.5)	**12**	12
Moderate Social Vulnerability (0.0 to 1.0)	**8**	
Low Social Vulnerability (-1.0 to 0.0)	**0**	
Very Low Social Vulnerability (Less than -1.0)	**0**	

8. Is the proposed project part of an effort to join or remedy the community's probation or suspension from the NFIP?		
Yes	**10**	
No	**0**	0
9. Is the proposed project in a low-income geographic area as defined in this manual?		
Yes	**10**	10
No	**0**	
10. Projects eligible for funding may also reduce nutrient and sediment pollution to local waters and the Chesapeake Bay and assist the Commonwealth in achieving local and/or Chesapeake Bay TMDLs. Does the proposed project include implementation of one or more best management practices with a nitrogen, phosphorus, or sediment reduction efficiency established by the Virginia Department of Environmental Quality or the Chesapeake Bay Program Partnership in support of the Chesapeake Bay TMDL Phase III Watershed Implementation Plan?		
Yes	**5**	
No	**0**	0
11. Does this project provide "community scale" benefits?		
Yes	**20**	20
No	**0**	
Total Points		67

Appendix C – Project Vicinity Map

CID515519_CityofAlexandria_CFPF-1
Mount Vernon Dual Corrugated Metal Pipe Culvert Replacement and Optimization

PROJECT VICINITY MAP



Commonwealth of Virginia

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

CID515519_CityofAlexandria_CFPF-1

1 message

Jessica Lassetter <jessica.lassetter@alexandriava.gov> Fri, Apr 8, 2022 at 8:52 AM
To: "cfpf@dcr.virginia.gov" <cfpf@dcr.virginia.gov>
Cc: Jesse Maines <Jesse.Maines@alexandriava.gov>

Good morning –

Attached, please find the City of Alexandria CFPF Round 3 grant application. We plan to submit a second application today for review under a separate email.

Thank you so much for allowing the City the opportunity to apply to this highly valuable program to help enhance our community resilience and mitigate the impacts of flooding.

Sincerely,

Jessica

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