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:
Category of Grant Being Applied for (check one):
Capacity Building/Planning
Project
Study
NFIP/DCR Community Identification Number (CID)
If a state or federally recognized Indian tribe, Name of tribe
Name of Authorized Official:
Signature of Authorized Official: Mal E Vanda 9
Mailing Address (1):
Mailing Address (2):
City: State: Zip:
Telephone Number: () Cell Phone Number: ()
Email Address:

Со	ontact Person (If different from authorize	d official):		
Ma	lailing Address (1):			
Ma	lailing Address (2):			
Cit	ty: State	e:	Zip:	
Tel	elephone Number: ()	Cell Phone Nu	umber: ()	
Em	mail Address:			
ls t	the proposal in this application intended	to benefit a low-	income geographic area as defined	
in the Part 1 Definitions? Yes Categories (select applicable project):		is for which	*The proposed Resilience Plan is for the entire City of Saler which includes some low-income geographic areas	
Pro	roject Grants (Check All that Apply)			
	Acquisition of property (or interests there floodwater inundation, strategic retreat flooding; the conservation or enhancem acquisition of structures, provided the action further development.	of existing land ι ent of natural flo	uses from areas vulnerable to od resilience resources; or	
	Wetland restoration. Floodplain restoration. Construction of swales and settling pond Living shorelines and vegetated buffers. Structural floodwalls, levees, berms, flood Storm water system upgrades. Medium and large scale Low Impact Deventon Permanent conservation of undeveloped ConserveVirginia Floodplain and Floodin tool. Dam restoration or removal. Stream bank restoration or stabilization. Restoration of floodplains to natural and Developing flood warning and response notify residents of potential emergency.	od gates, structur velopment (LID) ii d lands identified ng Resilience layer d beneficial funct systems, which r	n urban areas. as having flood resilience value by or a similar data driven analytic ion.	

Sti	idy 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.
<u>Ca</u>	pacity 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.
Lo	cation of Project (Include Maps):
NF	IP Community Identification Number (CID#):(See appendix F

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):
Flood Insurance Rate Map Number(s) (If Applicable):
Total Cost of Project:
Total Amount Requested



William L. Simpson, Jr., PE City Engineer

<u>City of Salem Community Development Department</u> Engineering, Inspections, GIS, Stormwater, Planning & Zoning

Scope of Work Narrative - Capacity Building and Planning

Introduction

The City of Salem is pleased to apply for funding through the 2022 Virginia Community Flood Preparedness Fund Grant (CFPF). The City of Salem's application is for the capacity building/planning category, and with the assistance of Wetland Studies and Solutions, Inc. the city plans to develop a resilience plan.

Capacity Needs and Assets

Resource Needs

-The City of Salem is applying for funding to assist in establishing a Resiliency Plan. The city is to contract a consultant to establish a plan that will help identify future flood control projects as well as studies, assessments, and program adjustments needed to meet resiliency goals. The city will coordinate with multiple departments but is reliant on the assistance of a consulting agency to aid in developing this plan as it is not something the city has the capacity to do on its own.

Scope of Work: see attachment "A"

Plan Development

-The City of Salem plans to contract with a consultant to assist with developing a Resilience Plan. This will include but is not limited to collecting and analyzing data, reviewing flood plains, stormwater controls, public outreach, and social vulnerability. A Resilience Plan will help the city identify future projects and prioritize areas of need.

See WSSI proposal – attachment "B"



William L. Simpson, Jr., PE City Engineer

<u>City of Salem Community Development Department</u> Engineering, Inspections, GIS, Stormwater, Planning & Zoning

Goals and Objectives

-The goal of the Resilience Plan for the City of Salem is to apply nature-based solutions to the maximum extent possible to address increased flooding within the entire city. The goal of this planning level document will be to assist in reducing impacts to properties and community assets.

<u>Stakeholders</u>

-The Community Development Department with the City of Salem will be the primary stakeholder; but as projects and other items are identified through the Resilience Plan, this will assist in recognizing other stakeholders such as citizens, businesses, places of worship, government entities, and educational institutions.

Implementation

-The City of Salem would like to apply for funding in the earliest funding cycle possible. If awarded funding, the city will sign the proposal from our consultant and provide an estimated timeline for the completion of the plan; and once complete, the city would submit the Resilience Plan.

Responsible Parties

-The Community Development Department with the City of Salem would be the primary party responsible. Community Development is reliant on their consultant to acquire and analyze data to develop the Resilience Plan.

<u>Performance Outputs and Measures</u>

-The final product will be a comprehensive Resilience Plan that assists in identifying future projects, flood preparedness, and strategies to help protect properties city-wide. Another goal is to aid in additional measures to help the city meet its MS-4 permit requirements.



William L. Simpson, Jr., PE City Engineer

<u>City of Salem Community Development Department</u> Engineering, Inspections, GIS, Stormwater, Planning & Zoning

Maintaining Capacity

-The City of Salem plans to maintain and update the Resilience Plan as needed. Either through city staff or by a consultant, the Resilience plan can be updated as new information becomes available as well as other variables that necessitate changes.

Supporting Documentation

- City of Salem Comprehensive Plan
- Regional Hazard Mitigation Plan
- City of Salem <u>Floodplain Overlay District code</u>
- City of Salem Floodplain Map (Attachment C)
- City of Salem Social Vulnerability Map (Attachment C)
- Scoring Sheet (appendix D)

Budget

-Fees for services to develop the Resilience Plan are as follows:

Project Management	\$ 11,210
City of Salem GIS Desktop Analysis	\$ 16,036
Literature Review	\$ 16,200
Community Outreach	\$ 11,616
Resilience Plan Development	\$ 23,400
Direct Expense Budget	\$ 500
Total Fixed Cost	\$ 78,962

Funds Requested

The City of Salem is requesting funds of \$59,221 (75% CFPF) to aid in the development of a Resilience Plan. The city will be responsible for providing \$19,741 (25% match) and these funds will be drawn from the City of Salem General Fund. This will provide the necessary funds to hire Wetland Studies and Solutions, Inc. to develop a plan.



William L. Simpson, Jr., PE City Engineer

<u>City of Salem Community Development Department</u> Engineering, Inspections, GIS, Stormwater, Planning & Zoning

Funds Available

The City of Salem will appropriate \$19,741 from the Community Development Fund as its 25% match and has been authorized by City council with the approval of the 2023 budget.



William L. Simpson, Jr., PE City Engineer

<u>City of Salem Community Development Department</u> Engineering, Inspections, GIS, Stormwater, Planning & Zoning

Attachment "A"

Scope of Work Narrative

The following narrative is in support of the City of Salem's grant application for the Virginia Department of Conservation and Recreation's 2022 Community Flood Preparedness Fund Grant Program (CFPF). The City of Salem is requesting funds to assist in developing a Resilience Plan that will aid in the discovery and implementation of future flood mitigation and stormwater projects.

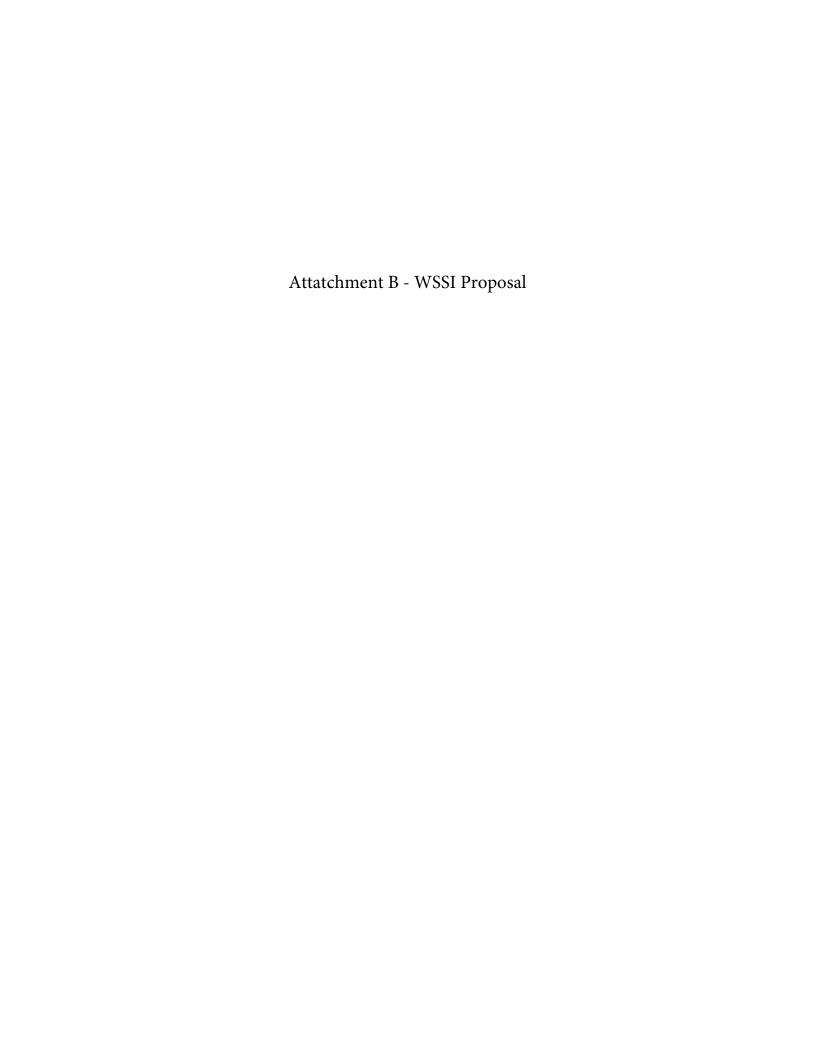
The city acknowledges that CFPF funds are to be used under the following principles:

- 1.) Acknowledge climate change and its consequences, and base decision making on the best available science.
- 2.) Identify and address socioeconomic inequities and work to enhance equity through adaptation and protection efforts.
- 3.) Utilize community and regional scale planning to the maximum extent possible, seeking region-specific approaches tailored to the needs of individual communities.
- 4.) Understand fiscal realities and focus on the most cost-effective solutions for the protection and adaptation of our communities, businesses, and critical infrastructure. The solutions will, to the extent possible, prioritize effective natural solutions.
- 5.) Recognize the importance of protecting and enhancing nature-based solutions in all regions, natural coastal barriers, and fish and wildlife habitat by prioritizing nature-based solutions.

The City of Salem is to work closely with a consultant (WSSI) to develop a framework document that will assist in establishing future projects, aid in flood preparedness and resilience, and provide data for better stormwater management as well as flood mitigation. For more details on the Resiliency Plan, please see the proposal from WSSI (attachment B)

Per the definition in the 2022 CFPF grant manual. The final Resiliency Plan will include:

- 1. It is project-based with projects focused on flood control and resilience.
- 2. It incorporates nature-based infrastructure to the maximum extent possible.
- 3. It includes considerations of all parts of a local government regardless of socioeconomics or race.
- 4. It includes coordination with other local and inter-jurisdictional projects, plans, and activities and has a clearly articulated timeline or phasing for plan implementation.
- 5. Is based on the best available science, and incorporates climate change, sea level rise, and storm surge (where appropriate), and current flood maps.





SHORT FORM CONTRACT PROFESSIONAL SERVICES AGREEMENT

CLIENT: City of Salem DATE: January 31, 2022 rev February 4, 2022

ADDRESS: Community Development VIA EMAIL: <u>wsimpson@salemva.gov</u>

21 S Bruffey St, Salem, VA 24153 **PROJECT NAME:** Salem Resilience Plan

ATTN: Will Simpson WSSI PROPOSAL #: P19163A

Wetland Studies and Solutions Inc. (WSSI) is pleased to provide this proposal pursuant to our Term Contract Agreement for Miscellaneous Professional Services. It is WSSI's understanding the City wants to develop a Resilience Plan (Plan) to prepare for the increase in urban flooding due to higher frequency storm events caused by climate and environmental changes. The Plan is intended to serve as a planning level document aimed at reducing impacts to properties and community assets. The Plan will include the five Commonwealth Planning Principles established by the Virginia Coastal Resiliency Master Planning framework and the following elements required by Appendix G of the 2022 Grant Manual for the Virginia Community Flood Preparedness Fund:

- 1) The Plan will be project-based with projects focused on flood control and resilience.
- 2) The Plan will incorporate nature-based infrastructure to the maximum extent possible.
- 3) The Plan will include considerations of all parts of the City regardless of socioeconomics or race.
- 4) The Plan will include coordination with other local inter-jurisdictional projects, plans and activities and will clearly articulate a timeline and phasing for plan implementation.
- 5) The Plan will be based on the best available science and will incorporate climate change and current flood maps.
- 6) The Plan may also identify additional studies, assessments, regulatory or programmatic adjustments that may be needed for the City to reach its identified resiliency goals.

SCOPE AND FEE

The focus of this project is to work closely with the City to develop a Resilience Plan to act as a framework document for future efforts related to repetitive flooding, flood preparedness and resilience with a focus on the City's floodplains, current and planned gray and green infrastructure, and stormwater management. This planning effort will be guided by social equity data and principles. The total fixed fee for the services below is **\$78,962**.

<u>Task A – Project Management</u>

Fixed Fee of \$11,210.00

Project Management will include the following:

- 1) Project meeting set up will be conducted by WSSI in coordination with City staff.
- 2) It is anticipated that one (1) hour virtual monthly steering committee meetings will be held during the duration of the project which is anticipated to be approximately six (6) months. WSSI will take meeting minutes and provide progress updates at the steering committee meetings.
- 3) Strategic partners identified in steering committee meetings will be engaged as necessary throughout the plan development process.
- 4) General project support will be provided throughout the plan development process.

8525 Bell Creek Road • Mechanicsville, VA 23116 • Phone 804.442.3330 • Fax 703.679.5601 • www.wetlands.com

Mr. Will Simpson January 31, 2022 revised February 4, 2022 WSSI Proposal # P19163A Page 2 of 4

Task B - City of Salem GIS Desktop Analysis

Fixed Fee of \$16,036.00

WSSI will use the available City of Salem GIS shapefile data and aerial imagery to develop City-wide base mapping that will be used to help the City identify high priority areas. The GIS Desktop Analysis may include, but are not limited to the following:

- Social/Economical Vulnerable Areas
- High Risk Flooding Areas and FEMA Flood Insurance Rate Maps
- Critical Infrastructure Location
- Existing Historical Resources
- Environmentally Critical Areas
- Other Environmental Data: Soils, Hydrology, Slope, Watershed Delineation, Imperviousness and Existing Land Cover
- Existing and Approved Resilience Efforts
- Utility Easements and Right-of-Ways
- Property Ownership

Task C - Literature Review/Gap Analysis

Fixed Fee of \$16,200.00

The literature review and gap analysis will proceed as follows:

- 1) Review existing City documents regarding stormwater, floodplains, resilience, and comprehensive planning; and identify elements that can be incorporated into the City's Resilience Plan. Documents that shall be collected and analyzed may include, but are not limited to the following:
 - Historical Flood Data
 - Historical Watershed Studies
 - Masterplans
 - Floodplain Ordinances
 - Historical and Proposed Drainage Projects
 - Site Specific Drainage Studies
 - TMDL Action Plans
- 2) Review the literature regarding the best climate change science available and social equity literature with a focus on flooding policies, strategies, and solutions.
- 3) Analyze flood resilience plans from other similar municipalities and identify concepts and elements that can be considered for the City's Resilience Plan.
- 4) Conduct a gap analysis to determine areas to focus the development of the City's Resilience Plan and identify potential studies and projects that would increase the City's resilience.

Task D - Community Education and Engagement

Fixed Fee of \$11,616.00

WSSI will work with the City to garner community feedback through a two-phase effort. Phase I will consist of posting resilience information online to educate the public and solicit feedback to be incorporated into the draft resilience plan. WSSI will document feedback from the community and incorporate pertinent feedback into the Plan. The second phase will focus on placing the draft Plan on the City's website to solicit additional community feedback. The feedback will be used to drive resilience priorities in the Plan aimed at reducing flood impacts.

Task E - Resilience Plan Development

Fixed Fee of \$23,400.00

The Resilience Plan will include the following:

1) WSSI will work with the steering committee and results of the first phase of community engagement to determine workable options for flood resilience and understand community needs.

Mr. Will Simpson January 31, 2022 revised February 4, 2022 WSSI Proposal # P19163A Page 3 of 4

- 2) WSSI will identify climate change impacts/resilience issues facing the City based on concerns identified from the public and available data. The Plan will identify needs for additional data and future studies.
- 3) WSSI will assess current City programs as they relate to identified resilience issues (e.g., development regulations, floodplain management program). WSSI will recommend programmatic changes to position the City to achieve resilience goals.
- 4) WSSI will work with the City to assess types of projects and studies to pursue to enhance flood control and resilience. Both green/grey infrastructure and nature-based projects will be considered and presented in the Plan.
- 5) A draft Plan and overall summary map will be prepared for City review. This draft will be placed on the City's website during the second phase of community engagement to garner feedback from the community.
- 6) A final Plan will be prepared and delivered to the City based on community feedback.

Task F - Reimbursable Expenses

Fixed Fee of \$500.00

ASSUMPTIONS

- The City will provide input throughout the Plan development process to include information during the literature review, community engagement support, Plan development support and participation on the steering committee.
- Specialty engineering support services such as field work, site survey, geotechnical, and modeling (e.g., floodplain) will not be included in the Plan.
- ❖ The City will provide any necessary advertising related to Task 4.
- ❖ The City will coordinate the placement of the draft Plan on the City's website. In addition, the City will provide the means to announce the availability of the Plan to the public and devise the means for the public to provide comments.

SCHEDULE & DELIVERABLES

This phase of work will begin upon a written notice to proceed and extend for a duration of approximately six (6) months. An initial kick-off meeting with the City will begin within two (2) weeks of notice to proceed. Community engagement preparation will begin within one (1) month. The draft Plan will be available within five (5) months of notice to proceed and placed on the City's website within two (2) weeks of the draft submission to the City. The final Plan will be developed within six (6) months of the notice to proceed.

The following items are project deliverables for this scope of work:

- Resilience information to post on the website to educate the community and garner feedback.
- Draft and Final City of Salem Resilience Plan.
- All background data, analyses, calculations, and project files.

The price is only fixed for thirty (30) days from the date of this proposal. Our fee for services will be invoiced as outlined above <u>Plus Reimbursables</u> (with 20 percent Administrative Fee).

If this short form contract outlines your understanding of the scope of services, please sign below and return a copy to our office.

Thank you for the opportunity to present this proposal.

Sincerely, Wetland Studies and Solutions, Inc.

Mr. Will Simpson January 31, 2022 revised February 4, 2022 WSSI Proposal # P19163A Page 4 of 4

> Christopher M. Schune f Chris Schrinel Manager – Engineering

> > Anna Salzberg, PhD, ENV SP Associate Environmental Scientist

CLIENT'S PREFERRED METHOD OF INVOICE SUBMISSION

Ho	w woul	d you lik	e to receiv	e invoi	ces for this project?
	Mail:	Invoice(s) will be mailed to the address listed on this proposal			
X	E-ma	il: Invoice	e(s) will be	emaile	ed to
sdriscoll@salemva.gov Other: Please provide instructions					
bel	ow:				

Attachment C - FIRM Panels and Floodplain Map & City of Salem Social Vulnerability Map

List of FEMA FIRM Panels for City of Salem, Virginia

FIRM_PANEL

51161C0143G

51161C0142G

51161C0141G

51161C0138G

51161C0139G

51161C0136G

51161C0137G

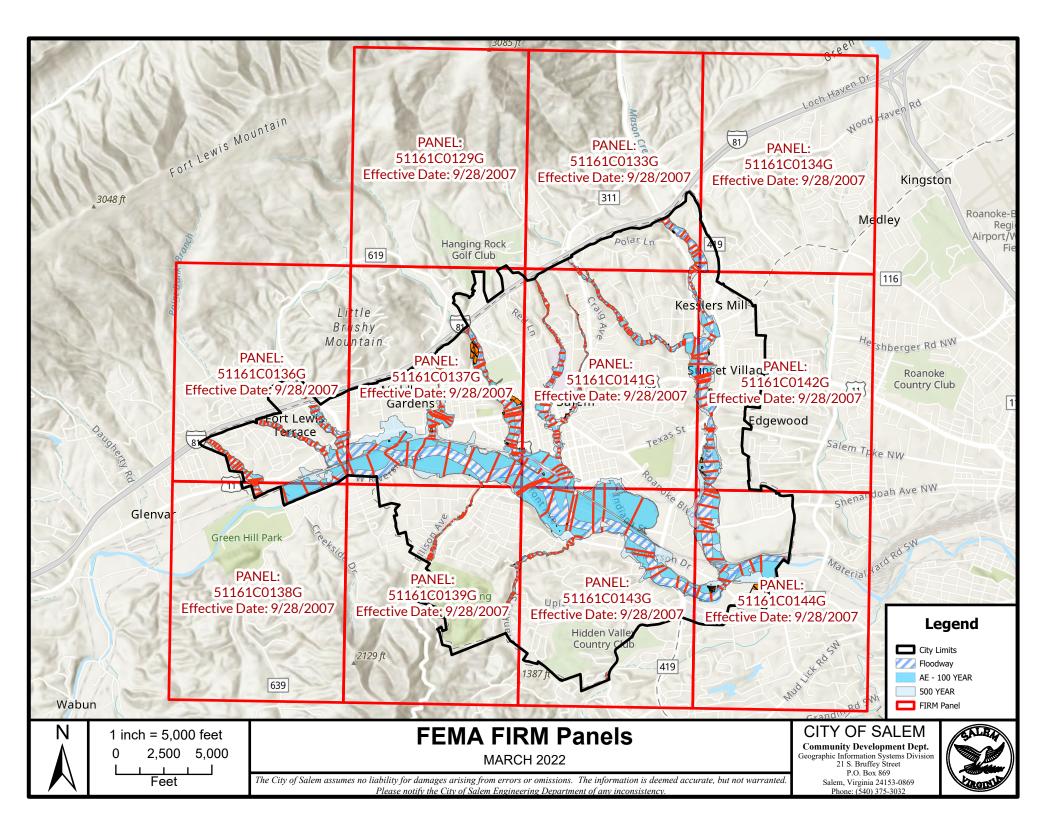
51161C0144G

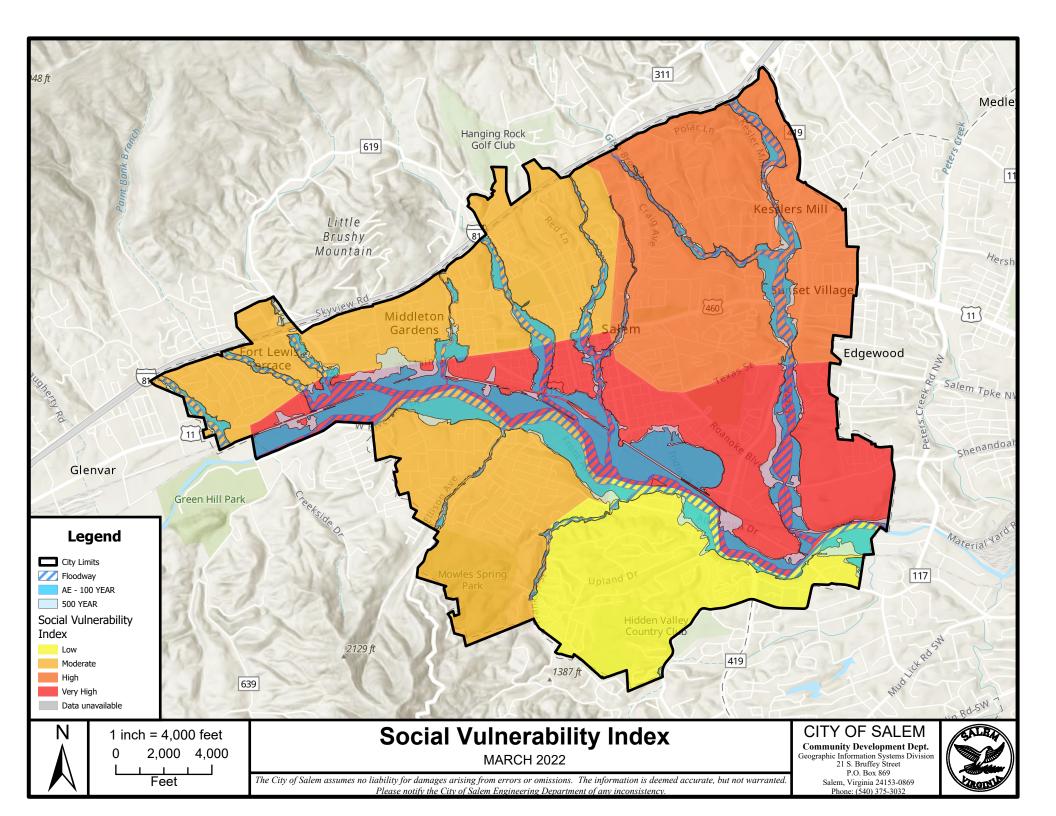
51161C0129G

51161C0133G

51161C0134G

Effective Date for all Panels: September 28, 2007





Appendix D: Scoring Criteria for Capacity Building & Planning

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

Applicant Name:		ame:	City of Salem			
	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	Χ		
	No	Not elig	gible for consideration			
2.	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			
	No	Eligible	for consideration for studies, capacity building, and planning only	Х		
3.	If the applicant is not a town, city, or county, are letters of support from all affected local governments included in this application?			ocal		
	Yes	Eligible	for consideration	N/A		
	No	Not elig	gible for consideration			
4.	4. Has this or any portion of this project been included in any application or program previously funded by the Department?			eviously		
	Yes	Not elig	gible for consideration			
	No	Eligible	for consideration	X		
5.	5. Has the applicant provided evidence of an ability to provide the required matching funds?					
	Yes	Eligible	for consideration	Х		
	No	Not elig	gible for consideration			
	N/A	Match i	not required			

Capacity Bu	uilding and Planning Eligible for Consideration		⊠ Yes □ No
Applicant Name:	City of Salem		
	Scoring Information		
	Criterion	Point Value	Points Awarded
6. Eligible Capacity Bu	ilding and Planning Activities (Select all that apply)		
Revisions to existing res and hazard mitigation p	ilience plans and modifications to existing comprehensive lans.	55	
Development of a new r	resilience plan.	55	55
Resource assessments,	planning, strategies and development.	45	45
Policy management and	/or development.	40	40
Stakeholder engagemer	nt and strategies.	25	25
Goal planning, impleme	ntation and evaluation.	25	25
Long term maintenance	strategy.	25	25
Other proposals that will significantly improve protection from flooding on a statewide or regional basis.			
	ne local government to which the grant is targeted socially v	ulnerable	e? (Based
Very High Social Vulnera	al Vulnerability Index Score.)	15	15
High Social Vulnerability		12	
Moderate Social Vulnera		8	12
Low Social Vulnerability		0	8
Very Low Social Vulnerability (Less than -1.0)		0	
<u> </u>	vity part of an effort to join or remedy the community's pro		
Yes		10	
No		0	0
9. Is the proposed pro	ject in a low-income geographic area as defined in this man	ual?	
Yes		10	10
No		0	
10. Does this project pr	ovide "community scale" benefits?		
Yes 20			20
No			
	Total Points		280

Appendix D: Checklist All Categories

Virginia Department of Conservation and Recreation

Community Flood Preparedness Fund Grant Program

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



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

CID510141_City of Salem_CFPF Application

1 message

Sam R Driscoll <sdriscoll@salemva.gov>
To: "cfpf@dcr.virginia.gov" <cfpf@dcr.virginia.gov>
Cc: Will L Simpson <wsimpson@salemva.gov>

Fri, Apr 8, 2022 at 9:22 AM

Please see attached the City of Salem CFPF Grant Application.

Thank you,

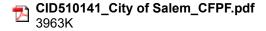
Sam Driscoll

Stormwater Manager

Community Development Dept.

(540) 375-3032

This e-mail message is for the sole use of the intended recipient(s) and may contain privileged and/or confidential information. If you are not the intended recipient, please contact the sender by reply e-mail and destroy all copies of the original message.



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:
Category of Grant Being Applied for (check one):
Capacity Building/Planning
Project
Study
NFIP/DCR Community Identification Number (CID)
If a state or federally recognized Indian tribe, Name of tribe
Name of Authorized Official:
Signature of Authorized Official: Mal E Vanda 9
Mailing Address (1):
Mailing Address (2):
City: State: Zip:
Telephone Number: () Cell Phone Number: ()
Email Address:

Со	ontact Person (If different from authorize	d official):		
Ma	lailing Address (1):			
Ma	lailing Address (2):			
Cit	ty: State	e:	Zip:	
Tel	elephone Number: ()	Cell Phone Nu	umber: ()	
Em	mail Address:			
ls t	the proposal in this application intended	to benefit a low-	income geographic area as defined	
in the Part 1 Definitions? Yes Categories (select applicable project):		is for which	*The proposed Resilience Plan is for the entire City of Saler which includes some low-income geographic areas	
Pro	roject Grants (Check All that Apply)			
	Acquisition of property (or interests there floodwater inundation, strategic retreat flooding; the conservation or enhancem acquisition of structures, provided the action further development.	of existing land ι ent of natural flo	uses from areas vulnerable to od resilience resources; or	
	Wetland restoration. Floodplain restoration. Construction of swales and settling pond Living shorelines and vegetated buffers. Structural floodwalls, levees, berms, flood Storm water system upgrades. Medium and large scale Low Impact Deventon Permanent conservation of undeveloped ConserveVirginia Floodplain and Floodin tool. Dam restoration or removal. Stream bank restoration or stabilization. Restoration of floodplains to natural and Developing flood warning and response notify residents of potential emergency.	od gates, structur velopment (LID) ii d lands identified ng Resilience layer d beneficial funct systems, which r	n urban areas. as having flood resilience value by or a similar data driven analytic ion.	

Stu	ıdy 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.
<u>Ca</u>	pacity 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.
Lo	cation of Project (Include Maps):
NE	ID Community Identification Number (CID#)/(See annendix E

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):					
Flood Insurance Rate Map Number(s) (If Applicable):					
Total Cost of Project:					
Total Amount Requested					



William L. Simpson, Jr., PE City Engineer

<u>City of Salem Community Development Department</u> Engineering, Inspections, GIS, Stormwater, Planning & Zoning

Scope of Work Narrative - Capacity Building and Planning

Introduction

The City of Salem is pleased to apply for funding through the 2022 Virginia Community Flood Preparedness Fund Grant (CFPF). The City of Salem's application is for the capacity building/planning category, and with the assistance of Wetland Studies and Solutions, Inc. the city plans to develop a resilience plan.

Capacity Needs and Assets

Resource Needs

-The City of Salem is applying for funding to assist in establishing a Resiliency Plan. The city is to contract a consultant to establish a plan that will help identify future flood control projects as well as studies, assessments, and program adjustments needed to meet resiliency goals. The city will coordinate with multiple departments but is reliant on the assistance of a consulting agency to aid in developing this plan as it is not something the city has the capacity to do on its own.

Scope of Work: see attachment "A"

Plan Development

-The City of Salem plans to contract with a consultant to assist with developing a Resilience Plan. This will include but is not limited to collecting and analyzing data, reviewing flood plains, stormwater controls, public outreach, and social vulnerability. A Resilience Plan will help the city identify future projects and prioritize areas of need.

See WSSI proposal – attachment "B"



William L. Simpson, Jr., PE City Engineer

<u>City of Salem Community Development Department</u> Engineering, Inspections, GIS, Stormwater, Planning & Zoning

Goals and Objectives

-The goal of the Resilience Plan for the City of Salem is to apply nature-based solutions to the maximum extent possible to address increased flooding within the entire city. The goal of this planning level document will be to assist in reducing impacts to properties and community assets.

<u>Stakeholders</u>

-The Community Development Department with the City of Salem will be the primary stakeholder; but as projects and other items are identified through the Resilience Plan, this will assist in recognizing other stakeholders such as citizens, businesses, places of worship, government entities, and educational institutions.

Implementation

-The City of Salem would like to apply for funding in the earliest funding cycle possible. If awarded funding, the city will sign the proposal from our consultant and provide an estimated timeline for the completion of the plan; and once complete, the city would submit the Resilience Plan.

Responsible Parties

-The Community Development Department with the City of Salem would be the primary party responsible. Community Development is reliant on their consultant to acquire and analyze data to develop the Resilience Plan.

<u>Performance Outputs and Measures</u>

-The final product will be a comprehensive Resilience Plan that assists in identifying future projects, flood preparedness, and strategies to help protect properties city-wide. Another goal is to aid in additional measures to help the city meet its MS-4 permit requirements.



William L. Simpson, Jr., PE City Engineer

<u>City of Salem Community Development Department</u> Engineering, Inspections, GIS, Stormwater, Planning & Zoning

Maintaining Capacity

-The City of Salem plans to maintain and update the Resilience Plan as needed. Either through city staff or by a consultant, the Resilience plan can be updated as new information becomes available as well as other variables that necessitate changes.

Supporting Documentation

- City of Salem Comprehensive Plan
- Regional Hazard Mitigation Plan
- City of Salem <u>Floodplain Overlay District code</u>
- City of Salem Floodplain Map (Attachment C)
- City of Salem Social Vulnerability Map (Attachment C)
- Scoring Sheet (appendix D)

Budget

-Fees for services to develop the Resilience Plan are as follows:

Project Management	\$ 11,210
City of Salem GIS Desktop Analysis	\$ 16,036
Literature Review	\$ 16,200
Community Outreach	\$ 11,616
Resilience Plan Development	\$ 23,400
Direct Expense Budget	\$ 500
Total Fixed Cost	\$ 78,962

Funds Requested

The City of Salem is requesting funds of \$59,221 (75% CFPF) to aid in the development of a Resilience Plan. The city will be responsible for providing \$19,741 (25% match) and these funds will be drawn from the City of Salem General Fund. As requested, a resolution from City of Salem Council is attached. This will provide the necessary funds to hire Wetland Studies and Solutions, Inc. to develop a plan.



William L. Simpson, Jr., PE City Engineer

<u>City of Salem Community Development Department</u> Engineering, Inspections, GIS, Stormwater, Planning & Zoning

Funds Available

The City of Salem's 25% match of \$19,741 is available in the 2023 Community Development budget and was approved by City council with the approval of the 2023 city budget. As requested, a resolution of support from City of Salem Council is attached below.

IN THE COUNCIL OF THE CITY OF SALEM, VIRGINIA, OCTOBER 24, 2022:

RESOLUTION #1440

A RESOLUTION FOR THE COUNCIL OF THE CITY OF SALEM, VIRGINIA

AS AN ENDORSEMENT OF COMMUNITY FLOOD PREPAREDNESS FUND GRANT

WHEREAS, the Department of Conservation and Recreation (DCR) has established the Community Flood Preparedness Grant (CFPF) to provide support to communities to help reduce flooding; and

WHEREAS, the City of Salem has applied for CFPF grant money in the amount of \$78,942, with a 25% match (\$59,221 grant, \$19,741 local).

NOW, THEREFORE, BE IT RESOLVED, that City of Salem City Council supports this application to DCR.

BE IT FURTHER RESOLVED THAT: The City of Salem hereby agrees to provide its local share for the cost of the grant in the amount of \$19,741.

BE IT FURTHER RESOLVED THAT: The Council of the City of Salem hereby grants authority for the City Manager, or his designee, to apply for funds and execute project administration agreements, as well as other documents necessary for approved projects.

Adopted: October 24,2022	
Attest:	Serie Gerris Surk
Clerk	Mayor

In my capacity as the duly appointed Clerk of the City of Salem, I hereby certify that Resolution #1440 which is hereto attached, was adopted at a duly called and constituted meeting of the City of Salem held at Salem City Hall Council Chambers on October 24, 2022. Said meeting was called to order by Mayor Renée Ferris Turk at 6:30 PM with the following members present who remained in attendance throughout and constituted a quorum:

John E. Saunders	James W. Wallace, III (Absent)		
William D. Jones	Renée Ferris Turk		
Byron Randolph Foley	_		

The Council of the City of Salem that were present, voted unanimously to adopt attached Resolution #1440.

Given under my hand this 24th day of October, 2022.

Clerk



William L. Simpson, Jr., PE City Engineer

<u>City of Salem Community Development Department</u> Engineering, Inspections, GIS, Stormwater, Planning & Zoning

Attachment "A"

Scope of Work Narrative

The following narrative is in support of the City of Salem's grant application for the Virginia Department of Conservation and Recreation's 2022 Community Flood Preparedness Fund Grant Program (CFPF). The City of Salem is requesting funds to assist in developing a Resilience Plan that will aid in the discovery and implementation of future flood mitigation and stormwater projects.

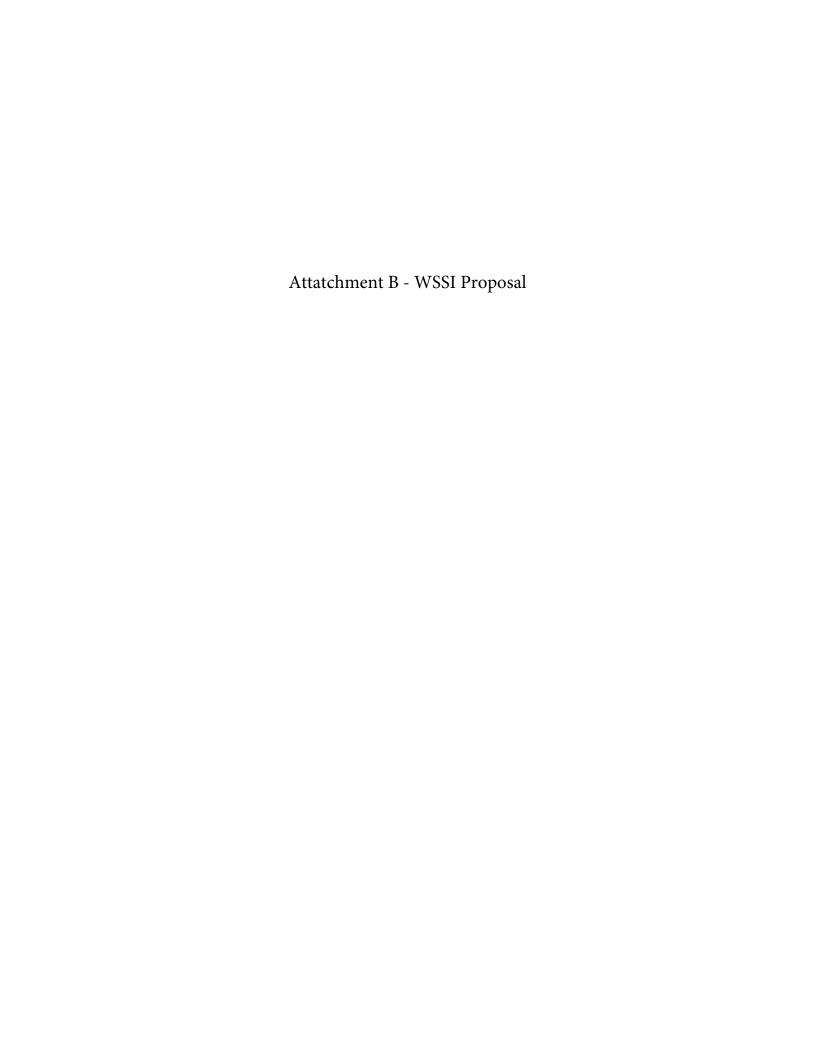
The city acknowledges that CFPF funds are to be used under the following principles:

- 1.) Acknowledge climate change and its consequences, and base decision making on the best available science.
- 2.) Identify and address socioeconomic inequities and work to enhance equity through adaptation and protection efforts.
- 3.) Utilize community and regional scale planning to the maximum extent possible, seeking region-specific approaches tailored to the needs of individual communities.
- 4.) Understand fiscal realities and focus on the most cost-effective solutions for the protection and adaptation of our communities, businesses, and critical infrastructure. The solutions will, to the extent possible, prioritize effective natural solutions.
- 5.) Recognize the importance of protecting and enhancing nature-based solutions in all regions, natural coastal barriers, and fish and wildlife habitat by prioritizing nature-based solutions.

The City of Salem is to work closely with a consultant (WSSI) to develop a framework document that will assist in establishing future projects, aid in flood preparedness and resilience, and provide data for better stormwater management as well as flood mitigation. For more details on the Resiliency Plan, please see the proposal from WSSI (attachment B)

Per the definition in the 2022 CFPF grant manual. The final Resiliency Plan will include:

- 1. It is project-based with projects focused on flood control and resilience.
- 2. It incorporates nature-based infrastructure to the maximum extent possible.
- 3. It includes considerations of all parts of a local government regardless of socioeconomics or race.
- 4. It includes coordination with other local and inter-jurisdictional projects, plans, and activities and has a clearly articulated timeline or phasing for plan implementation.
- 5. Is based on the best available science, and incorporates climate change, sea level rise, and storm surge (where appropriate), and current flood maps.





SHORT FORM CONTRACT PROFESSIONAL SERVICES AGREEMENT

CLIENT: City of Salem DATE: January 31, 2022 rev February 4, 2022

ADDRESS: Community Development VIA EMAIL: <u>wsimpson@salemva.gov</u>

21 S Bruffey St, Salem, VA 24153 **PROJECT NAME:** Salem Resilience Plan

ATTN: Will Simpson WSSI PROPOSAL #: P19163A

Wetland Studies and Solutions Inc. (WSSI) is pleased to provide this proposal pursuant to our Term Contract Agreement for Miscellaneous Professional Services. It is WSSI's understanding the City wants to develop a Resilience Plan (Plan) to prepare for the increase in urban flooding due to higher frequency storm events caused by climate and environmental changes. The Plan is intended to serve as a planning level document aimed at reducing impacts to properties and community assets. The Plan will include the five Commonwealth Planning Principles established by the Virginia Coastal Resiliency Master Planning framework and the following elements required by Appendix G of the 2022 Grant Manual for the Virginia Community Flood Preparedness Fund:

- 1) The Plan will be project-based with projects focused on flood control and resilience.
- 2) The Plan will incorporate nature-based infrastructure to the maximum extent possible.
- 3) The Plan will include considerations of all parts of the City regardless of socioeconomics or race.
- 4) The Plan will include coordination with other local inter-jurisdictional projects, plans and activities and will clearly articulate a timeline and phasing for plan implementation.
- 5) The Plan will be based on the best available science and will incorporate climate change and current flood maps.
- 6) The Plan may also identify additional studies, assessments, regulatory or programmatic adjustments that may be needed for the City to reach its identified resiliency goals.

SCOPE AND FEE

The focus of this project is to work closely with the City to develop a Resilience Plan to act as a framework document for future efforts related to repetitive flooding, flood preparedness and resilience with a focus on the City's floodplains, current and planned gray and green infrastructure, and stormwater management. This planning effort will be guided by social equity data and principles. The total fixed fee for the services below is **\$78,962**.

<u>Task A – Project Management</u>

Fixed Fee of \$11,210.00

Project Management will include the following:

- 1) Project meeting set up will be conducted by WSSI in coordination with City staff.
- 2) It is anticipated that one (1) hour virtual monthly steering committee meetings will be held during the duration of the project which is anticipated to be approximately six (6) months. WSSI will take meeting minutes and provide progress updates at the steering committee meetings.
- 3) Strategic partners identified in steering committee meetings will be engaged as necessary throughout the plan development process.
- 4) General project support will be provided throughout the plan development process.

8525 Bell Creek Road • Mechanicsville, VA 23116 • Phone 804.442.3330 • Fax 703.679.5601 • www.wetlands.com

Mr. Will Simpson January 31, 2022 revised February 4, 2022 WSSI Proposal # P19163A Page 2 of 4

Task B - City of Salem GIS Desktop Analysis

Fixed Fee of \$16,036.00

WSSI will use the available City of Salem GIS shapefile data and aerial imagery to develop City-wide base mapping that will be used to help the City identify high priority areas. The GIS Desktop Analysis may include, but are not limited to the following:

- Social/Economical Vulnerable Areas
- High Risk Flooding Areas and FEMA Flood Insurance Rate Maps
- Critical Infrastructure Location
- Existing Historical Resources
- Environmentally Critical Areas
- Other Environmental Data: Soils, Hydrology, Slope, Watershed Delineation, Imperviousness and Existing Land Cover
- Existing and Approved Resilience Efforts
- Utility Easements and Right-of-Ways
- Property Ownership

Task C - Literature Review/Gap Analysis

Fixed Fee of \$16,200.00

The literature review and gap analysis will proceed as follows:

- 1) Review existing City documents regarding stormwater, floodplains, resilience, and comprehensive planning; and identify elements that can be incorporated into the City's Resilience Plan. Documents that shall be collected and analyzed may include, but are not limited to the following:
 - Historical Flood Data
 - Historical Watershed Studies
 - Masterplans
 - Floodplain Ordinances
 - Historical and Proposed Drainage Projects
 - Site Specific Drainage Studies
 - TMDL Action Plans
- 2) Review the literature regarding the best climate change science available and social equity literature with a focus on flooding policies, strategies, and solutions.
- 3) Analyze flood resilience plans from other similar municipalities and identify concepts and elements that can be considered for the City's Resilience Plan.
- 4) Conduct a gap analysis to determine areas to focus the development of the City's Resilience Plan and identify potential studies and projects that would increase the City's resilience.

Task D - Community Education and Engagement

Fixed Fee of \$11,616.00

WSSI will work with the City to garner community feedback through a two-phase effort. Phase I will consist of posting resilience information online to educate the public and solicit feedback to be incorporated into the draft resilience plan. WSSI will document feedback from the community and incorporate pertinent feedback into the Plan. The second phase will focus on placing the draft Plan on the City's website to solicit additional community feedback. The feedback will be used to drive resilience priorities in the Plan aimed at reducing flood impacts.

Task E - Resilience Plan Development

Fixed Fee of \$23,400.00

The Resilience Plan will include the following:

1) WSSI will work with the steering committee and results of the first phase of community engagement to determine workable options for flood resilience and understand community needs.

Mr. Will Simpson January 31, 2022 revised February 4, 2022 WSSI Proposal # P19163A Page 3 of 4

- 2) WSSI will identify climate change impacts/resilience issues facing the City based on concerns identified from the public and available data. The Plan will identify needs for additional data and future studies.
- 3) WSSI will assess current City programs as they relate to identified resilience issues (e.g., development regulations, floodplain management program). WSSI will recommend programmatic changes to position the City to achieve resilience goals.
- 4) WSSI will work with the City to assess types of projects and studies to pursue to enhance flood control and resilience. Both green/grey infrastructure and nature-based projects will be considered and presented in the Plan.
- 5) A draft Plan and overall summary map will be prepared for City review. This draft will be placed on the City's website during the second phase of community engagement to garner feedback from the community.
- 6) A final Plan will be prepared and delivered to the City based on community feedback.

Task F - Reimbursable Expenses

Fixed Fee of \$500.00

ASSUMPTIONS

- The City will provide input throughout the Plan development process to include information during the literature review, community engagement support, Plan development support and participation on the steering committee.
- Specialty engineering support services such as field work, site survey, geotechnical, and modeling (e.g., floodplain) will not be included in the Plan.
- ❖ The City will provide any necessary advertising related to Task 4.
- ❖ The City will coordinate the placement of the draft Plan on the City's website. In addition, the City will provide the means to announce the availability of the Plan to the public and devise the means for the public to provide comments.

SCHEDULE & DELIVERABLES

This phase of work will begin upon a written notice to proceed and extend for a duration of approximately six (6) months. An initial kick-off meeting with the City will begin within two (2) weeks of notice to proceed. Community engagement preparation will begin within one (1) month. The draft Plan will be available within five (5) months of notice to proceed and placed on the City's website within two (2) weeks of the draft submission to the City. The final Plan will be developed within six (6) months of the notice to proceed.

The following items are project deliverables for this scope of work:

- Resilience information to post on the website to educate the community and garner feedback.
- Draft and Final City of Salem Resilience Plan.
- All background data, analyses, calculations, and project files.

The price is only fixed for thirty (30) days from the date of this proposal. Our fee for services will be invoiced as outlined above <u>Plus Reimbursables</u> (with 20 percent Administrative Fee).

If this short form contract outlines your understanding of the scope of services, please sign below and return a copy to our office.

Thank you for the opportunity to present this proposal.

Sincerely, Wetland Studies and Solutions, Inc.

Mr. Will Simpson January 31, 2022 revised February 4, 2022 WSSI Proposal # P19163A Page 4 of 4

> Christopher M. Schune f Chris Schrinel Manager – Engineering

> > Anna Salzberg, PhD, ENV SP Associate Environmental Scientist

CLIENT'S PREFERRED METHOD OF INVOICE SUBMISSION

How would you like to receive invoices for this project?					
	Mail: I	: Invoice(s) will be mailed to the address listed on this proposal			
X	E-mail: Invoice(s) will be emailed to				
sdriscoll@salemva.gov Other: Please provide instructions					
below:					

Attachment C - FIRM Panels and Floodplain Map & City of Salem Social Vulnerability Map

List of FEMA FIRM Panels for City of Salem, Virginia

FIRM_PANEL

51161C0143G

51161C0142G

51161C0141G

51161C0138G

51161C0139G

51161C0136G

51161C0137G

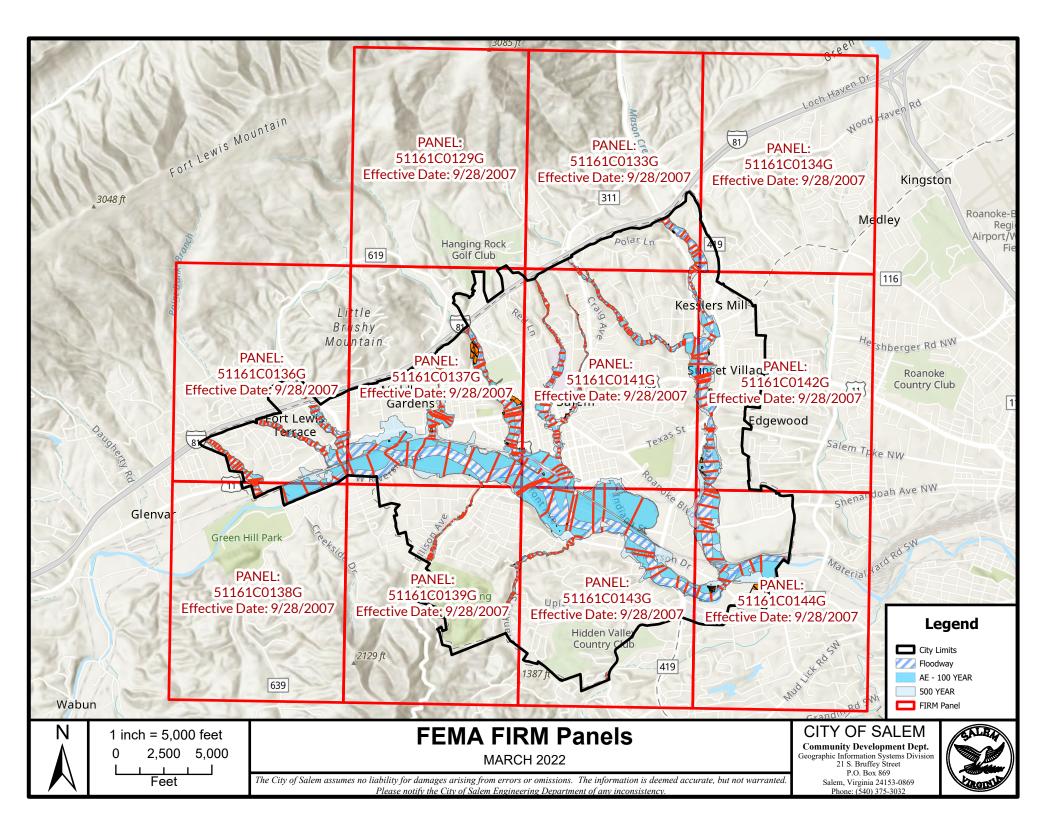
51161C0144G

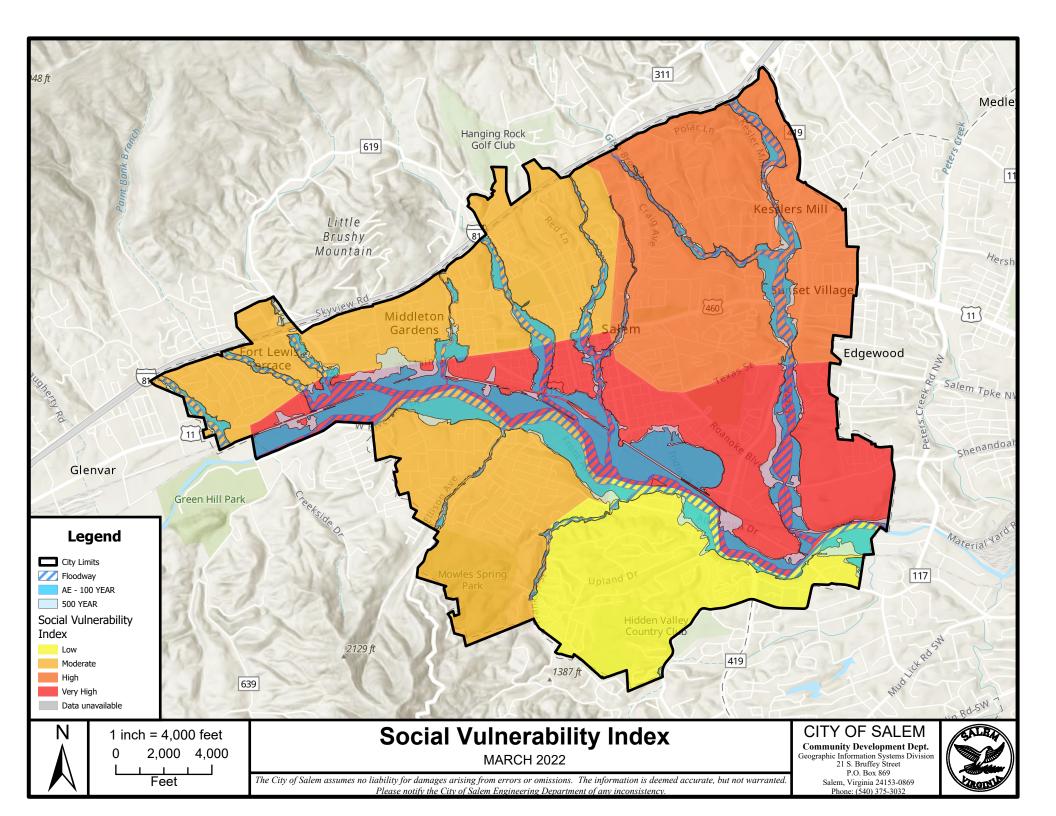
51161C0129G

51161C0133G

51161C0134G

Effective Date for all Panels: September 28, 2007





Appendix D: Scoring Criteria for Capacity Building & Planning

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

Applicant Name:		ame:	City of Salem			
	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	Χ		
	No	Not elig	gible for consideration			
2.	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			
	No	No Eligible for consideration for studies, capacity building, and planning only				
3.	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	N/A		
	No	Not elig	gible for consideration			
4.	4. Has this or any portion of this project been included in any application or program previously funded by the Department?					
	Yes	Not elig	gible for consideration			
	No	Eligible	for consideration	X		
5.	5. Has the applicant provided evidence of an ability to provide the required matching funds?					
	Yes	Eligible	for consideration	Х		
	No	Not elig	gible for consideration			
	N/A	Match i	not required			

Capacity Bu	uilding and Planning Eligible for Consideration		⊠ Yes □ No	
Applicant Name:	City of Salem			
	Scoring Information			
	Criterion	Point Value	Points Awarded	
6. Eligible Capacity Building and Planning Activities (Select all that apply)				
Revisions to existing resilience plans and modifications to existing comprehensive and hazard mitigation plans.				
Development of a new r	resilience plan.	55	55	
	planning, strategies and development.	45	45	
Policy management and	· · · · · · · · · · · · · · · · · · ·	40	40	
Stakeholder engagemer	nt and strategies.	25	25	
Goal planning, impleme	ntation and evaluation.	25	25	
Long term maintenance	strategy.	25	25	
Other proposals that will significantly improve protection from flooding on a statewide or regional basis.				
	ne local government to which the grant is targeted socially v	ulnerable	e? (Based	
	al Vulnerability Index Score.)	15	15	
, ,				
High Social Vulnerability (1.0 to 1.5) Moderate Social Vulnerability (0.0 to 1.0) 8			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) 8. Is the proposed activity 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	
No				
10. Does this project provide "community scale" benefits?				
Yes 20			20	
No				
	Total Points		280	

Appendix D: Checklist All Categories

Virginia Department of Conservation and Recreation

Community Flood Preparedness Fund Grant Program

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