

# Proposal to develop a Flood Education and Outreach Campaign

Scope of Work Narrative, Northern Virginia Regional Commission

## 1. Need:

### **a) Specific problem being solved (not just that flooding exists or may occur in the future).**

As record-breaking storms and extreme weather events increase in Northern Virginia, so are the resulting floods that threaten the safety and integrity of the region, its communities, and its infrastructure. With a high vulnerability to flood hazards, it is more crucial than ever to prepare the region for sea level rise, changing precipitation patterns, and the impacts that both have on our communities. Since flooding is a community scale problem, it should be addressed with a community scale approach. Effective management of flood risks requires the support and engagement of private citizens, businesses, and other organizations in addition to government agencies. A whole community approach can provide a more effective communication plan, and a well-informed community can make better decisions to protect themselves and their property from flooding. The Northern Virginia Regional Commission proposes launching a regional flood hazard education and outreach campaign for Northern Virginia that raises awareness about flood risk and builds support for flood resilient policies.

### **b) Factors which contribute to the identified problem.**

With frequent population turnover and people living and commuting across multiple jurisdictions, differing local policies and regulations can confuse residents and complicate efforts to implement uniform strategies around flood communications in Northern Virginia. Transient residents might not be fully aware of local ordinances, emergency protocols, or long-term planning initiatives if there's a lack of consistent messaging across the region. This fragmentation can reduce the effectiveness of outreach campaigns on critical issues like disaster preparedness and public safety.

### **c) Why the activity is needed either locally or regionally.**

The current NOVA Hazard Mitigation Plan (HMP) identified hazard education as an area for improvement. In a commuter-dominated area like Northern Virginia, fostering a sense of regional identity can help build trust and encourage cooperation. Consistent policies and messaging promote the idea that neighboring jurisdictions are working together toward common goals, in turn making it easier for residents to engage in collective actions, such as participating in regional flood preparedness initiatives. The Flood Resilience Plan for the City of Fairfax recommends increasing public awareness about flood risk and enhancing flood resilience outreach and education. The Fairfax County plan also recommends building "community capacity to understand, be ready for, respond to, and bounce back from climate change impacts" in addition to developing and delivering Climate Change 101 education materials to staff and residents.

While the region is generally categorized as having high mitigation capacity, there is always room for improvement due to constantly changing factors such as population, staffing, finances, and different types and magnitudes of hazards. A gap analysis was performed for the 2022 NOVA HMP to identify ways in which planning and regulatory capabilities could be expanded and improved to reduce risk. One of the key areas for improvement was an increase in public education to better

prepare the population—especially vulnerable populations—about natural and human-caused hazards, including the increasing severity and frequency of hazards such as flooding.

**d) How the activity decreases the risk to public safety through flood risk reduction.**

The project intends to enhance public safety and reduce vulnerability to flood damage by improving the effectiveness of public information programs. NVRC aims to establish and advance the whole community's understanding of current flood hazards and support for climate resilient planning at a regional level by delivering tailored messages meaningful to Northern Virginia. Campaigns that educate the public about flood risks often lead to greater community engagement in flood mitigation efforts, such as elevating homes, purchasing flood insurance, or implementing stormwater management solutions. By raising awareness, changing behaviors, and encouraging mitigation actions, such campaigns can lead to sustained reductions in risk to populations at risk of flooding, complementing and enhancing other flood management efforts.

**e) How the activity protects or conserves natural resources.**

A flood education campaign can play a key role in protecting and preserving natural resources by increasing public awareness about the importance of these resources in flood prevention, encouraging sustainable practices, and fostering behaviors that support environmental conservation. As communities gain a better understanding of their vulnerabilities, this knowledge can be integrated into policy frameworks that guide larger actions for flood mitigation and long-term planning that prioritizes the use of natural resources and nature-based solutions to build flood resilience.

**f) Who or what is protected.**

Northern Virginia jurisdictions and their 2.5 million residents, visitors, roads, critical infrastructure, and community lifelines, including two major airports and three military installations.

**g) The safety threats, or environmental concerns related to flood risk.**

As part of the National Capital Region, a significant portion of the region's economy is focused on government facilities and workers as well as major commercial and industrial employers. Damage of one critical facility can impact the entire region. The region is experiencing an alarming increase in flooded roads, resulting in stranded motorists and swift water rescues, posing a direct threat to people and communities. According to the 2022 NOVA HMP, "stormwater run-off may exceed the design capacity of the drainage systems, leading to increased water depth and velocity. Overland flow erodes ravines, accelerates head-cutting, and steepens side slopes. Steep hillsides that have been cut to accommodate roads are especially susceptible to these conditions and may lead to extensive erosion." With most flooding issues in NOVA occurring outside the regulated floodplain and on roadways, there is an increased risk of washouts and infrastructure destabilization which threaten the health of the environment.

**h) Groups who might directly benefit from this flood risk reduction effort.**

Residents, homeowners, local government staff, emergency managers and first responders.

**i) What would happen (or not happen) if the applicant does not receive funding.**

As the frequency and severity of precipitation events continue to grow, flood risk exposure will also grow. Motorists will drive through floodwaters, requiring a swift water rescue from an emergency responder. The region will continue to see damage to homes and structures, more home buyouts by local governments and personal financial losses in the absence of flood insurance.

- j) Alternatives analysis of the viability of the project, how selected project reduces risk to populations at risk of flooding. Provide examples of current or previous related projects, data, outcomes etc. that justify the approach chosen. Include how long and how much protection to be achieved.**

The framework was modeled after the Northern Virginia Clean Water Partners (NVCWP) program, a regional initiative aimed at improving water quality and promoting environmental stewardship in Northern Virginia. The success of the NVCWP is due in part to its collaboration among local governments. By working together, localities can share resources, reduce costs, and streamline efforts which leads to increased public engagement and a stronger regional impact. A flood education and outreach campaign can complement physical flood mitigation projects by changing behavior. It helps residents understand flood risks and motivates them to adopt personal mitigation measures such as elevating homes, purchasing flood insurance, or making evacuation plans. This approach also addresses behavioral gaps that traditional mitigation infrastructure alone cannot cover. The "Stay High, Stay Dry" Campaign in New Orleans educated residents on how to elevate their homes to avoid flood damage post-Katrina. As a result, many homeowners took steps to elevate properties, significantly reducing future flood-related damage. The "Miami-Dade Flood Awareness Campaign" focuses on local flood risks, highlighting evacuation routes, flood maps, and emergency preparedness. It has helped increase participation in local mitigation programs, such as voluntary home elevation programs, by educating residents about the effectiveness of these measures.

## 2. Goals and Objectives:

- a) Goals should be listed as an outcome that solves the problem identified.**

The objective of this project is to develop and advertise targeted messages for a regional flood education and outreach campaign, in order to;

- Build community capacity to prepare, adapt, and respond to flooding events,
- Foster support for climate-informed decision making that prioritizes the health and safety of the community,
- Increase public understanding of climate change and its impact on flooding,
- Promote public safety by encouraging risk reduction actions before, during, and after flood events.

- b) Objectives must be specific, measurable and timebound.**

NVRC developed a [framework](#) for the campaign with input from jurisdictions, and the contractor will use the framework to complete the following tasks to implement the campaign:

- Develop social media campaign strategy and content schedule
- Create region specific flood awareness messages and design infographics

- Produce short, motion-graphic videos and short clips
- Implement social media strategy and content schedule, including paid advertising
- Track advertising performance and report on ad effectiveness

With a project period of 16 months, this allows time for the development of outreach content followed by the implementation of the campaign over a 12-month period.

**c) Objectives be achievable within the agreement period.**

The project is anticipated to take 16 months to complete, which leaves room for delays in the total grant term of 60 months.

**3. Work Plan:**

**a) What are the major activities and tasks?**

The Contractor will develop and implement a social media campaign over 12 months that enhances flood hazard education and outreach in Northern Virginia. These services may include the following tasks:

**A. Develop Social Media Campaign Strategy:**

1. Develop a social media campaign and content strategy that builds community knowledge to prepare, adapt, and respond to flooding in Northern Virginia and actions that the campaign's target audiences can take to reduce risk before, during, and after flood events. The social media strategy should be implementable across the NVRC and Northern Virginia jurisdictions' social media platforms and any other new platforms/websites as seen fit.
2. Participate in at least one meeting with NVRC and other members of the Northern Virginia Flood Mitigation and Resilience Workgroup to review existing local flood education content, develop new messages, and brainstorm other education and outreach strategies that could be incorporated into the campaign.
3. Within the social media strategy, and utilizing the NOVA Flood Education and Outreach Framework, develop original social media content with relevant written messages and graphics that will aim to improve the public's flood-related safety, knowledge and behaviors.
4. Develop a year-long social media content schedule to include at least two original content posts per week and one shared/re-tweeted post per week assuming an ad purchase of approximately \$2000 per month.

**B. Implement Social Media Strategy:**

1. Implement a campaign strategy (as developed in Task A) with posts and paid ads of approved content to the NVRC social media platforms based on schedule from Task A4.
2. Receive approval of all proposed media buys from NVRC staff prior to purchasing any ad space.
3. Monitor and regularly report on social media platform metrics, such as post likes and engagements as well as new followers.

4. Develop recommendations and report on ways to make the paid ads most effective based on testing and comparing performance (i.e., views, shares, likes, comments, etc.) of different ads during the campaign.

**C. Produce a video, or short clips:**

1. Work with NVRC to develop a short, motion-graphic video (30 seconds or less) to incorporate into the campaign strategy with both English and Spanish language options. The video should also be made into short clips to highlight specific flood education actions. The video should address actions that certain audiences can take to reduce personal or property flood risk.
2. Once the videos are created, coordinate with NVRC to share across social media and other platforms.

**D. Website Content**

1. Work with NVRC to design infographics, including GIFs and other graphic content, that can be used on NVRC's website, the Northern Virginia Resilience Dashboard, and for additional marketing materials. The graphics will aim to explain basic flooding concepts, increase the understanding of climate change impacts on flooding and inform how individual choices influence flooding patterns and public risk.
2. Work with NVRC and Northern Virginia jurisdictions to add updated written content and resources onto the website as needed.

**b) Who is responsible for completing the activities and tasks?**

NVRC will publish a request for proposals for a marketing firm that specializes in design and messaging, media strategy and planning, and social media management to complete the outlined activities in coordination with NVRC staff. NVRC will provide support and stakeholder engagement during the performance period.

**c) What is the timeframe for accomplishing activities and tasks?**

NVRC proposes a 16-month performance period.

**d) Identify the required partners and where they are represented in the workplan.**

Partners include local government representatives as members of the NOVA Flood Mitigation and Resiliency Workgroup. They are referenced in the workplan under activities A4 and D2.

**e) Deliverables**

Deliverables may include but are not limited to;

- Social media campaign and content strategy
- Flood education messages and infographics
- Short videos
- Advertising or engagement performance reports

- f) Maintenance plan tied to the identified viability of the project. Plan for sustaining the project after the agreement period (if applicable).**

In order to ensure the success and advancement of the [NOVA Education and Outreach Framework](#), NVRC will regularly assess the effectiveness of the framework and its implementation through periodic review of the framework components and tracking of activities through a number of evaluation metrics. Because the framework serves as a living document, NVRC expects to update and adapt the document's strategies and methods of delivery as the needs and priorities of Northern Virginia stakeholders and communities evolve.

#### 4. Evaluation

**a) Indicators of success.**

- Use and integration of regional content in individual jurisdictions websites, social media and advertising.
- Increase in flood insurance policies outside floodplains
- Decrease in stranded motorists
- Decrease in flood damage to structures

**b) Data that will be collected and how the data will be used to measure success.**

Outreach evaluation metrics may include, but are not limited to:

**1. Web Based Activities:**

- a. Number of impressions, engagements, and “clicks” on websites and social media platforms
- b. Number of social media posts, advertisements, and post sharing produced
- c. Number of social media followers per platform

**2. Non-Web Based Activities:**

- a. Number and frequency of radio advertisements
- b. Number and frequency of physical materials distributed
- c. Number and frequency of traditional advertisements produced (i.e., messages on billboards, buses, etc.)

**3. Community-Engagement Activities:**

- a. Number and frequency of events
- b. Number of individuals per event
- c. Demographic distribution of participants NOVA Flood Education and Outreach Framework
- d. Activity feedback forms

**c) How was cost effectiveness evaluated and measured against the expected outcomes?**

There are demonstrated benefits of regional outreach campaigns such as “turn around, don’t drown” or FEMA’s “FloodSmart”. Public awareness campaigns are cost-effective because they rely on targeted outreach, collaborative partnerships, and digital tools to spread important messages to large audiences at relatively low cost. By influencing behaviors and encouraging preventive actions, these campaigns can reduce the need for more expensive interventions down the road. The cost

effectiveness of the campaign can be measured by using surveys and pre/post-campaign assessments to measure changes in public awareness, knowledge, and behavior.

**d) What products, services, meetings, outreach efforts etc. will be conducted and how will success be measured?**

Success will be measured by completion of deliverables and level of engagement with identified audiences. Outreach efforts may include web-based and social media activities, out-of-home traditional advertising, and community engagement activities.

**e) Project progress monitoring plan to ensure project meets the requirements of the agreement and is delivered on time. Outline how delays or other findings may be used to modify or improve outcomes/deliverables.**

Implementing the principles of adaptive management to identify barriers and develop appropriate solutions is critical to ensure that funding is used to generate constructive and effective outreach materials. NVRC will track progress and monitor project status by scheduling goals, product due dates within the workplan and quarterly check-in meetings with contractors.