



City of Virginia Beach

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COMMUNITY RATING SYSTEM ACTIVITY 510 (Floodplain Management Planning) Progress Report on Implementation of Credited Plan

Regarding: Annual Community Rating System (CRS) Recertification for 2021, City of Virginia Beach (515531): CRS Activity 510 Floodplain Management Plan's Annual Progress Report on City of Virginia Beach within the 2017 Hampton Roads Hazard Mitigation Plan

Date this Report was Prepared	July 15, 2021
Report Prepared by	Danielle Spach, Emergency Management Planner II, Office of Emergency Management
Name of Community	City of Virginia Beach (515531)
Name of Plan	2017 Hampton Roads Hazard Mitigation Plan
Date of Plan Adoption	March 7, 2017
Five Year CRS Expiration	April 1, 2024

In response to the annual recertification requirements to continue to be eligible for Community Rating System (CRS) Credits, in accordance with Activity 510, Floodplain Management Planning - the City of Virginia Beach must prepare the annual evaluation report describing progress made in the implementation of the mitigation actions stated in the 2017 Hazard Mitigation Plan (2017 HRHMP). Annual evaluation of mitigation actions gives the community a framework for monitoring the plan's effectiveness and a mechanism to track progress in the implementation of the community's mitigation actions. Failure to submit the evaluation report with the community's annual recertification will result in loss of the planning credit (i.e. FMP = 0). An annual evaluation report must be submitted to the governing body, released to the media, and made available to the public.

In accordance with the requirements the following questions are addressed:

1) How can a copy of the original plan or area analysis report be obtained?

The City of Virginia Beach 2017 Hazard Mitigation Plan is contained within the 2017 Hampton Roads Hazard Mitigation Plan and can be viewed on the City's website below:

<https://www.vbgov.com/government/departments/emergency-management/Pages/mitigation-plan.aspx>

2) Describe how this evaluation report on the 2017 HRHMP mitigation actions was prepared and how it was submitted to the governing body of the City of Virginia Beach and how it was released to the media and made available to the public.

According to the Hazard Mitigation Plan each community’s hazard mitigation planning committee will continue to meet at least annually and following any disaster events warranting a re-examination of the mitigation actions, thus continuously updating the Plan to reflect changing conditions and needs within the communities. An annual report on the Plan will be developed and presented to elected officials in order to report progress on the actions identified in the Plan and to provide information on the latest legislative requirements. The report may also highlight proposed additions or improvements to the Plan. The report will be released to the media and made available to the public via appropriate methods, such as a community’s web site, library, community bulletin board, or the HRPDC web site.

To satisfy this requirement the Office of Emergency Management spearheads the efforts and communicates with committee members as well as responsible departments to determine the updates to the mitigation plan as required and prepares the update to present to City Council and post for viewing on the City website.

3) Provide a description of the implementation of each recommendation or action item in the action plan or area analysis report, including a statement on how the project was implemented or not implemented during the previous year.

2017 Hazard Mitigation Actions	Actions Taken
<p><u>Action 1</u> Relocate the ComIT Data Center in building 2</p>	<p>This work is currently underway – Relocating COMIT Data Center from basement to 3rd floor of Building 2. Work being performed is part of the Building 1, 2 & 11 Phase I Renovation which began February 2021.</p>
<p><u>Action 2</u> Strengthen the City’s Floodplain Management Program with the following actions:</p> <ol style="list-style-type: none"> 1) Continue participating in the National Flood Insurance Program. Continue enforcement of standards in existing floodplain management ordinance that meet and exceed NFIP minimum requirements 2) Incorporate floodplain management tools/regulations into existing development review procedures 3) Participate in the Community Rating System in order to reduce property owner premiums for flood insurance 4) Provide specialized training and support Certified Floodplain Manager (CFM) certification for floodplain plan reviewers, inspectors and permit processors 5) Prepare educational materials in the permit office on the value of flood 	<ol style="list-style-type: none"> 1) Ongoing. 2) Ongoing 3) The City officially entered the CRS program as a class 7 on May 1, 2019 4) There are currently 11 CFMs employed by the city in various departments. Additionally, one of our CFMs serve as a board member of the Virginia Floodplain Management Association. 5) Annual floodplain and flood insurance information is available in the permits office as well as numerous other public offices. 6) The Office of Emergency Management applies for and manages elevation and acquisition projects for the severe repetitive loss program and continues to identify structures for future mitigation. Currently OEM is performing elevations on 2 FEMA grants and acquisitions on 1 FEMA grant. An elevation grant submitted for

<p>insurance, freeboard and NFIP compliance; and,</p> <p>6) Participate in the Severe Repetitive Loss program to mitigate flood-prone structures.</p>	<p>FY2019 was identified for further review with FEMA in 2020.</p>
<p>Action 3 Create coalition of business owners, including some who have implemented mitigation actions in the past, to promote the value of hazard protection and help identify and implement retrofit/elevation/acquisition projects in the business community.</p>	<p>2021- Two members of the Virginia Beach Emergency Management Office participated in the RES Home Raising Academy. Various sectors participated in the Home Raising Academy including local government, construction, and real estate. The training curriculum included an introduction to the National Flood Insurance Program, Flood Maps, Elevation Certificates, Outreach, Proactive Selling, Financing & Insurance, and Home Elevation.</p>
<p>Action 4 Provide emergency power to critical infrastructure, critical facilities and critical roadway intersections during extended power outages. Emergency power and quick connect wiring is needed for critical intersections. Generator capability is needed at multiple school facilities used as shelters.</p>	<p>2019- An HMPG grant was awarded to replace an aging generator in Fire Station 20. That generator has been installed.</p> <p>2020-2021- Generator projects at the Central Plant and EMS Headquarters.</p> <ul style="list-style-type: none"> • <u>Central Plant Generator-</u> \$5.3 million project cost. Work substantially completed June 23, 2021. This included the instillation of 2 (n+1) generators for 100% back-up power of the Municipal Center central heat/cooling plant. This will enable uninterrupted heat and air conditioning to be provided to City Hall, Operations Buildings, School Administration Building, the Police Department (VB Police Head Quarters and 1st Precinct), the Correctional Center, and the Juvenile Detention Center. • <u>EMS HQ Generator-</u> \$472,000 project cost. Work substantially completed July 13, 2020. The project provided for whole building backup/generator power at the EMS Headquarters Building located at 4160 Virginia Beach Boulevard.
<p>Action 5 Retrofit public safety facilities vulnerable to wind damage and/or flooding.</p>	<p>Older public safety facilities are incorporating retrofits as repairs are scheduled. New facilities are built to current standards with freeboard making them more resistant to flooding.</p>
<p>Action 6 Provide educational outreach to residents to</p>	<p>Ongoing. The Office of Emergency Management as well as many other city</p>

<p>increase awareness of vulnerability to multiple hazards and preventative actions that can be taken. Focus on hurricane preparedness, sea level rise and flooding.</p>	<p>departments participate in numerous outreach events each year as well as provide presentations for civic leagues and civic organizations on the topics of hurricane preparedness, flood preparedness, etc.</p> <p>Several of these efforts were put on hold over the past year due to the coronavirus pandemic. The City did hold CERT training in September 2020.</p>
<p><u>Action 7</u> Replace, as necessary, and maintain the existing regional interoperable communications system.</p>	<p>2018-The City replaced its CAD system to enhance interoperable communications</p> <p>2018- Telecom equipment was upgraded in the Emergency Operations Center and upgrades continue through the city as funding is available. Maintenance of upgraded systems is provided on an ongoing basis.</p> <p>2019- ECCS purchased a new RAVE alerting system.</p> <p>2020-2021- Virginia Beach participates in regular communications check-ins with the Emergency Operations Centers in Hampton, Norfolk, Chesapeake, and Newport News. Virginia Beach also participates in a regional Common Operating Picture (COP) tool designed to increase situational awareness during events and incidents. Some of the information within the COP tool includes whether an emergency declaration has been made, school status, and whether shelters have been opened.</p>
<p><u>Action 8</u> Protect Atlantic Ocean and Chesapeake Bay shorelines from storm damage. Continue work with the Army Corps of Engineers and other federal agencies to ensure ongoing maintenance of the Hurricane Protection Project and other maintained beaches within the city</p>	<p>2020-2021- The City's beach restoration program is currently focused in six key areas. Below is a brief description of the status of each project.</p> <ul style="list-style-type: none"> • <u>Ocean Park Beach Restoration-</u> The City is partnering with the Virginia Port Authority Harbor Deepening project to provide an economical source of beach quality sand to restore Ocean Park Beach in early 2022 with the City anticipated to receive up to 400,000 cubic yards of sand. • <u>Cape Henry Beach Restoration-</u> Sand was last placed along Cape Henry Beach in the summer of 2019 from the Lynnhaven Inlet Federal Channel

	<p>maintenance dredging project. The first restoration of Cape Henry beach is programmed for FY 2023.</p> <ul style="list-style-type: none"> • <u>Resort Beach</u>- The last renourishment for the resort beach was in the summer of 2019. The next renourishment cycle is tentatively planned to occur in 2025. • <u>Sandbridge Beach</u>- The last renourishment was in the summer of 2020. The next renourishment cycle is tentatively planned for 2026. • <u>Croatan Beach</u>- The beach berm will receive approximately 50,000 cubic yards of sand from the Rudee Inlet dredging project in late 2021.
<p>Action 9 Develop a dam safety plan to address protection, preparedness, response, and rebuilding in dam inundation zones.</p>	<p>Ongoing- Public Works Operations continues to maintain an inventory of dams, monitor conditions, and provide maintenance when needed.</p>
<p>Action 10 Install mast arm supports with mechanical dampening systems for traffic signs and signals.</p>	<p>Mechanical dampening systems are no longer used by the City. The last signal where dampeners were installed was on the Dam Neck Road/Harpers Road intersection. Current design standards increase pole rigidity and load distribution so that mechanical dampers are no longer needed. This technique was most recently completed at the signal near Sandbridge Road and Heritage Park.</p>
<p>Action 11 Improve and/or update alert, warning and notification capabilities.</p>	<p>2019- The City entered into a partnership with Waze for traffic notification to citizens to include road closures due to natural hazards.</p> <p>2019- The City obtained RAVE alerting system to enhance notification to citizens with respect to a variety of alerts. The system also has the ability to create a Smart 911 profile for a caller.</p> <p>2020-2021- The City is in the process of training staff on the RAVE alerting system.</p>
<p>Action 12 Retrofit existing stormwater management system throughout the City into state-of-the-art facilities to minimize flooding after heavy storms while also addressing water quality objectives. This action may include Climate Resilient Mitigation Activities (CRMA).</p>	<p>2020-2021- Currently the City has 36 active projects and programs in the Flood Control Section of the Stormwater Capital Improvement Program (CIP).</p> <p>Ongoing or Completed- Over the last year, the City currently has commenced or completed actual stormwater and drainage improvement projects in 8 neighborhoods to retrofit aging undersized infrastructure and/or based on</p>

	<p>analysis by city-wide master stormwater modeling in certain watersheds. Capital improvement program projects associated with these neighborhoods include:</p> <ul style="list-style-type: none"> • Aragona Drainage Improvements • Ashville Park Drainage Improvements • Chubb Lake/Bradford Lake • College Park and Level Green Drainage Improvements • Eastern Shore Drive Drainage • Southern Canal/Lead Ditch • Windsor Woods Drainage
<p><u>Action 13</u> Mitigate incursion of storm surge and tidal inundation of low-lying areas. Investigate coastal barrier technologies and tidal stream diversion techniques. This action may include Climate Resilient Mitigation Activities (CRMA).</p>	<p>Ongoing- The City of Virginia Beach is developing plans to address both repetitive flooding and projected increases in flooding caused by sea level rise through the City's Comprehensive Sea Level Rise and Recurrent Flooding Response Plan. The plan is an effort between local government and various stakeholders (corporate and individual) to collect, sort, interpret, and understand the data behind how sea level rise is affecting our City and how we should best respond.</p>
<p><u>Action 14</u> Elevate, relocate or retrofit structures in flood prone areas that have suffered repetitive flood damage. This action includes Mitigation Reconstruction projects.</p>	<p>In 2020-2021 16 residences were in the process of being elevated with FMA funding. Additionally, there are 6 residences awaiting to be elevated contingent on a FY19 FMA grant award.</p>
<p><u>Action 15</u> Acquire open space in strategic locations that can provide multi-objective management benefits. Objectives may include but are not limited to: flood control, water quality, public access to waterways, preserving or creating tree canopy, and preserving unique ecological and cultural heritage sites. This action may include Climate Resilient Mitigation Activities (CRMA)</p>	<p>Ongoing- The Agriculture Reserve Program continues to assist the AG farmers/landowners with the option of preserving their AG land versus selling off for house development options. During Fiscal Year 2021 there were 379.58 acres added to the program. This included acquiring 22 development rights on a total of 6 parcels in the southern watersheds. There is now a cumulative total of 10,366.31 acres and 895 development rights captured in the Agricultural Reserve Program. In addition, there were recent changes to the City's ARP ordinance. These changes allow Virginia Beach to target other sensitive and valuable farmland for not only agriculture and forest land protection but also other valuable green infrastructure functions.</p> <p>P& R- No new land acquisition of open space has occurred. The city is attempting to acquire a small piece of non-developable property from a shopping center owner to create water</p>

	<p>access for a kayak launch as well as provide for bank stabilization and outfall for new stormwater quality facility in the Kempsville section of the city.</p> <p>The 2019 FMA Acquisition grant application included 3 properties that will be demolished and returned to open space, incorporated into an existing city park. The grant was awarded in October 2020 and the acquisition project initiated shortly after.</p>
<p>Action 16 Verify the geographic location of each NFIP repetitive loss property, and determine if that property has been mitigated and, if so, by what means. Prepare Repetitive Loss Area Analyses for CRS credit.</p>	<p>Through the CRS process each rep loss property was mapped and evaluated for mitigation in 2018.</p>

4) Discuss why any objectives were not reached or why implementation is behind schedule.

Objectives that were not met are due primarily to lack of available funding. When possible, the City takes advantage of federal grants which can be slow to obtain and fund. City funding remains tight and large-scale costly projects must be phased in CIPs over multiple years. City budgetary constraints became even more severe as a result of COVID-19; therefore, we rely largely on grants and other supplemental funding for the implementation of these projects.

5) What are the recommendations for the new projects or revised recommendations?

The City will continue with ongoing efforts and will take advantage of funding opportunities as they arise to move the action items forward. It should be noted that most of the items are continuing but will remain on the list due to ongoing maintenance requirements.

The City is now looking to open space and acquisition grants as well as a voluntary acquisition program within the City where it makes sense to do so. The City has also approved and is in the process of implementing a parcel level mitigation program where homeowners will be able to apply for funding for mitigation projects ranging from small flood mitigation efforts to elevation and acquisition.

The City has engaged engineering firms in order to conduct studies related to sea level rise and recurrent flooding in order to continue to develop mitigation strategies moving forward.