

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

Regarding: Annual Community Rating System (CRS) Recertification for 2023, 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 28, 2023
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Name of Community	City of Virginia Beach (515531)
Name of Plan	2022 Hampton Roads Hazard Mitigation Plan
Date of Plan Adoption	June 6, 2022
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 2022 Hampton Roads Hazard Mitigation Plan (2022 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 2022 Hazard Mitigation Plan is contained within the 2022 Hampton Roads Hazard Mitigation Plan and can be viewed on the City's website below:

<https://oem.virginiabeach.gov/programs-plans/regional-hazard-mitigation-plan>

2) Describe how this evaluation report on the 2022 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.

Virginia Beach Emergency Management leads the completion of the Hazard Mitigation Plan Annual Progress Report. Information for the status update of each mitigation action was

compiled based on communication with responsible agencies as well as reports throughout the year. Emergency Management will submit a City Council Staff Report to notify City Council of the completed Hazard Mitigation Plan Annual Progress Report. The media will be notified of the annual report through a news release. The annual report will also be posted on the City's Emergency Management Department page for public viewing.

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.

2022 Hazard Mitigation Actions	Actions Taken
<p><u>Action 1</u> Relocate the ComIT Data Center.</p>	<p>The ComIT Data Center will be moved to Building 2 once renovations are completed. Renovations of Building 2 remains ongoing.</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) Continue participation 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 insurance, freeboard and NFIP compliance; and, 6) Participate in the Severe Repetitive Loss program to mitigate flood-prone structures. 	<ol style="list-style-type: none"> 1) Community Assistance Visit from FEMA completed May 16 – 19, 2023. Enforcement of NFIP is 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. 5) Annual floodplain and flood insurance information is available in the permits office as well as numerous other public offices. 6) The Emergency Management Department (EM) applies for and manages elevation and acquisition projects for the severe repetitive loss program and continues to identify structures for future mitigation. Currently EM is implementing an elevation and acquisition project under FEMA's Flood Mitigation Assistance grant program. 7) Floodplain ordinance updated on February 1, 2022 to include increased freeboard in the VE flood zone to 3 feet, required mechanical equipment to be elevated to the Design Flood Elevation, and added provisions for



<p>7) Consider changes to floodplain management ordinance to regulate repetitive flood losses and increase ICC availability, limit the size of enclosures beneath elevated structures in coastal high hazard areas, map and regulate a future conditions 100-year floodplain, and regulate Coastal Z Zones to Coastal V standards.</p>	<p>elevation City-wide using the Stormwater Master Drainage Study.</p>
<p><u>Action 3</u> 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>2022-2023- Two members of the Virginia Beach Emergency Management Department participated in the RES Home Raising Academy Continuing Education course in May 2022. Various sectors participated in the Home Raising Academy course 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><u>Action 4</u> Better define what is considered a critical facility and update the City's critical facility list annually. Provide emergency power to critical infrastructure, critical facilities, pump stations 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. In addition, generator replaced at Landstown High School in 2021 which is one of the City's possible shelter locations.</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



	<p>Correctional Center, and the Juvenile Detention Center.</p> <ul style="list-style-type: none"> • <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>2022-2023- Generators installed to the newly constructed City Hall and Burton Station Fire Station. The Building 2 generator is expected to be replaced as part of the facility's renovation. Once completed, the Police 1st Precinct will be located within this facility.</p>
<p><u>Action 5</u> Design or 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><u>Action 6</u> Provide educational outreach to residents to 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>Ongoing. The Emergency Management Department as well as many other city 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. In Fiscal Year 2023, Emergency Management participated in 18 outreach events related to hazard/threat awareness, hazard mitigation, recovery, and preparedness.</p> <p>In addition, the Planning Department organized a North Landing River & Albemarle Sound Estuarine Symposium in March 2023. This event included over 100 attendees and cultivated stakeholder collaboration focused on creative ways to protect and restore the significant resources of the North Landing River/Albemarle Sound.</p>
<p><u>Action 7</u> Replace, as necessary, and maintain the existing regional interoperable</p>	<p>2018-The City replaced its CAD system to enhance interoperable communications.</p>



<p>communications system.</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 participated in regular communications check-ins with the Emergency Operations Centers in Hampton, Norfolk, Chesapeake, and Newport News. Virginia Beach also participated 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>2022-2023- Continued communications check-ins with Hampton, Norfolk, Chesapeake, and Newport News Emergency Operations Centers. Ongoing staff training on the RAVE alerting system.</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>The City's beach restoration program is currently focused on six key areas. Below is a brief description of the status of each project.</p> <ul style="list-style-type: none">• Resort Beach and North End – Last renourished in 2019 through a 50-year partnership with the U.S. Army Corps of Engineers (USACE). The \$22.7 million project included 1.4 million cubic yards of sand. The USACE documented that this project prevented more than \$450 million in coastal infrastructure damage. The next renourishment cycle is planned for early 2024.• Sandbridge Beach – Last renourished in 2020 through the City



	<p>Sandbridge Tax Increment Financing District and Sandbridge Special Service District Funds. The USACE documented that this \$20.6 million project prevented more than \$140 million in coastal infrastructure damage. The next renourishment cycle is being planned for 2025 with an anticipated federal contribution of \$22 million.</p> <ul style="list-style-type: none">• Croatan Beach – The City completed significant dune restoration work in December 2018 followed by a 50,000-cubic yard nourishment in March 2022 as part of the federal USACE Rudee Inlet maintenance dredging project. Capital Project 100142 includes \$2.53 million in the FY 2024-2029 CIP for future sand placement as needed. A placement of 120,000 cubic yards of sand is planned for early 2024.• Cape Henry Beach – The beaches adjacent to the Lynnhaven Inlet, Cape Henry, and Ocean Park have been nourished multiple times using sand from the federal USACE Lynnhaven Inlet maintenance dredging project. A sand placement of approximately 70,000 cubic yards was underway in May 2023. The next planned nourishment of Cape Henry Beach from the Lynnhaven Inlet federal channel dredging is planned for winter 2023/2024 with the placement of an additional 180,000 cubic yards of sand.• Ocean Park Beach- A major beach and dune restoration project to improve a higher and wider dimension was completed in July 2022 in partnership with the Virginia Port Authority. The City's cost for the Ocean Park restoration was \$6.14 million and included 400,000 cubic
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	<p>yards of sand along 6,000 feet of beach. This was four times more sand than has ever been placed on Ocean Park Beach. Future renourishment will occur from dredging of the Lynnhaven Inlet Federal channel. Bay Beaches Restoration CIP 100030 provides funding for sand placement along Cape Henry and Ocean Park beaches.</p> <ul style="list-style-type: none">• Chesapeake Beach – the westernmost nourishment project was completed in May 2018 and included 430,000 cubic yards of sand mined from a nearshore borrow site. CIP 100064 contains \$8.5 million to fully fund the maintenance of the restoration. The next replenishment is now planned for late 2023.
<p><u>Action 9</u> Maintain a dam inventory and monitor the condition of dams within the City making improvements when needed. Develop a dam safety plan to address protection, preparedness, response, and rebuilding for high hazard dams and areas in dam inundation zones.</p>	<p>Annual inspection of Stumpy Lake Dam occurred in November 2022. The Emergency Action Plan was updated in April 2023 with a tabletop exercise completed in June 2023. No structural improvements were made during Fiscal Year 2023.</p>
<p><u>Action 10</u> Improve and/or update alert, warning and notification capabilities to include:</p> <ol style="list-style-type: none">1) Utilizing the City's CRM registration portal and additional support services2) Maintenance and addition of sensor installations for data collection as part of the VB StormSense Network to enhance Alexa voice assisted AI and intelligent predictive visualization platform.	<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>2022-2023- Virginia Beach Communications Office completed an Emergency Alert and Warning Plan to help guide emergency</p>



	<p>messaging to the public. In addition, grant funding options continue to be explored to expand the VB StormSense network.</p>
<p><u>Action 11</u> 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.</p>	<p>2022-2023- Virginia Beach continues to implement the first phase of the Flood Protection Program. The first phase includes stormwater management improvements in the following areas:</p> <ul style="list-style-type: none"> • Linkhorn Bay Drainage Basin • Central Resort District • Lake Bradford/Chubb Lake • Southern Rivers Watershed • Windsor Woods/Princess Anne Plaza/The Lakes • Eastern Shore Drive Phase I • Stormwater Green Infrastructure- Marsh restoration in Back Bay and Elizabeth River Wetland & Floodplain Restoration
<p><u>Action 12</u> Mitigate incursion of storm surge and tidal inundation of low-lying areas. Investigate coastal barrier technologies and tidal stream diversion techniques.</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 13</u> Elevate, acquire, relocate or retrofit structures in flood prone areas that have suffered repetitive flood damage. This action includes Mitigation Reconstruction projects.</p>	<p>The City is in the process of implementing two 2019 Flood Mitigation Assistance Grant projects. The elevation project contains six properties and the acquisition project contains two properties.</p>
<p><u>Action 14</u> Acquire open space in strategic locations that can provide management benefits for multiple mitigation objectives. Objectives may include but are not limited to: flood control, water quality, public access to waterways, preserving or creating tree</p>	<p>Ongoing- The Agriculture Reserve Program continues to assist the agricultural farmers/landowners with the option of preserving their agricultural land versus selling it off for home development options. There is now a cumulative total of 10,518.60 acres and 909 development rights protected.</p>



canopy, and preserving unique ecological and cultural heritage sites. Incorporation of the Parcel Level Mitigation Program for these projects.	<p>P& R- No new land acquisition of open space occurred in Fiscal Year 2023. The Open Space Advisory Committee continues to meet monthly to evaluate and discuss open space opportunities.</p> <p>Acquisition of two properties was completed in the fall of 2022 as part of the 2019 Flood Mitigation grant project. Demolition of the projects is expected to be completed by fall 2023.</p>
<p><u>Action 15</u> 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>	Updated NFIP repetitive loss data was requested in the fall of 2022. An updated claims list was received from FEMA in November 2022.
<p><u>Action 16</u> Develop a local hurricane evacuation framework/plan and identify communication networks for evacuation messaging.</p>	Ongoing- The Department of Emergency Management provides information and messaging related to evacuation planning on the City's Emergency Preparedness website which is updated as needed.
<p><u>Action 17</u> Promote and sustain local programs such as the Parcel Level Mitigation Program (PLMP) to provide flood protective actions such as acquisition, flood vents, relocating utilities, elevation etc. to vulnerable flood areas. Utilize grant funding to expand capabilities of PLMP when appropriate and eligible.</p>	Ongoing- Continued assessment of possible flood protective actions for residential properties including but not limited to acquisition, installation of flood vents, relocating utilities, and elevations.
<p><u>Action 18</u> Monitor and enhance the City's cybersecurity capabilities to protect the City from cybersecurity threats especially during or immediately after a disaster or emergency.</p>	Ongoing- The City requires mandatory annual cybersecurity awareness training for all City employees. In addition, a Cybersecurity Incident Response Exercise was conducted on June 13, 2023.
<p><u>Action 19</u> Facilitate discussions with agencies responsible for providing local transportation to encourage them to evaluate, improve, and/or establish local and regional transportation plans to address the transportation needs to vulnerable populations such as the elderly, college, and</p>	Ongoing- Virginia Beach Emergency Management is participating in the Virginia Department of Emergency Management's Critical Transportation Network project which aims to identify ways to provide transportation to vulnerable communities during evacuations and following a disaster.



university students, those with disabilities, visitors, etc. in the event of an evacuation.	
<u>Action 20</u> Review all City rules, regulations, policies, procedures, ordinances and plans to ensure a consistent approach that aligns with hazard mitigation goals, objectives, and actions.	Ongoing.
<u>Action 21</u> Implement the action items and projects outlined in Sea Level Wise, particularly the following high priority items: <ol style="list-style-type: none">1) Identify regional flood risk reduction projects that could be pursued with neighboring jurisdictions, such as the City of Norfolk.2) Increase freeboard to 3 feet or to a future design flood elevation3) Require mechanical and electrical systems to be elevated to design flood elevation (with freeboard).4) Expand height allowance for buildings outside of the SFHA, where property owners want to elevate structures to reduce flood risk.5) (Paraphrased and combined) Include sea level rise and future flooding considerations in designing adequate drainage controls, and in development of subdivision/site plans.6) Develop informational materials on how to renovate historic properties to enhance flood resilience consistent with historic preservation requirements.	<p>Floodplain ordinance updated on February 1, 2022 to include increased freeboard in the VE flood zone to 3 feet, required mechanical equipment to be elevated to the Design Flood Elevation, and added provisions for elevation City-wide using the Stormwater Master Drainage Study.</p> <p>Continued utilization of the Sea Level Wise document to guide stormwater management projects and planning efforts. Examples include the City's Flood Protection Program and the Army Corps of Engineers' Coastal Storm Risk Management Project.</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.