



NEWPORT NEWS HAZARD MITIGATION PLAN 2023 PROGRESS REPORT

The City of Newport News entered the Community Rating System in April 2022. As a condition of that participation, the City must submit an annual report on progress made.

CURRENT PLAN: 2022 HAMPTON ROADS HAZARD MITIGATION PLAN
(2022-2027) Link:[<https://www.hrpdcva.gov/departments/emergency-management/2022-hampton-roads-hazard-mitigation-plan>]

PREPARATION OF PLAN: The Hampton Roads region of southeastern Virginia is vulnerable to a wide range of natural hazards that threaten the safety of residents and have the potential to damage or destroy both public and private property and disrupt the local economy and overall quality of life. Effective mitigation measures are implemented at the county or municipal level, where decisions that regulate and control development are made. The Hampton Roads community understands the importance of a comprehensive, regional approach to hazard mitigation. The comprehensive mitigation approach addresses hazard vulnerabilities that exist today and in the foreseeable future. Therefore, projected patterns of future development were evaluated and considered in terms of how that growth will increase or decrease a community's hazard vulnerability over time. As a community formulates a comprehensive approach to reduce the impacts of hazards, a key means to accomplish this task is through the development, adoption, and regular update of a local hazard mitigation plan.

The Hampton Roads Hazard Mitigation Plan (hereinafter referred to as "Hazard Mitigation Plan", "Plan", or "HMP") is a logical part of incorporating hazard mitigation principles and practices into routine government activities and functions both individually and regionally. The Plan recommends specific actions designed to protect residents, business owners, and the developed environment from those hazards that pose the greatest risk. Mitigation actions go beyond recommending structural solutions to reduce existing vulnerability, such as elevation of structures, retrofitting, and acquisition projects. In keeping with federal requirements and to present a review of Hampton Road's risk and vulnerability, state and regional capabilities, and current local capabilities, the Hampton Roads Planning District Commission (HRPDC) updated and revised the plan to create the 2022 Hazard Mitigation Plan. The planning committee worked throughout the planning period to update mitigation goals, objectives, and recommended actions, as outlined in detail below.

As part of the ongoing mitigation planning process, the City is addressing goals from the 2022 Plan which covers 2022 through 2027.

2022 PLAN AND CITY OF NEWPORT NEWS GOALS:

Newport News has 20 goals in the 2022 Hazard Mitigation Plan. They are a combination of continuing programs, goals in process, and new goals. Following are each of the goals:

2022-NEWPORT NEWS MITIGATION ACTION 1	
Maintain participation in National Flood Insurance Program. Continue enforcement of standards in existing ordinance that meet and exceed NFIP minimum requirements. Improve floodplain management program and CRS rating.	
BACKGROUND INFORMATION	
Site and Location:	Citywide
Cost Benefit:	The NFIP and related flood mapping and development regulations have proven benefits nationwide. CRS benefits accrue through increased insurance coverage, improved hazard awareness and reduced flood insurance premiums. New construction and future development are protected from floods through existing standards that meet or exceed NFIP minimum requirements.
MITIGATION ACTION DETAILS	
Hazard(s) Addressed:	Flooding, Sea Level Rise and Land Subsidence, and Tropical/Coastal Storm
Goal(s) Addressed:	Goal 1, Objectives 1.1, 1.2, 1.3
Priority (High, Moderate, Low):	High
Impact on Socially Vulnerable Populations:	Moderate
Estimated Cost:	Staff time
Potential Funding Sources:	Existing budgets
Lead Agency/Department Responsible:	Emergency Management/Engineering
Implementation Schedule:	Annually
ADDITIONAL COMMENTS	
The city is currently a class 7 in the CRS program.	
STATUS	
Ongoing. The City has hired a team of consultants to help provide a comprehensive and higher standard of floodplain management in the City and will be pursuing activities to improve the City's CRS class.	

2022-NEWPORT NEWS MITIGATION ACTION 2

Acquire, elevate, relocate, retrofit or floodproof structures in flood prone areas. Flood protection may include small structural flood control projects, such as tide gates, or backflow preventers. This action includes Mitigation Reconstruction projects.

BACKGROUND INFORMATION

Site and Location:	Flood loss areas Citywide
Cost Benefit:	Retrofit measures that address flooded structures, particularly those designated as repetitive loss or severe repetitive loss by the NFIP, have quantifiable benefits. The City's Flood Assistance Program has had measurable benefits using primarily acquisition to mitigate an estimated 2 structures per year since 1999. FEMA will now fund hazard mitigation projects that include sea level rise estimates.

MITIGATION ACTION DETAILS

Hazard(s) Addressed:	Flooding, Sea Level Rise and Land Subsidence, and Tropical/Coastal Storm
Goal(s) Addressed:	Goal 1, Objectives 1.1, 1.2 and Goal 3
Priority (High, Moderate, Low):	High
Impact on Socially Vulnerable Populations:	High – Salter's Creek and Newmarket Creek repetitive flood loss areas contain areas of very high or relatively high NRI flood risk, which includes analysis of social vulnerability. The other 6 repetitive flood loss areas affect moderate to low risk areas.
Estimated Cost:	Estimated \$750,000 per year through various channels and sources
Potential Funding Sources:	CIP; DHS: BRIC, HMGP, HMGP 5% Initiative, FMA, RFC; USACE: SFCP, FPMS; HUD: CDBG; USDA: WFPF; Virginia CFPF. Flood Assistance Program has primarily used City funds.
Lead Agency/Department Responsible:	Engineering
Implementation Schedule:	Ongoing

ADDITIONAL COMMENTS

80 properties comprising 15.2 acres have been purchased.

STATUS

Ongoing. The City has hired a team of consultants to help provide a comprehensive and higher standard of floodplain management in the City. This will include developing a stakeholder supported Floodplain Management Plan inclusive of flood control project and mitigation recommendations. Extensive outreach is also planned in 2023 to increase risk awareness and share flood protection information.

The City is also preparing a CRS Compliant Repetitive Loss Plan to identify the causes of the repetitive flooding and identify mitigation strategies to reduce future flood losses in the affected neighborhoods.

2022-NEWPORT NEWS MITIGATION ACTION 3

Protect critical facilities and infrastructure, including access/egress. Retrofits may include, but are not limited to: upgrades or relocation of the 911/EOC/311 facilities and wind vulnerability of building, components and equipment; floodproofing or elevating pump stations; retrofitting remaining pump stations with generators or quick-connect hookups.

BACKGROUND INFORMATION

Site and Location:	Critical facilities Citywide. Pump stations #2, #53 and #99 have been identified as high priority locations for non-structural mitigation measures.
Cost Benefit:	Benefits of mitigating flood damage to critical facilities are realized by all citizens through the city’s ability to maintain the highest operational capabilities post-disaster. Benefits are based on reduced response times, and longevity of critical infrastructure. FEMA will now fund hazard mitigation projects that include sea level rise estimates.

MITIGATION ACTION DETAILS

Hazard(s) Addressed:	All
Goal(s) Addressed:	Goal 1, Objectives 1.2, 1.3, 1.4s
Priority (High, Moderate, Low):	High
Impact on Socially Vulnerable Populations:	Moderate
Estimated Cost:	Cost will be based on specific flood protection measures chosen for each building.
Potential Funding Sources:	DHS: BRIC, HMGP, HMGP 5% Initiative, FMA, RFC; Stafford Act Section 406 - post-disaster mitigation funds under Public Assistance for damaged public facilities
Lead Agency/Department Responsible:	Emergency Management, Facilities Engineering
Implementation Schedule:	Long-term, 3 to 7 years

ADDITIONAL COMMENTS

Wind retrofits should ensure EOC is protected with winds up to 120mph.

STATUS

Ongoing. The City has hired a team of consultants to help provide a comprehensive and higher standard of floodplain management in the City. Pump Station 99 was rehabbed and critical elements were raised out of the floodplain. Construction on Pump Station 02 to build a new station and pumps above the base flood elevation plus 2’ of freeboard was just completed. Pump Station 53 is still in the planning stage.

2022-NEWPORT NEWS MITIGATION ACTION 4**Construct new access road to Pump Station 49 on Warwick Boulevard.****BACKGROUND INFORMATION**

Site and Location:	Pump Station 49, Warwick Blvd – new access road from Old Courthouse Way
Cost Benefit:	Existing access drive is below the 100-year flood elevation and has been flooded by the adjacent Stoney Run Creek during significant storm events. This flooding prevents access to the station including the delivery of fuel needed to run the station emergency power generator. Finished floor elevation of the station is above the 100-year flood elevation and it is not considered susceptible to flooding. Under new guidance, FEMA will now fund hazard mitigation projects that include sea level rise estimates.

MITIGATION ACTION DETAILS

Hazard(s) Addressed:	Flooding, Sea Level Rise and Land Subsidence, Tropical/Coastal Storm
Goal(s) Addressed:	Goal 1, Objectives 1.3, 1.4
Priority (High, Moderate, Low):	Moderate
Impact on Socially Vulnerable Populations:	Moderate
Estimated Cost:	\$300,000, includes acquisition of undeveloped commercial property
Potential Funding Sources:	DHS: HMGP, BRIC; Virginia CFPF
Lead Agency/Department Responsible:	Engineering
Implementation Schedule:	Within 5 to 7 years

ADDITIONAL COMMENTS

Other alternatives considered but rejected include: 1) raise existing service road (would require undesirable impacts to Stoney Run); and 2) new access road from Warwick Blvd (steep grade issues would limit access).

STATUS

Future effort

2022-NEWPORT NEWS MITIGATION ACTION 5

Drainage improvements on Chelsea Place, to include increased flow through the drainage outfall from the apartments and diversion of some of the flow from Edgemoor Drive to a new outfall.

BACKGROUND INFORMATION

Site and Location:	Chelsea Place Apartments, Warwick Blvd
Cost Benefit:	Existing drainage system drains to a channel along the CSX right-of-way, then through a small culvert to a drainage channel along Warwick Blvd. The culvert under the railroad is undersized and causes flooding in the parking lot of the apartments. The flooding enters at least 15 ground floor apartments rendering them unrentable and has resulted in the loss of multiple vehicles.

MITIGATION ACTION DETAILS

Hazard(s) Addressed:	Flooding, Tropical/Coastal Storm
Goal(s) Addressed:	Goal 1, Objectives 1,1, 1,2, 1.3, 1.4, 1.5
Priority (High, Moderate, Low):	Moderate
Impact on Socially Vulnerable Populations:	Moderate
Estimated Cost:	\$750,000
Potential Funding Sources:	Stormwater Management Fund
Lead Agency/Department Responsible:	Engineering
Implementation Schedule:	Construction estimated to begin late 2022

ADDITIONAL COMMENTS

Project delayed by CSX close to agreement for crossing. Design is being updated.

STATUS

Design is almost complete. All easements have been acquired and access agreement with CSX has been finalized. The project will start construction late 2023/early 2024.

2022-NEWPORT NEWS MITIGATION ACTION 6

Provide various watershed and flood warning improvements to reduce danger to lives and property from flooding along Newmarket Creek. This action may include Mitigation Reconstruction projects.

BACKGROUND INFORMATION

Site and Location:	Newmarket Creek watershed
Cost Benefit:	Several alternatives considered. Combination of computer modeling improvements, early warning/detection systems and drainage improvements considered most beneficial for multi-objective management of the watershed. Benefits include: 1) upgrades to current watershed models to pinpoint drainage improvements; 2) detection systems to alert City officials to pre-determined water levels in drainage system to initiate procedures for warning/evacuating residents; 3) drainage improvements (quality and quantity controls) to improve lifespan of the system, reduce nuisance flooding, and provide credit for pollutant reduction; 4) measures may provide sufficient flood mitigation/protection to result in removal of repetitive flood loss properties from the City's inventory and may provide points under CRS.

MITIGATION ACTION DETAILS

Hazard(s) Addressed:	Flooding, Sea Level Rise and Land Subsidence, Tropical/Coastal Storm
Goal(s) Addressed:	Goal 1, Objectives 1.1, 1.2, 1.3, 1.4, 1.5; Goal 3, Objectives 3.3, 3.4
Impact on Socially Vulnerable Populations:	High – Newmarket Creek repetitive flood loss area contains areas of relatively high NRI flood risk, which includes analysis of social vulnerability.
Priority (High, Moderate, Low):	High
Estimated Cost:	Computer model upgrade = \$152,000 Projects pending watershed model & analysis in 2023 Early Warning/Detection systems = \$200,000 Drainage Improvements – pipe installations= \$7,350,000 Drainage Improvements – channel upgrades = \$3,725,000 Drainage Improvements – BMP installations = \$6,683,000
Potential Funding Sources:	DHS: FMA, HMGP, HMGP 5% Initiative
Lead Agency/Department Responsible:	
Implementation Schedule:	5 to 10 years; sensors have been installed

ADDITIONAL COMMENTS

Other alternatives considered include: raise elevation of all houses within 100-year floodplain; purchase properties and relocate residents in 100-year floodplain; build structures (levees, floodwalls, gates/pumps) to protect properties; provide detection systems within watershed to alert to high water levels within major drainage channels; modify current City programs to streamline application process for homeowners; assist in redeveloping areas of the watershed (commercial/businesses, recreational areas, and residential neighborhoods).

STATUS

A consultant is developing a scope and fee to update and improve the current Newmarket Creek model. This effort will include the Upper Newmarket Creek, Lower Newmarket Creek, Government Ditch, and Birdella Lake watersheds. The study will also include work on updating the applicable FIRMs. In addition the City has identified 12 locations to install new stormwater water level monitoring sensors to be used for emergency management and calibration of stormwater models.

2022-NEWPORT NEWS MITIGATION ACTION 7

Improve drainage system maintenance, including increased sediment and debris clearance.

BACKGROUND INFORMATION

Site and Location:	Drainageways citywide.
Cost Benefit:	The City's network of structures, channels and underground pipes that carry stormwater help reduce flooding, especially during high frequency events. Maintenance is required to keep the system functioning effectively.

MITIGATION ACTION DETAILS

Hazard(s) Addressed:	Flooding, Sea Level Rise and Land Subsidence, Tropical/Coastal Storm, Landslide/Coastal Erosion
Goal(s) Addressed:	Goal 1, Objectives 1.3, 1.4
Priority (High, Moderate, Low):	High
Impact on Socially Vulnerable Populations:	Moderate
Estimated Cost:	\$2,275,500
Potential Funding Sources:	Stormwater User Fee, Capital Improvement Program
Lead Agency/Department Responsible:	Public Works
Implementation Schedule:	Ongoing as part of 5-year CIP updated annually. New projects continually identified.

ADDITIONAL COMMENTS**STATUS**

Ongoing. The City has hired a team of engineers to evaluate the current storm system and develop a comprehensive maintenance plan. The City is also evaluating ways to further utilize Cityworks and IT Pipes software to develop more proactive inspection and maintenance programs. The City is also planning to submit to FEMA for CRS credit.

2022-NEWPORT NEWS MITIGATION ACTION 8

Continue Forest Management Program to mitigate wildfire hazards and promote forest health.

BACKGROUND INFORMATION

Site and Location:	Program is primarily focused on Waterworks land holdings near the utility's reservoirs.
Cost Benefit:	This ongoing program reduces the number of fires, and works to control pine beetle infestations. Forest thinning is a primary control mechanism. This is one of many programs the utility implements related to hazard mitigation.

MITIGATION ACTION DETAILS

Hazard(s) Addressed:	Wildfire, Drought
Goal(s) Addressed:	Goal 1
Priority (High, Moderate, Low):	High
Impact on Socially Vulnerable Populations:	Low
Estimated Cost:	Net cost is low because costs are offset by selling the timber
Potential Funding Sources:	Waterworks Enterprise Fund
Lead Agency/Department Responsible:	Newport News Waterworks
Implementation Schedule:	Ongoing

ADDITIONAL COMMENTS**STATUS**

Ongoing.

2022-NEWPORT NEWS MITIGATION ACTION 9

Prepare public outreach materials. Educate elected officials and residents on the importance of the NFIP and the City’s floodplain management efforts, maintaining flood insurance coverage, and methods for mitigating flood damage. City’s comprehensive master floodplain management planning will include developing educational, outreach and more accessible materials and tools.

BACKGROUND INFORMATION

Site and Location:	Flood-prone areas Citywide
Cost Benefit:	Making sure homeowners have flood insurance coverage has been shown to reduce response needs and help Newport News’ citizens return to normalcy more quickly after flooding.

MITIGATION ACTION DETAILS

Hazard(s) Addressed:	Flooding, Sea Level Rise and Land Subsidence, Tropical/Coastal Storm, Landslide/Coastal Erosion
Goal(s) Addressed:	Goal 1, Objectives 1.1, 1.2, 1.5; Goal 2, Objective 2.1
Priority (High, Moderate, Low):	High
Impact on Socially Vulnerable Populations:	High – Salter’s Creek and Newmarket Creek repetitive flood loss areas contain areas of very high or relatively high NRI flood risk, which includes analysis of social vulnerability. The other 6 repetitive flood loss areas affect moderate to low risk areas.
Estimated Cost:	<\$5,000 per year
Potential Funding Sources:	Existing budgets; DHS: HMGP 5% Initiative
Lead Agency/Department Responsible:	Emergency Management
Implementation Schedule:	Continuous

ADDITIONAL COMMENTS

While this action is ongoing, it is important to retain in the hazard mitigation plan to ensure continued funding is secured annually.

STATUS

Ongoing. The City has hired a team of consultants to help provide a comprehensive and higher standard of floodplain management in the City. A major task of the master planning effort is the improvement of the City’s website to include more educational material and practical tools for citizen use.

2022-NEWPORT NEWS MITIGATION ACTION 10

Rehabilitation and improvement of Harwood’s Mill Dam which impounds Harwood’s Mill Reservoir to provide water for Harwood’s Mill Water Treatment Plant. The planned improvement project consists of the demolition of the existing outlet works and principal spillway chute and construction of a new principal spillway floor slab, training walls, intake structure and flume, access bridge, concrete crest wall and the rehabilitation of the existing spillway weir.

BACKGROUND INFORMATION

Site and Location:	Yorktown, Virginia – Route 17
Cost Benefit:	Repairs are needed to bring project into compliant with State regulations. Project avoids damages which could result from a compromised spillway.

MITIGATION ACTION DETAILS

Hazard(s) Addressed:	Flooding Due to Impoundment Failure/High Hazard Dam
Goal(s) Addressed:	Goal 1: Objectives 1.2, 1.3, 1.5
Priority (High, Moderate, Low):	High
Impact on Socially Vulnerable Populations:	Moderate/High – Downstream of the dam are areas of relatively moderate to relatively high NRI flood risk, which includes analysis of social vulnerability.
Estimated Cost:	\$12,800,000
Potential Funding Sources:	CIP
Lead Agency/Department Responsible:	Facilities Engineering
Implementation Schedule:	February 2022 – December 2023

ADDITIONAL COMMENTS**STATUS**

Design is in process.

2022-NEWPORT NEWS MITIGATION ACTION 11

Stormwater Master Planning: the City will develop three separate, yet inter- dependent master plans for citywide stormwater management, floodplain management, and resilience & climate change management.

BACKGROUND INFORMATION

Site and Location:	Citywide
Cost Benefit:	The City's current Stormwater and Floodplain management plans are out of date and no longer viable for addressing current or future flooding problems. Last year the state issued new requirements for addressing climate change.

MITIGATION ACTION DETAILS

Hazard(s) Addressed:	Flooding, Sea Level Rise and Land Subsidence, Tropical/Coastal Storm
Goal(s) Addressed:	Goal 1; Goal 2
Priority (High, Moderate, Low):	High
Impact on Socially Vulnerable Populations:	Moderate
Estimated Cost:	\$5,500,000
Potential Funding Sources:	Capital Improvement Plan, CFPF
Lead Agency/Department Responsible:	Engineering
Implementation Schedule:	Planning to begin 2022 and will last 3 years

ADDITIONAL COMMENTS

Newport News does not have a comprehensive City specific plan for addressing climate change and resilience. The combined master planning will include an assessment of the existing state of several components of the City's stormwater management; public engagement; general inventory, documentation, and evaluation of infrastructure; analysis of ordinances and design manuals; greenway corridor planning and conceptual plan development with capital planning, cost estimating, and financial planning.

Planning will also provide data on where structures lie in the City with regard to future flooding and sea level rise so that regulations governing future development can be based on more detailed vulnerability.

STATUS

The City is one year into a three year comprehensive master planning effort by a team of consultants.

2022-NEWPORT NEWS MITIGATION ACTION 12

Improve the Lions Bridge Dam which impounds Mariners' Lake to bring the dam into compliance with current state dam safety standards.

BACKGROUND INFORMATION

Site and Location:	100 Museum Drive
Cost Benefit:	The current Lions Bridge Dam was built in 1937 before dam safety regulations. The current dam is considered a significant hazard dam because greater than 400 vehicles per day travel on the roadway across the dam. The dam will be armored to safely withstand overtopping during the half probable maximum flood.

MITIGATION ACTION DETAILS

Hazard(s) Addressed:	Flooding, Sea Level Rise and Land Subsidence, Tropical/Coastal Storm
Goal(s) Addressed:	Goal 1, Objectives 1.2, 1.3, 1.5, 1.6
Priority (High, Moderate, Low):	Moderate
Impact on Socially Vulnerable Populations:	Low
Estimated Cost:	\$11,000,000
Potential Funding Sources:	Capital Improvement Plan, Lake Maury Fund
Lead Agency/Department Responsible:	Engineering
Implementation Schedule:	Design will be completed Spring 2022, construction will begin late 2022

ADDITIONAL COMMENTS**STATUS**

All permits and certificates have been acquired. Construction will begin by the end of 2023.

2022-NEWPORT NEWS MITIGATION ACTION 13**Nicewood Area Drainage Improvements. Evaluation of existing storm system and implementation of recommended improvements to address flooding.****BACKGROUND INFORMATION**

Site and Location:	Area around the intersection of Malden Lane and Maryle Court to Nicewood Park in the Runnymede Subdivision
Cost Benefit:	Citizens within the area of the intersection of Malden Lane and Maryle Court and the outfalling storm system to Nicewood Park experience frequent flooding during significant rain events. The existing storm drainage system is inadequate. The project will reduce the risk of flooding and damages to approximately 70 homes and approximately 2200 linear feet of roadway.

MITIGATION ACTION DETAILS

Hazard(s) Addressed:	Flooding, Sea Level Rise, Tropical/Coastal Storm
Goal(s) Addressed:	Goal 1
Priority (High, Moderate, Low):	Low
Impact on Socially Vulnerable Populations:	Low – the area has very low NRI flood risk, which includes analysis of social vulnerability.
Estimated Cost:	\$2,100,000
Potential Funding Sources:	Stormwater user Fee, Capital Improvement Program
Lead Agency/Department Responsible:	Engineering
Implementation Schedule:	Design will begin 2022

ADDITIONAL COMMENTS

The project includes funding for a detailed model of the storm system to determine what improvements are required, along with funds for the design and construction of a new system once improvements are identified.

STATUS

Design is in process.

2022-NEWPORT NEWS MITIGATION ACTION 14

Marshall Ridley. Redevelopment of a large area of outdated apartments with no existing stormwater management system in place. The new development will include multiple BMPs and a regional stormwater management facility.

BACKGROUND INFORMATION

Site and Location:	Between Jefferson Avenue and Ivy Avenue, between 12 th Street and 18 th Street
Cost Benefit:	The area currently does not have any stormwater management, so all stormwater outfalls directly into Seafood Industrial Park Small Boat Harbor without detention or water quality treatment. The new development will provide treatment and serve as a regional BMP for approximately 30 acres. Provide improved drainage on public right-of-way to alleviate nuisance flooding; upgrade to City's drainage system for another 50 years, reduce maintenance costs for repairs, and provide a new storm system that meets current design standards.

MITIGATION ACTION DETAILS

Hazard(s) Addressed:	Flooding, Sea Level Rise and Land Subsidence, Tropical/Coastal Storm
Goal(s) Addressed:	Goal 1
Priority (High, Moderate, Low):	High
Impact on Socially Vulnerable Populations:	High – the area has very high or relatively high NRI flood risk, which includes analysis of social vulnerability.
Estimated Cost:	\$6,000,000
Potential Funding Sources:	Stormwater user Fee, Capital Improvement Program
Lead Agency/Department Responsible:	Engineering
Implementation Schedule:	Design 2021, Construction 2022

ADDITIONAL COMMENTS**STATUS**

Construction has begun.

2022-NEWPORT NEWS MITIGATION ACTION 15**Governors Drive Stream Restoration & BMP, including restoration of Flaxmill Creek to alleviate erosion and protect a major HRSD force main.****BACKGROUND INFORMATION**

Site and Location:	Flaxmill Creek between Governors Drive and Riverview Farm Park.
Cost Benefit:	The existing drainage channel at the rear of residential properties is experiencing erosion and has deteriorated to a point where it is unstable.

MITIGATION ACTION DETAILS

Hazard(s) Addressed:	Flooding, Sea Level Rise and Land Subsidence, Tropical/Coastal Storm; Landslide/Coastal Erosion
Goal(s) Addressed:	Goal 1
Priority (High, Moderate, Low):	Moderate
Impact on Socially Vulnerable Populations:	Moderate
Estimated Cost:	\$2,000,000
Potential Funding Sources:	Stormwater Fees, Capital Improvement Plan, & State Local Assistance Fund (SLAF)
Lead Agency/Department Responsible:	Engineering
Implementation Schedule:	Design 2022, Construction 2024

ADDITIONAL COMMENTS

The project will include providing a stable and constant cross-section with applicable natural and stone armaments for conducting stormwater runoff from a 10-year storm event. This channel conducts stormwater runoff from several public right-of-ways such as Lucas Creek Rd, Menchville Rd, and roads within Denbigh Plantation.

STATUS

Design is in process. Easements are being acquired and the JPA is under review. The project is expected to begin construction early 2024.

2022-NEWPORT NEWS MITIGATION ACTION 16**Analyze and improve drainage/stormwater system along Stoney Run.****BACKGROUND INFORMATION**

Site and Location:	Northern portion of the Stoney Run Watershed
Cost Benefit:	Several neighborhoods (Colony Pines, Windsor Great Park, and surrounding areas), totaling approximately 900 acres, within the northern portion of the Stoney Run watershed experience repeated issues frequent flooding during high intensity storm events. Most of the storm system was designed and constructed under a 5-year design storm requirement, and current regulations require storm systems be designed to handle a 10-year storm event. A detailed analysis will determine potential modifications and additions to the stormwater system, including the stormwater management facilities. Funding is included to design and implement identified modifications and additions necessary to improve the drainage system and maintain the efficient conveyance of runoff while meeting regulatory requirements for water quantity and quality.

MITIGATION ACTION DETAILS

Hazard(s) Addressed:	Flooding, Sea Level Rise, Tropical/Coastal Storm
Goal(s) Addressed:	Goal 1
Priority (High, Moderate, Low):	Moderate
Impact on Socially Vulnerable Populations:	Moderate
Estimated Cost:	\$8,500,000
Potential Funding Sources:	Stormwater Fees, Capital Improvement Plan, SLAF, CFPF
Lead Agency/Department Responsible:	Engineering
Implementation Schedule:	Computer Model Analysis 2021, Construction within 5 – 10 years

ADDITIONAL COMMENTS**STATUS**

The study is complete and six large projects have been identified. The projects are being prioritized for design. Additional funding sources are also being explored.

2022-NEWPORT NEWS MITIGATION ACTION 17

Salters Creek Analysis and Drainage Improvements. Develop computer model analysis and implement identified drainage projects. Reduce flooding throughout the Salters Creek watershed by improving the capacity of the existing drainage system, providing additional storage, and ensuring compliance with stormwater regulations.

BACKGROUND INFORMATION

Site and Location:	Salters Creek Watershed
Cost Benefit:	The Salters Creek watershed in the Southeast Community is approximately 1,236 acres and is extremely low-lying. As a result, the surrounding area experiences issues with drainage and frequent flooding from storms and high tides. A detailed computer model analysis will be performed to determine potential modifications and additions to the stormwater system. Funding is also included for the design and construction of identified improvements. The project will result in implementing improvements necessary to maintain the efficient conveyance of runoff during storm and high tidal events.

MITIGATION ACTION DETAILS

Hazard(s) Addressed:	Flooding, Sea Level Rise, Tropical/Coastal Storm
Goal(s) Addressed:	Goal 1
Priority (High, Moderate, Low):	Moderate
Impact on Socially Vulnerable Populations:	High – Salter’s Creek repetitive flood loss area contains areas of very high or relatively high flood risk, which includes analysis of social vulnerability.
Estimated Cost:	\$7,200,000
Potential Funding Sources:	Stormwater Fees, Capital Improvement Plan, SLAF, CFPF
Lead Agency/Department Responsible:	Engineering
Implementation Schedule:	Design 2021, Construction 3-7 years

ADDITIONAL COMMENTS**STATUS**

The study is complete and several projects have been identified. These projects will be prioritized with projects being identified by the City’s master planning effort.

2022-NEWPORT NEWS MITIGATION ACTION 18

James River Shoreline Stabilization. Stabilize 720 linear feet of shoreline on the James River to address severe erosion and failure of the steep slope along River Rd, and protect existing utilities and the road.

BACKGROUND INFORMATION

Site and Location:	James River along River Rd from 9304 to 9508 River Road
Cost Benefit:	The project provides restoration and stabilization of 720 feet of shoreline adjacent to River Road to reduce erosion of the existing embankments, prevent loss of shoreline, and protect the City's roadway and underground utilities. The improvements will be a combination of stone riprap sills and a vegetative slope along with a living shoreline.

MITIGATION ACTION DETAILS

Hazard(s) Addressed:	Landslide/Coastal Erosion, Flooding, Sea Level Rise, Tropical/Coastal Storm
Goal(s) Addressed:	Goal 1
Priority (High, Moderate, Low):	Moderate
Impact on Socially Vulnerable Populations:	Moderate
Estimated Cost:	\$3,400,000
Potential Funding Sources:	CAP funding, Stormwater Fees, CIP
Lead Agency/Department Responsible:	Engineering
Implementation Schedule:	Design 2022

ADDITIONAL COMMENTS**STATUS**

The recommended design was approved by the USACE and design is beginning.

2022-NEWPORT NEWS MITIGATION ACTION 19

Christopher Shores Drainage Improvements. Address repeated flooding in the Christopher Shores subdivision by installing larger storm pipes and additional pipes and inlets to alleviate flooding during tidal events.

BACKGROUND INFORMATION

Site and Location:	Christopher Shores subdivision
Cost Benefit:	The project consists of construction of a new storm drain system and outfalls to replace an existing system that is outdated and does not conform to present City standards. This project will alleviate ongoing flooding issues caused by rainfall events, storm surges, and tidal action of Hampton Roads within the existing closed drainage systems in approximately 66 acres of the Christopher Shores area of the Southeast Community. Street flooding is an issue for residents especially when it hampers their ability to evacuate the area when major storm events are predicted.

MITIGATION ACTION DETAILS

Hazard(s) Addressed:	Flooding, Sea Level Rise, Tropical/Coastal Storm
Goal(s) Addressed:	Goal 1
Priority (High, Moderate, Low):	Moderate
Impact on Socially Vulnerable Populations:	Low
Estimated Cost:	\$5,600,000
Potential Funding Sources:	Stormwater Fees, CIP
Lead Agency/Department Responsible:	Engineering
Implementation Schedule:	Construction 2022

ADDITIONAL COMMENTS**STATUS**

Design is almost complete. Coordinating with utilities.

2022-NEWPORT NEWS MITIGATION ACTION 20**Deep Creek Shoreline Stabilization. Stabilize the shoreline at Menchville Marina on Deep Creek.****BACKGROUND INFORMATION**

Site and Location:	Menchville Marina, 494 South Menchville Road
Cost Benefit:	Restore and stabilize approximately 300 LF of shoreline along Deep Creek at the Menchville Marina. Existing conditions include old wooden posts and nuisance vegetation, as well as erosion problems.

MITIGATION ACTION DETAILS

Hazard(s) Addressed:	Flooding, Sea Level Rise and Land Subsidence, Tropical/Coastal Storm, Landslide/Coastal Erosion
Goal(s) Addressed:	Goal 1
Priority (High, Moderate, Low):	Low
Impact on Socially Vulnerable Populations:	Low – the area has low NRI Coastal Flood Risk
Estimated Cost:	\$600,000
Potential Funding Sources:	Stormwater Fees, CIP
Lead Agency/Department Responsible:	Engineering
Implementation Schedule:	Construction 2022

ADDITIONAL COMMENTS**STATUS**

Construction is complete and is in the warranty phase.