



## Regional Hazard Mitigation Plan 2017 Update

February 15, 2018



## EXECUTIVE SUMMARY



The George Washington Region – made up of the City of Fredericksburg and the Counties of Caroline, King George, Spotsylvania, and Stafford – is a growing and prospering region whose environment is closely tied to its success as a place to live, work, and visit. This plan is intended to help citizens and governments in the region understand the risk of natural hazards facing their area, and how to mitigate these risks in the future.

### What is Hazard Mitigation?

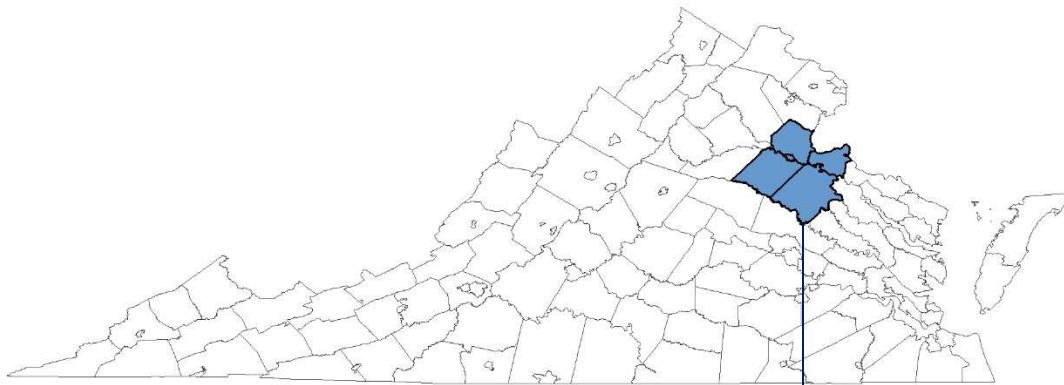
Hazard Mitigation is the sum of the many actions that can be taken at the local and regional level to reduce or eliminate the risk to human life and property from a variety of natural hazards, including drought, hurricanes, winter storms, and wildfires. Mitigation happens before disaster strikes, saving communities time, effort, and money as opposed to reacting only after an emergency.



### The Purpose of This Plan

This plan serves two roles within the region. First, the plan identifies natural hazards that pose a threat to the safety, health, and economy of the region and its member jurisdictions, as well as steps that can be taken to reduce the impact of these natural hazards in the future, helping communities get back on their feet and back to normal lives as quickly and easily as possible. The community can reduce both the impact and cost of natural disasters through advance preparation rather than acting only after disaster has struck.

Second, this plan ensures the region's compliance with the Disaster Mitigation Act of 2000, which requires that local governments develop natural hazard mitigation plans in order to qualify for both pre-disaster and post-disaster grant opportunities. The Act requires that these plans demonstrate "a jurisdiction's commitment to reduce risk from natural hazards, serving as a guide for decision makers as they commit resources to reducing the effects of natural hazards." These plans must be updated every 5 years.



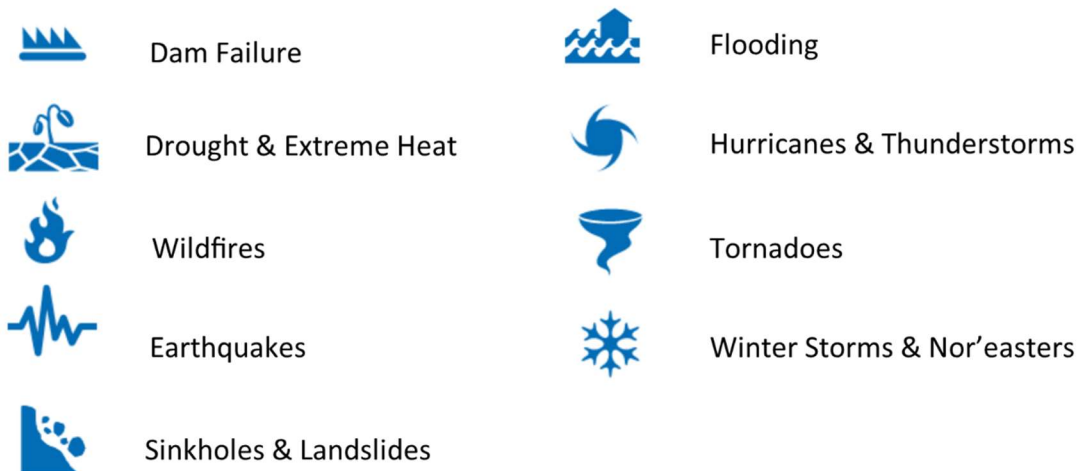
## Where This Plan Applies

Because storms, droughts, and other natural hazards do not respect jurisdiction boundaries, this plan is conceived to cover the entire region represented by the George Washington Regional Commission (GWRC), with hazard mitigating strategies and actions for local governments as well as for regional authorities and citizens. This 2017 Hazard Mitigation Plan Update applies to the following communities, all of whom have participated in the plan's creation:

- City of Fredericksburg
- Caroline County
- King George County
- Spotsylvania County
- Stafford County
- Town of Bowling Green
- Town of Port Royal

## Hazards That Affect Us

The GWRC region faces a variety of natural threats. Some are broad hazards, like drought or winter storms, that are likely to affect the entire region at once. Others, like flooding or wildfires, are usually isolated events that are highly dependent on local topography and conditions. The risks posed by these hazards also vary widely, from the temporary traffic hazards of winter snows, to the rare but devastating effects of tornados and earthquakes. In Section 4, this plan considers the following natural hazards within the GWRC region:



## 7.5 - GWRC Regional Mitigation Action Plan

### Mitigation Action Plan - GWRC Region

ID Number	Year	Project Description	Hazards Being Mitigated									Lead/Support Agency	Funding Source	Target Completion Date	Interim Measure of Success	Priority – (High, Medium, Low)
			Dam Failure	Drought & Extreme Heat	Wildfires	Earthquakes	Sinkholes & Landslides	Flooding & Erosion	Hurricanes & Thunderstorms	Tornadoes	Winter Storms & Nor'easters					
New Strategies for the 2017 Update																
GW-1	2017	Promote the incorporation of mitigation concepts and objectives into local, regional, and state planning processes and documents through local member governments and state lobbying efforts.	X	X	X	X	X	X	X	X	X	GWRC	Local	On-going	Identify local and state policy targets	Medium
GW-2	2017	Encourage member localities to incorporate dam failure inundation mapping into local GIS systems to standardize and quantify the potential impacts of dam failure hazards on life and property.	X					X	X			GWRC	Local	On-going	Identify available dam safety mapping and data	Medium
Ongoing Strategies from 2012 Plan																
GW-3	2006	Establish uniform GIS standards for capabilities and data throughout the GWRC region.	X	X	X	X	X	X	X	X	X	GWRC	Local	On-going	Continued transmission of GIS datasets to central ftp site	Medium
GW-4	2006	Continue to improve regional inter-operable emergency communications and planning by coordinating and sharing GIS and other data.	X	X	X	X	X	X	X	X	X	GWRC	FEMA Unified Hazard Mitigation Assistance Funding	Ongoing	Develop information sharing plan to focus on sharing GIS datasets, MOUs, and IT procurement documents	Medium
GW-5	2006	Refine and make available to the jurisdictions, the current regional critical facilities database maintained by the GWRC. Ensure common definition of critical facilities among the region and map each location using GIS.	X	X	X	X	X	X	X	X	X	GWRC	FEMA Unified Hazard Mitigation Assistance Funding	2017	Define critical facility	Low
GW-6	2006	Improve signage along major interstates and thoroughfares with interactive signs to provide hazard warnings, weather information, road closings, etc. Suggested locations include I-95 and Routes 1, 3, 17, 301, and 610	X	X	X	X	X	X	X	X	X	GWRC/FAMPO	FAMPO Unified Planning Work Program	On-going	Incorporation in LRTP as program recommendation	Low
GW-7	2006	Investigate emergency lane/shoulder improvements for Emergency Services access on all primary roads	X	X	X	X	X	X	X	X	X	GWRC/FAMPO	FAMPO Unified Planning Work Program	On-going	Recommendations in special corridor studies	Low
GW-8	2006	Identify and publicize local evacuation routes throughout the region.	X	X	X	X	X	X	X	X	X	GWRC/FAMPO	FAMPO Unified Planning Work Program	On-going	Incorporation in LRTP as program recommendation	High
GW-9	2006	Identify traffic plan/alternate routes due to closures on primary routes such as 1, 3, 17, 301, and 610	X	X	X	X	X	X	X	X	X	GWRC/FAMPO	FAMPO Unified Planning Work Program	On-going	Recommendations in special corridor studies	Low
GW-10	2006	Evaluate the vulnerability of the region's critical facilities to hazards and make recommendations for improving resiliency; focusing on generator power to shelters.	X	X	X	X	X	X	X	X	X	GWRC	FEMA Unified Hazard Mitigation Assistance Funding	2019	Define critical facility	High



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GW-11	2006	Review regional compliance with the NFIP on an annual basis and make recommendations where appropriate.	X					X	X			GWRC	FEMA Unified Hazard Mitigation Assistance Funding	Annually	Determine review parameters	High
GW-12	2012	Develop a regional preparedness guide focusing on natural hazards to disseminate to the public.	X	X	X	X	X	X	X	X	X	GWRC	FEMA Unified Hazard Mitigation Assistance Funding	2018	Identify funding source and determine hazards to be included in guide	Low
<b>Strategies Completed or Deleted During 2017 Plan Update</b>																
	2006	Coordinate locally with VDOT on updates to VDOT's Regional Transportation Plans. <i>(Deleted – not a specific hazard objective, but is a part of GWRC's everyday efforts)</i>	X	X	X	X	X	X	X	X	X					
	2006	Purchase and place into operation AM radio stations along routes to relay emergency information to motorists during a disaster or emergency. <i>(Deleted – outdated technology)</i>	X	X	X	X	X	X	X	X	X					
	2006	Facilitate discussions with neighboring regions on traffic flow for emergency service vehicles. <i>(Deleted – not a specific objective)</i>	X	X	X	X	X	X	X	X	X					
	2006	It is recommended to investigate and potentially purchase the equipment required to eliminate radio communication gaps in valleys. <i>(Completed by member jurisdictions)</i>	X	X	X	X	X	X	X	X	X					
	2012	Develop a regional special needs registry and plan by 2016. <i>(Deleted – not a regional priority at this time)</i>	X	X	X	X	X	X	X	X	X					

#### 7.6.4 - Spotsylvania County Action Plan

##### Mitigation Action Plan - Spotsylvania County

ID	Year	Project Description	Hazard Being Mitigated									Lead/Support Agency	Funding Source	Target Completion Date	Interim Measure of Success	Priority – (High, Medium, Low)
			Dam Failure	Drought & Extreme Heat	Wildfires	Earthquakes	Sinkholes & Landslides	Flooding & Erosion	Hurricanes & Thunderstorms	Tornadoes	Winter Storms & Nor'easters					
Ongoing Strategies from 2012 Plan																
SP-1	2006	Develop advisory development design standards based upon FIREWISE principles and defensible space.			X							FREM/DOF	Local	Ongoing	Develop written guidance.	Medium
SP-2	2006	Participate in establishing uniform GIS standards for the region, and in regional sharing of GIS data.	X	X	X	X	X	X	X	X	X	GWRC/ GIS	Local funding	Ongoing	Reestablish data sharing repository.	Medium
SP-3	2006	Improve the flexibility of the transportation network through coordination with the Virginia Department of Transportation (VDOT) and neighboring regions	X		X	X	X	X	X	X	X	VDOT/ FAMPO/ Planning	Federal/ State/ Local	Ongoing	Coordination is occurring	Medium
SP-4	2006	Investigate and potentially purchase the equipment required to eliminate radio communication gaps in valleys	X	X	X	X	X	X	X	X	X	FREM/RPAC-I	Federal / State / Local	Ongoing	Funding is available	Medium
SP-5	2012	Review locality's compliance with the National Flood Insurance Program with an annual review of the Floodplain Ordinances and any newly permitted activities in the 100-year floodplain.						X	X			DCR/ Spotsylvania Code Compliance	Local funding	Ongoing	Establish a schedule of review and review committee (if necessary).	Medium
SP-6	2012	Conduct annual outreach to owners of all flood-prone properties, including NFIP insured, uninsured, and any repetitive loss properties, providing information on mitigation programs (grant assistance, mitigation measures, flood insurance information) that can assist them in reducing their flood risk.						X	X			DCR/ Spotsylvania Code Compliance with FREM	FEMA Unified Hazard Mitigation Assistance funding	Ongoing	Develop outreach materials, or identify appropriate outreach materials for dissemination.	Medium/Low
SP-7	2012	Support mitigation of priority flood-prone structures through promotion of acquisition/ demolition, elevation, flood proofing, minor localized flood control projects, mitigation reconstruction and where feasible using FEMA HMA programs where appropriate.						X				DCR/ Spotsylvania Code Compliance with FREM	FEMA Unified Hazard Mitigation Assistance funding	Ongoing	Identify all priority flood-prone structures.	Medium/Low
New Strategies for the 2017 Update																
SP-8	2017	Complete National Weather Service Storm Ready Program. Storm ready aids in preparing for your community's increasing vulnerability to extreme weather and water events.						X	X	X	X	FREM & National Weather Service	Local / Federal	2018	Identify the relevant information to be included, and the events that they are to be presented/distributed at.	Medium

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SP-9	2017	Continue to establish common means of communication with neighboring emergency services providers on P25 communications systems.	X	X	X	X	X	X	X	X	X	FREM/RPAC-I	Federal/ State/ Local	Ongoing	Coordination is occurring	Medium
SP-10	2017	Review building projects for compliance with the Uniform Statewide Building Code consistent with Section 36-98 of the Code of Virginia.	X	X	X	X	X	X	X	X	X	Spotsylvania County Building Department	Development review fees (local)	Ongoing	Query local government building services staffs as to effectiveness of provided information regarding the structural review.	Medium
SP-11	2017	Complete county-wide studies of impounding structures and break inundation zones where applicable, consistent with the Code of Virginia 10.1-606.2.	X					X				DCR/ Spotsylvania Code Compliance/ FREM/ GIS	Dam Ownership	2025	Identify all remaining impounding structures to have inundation zones mapped consistent with requirements established by the Code of Virginia 10.1-606.2.	High
SP-12	2017	Develop a county-wide Geological Mapping Study. Results of the study can influence future updates of the County Comprehensive Plan and its Future Land Use Map given potential impacts of subsurface geology on ground stability, structural stability, mineral resources and economic opportunities, groundwater recharge and aquifer protection.				X	X	X				Planning/ DMME/ Spotsylvania Code Compliance	TBD	2025	Determine study parameters	Medium
SP-13	2017	Conduct and complete a comprehensive Spotsylvania County Flood Insurance Rate Map (FIRM) update.						X	X			FEMA/ Code Compliance/ GIS	FEMA	2025	Discovery Meeting and Report	High
SP-14	2017	Install generator-ready hookups for quick-connections in critical infrastructure locations such as all public safety facilities, schools (public and private), and other facilities critical to civic resiliency. Promote installation of generator-ready hookups to complementary business operations that can assist public and emergency service needs in disaster scenarios including but not limited to retail fuel stations, grocery and convenience stores, care facilities (adult and child), transportation depots. Provide education and identify potential funding sources available to offset the costs of such hookups.				X			X	X	X	FEMA/ FREM/ Planning	TBD	Ongoing	Establish as Comprehensive Plan goal.	Medium
SP-15	2017	Establish a secondary Emergency Operations Center (EOC) for use in the event that the primary EOC is inoperable. Provide necessary equipment and resources to facilitate the operation of the back-up EOC.	X	X	X	X	X	X	X	X	X	FREM/ Information Services/ Emergency Communications	TBD	2022	Identify funding and Core Capabilities necessary to manage disaster response.	High
<b>Strategies Completed or Deleted During 2017 Plan Update</b>																
	2006	Develop a regional public awareness program. <i>(Deleted – moved to regional responsibility)</i>	X	X	X	X	X	X	X	X	X					
	2006	Develop a Weather Spotter program. <i>(Deleted – revised to include Storm Ready Program – see XXX)</i>						X	X	X	X					

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	2012	Develop and conduct an education campaign on Earthquake Safety <i>(Deleted – moved to regional responsibility)</i>				X										
	2012	Develop an emergency preparedness guide for distribution at public events. <i>(Deleted – moved to regional responsibility)</i>	X	X	X	X	X	X	X	X	X					