

Initial Draft List of Adaptation Actions
Prince William County
January 11, 2023

Action #	Action Title	Action Description	Climate Hazard(s) Reduced	Type of Action	Asset Category	Does this support existing plans and programs or is this a new initiative?
1	Future Floodplain Mapping	Develop existing stormwater and riverine floodplain and future floodplain mapping based on precipitation change information from Vulnerability Assessment. Determine if stormwater conveyance systems are the source. Plan for system upgrades to contain current and increased future flooding.	Precipitation	Modeling and Further Study	ALL ASSETS	New
2	Future Floodplain Mapping	Conduct focused vulnerability assessment on sea level rise and storm surge within the coastal flood risk area areas of the county to determine at-risk structures and infrastructure. Evaluate future land use planning in areas with high-risk for permanent inundation by sea level rise.	Sea Level Rise	Modeling and Further Study	ALL ASSETS	Prince William County Comprehensive Plan EN5.13
3	Property Floodproofing and Relocation	Identify infrastructure that should be elevated or relocated to avoid future inundation. Floodproof mechanical systems and/or components of industrial and commercial structures. Create design guidelines for retrofitting the various typologies of buildings.	Storm Surge & Precip	Structure/Infrastructure	ALL ASSETS	New
4	Shoreline Protection	Conduct feasibility studies to determine potential shoreline protection measures against erosion and flood with a focus on nature-based solutions where possible. Develop long-term plans to address sea level rise for at-risk public and private property.	Sea Level Rise	Modeling and Further Study	ALL ASSETS	Prince William County Comprehensive Plan EN5.13
5	Site-Level Adaptation Plans	Develop site-level adaptation plans for critical facilities and service areas with consideration for future changes to hazards.	All Hazards	Local Plans & Regulations	ALL ASSETS	New
6	Urban Heat Island Relief Program	Implement urban designs that facilitate air movement and alleviate heat including increasing urban tree cover	Extreme Heat	Local Plans & Regulations	All Community Members	New
7	Preparedness Education	Increase preparedness education about heat-related health issues for healthcare providers and the public.	Extreme Heat	Public Education & Awareness Programs	All Community Members	Prince William Community Outreach Program (EN-POLICY 11)
8	Preparedness	Expand or enhance early warning systems and emergency preparedness messaging.	Storm Surge & Precip	Emergency Service	All Community Members	New
9	Post-Disaster Support and Incident Reporting	Identify options for effective post-event emergency relief considering future conditions hazards and facilitate public reporting of incidents and problem areas.	All Hazards	Emergency Service	All Community Members	New
10	Climate Change Education	Provide professional development training for teachers, support staff and other community members to support child and youth mental health related to climate change.	All Hazards	Public Education & Awareness Programs	All Community Members	Prince William County Comprehensive Plan EN-POLICY 11
11	Civic Engagement	Strengthen and encourage active participation in community-based organizations and expand opportunities for civic engagement and volunteerism. Provide capacity-building and training for community level emergency preparedness and resiliency planning. An example is the Evacuteer Program in New Orleans. See www.evacuteer.org .	All Hazards	Public Education & Awareness Programs	All Community Members	New
12	Community Rating System	Work to increase Community Rating System class (currently 7) to increase resilience and increase flood insurance discount for residents.	Precipitation	Local Plans & Regulations	All Community Members	Currently enrolled in the CRS program
13	Community Outreach	Expand existing Prince William Community Outreach Program to support the development of accessible technology to provide climate information to individuals and industries to enhance collective understanding through the following actions: (a) in-person workshops and events and community centers and schools (b) partner with local community leaders to provide talking points and materials to help disseminate hazard preparedness information (c) mailing educational information (d) focused outreach to socially vulnerable populations and ensure information, tools, and resources are available in multiple languages and formats, including accessible formats.	All Hazards	Public Education & Awareness Programs	All Community Members, Socially Vulnerable Populations	Prince William Community Outreach Program (EN-POLICY 11)
14	Cooling Centers	Evaluate existing cooling centers based on location, accessibility and needs of vulnerable residents. Consider areas for pets, security, sign-language interpreters, child friendly amenities, accessible restrooms, medical assistance, back-up power, sleeping areas, drinking water, and proximity to transit. Create new cooling center locations where community members can stay during times of extreme heat. Can be existing locations such as libraries or other public buildings. Choose locations that are accessible to socially vulnerable populations. Advertise and add features to emergency alert system to notify community members of cooling centers.	Extreme Heat	Modeling and Further Study	All Community Members, Socially Vulnerable Populations	New

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15	High Heat Alerts	Identify temperature thresholds to activate additional resources and enhanced responses necessary to protect our most vulnerable populations (e.g. seniors, children, etc.). Use Prince William County Alert system for high heat alerts	Extreme Heat	Emergency Service	All Community Members, Socially Vulnerable Populations	Prince William Community Outreach Program Prince William County Comprehensive Plan EN-POLICY 11
16	Renewable Energy	Increase renewable energy sources	All Hazards	Structure/Infrastructure	Energy & Hazardous Materials	Prince William County Comprehensive Plan POLICY EU-3
17	Electrical Grid Hardening	Partner with Dominion Energy to increase resilience of the electrical grid including hardening infrastructure and/or burying power lines where appropriate	High Winds & Tornadoes	Structure/Infrastructure	Energy & Hazardous Materials	New
18	Critical Infrastructure Backup Power	Identify the age and assess the adequacy of backup power supplies for critical infrastructure. Invest in backup power generation for publicly-owned essential services and infrastructure.	High Winds & Tornadoes	Modeling and Further Study	Energy & Hazardous Materials	New
19	Water Pollution Prevention	In order to prevent hazardous water pollution in the event of flooding, identify facilities with hazardous materials, hazardous wastes, and brownfield sites in flood risk areas. Work with owners to develop prevention and response plans for potential flooding risks considering future floodplains and groundwater.	Precipitation	Modeling and Further Study	Energy & Hazardous Materials	New
20	Building Codes	Increase standards for insulation of buildings and homes	Extreme Heat	Local Plans & Regulations	Food, Water, Shelter	Prince William County Comprehensive Plan H5.4
21	Property Acquisition and Elevation	Identify high risk properties and encourage acquisition, elevation, and relocation projects for property owners where appropriate	Storm Surge & Precip	Local Plans & Regulations	Food, Water, Shelter	New
22	Building Retrofits (Earthquake)	Identify structures for earthquake retrofits. Implement retrofits on existing structures.	High Winds & Tornadoes	Structure/Infrastructure	Food, Water, Shelter	New
23	Building Retrofits (High Winds)	Identify structures for high wind retrofits. Implement retrofits on existing structures.	Earthquake		Food, Water, Shelter	New
24	Cooling Accessibility	Expand access to reliable, efficient cooling for apartments.	Extreme Heat	Structure/Infrastructure	Food, Water, Shelter	Prince William County Comprehensive Plan Housing Policy 5
25	Water Reduction	Develop incentives, training and technical assistance programs for significant water use reductions including rainwater and greywater harvesting and onsite blackwater treatment with a focus on industrial and commercial properties.	Drought	Local Plans & Regulations	Food, Water, Shelter	Prince William County Comprehensive Plan EN11.3
26	Flood Risk Education	Increase public awareness of flood risks and flood insurance. Offer rebates or grants for flood resilience measures such as removable flood barriers, dry and wet flood proofing (for nonresidential buildings), elevation (for residential buildings) in vulnerable areas, and wastewater backup valves.	Storm Surge, Precip, Sea Level Rise	Public Education & Awareness Programs	Food, Water, Shelter	Prince William Community Outreach Program (EN-POLICY 11)
27	Estuary preservation	Map projected future changes to estuaries and wetlands due to rising sea levels. Develop a plan to preserve these spaces and use them to mitigate runoff and flood impacts where possible.	Sea Level Rise	Natural Systems Protection	Natural Resources	Prince William County Comprehensive Plan EN5.13
28	Stream Corridor Restoration	Develop stream corridor restoration projects to improve conveyance and mitigate flooding	Precipitation	Natural Systems Protection	Natural Resources	New
29	Green Infrastructure	Develop program to provide incentives and promote rain gardens, conservation landscapes, green roofs, water harvesting, and permeable pavement for residential properties	Precipitation	Local Plans & Regulations	Natural Resources	Prince William County Comprehensive Plan EN11.3
30	Agricultural Support	Support the agricultural industry in identifying supports for farmers to prepare for and recover from extreme weather, such as access to more accurate weather data, harvest supports, drought resistant crops, backup generation, and livestock evacuation.	All Hazards	Local Plans & Regulations	Natural Resources	New
31	Floodplain Conservation	Explore the use of tax credits for conservation of floodplains and natural buffers, such as wetlands and riverbank tree planting, in vulnerable areas.	Storm Surge, Precip, Sea Level Rise	Local Plans & Regulations	Natural Resources	New
32	Tornado Safe Rooms	Identify locations of Safe Rooms. Expand public access to safe rooms and increase community awareness.	Tornadoes	Structure/Infrastructure	Safety and Security	New
33	High Heat Planning	Develop guidelines for shade for schools and childcare centers grounds.	Extreme Heat	Local Plans & Regulations	Safety and Security	New
34	Hazard Risk Assessments	Provide technical and financial assistance or incentives to private entities that provide essential services, including universities, hospitals and affordable housing so that these entities may conduct their own risk assessments.	All Hazards	Local Plans & Regulations	Safety and Security	New
35	Climate-Adapted Housing Incentives/Subsidies	Provide incentives or subsidies for residents of low-income housing and rental properties to install or retrofit buildings with climate adaptive technologies to reduce energy, reduce water use, reduce waste heat, and minimize urban heat gain.	Extreme Heat	Local Plans & Regulations	Socially Vulnerable Populations	Prince William County Comprehensive Plan LAND USE POLICY 15, Housing Policy 5

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36	Nature-based Flood Control	Develop a program to support nature-based solutions to flooding for lower-income individuals.	Storm Surge, Precip, Sea Level Rise	Local Plans & Regulations	Socially Vulnerable Populations	Prince William County Comprehensive Plan EN-POLICY 5
37	Storm Water Upgrades	Update design standards for water and drainage infrastructure to address the projected increase in intensity of precipitation. Update or increase resilience of stormwater systems through retrofits or new design including green infrastructure where appropriate.	Storm Surge & Precip	Structure/Infrastructure	Transportation	New
38	Evacuation Routes	Identify alternate evacuation routes for roads and bridges identified as vulnerable to flooding and/or sea level rise.	Storm Surge, Precip, Sea Level Rise	Modeling and Further Study	Transportation	Builds on VTrans Study