Virginia Department of Transportation

A Study of the Commonwealth's Primary Evacuation Routes 2025 Update

(Code of Virginia § 33.2-275.1)

Preface

Section 33.2-275.1 of the *Code of Virginia* directs that the Virginia Department of Transportation (VDOT), in consultation with the Virginia Department of Emergency Management (VDEM), develop, maintain, and make publicly available a map of "primary evacuation routes" in the Commonwealth. The law further directs VDOT to "review the quality of the transportation infrastructure along such routes and submit a report on the findings of the Department and any recommended improvements at least once every five years." VDOT submitted the initial study report in 2021, and this report provides the findings and recommendations based on the second study conducted pursuant to Section 33.2-275.1.

VDOT consulted with the Virginia Department of Emergency Management (VDEM). VDEM's letter concurring in this report may be found in Appendix 2.

Contents

Executive Summary

Section 33.2-275.1 (enacted in 2020) of the *Code of Virginia* directs that the Virginia Department of Transportation (VDOT), in consultation with the Virginia Department of Emergency Management (VDEM), develop, maintain, and make publicly available a map of "primary evacuation routes" in the Commonwealth. The law further directs VDOT to "review the quality of the transportation infrastructure along such routes and submit a report on the findings of the Department and any recommended improvements at least once every five years." VDOT submitted the first study report in 2021[1], and this report provides the findings and recommendations based on the second study conducted pursuant to Section 33.2-275.1.

At the time of the first study, there was no established definition for "primary evacuation routes" in the Commonwealth of Virginia. VDOT, in consultation with VDEM, created a map of and studied the state-maintained roads included in state-supported evacuation plans and the Corridors of Statewide Significance (CoSS). State evacuation plans include the Commonwealth of Virginia Emergency Operations Plan (COVEOP) Hurricane & Tropical Storm Response Annex, Northern Virginia Evacuation Plan, and the COVEOP Radiological Response Annex plans for both the North Anna and Surry Nuclear Power Stations.

As with the first study, the CoSS were included in this study for consistency with the Commonwealth's comprehensive approach to all-hazards planning for emergency management, and with national planning guidance[2], to assure all levels of government are supported in their efforts to develop and maintain viable all-hazards, all-threats emergency operations plans. This continues to be the methodology used in this update. Evacuation routes identified in state-supported evacuation plans, along with the CoSS, will be the primary evacuation routes for this study.

On the primary evacuation routes, VDOT does not recommend any additional improvements at this time. Improvements to the infrastructure along the primary evacuation routes are included in the Six Year Improvement Program. Key funding programs utilize project prioritization and selection processes that are focused on achieving the maximum benefit for the level of investment. VDOT does continuous assessments of road infrastructure. Assessments are completed and reported via the State of Good Repair Program, including pavements and structures.

[1] A Study of the Commonwealth's Primary Evacuation Routes
[2] https://www.fema.gov/sites/default/files/documents/fema_npd_developing-and-maintaining-emergency_052125.pdf

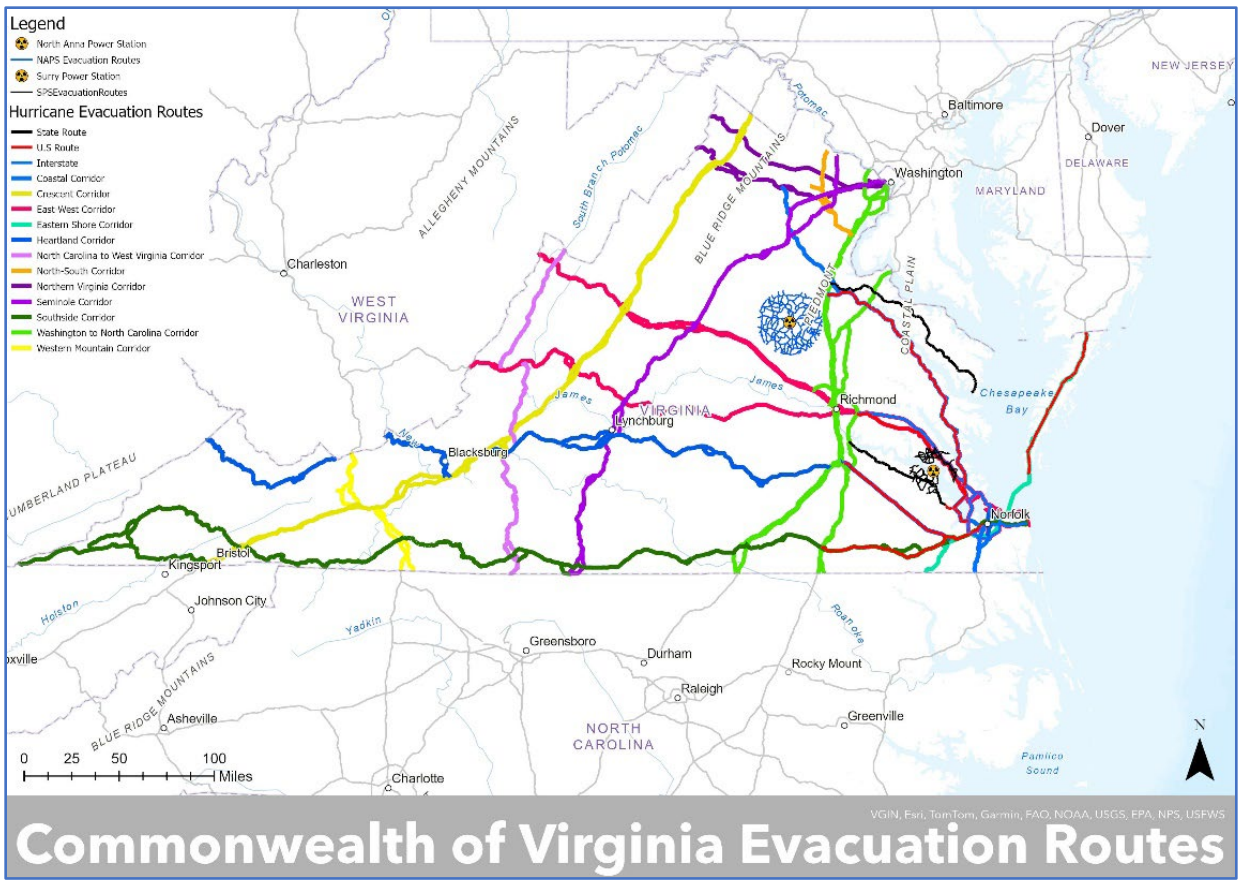

Figure 1: VDOT posted this map to the public VirginiaRoads.org website, in accordance with Virginia Code § 33.2-275.1.

Improvements to the infrastructure along the primary evacuation routes that are approved through one of the various construction funding programs are included in the Six-Year Improvement Program (SYIP). Improvements are also funded along the primary evacuation routes through the Maintenance and Operations Program, but they are not shown in the SYIP. Key funding programs utilize project prioritization and selection processes that are focused on achieving the maximum benefit for the level of investment. These data-driven processes facilitate VDOT's capability and capacity to move many people and goods over the roads during emergencies, including evacuations.

Background

Designating Primary Evacuation Routes

At the time of the original study, there was no established definition for "primary evacuation routes" in the Commonwealth of Virginia. The COVEOP[3] defines an "evacuation route" as a "road" or highway designated by the Virginia Department of Transportation as a primary route

[3] https://www.vaemergency.gov/wp-content/uploads/2021/07/2021-coveop-final-approved-102021-1.pdf

for motorists evacuating from the threat of a hurricane. The routes are marked with signs that indicate "Hurricane Evacuation Route."

The COVEOP only specifically addresses hurricane evacuation. To accurately represent evacuation routes used to evacuate from all-hazards, VDOT, with concurrence from VDEM, created a map of and studied the state-maintained roads included in state-supported evacuation plans and the CoSS. These roads continue to be the primary evacuation routes for this study. State evacuation plans include the Hurricane and Tropical Storm Response Plan, Northern Virginia Evacuation Plan, and the COVEOP plans for emergencies at both the North Anna and Surry Nuclear Power Stations.

COVEOP, Hurricane and Tropical Storm Response Plan

Within the COVEOP (Hazard Specific Annex #3) Hurricane and Tropical Storm Response Plan, VDOT maintains the Hurricane Traffic Control Plan. The purpose of the Hurricane Traffic Control Plan is to provide the framework and guidelines for an evacuation of the Hampton Roads, Virginia, area. This Plan is to be used by local emergency service coordinators, state and local police, and other agencies involved in planning, coordinating, and executing an evacuation. This Plan's objective is to facilitate a safe and efficient evacuation before the onset of tropical storm-force winds (39 mph). This Plan also compliments the Virginia/North Carolina Border Control Plan that addresses hurricane evacuation situations involving both Virginia and North Carolina, simultaneously evacuating as a tropical system approaches the Mid-Atlantic coastline. Additionally, this Plan assigns specific roles and responsibilities to the Virginia Department of Transportation (VDOT), Virginia State Police (VSP), Virginia Department of Military Affairs (DMA), and Virginia Department of Motor Vehicles (DMV).

Northern Virginia Evacuation Plan

The Northern Virginia Evacuation Plan provides broad guidance for state agencies, local jurisdictions, and federal and non-governmental partners. Local jurisdictions have local evacuation plans which support and synchronize with the NVEP. The NVEP guides federal support potentially requested due to the declaration of an "Emergency" or "Major Disaster" as defined in the Stafford Act at 42 U. S. C. § 5122. Additionally, the NVEP supplements the Commonwealth of Virginia Emergency Operations Plan (COVEOP) and incorporates the National Incident Management System (NIMS). The NVEP also supports local and regional evacuations using an all-hazards approach to any event that could occur with or without advanced notice and would cause an evacuation from Washington, DC, or the surrounding Virginia suburbs.

COVEOP, Radiological Emergency Response Plan (RERP)

Each nuclear power station in the United States is mandated by the Nuclear Regulatory Commission (NRC) at 10 CFR Part 50.47 to have a RERP. The COVEOP RERP provides a basis for the preparation of detailed RERPs, procedures, and training programs by agencies of the state government and the political subdivisions. The Plan specifies immediate response by state and local governments to the four Nuclear Regulatory Commission (NRC)/Federal Emergency Management Agency (FEMA)-defined emergency action levels, including the

evacuation of the Emergency Planning Zones (EPZ) at the North Anna and Surry Power Stations (see Figure 2).

The EPZ is a plume exposure pathway extending about 10 miles in radius around a reactor site. Protective action plans within this area are designed to avoid or reduce dose from potential exposures such as inhaling radioactive particles. These actions include sheltering, evacuation, and the use of potassium iodide pills where appropriate.[4]

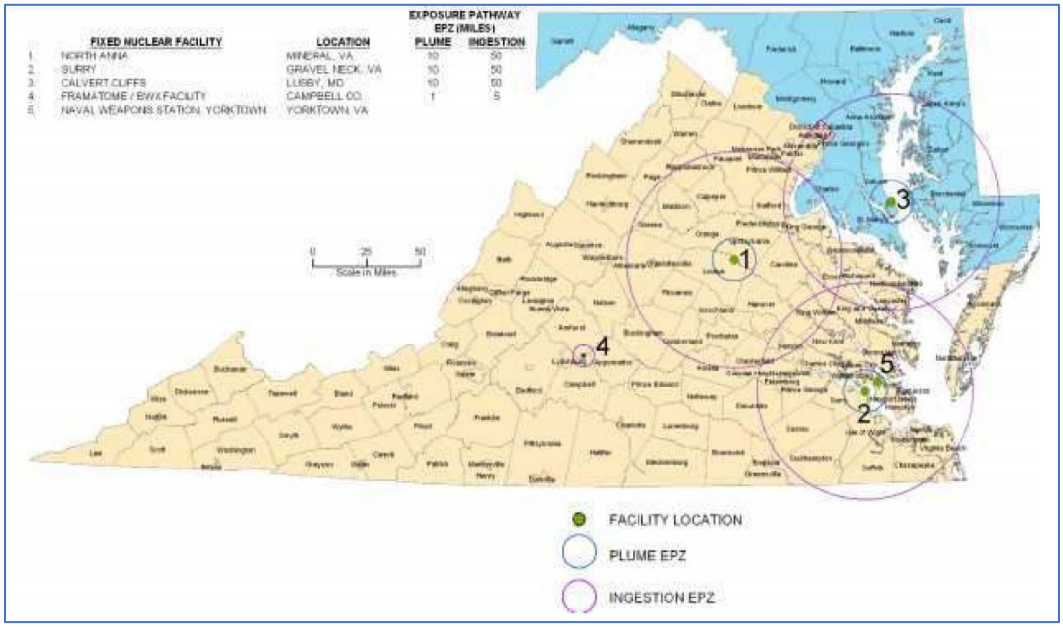

Figure 2: Virginia Nuclear Power Station Emergency Pathway Zones

[4] See US Nuclear Regulatory Commission--Backgrounder on Emergency Preparedness at Nuclear Power Plants https://www.nrc.gov/reading-rm/doc-collections/fact-sheets/emerg-plan-prep-nuc-power

North Anna Power Station (NAPS)

The NAPS is on Lake Anna in Louisa County. The primary evacuation routes include routes designated minor collector and above within the 10-mile emergency planning zone (EPZ).

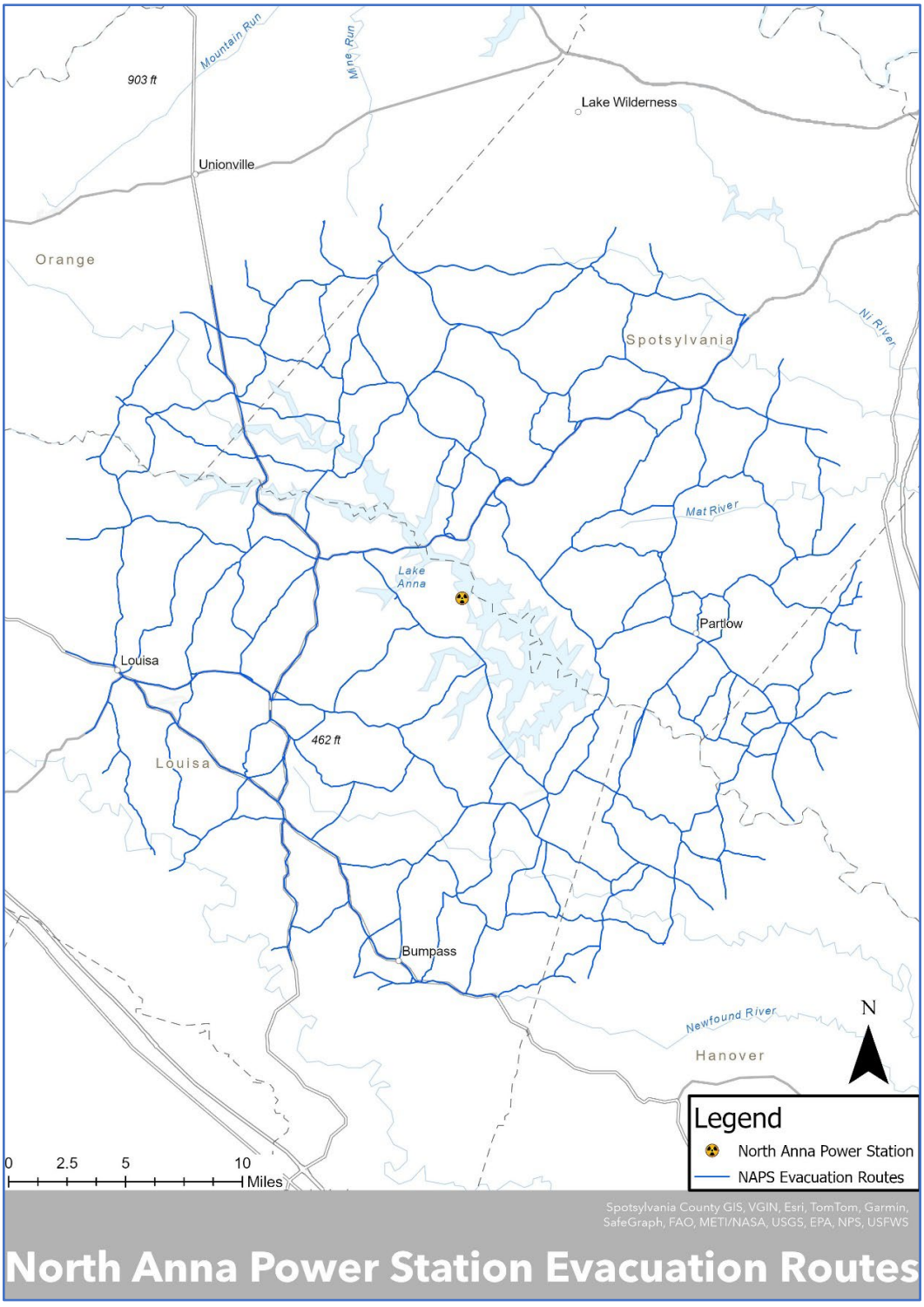

Figure 3: North Anna Power Station Primary Evacuation Routes

Surry Power Station (SPS)

The SPS is located on the James River in Surry County. The primary evacuation routes include routes designated minor collector and above within the 10-mile emergency planning zone (EPZ).

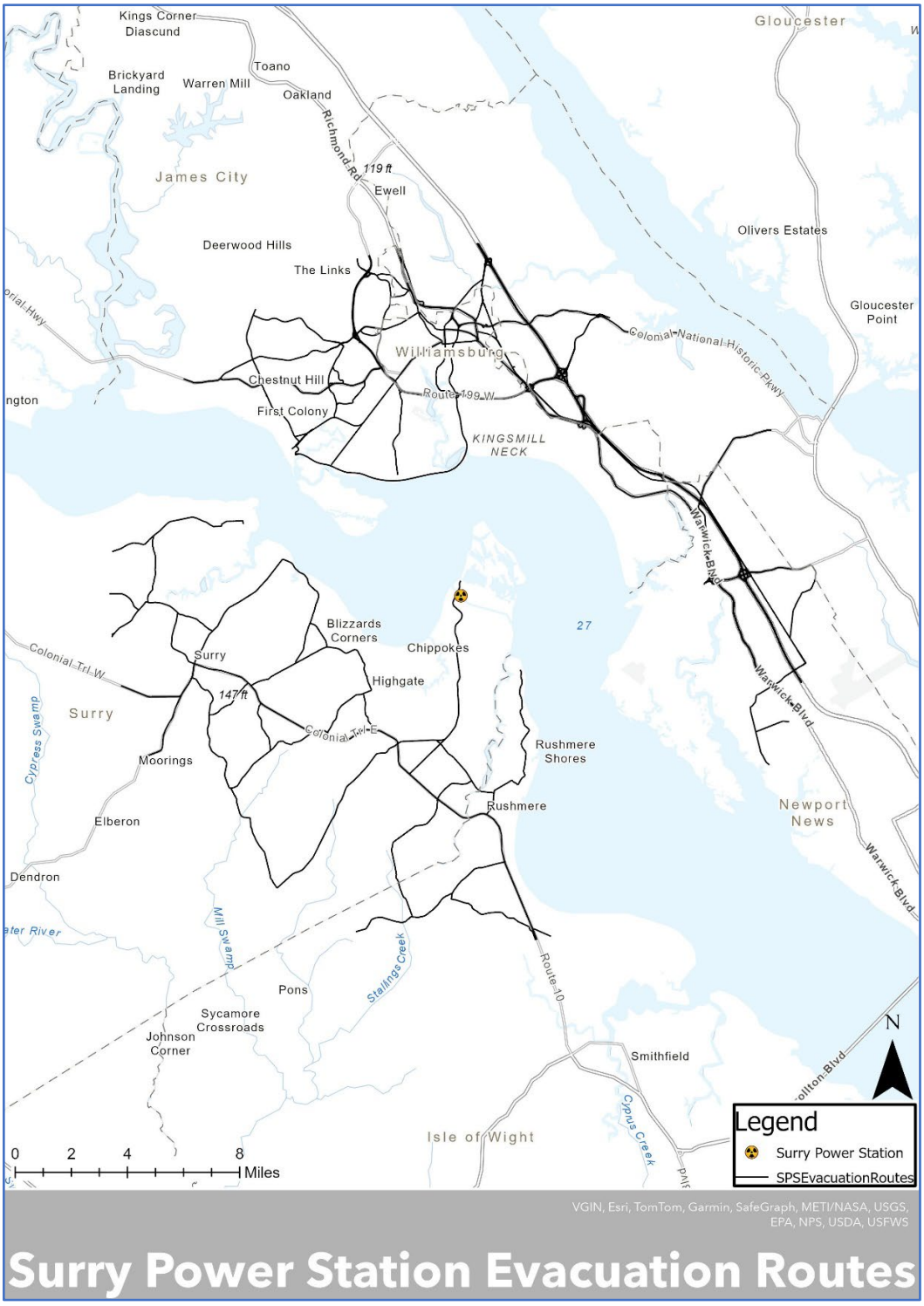

Figure 4: Surry Power Station Primary Evacuation Routes

Corridors of Statewide Significance (CoSS)

The CoSS are included for this study to ensure that statewide evacuation needs from all hazards and all threats are considered. These roads represent primary routes in a natural or human-made emergency that requires people to evacuate their place of residence or work location. Including the CoSS in this study's primary evacuation routes ensures fair and equitable access to evacuation routing options for most people across Virginia.

The VTrans2040 Plan references the original designation of the CoSS in the VTrans2035 Plan, as adopted by the Commonwealth Transportation Board (CTB) (via a resolution dated December 17, 2009), that initially designated 11 CoSS; a 12th corridor was subsequently added (via a CTB resolution dated May 18, 2011). The designation and study of these multimodal corridors is a responsibility of the CTB in accordance with *Code of Virginia* §33.2-353. The official definition of a CoSS, as defined in VTrans2035, is:

> "An integrated, multimodal network of transportation facilities that connect major centers of activity within and through the Commonwealth and promote the movement of people and goods essential to the economic prosperity of the state."

To be considered a CoSS, a corridor must meet all four of the following criteria:

1. Multimodal – must involve multiple modes of travel or must be an extended freight corridor.
2. Connectivity – must connect regions, states, and/or major activity centers.
3. High Volume – must involve a high volume of travel.
4. Function – must provide a unique statewide function and/or address statewide goals.[5]

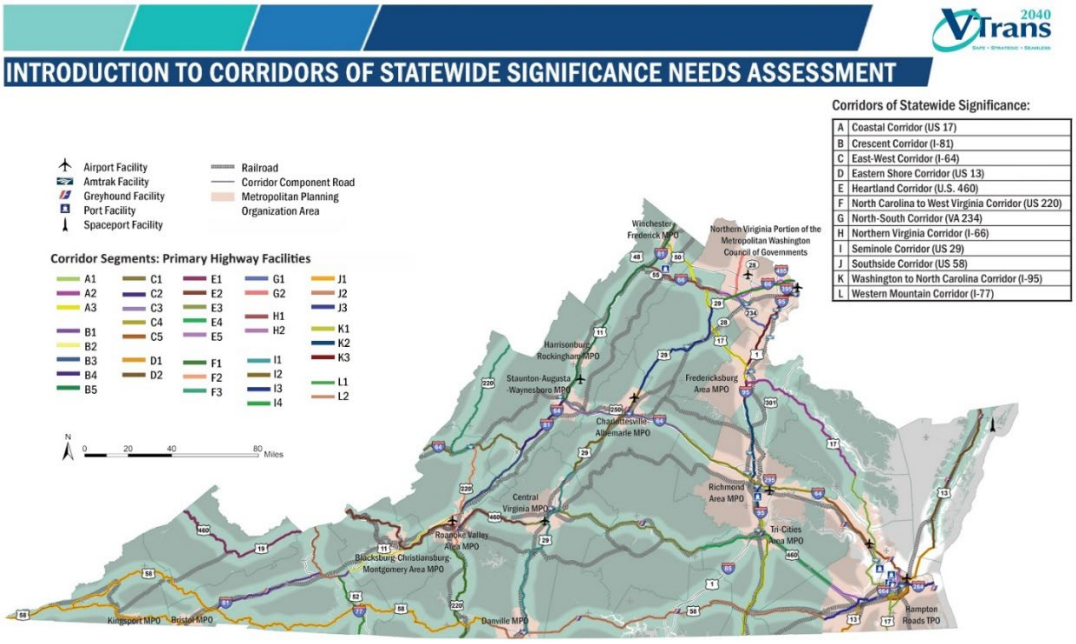

Figure 5: VTrans 2040 Multimodal Transportation Plan Corridors of Statewide Significance (COSS)

[5] https://icfbiometrics.blob.core.windows.net/vtrans/assets/docs/VTRANS2040_CoSS_Introduction_FINAL_10232015.pdf

VDOT Infrastructure Evaluation and Improvement

VDOT continuously assesses road infrastructure. The agency evaluates infrastructure in two manners, condition and performance. Infrastructure conditions are evaluated on an ongoing basis. For condition, pavements are assessed annually, and bridges are inspected at least every two years. The condition is used to measure the performance of the assets. Annually, VDOT compiles the performance data and presents pavement and bridge performance to the CTB. VDOT's presentation reflects the annual asset performance in conjunction with the CTB-approved performance measures set in 2019.

Virginia's Transportation Funding

The CTB annually reviews and approves the Commonwealth Transportation Fund (CTF) budget. The CTF receives revenues from dedicated state and federal sources. Before funds are distributed from the CTF to the Transportation Trust Fund and the Highway Maintenance and Operating Fund ("HMO Fund"), there are some off-the-top allocations, including a deposit to the Special Structures Fund. The remaining funds in the CTF are then allocated 51% to the Highway Maintenance and Operating Fund (HMOF) and 49% to the Transportation Trust Fund; of which 53% is distributed to the construction program.

The revenues for the HMOF support highway maintenance, operations, and administration.

Section 33.2-358 of the *Code of Virginia* lays out the allocation of funds to construction programs, including the State of Good Repair, Construction District Grant Program and High Priority Projects Program, Interstate Operations and Enhancement Program, and Virginia Highway Safety Program. The CTB has policies guiding the prioritization and selection of projects for each of these programs. For projects that are scored through the SMART SCALE prioritization process, which is supported using Construction District Grant Program and High Priority Projects Program funds, the Office of Intermodal Planning and Investment (OIPI) must indicate whether projects are on a primary evacuation route (HB 561, 2020).

Projects funded through one or more construction funding programs are included in the Six-Year Improvement Program (SYIP),[6] which outlines planned spending for transportation projects proposed for construction development or study for the next six years. The CTB updates the SYIP each year as revenue estimates are updated, priorities are revised, and project schedules and costs change. Throughout the SYIP development process, there are various points of coordination with regional, metropolitan, and local groups, as well as opportunities for stakeholder participation. VDOT and the Department of Rail and Public Transportation (DRPT) carry out various project selection processes, and projects are recommended for funding in the Draft SYIP presented to the CTB in the spring. The CTB hosts a series of public hearings to receive feedback on proposed projects and recommends adjustments to the Draft SYIP, as necessary. A Final SYIP is presented to the CTB annually for adoption in June.

Click the link for more information on how transportation projects are funded: [How projects are funded | Virginia Department of Transportation](#).

[6] http://syip.virginiadot.org/Pages/allProjects.aspx

Conclusion

Improvements to the infrastructure along the primary evacuation routes that are approved through one of the various construction funding programs are included in the Six-Year Improvement Program (SYIP). Improvements are also funded along the primary evacuation routes through VDOT's Highway Maintenance and Operations Program but not reflected in the SYIP. Key funding programs utilize project prioritization and selection processes that are focused on achieving the maximum benefit for the level of investment. These data-driven processes facilitate VDOT's capability and capacity to move many people and goods over the roads during emergencies, including evacuations.

Appendix 1

§ 33.2-275.1. Primary Evacuation Routes; Public Information.

The Department of Transportation (the Department), in consultation with the Department of Emergency Management, shall develop and maintain a map of primary evacuation routes in the Commonwealth. Such map shall be made available on Department's public website.

The Department shall review the quality of the transportation infrastructure along such routes and submit a report on the findings of the Department and any recommended improvements at least once every five years. Such report shall be submitted as provided in the procedures of the Division of Legislative Automated Systems for the processing of legislative documents and shall be posted on the General Assembly's website, and the first of such reports shall be submitted no later than the first day of the 2021 Regular Session of the General Assembly.

2020, c. 704.

Appendix 2 VDEM Concurrence

COMMONWEALTH OF VIRGINIA
Department of Emergency Management

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John J. Scrivani
Acting State Coordinator of
Emergency Management

DATE: October 14, 2025

TO: Matt Lott, Assistant Director for Emergency Management, VDOT Office of Safety, Security and Emergency Management

FROM: John Scrivani, Acting VDEM State Coordinator of Emergency Management

RE: Commonwealth's Primary Evacuation Routes Study

Purpose

This memo serves to document the coordination between VDOT and VDEM regarding the Commonwealth's Primary Evacuation Routes Study.

Background

A VDOT Study of "Primary Evacuation Routes" is mandated by the General Assembly in Chapter 704 of the 2020 Acts of Assembly (HB 1560). This law directs VDOT, in consultation with the Department of Emergency Management, to develop, maintain, and make publicly available a map of "primary evacuation routes" in the Commonwealth. The law directs VDOT to "review the quality of the transportation infrastructure along such routes and submit a report on the findings of the Department and any recommended improvements at least once every five years."

VDEM continues to concur with the current VDOT definition for "primary evacuation routes" in the Commonwealth of Virginia. VDOT, with agreement from the Virginia Department of Emergency Management, created a map of and studied the state-maintained roads included in state-supported evacuation plans and the Corridors of Statewide Significance (CoSS). State evacuation plans include the Commonwealth of Virginia Emergency Operations Plan (COVEOP) Hurricane & Tropical Storm Response Annex, Northern Virginia Evacuation Plan, and the COVEOP Radiological Response Annex plans for both the North Anna and Surry Nuclear Power Stations. Evacuation routes identified in these plans, along with the CoSS, will continue to be the primary evacuation routes for this study.

VDOT does not recommend any improvements to the infrastructure along the primary evacuation routes outside of the established Six-Year Improvement Program. These infrastructure assessment programs demonstrate considerable effort to ensure the traveling public has access to the roads as designed.

Conclusion

VDEM concurs with VDOT's recommendation. Additionally, VDEM and VDOT subscribe to an all-hazards approach to emergency evacuation planning.

John Scrivani

Appendix 3 Hurricane Evacuation Routes

Peninsula
Interstate 64 West
Interstate 664 North
US-Route 17 North
US-Route 60 West
Route 143
During severe weather, the Jamestown-Scotland Ferry is removed from service and should NOT be considered part of your evacuation plan.

Southside
264 West and Interstate 64 Hampton Roads Bridge-Tunnel
Interstate 664 North Monitor Merrimac Memorial Bridge-Tunnel
US-Route 17 North
US-Route 58 West
US-Route 460 West
Route 10 West
The Chesapeake Bay Bridge-Tunnel is NOT an evacuation route. For closure information, visit www.cbbt.com.

Northern Neck
US-Route 3 West

Eastern Shore
All Eastern Shore residents will use US-Route 13 North toward Salisbury, Maryland.[7]

[7] https://www.vaemergency.gov/hurricane-evacuation-zone-lookup/

Appendix 4 Northern Virginia Evacuation Plan Evacuation Routes

Limited Access Corridors

I-95 / I-395
I-66
Route 267 (Dulles Toll Road)
I-495 (Beltway)
George Washington Memorial Parkway (GWMP)

Traffic Signal Corridors

Route 1
Route 50
Route 7
Route 620
Route 236
Route 7100
Route 3000
Route 234
Route 243
Route 29
Route 28
Route 123
Route 193
Route 644

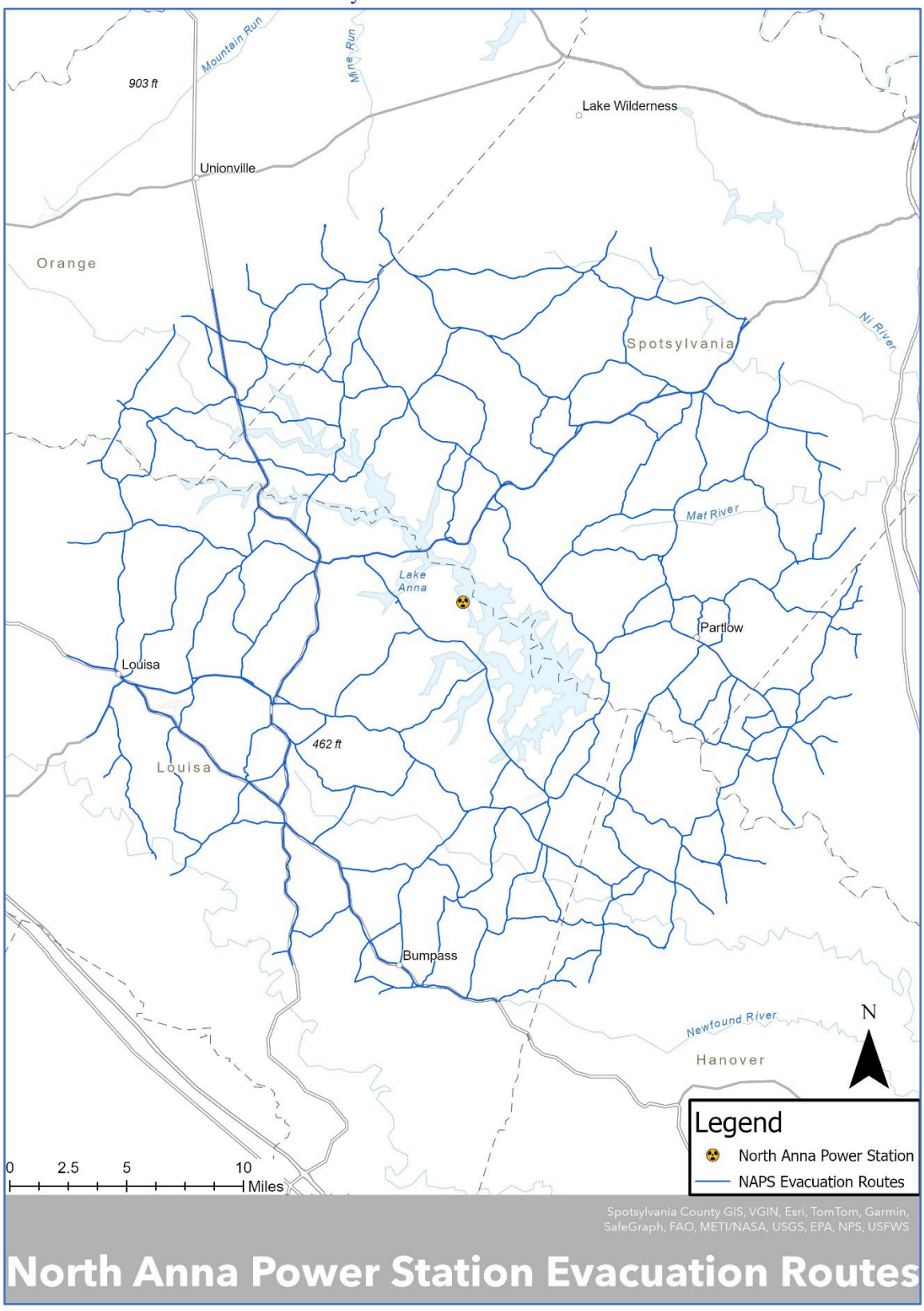
Other Traffic Signal Corridors to be managed by VDOT in coordination with appropriate localities.

Routes 2, 3, 9
Routes 15, 17
Routes 20, 27
Route 33
Route 48
Route 55
Routes 110, 120
Routes 205, 206, 208
Routes 211, 213, 215, 218
Routes 228, 229
Routes 230, 231, 235, 236, 237
Routes 241, 244, 245
Route 287
Route 299
Route 309
Routes 402, 420
Route 522
Routes 606, 611, 613
Route 7900

Appendix 5 COVEOP, Radiological Emergency Response Plan Routes

Both power stations' primary evacuation routes include routes designated minor collector and above within the 10-mile plume exposure pathway zone (EPZ). While all roads within the 10-mile EPZ may be used for an evacuation during an emergency, only the minor collector routes and above are designated primary evacuation routes. These maps with more detail will be posted to the Virginia Roads website. To access the full attribute table for power station primary evacuation routes, please contact Matt Lott in the VDOT Office of Safety, Security and Emergency Management at matt.lott@vdot.virginia.gov.

North Anna Power Station Primary Evacuation Routes



Surry Power Station Primary Evacuation Routes