

Submitted to:
Rappahannock-Rapidan
Regional Commission (RRRC)

REPORT



Freight Physical Infrastructure Profile

May 11, 2009

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DISCLAIMER

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WORKS CITED

Davis, J. C. (2009, April 17). In-person Interview. (W. L. Gilliam, Interviewer)

Rappahannock-Rapidan Regional Commission. (2008). *Rappahannock-Rapidan Region Congestion Management System Plan*. Culpeper, VA.

Schafer, B. (2009, May 5). Norfolk Southern Director- Strategic Planning. (W. White, Interviewer)

US Dept. of Transportation. (2009). *Freight Analysis Framework- FHWA Freight Management and Operations*. Retrieved March 22, 2009, from USDOT: http://ops.fhwa.dot.gov/freight/freight_analysis/faf/

USDOT/BTS/RITA. (2009). *BTS National Transportation Atlas Database*. Retrieved April 1, 2009, from Bureau of Transportation Statistics Research and Innovative Technology Administration: http://www.bts.gov/publications/national_transportation_atlas_database/2008/

STUDY OVERVIEW

As part of its ongoing development of a Regional Long-Range Transportation Plan, the Rappahannock-Rapidan Regional Commission (RRRC) has been awarded funding for a regional, multimodal freight study to assess the impacts of freight in and through the Rappahannock-Rapidan Region and adjacent or “halo” counties which have a significant interaction with the region. The study examines the movement of freight by truck, rail and air originating, destined to or passing through the region in order to identify strategies on how the region can best position itself to accommodate future freight growth while minimizing adverse impacts on the region’s transportation system and environment. It also provides recommendations for future infrastructure investments and policies that enable the region’s transportation system to continue to operate at the highest levels of efficiency and safety in the years ahead.

The study includes several key elements that will help regional decision makers understand how freight fits into the overall regional planning framework.

- Freight Movement Profile
- Survey of Major Shippers
- Freight Infrastructure Profile
- Project Analysis and Recommendations
- Final Report

The *Freight Movement Profile* provides a baseline understanding of the current movement of freight to, from and through the region. In many ways, this is the “demand” portion of the study where current patterns and future trends are analyzed and presented to help “tell the story” of regional goods movement. Topics covered include the variety of data sources for freight data, the types of freight moved and how that can be expected to change in coming years.

The *Survey of Major Shippers* summarizes locally collected information from regionally significant shippers who produce or consume large quantities of commodities. One goal of this survey is to identify more specific information from these shippers regarding what they ship, how they ship it, how that will be changing and their perspectives regarding local freight issues and opportunities. It is expected that this survey will also open a long-term dialog with these shippers so that their insights can help inform transportation planning decisions in the years ahead.

The *Freight Infrastructure Profile* captures the “supply” side of the study. It provides inventories and analyzes of nationally and regionally significant freight infrastructure, how it is used or under-utilized and helps set the stage for identifying critical gaps, deficiencies and opportunities.

Project Analysis and Recommendations takes the findings from the first three tasks and explores options to solve current freight deficiencies, to plan for future issues and to lay out options that will shape future strategic investments. In this report, the relationships between land use, transportation and investments are explored and a case is presented for making strategic policies and investments that will improve the goods movement capabilities of local employers, the economic competitiveness of the region and the overall quality of life of its residents.

Together these four elements will comprise the *Final Report*. It is expected that the report will help inform the development of the region’s long-range transportation plan to insure freight-related issues are addressed and weighted appropriately in the analysis of projects- an important step in informing decision makers of the tradeoffs between various modes and investment strategies.

REGIONALLY SIGNIFICANT FREIGHT INFRASTRUCTURE

The physical infrastructure in the RRRRC region consists of an interstate highway, federal and state highways, rail, and three regional airports. The primary freight modes in the region are truck and rail; as such the performance of the highway and rail system is critical to the movement of goods through the region.

Roadways

As shown in **Figure 1** the 5 county region is located southwest of Washington D.C. For analysis purposes, 2 additional “halo” counties are included in some analyses due to their proximity and influence on the region. The study area is served by the following major highways:

- **Interstate 66**-is a four lane limited access highway that provides access from the study area to Washington DC and I-81. I-66 also provides access to the Virginia Inland Port in Front Royal. Based on Virginia Department of Transportation (VDOT) statistics, the Average Annual Daily Traffic (AADT) within the study area ranges from 36,000 to 41,000, with truck percentages reaching 16% west of US 17.
- **US 29**-is a four lane divided highway and one of the major truck routes in the region. US 29 provides access from Culpeper to I-66 in Prince William County and I-64 in Charlottesville and serves as the only hazardous materials route in the region. The facility has been upgraded to a limited access facility around Culpeper and provides access to a number of major employers in the region. The AADT ranges from 15,000 near the Madison/Greene County line to 50,000 at the Fauquier/Prince William County line. Truck percentages range from 3 to 8 percent within the study area.
- **US 15**-runs concurrently with US 29 between Haymarket and Culpeper; US 15 is a two lane highway south of Culpeper and provides access to I-64 south of the study area. AADT varies from 5400 at the Culpeper/Madison County line to 50,000 at the Fauquier/Prince William County line. Truck percentages range from 3 to 8 percent in the study area. There are currently truck prohibitions on Main Street in Gordonsville.
- **US 17**-runs concurrently with US 29 and US 15 between Warrenton and Opal and is also a major truck route in the region; US 17 is a four lane divided highway north of Warrenton and provides access to I-66 west of US 29 making this an attractive route for trucks with westbound destinations via I-66. As shown in **Figure 2** US 17 is a four lane divided highway south of Opal and provides access from the study area to I-95 and Fredericksburg. The AADT ranges from 12,000 in Warrenton to 47,000 south of Warrenton including 7 to 24 percent truck traffic.
- **US 33**-is a two to four lane highway that traverses the southern edge of the study area between Skyline Drive and Richmond. AADT varies from 5100 in the town of Gordonsville to 6800 at the Orange/Green County line including 4% truck traffic.
- **US 522**-is a two lane highway that provides access between Culpeper and I-64 west of Richmond. US 522 continues north from Culpeper to Front Royal. The AADT ranges from 2000 in Rappahannock County to 19,000 in downtown Culpeper. Truck traffic varies from 1 to 8 percent within the study area.

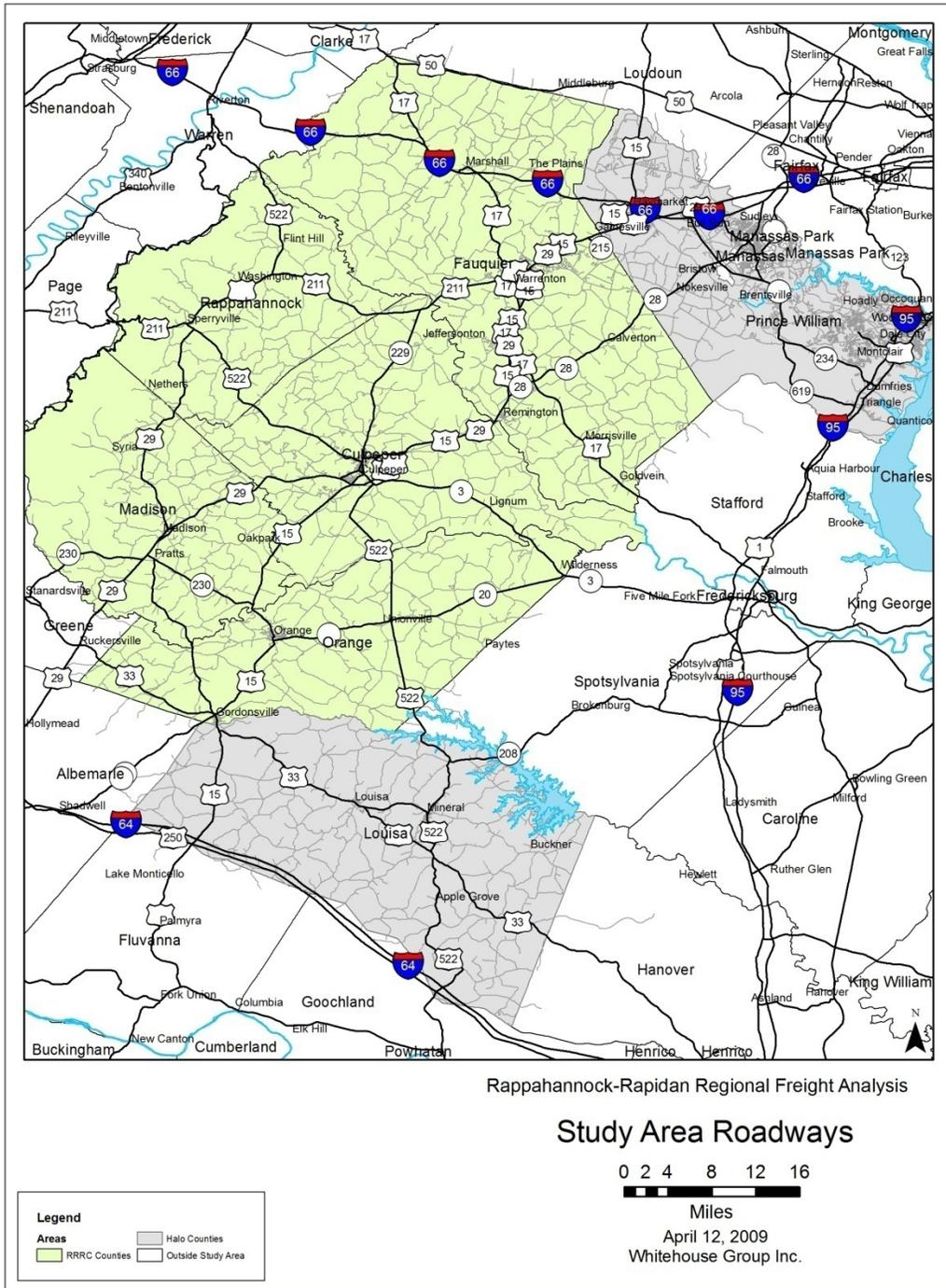


Figure 1 Study Area Roadways



Figure 2 Photo of US17 in Fauquier County

- **US 211**-is a two to four lane highway that traverses the study area from Warrenton to Skyline Drive. US 211 runs concurrently with US 522 from north of Washington to Berryville Pike. US 211 is a four lane divided highway from Warrenton to Berryville Pike. AADT varies from 2500 at the Page/Rappahannock County line to 23,000 in the town of Warrenton, including 0 to 4 percent truck traffic.
- **VA 28**-is a two lane highway that provides access between US 29/US 15 and Dulles Airport in Northern Virginia. The AADT in the study area ranges from 8100 to 14,000 including 2% truck traffic.
- **VA 3**-is a two to four lane highway between Culpeper and I-95 in Fredericksburg. The AADT varies from 9500 in Culpeper to 24,000 at the Orange/Spotsylvania County line. Truck traffic ranges from 3 to 8 percent.

The Freight Analysis Framework (FAF) shown in **Figure 3** identifies roadways that are of strategic importance at the state and national levels (US Dept. of Transportation, 2009). The highlighted corridors are the freight corridors in the study area as defined by FAF. These facilities are identified as currently or potentially having importance to national-level freight movement. A review of the network indicated that there is sufficient redundancy in the highway network to accommodate increased freight traffic and diversions due to incidents on major freight corridors.

The National Transportation Atlas Database (NTAD) 2008 (USDOT/BTS/RITA, 2009) identifies hazardous materials (hazmat) throughway routes along with other transportation features. Currently, enforcement of hazmat routes fall under the jurisdiction of the Virginia State Police. Hazardous materials are defined as a material that may pose unreasonable risk to health, safety, or property. An assessment of the NTAD database shows that only one federally designated hazmat route runs through the region, US 29. As shown in **Figure 4** and **Figure 5**, this alignment provides access from the Washington DC region to the I-64 corridor.

Year 2007 traffic count data (**Figure 6**), provided by VDOT summarizes actual field observations and estimates of total traffic and truck traffic in select locations throughout the region (**Figure 7**). An analysis of truck traffic volumes at these locations in Figure 7 shows the US 29/US 17 corridor, the primary corridor designated for hazardous material routing, carries the largest number of trucks through the region. US 3 to Fredericksburg also carries a significant number of truck trips as does US 17, Interstate 66, and Interstate 64 which is immediately outside the study area.

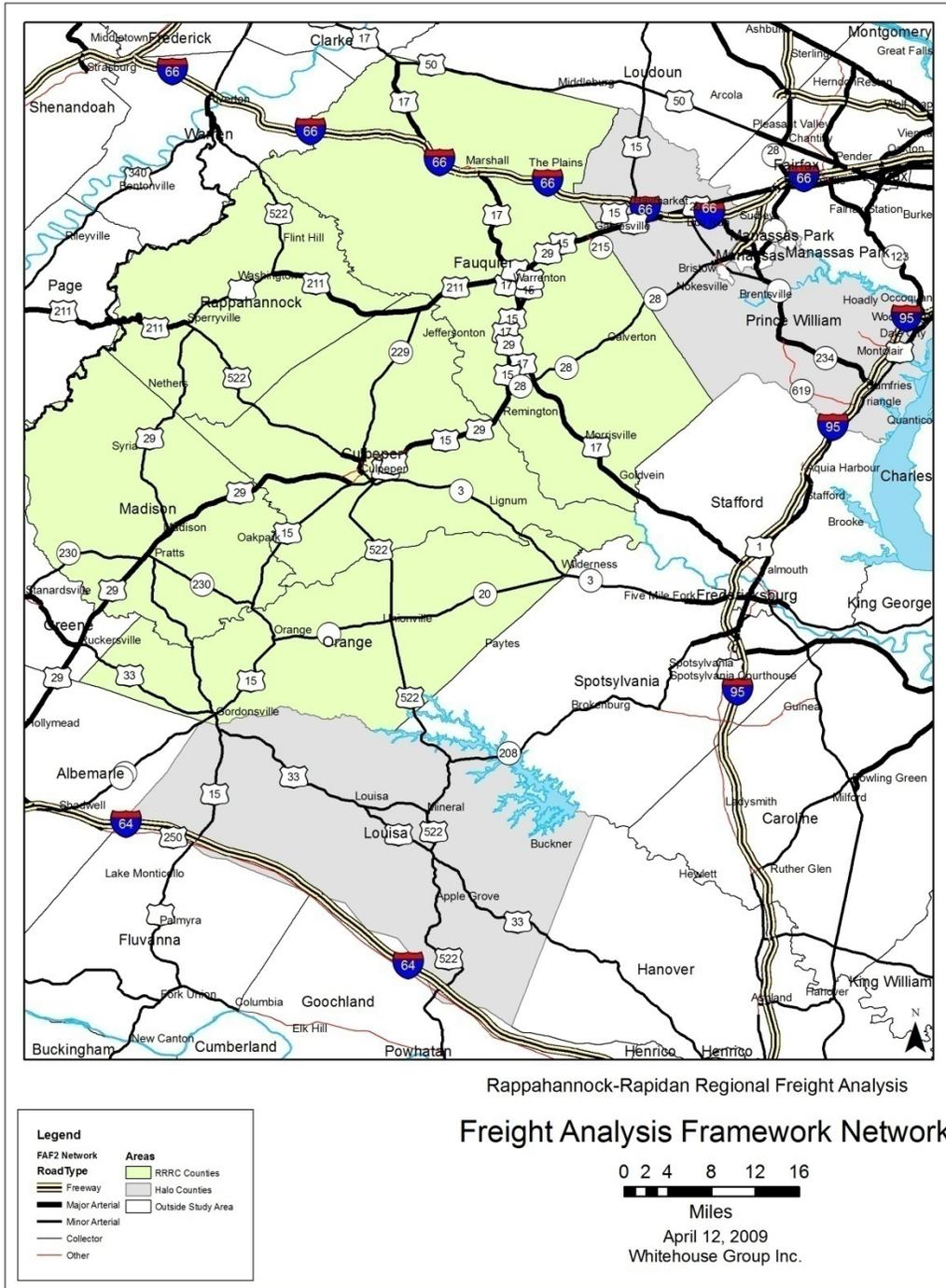


Figure 3 US DOT's Freight Analysis Framework (FAF) Network in the RRR Region

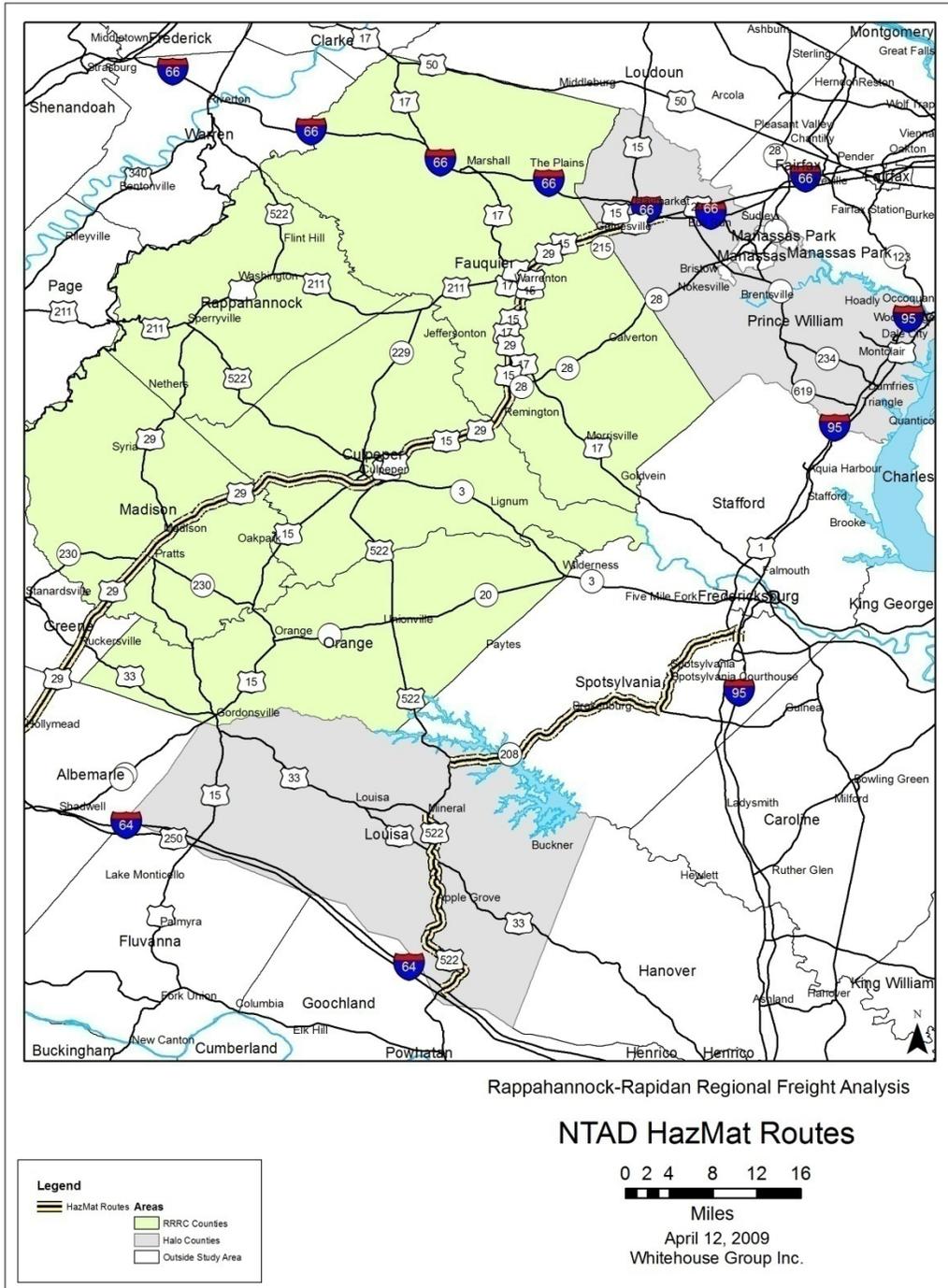


Figure 4 NTAD Hazardous Materials (HazMat) Routes

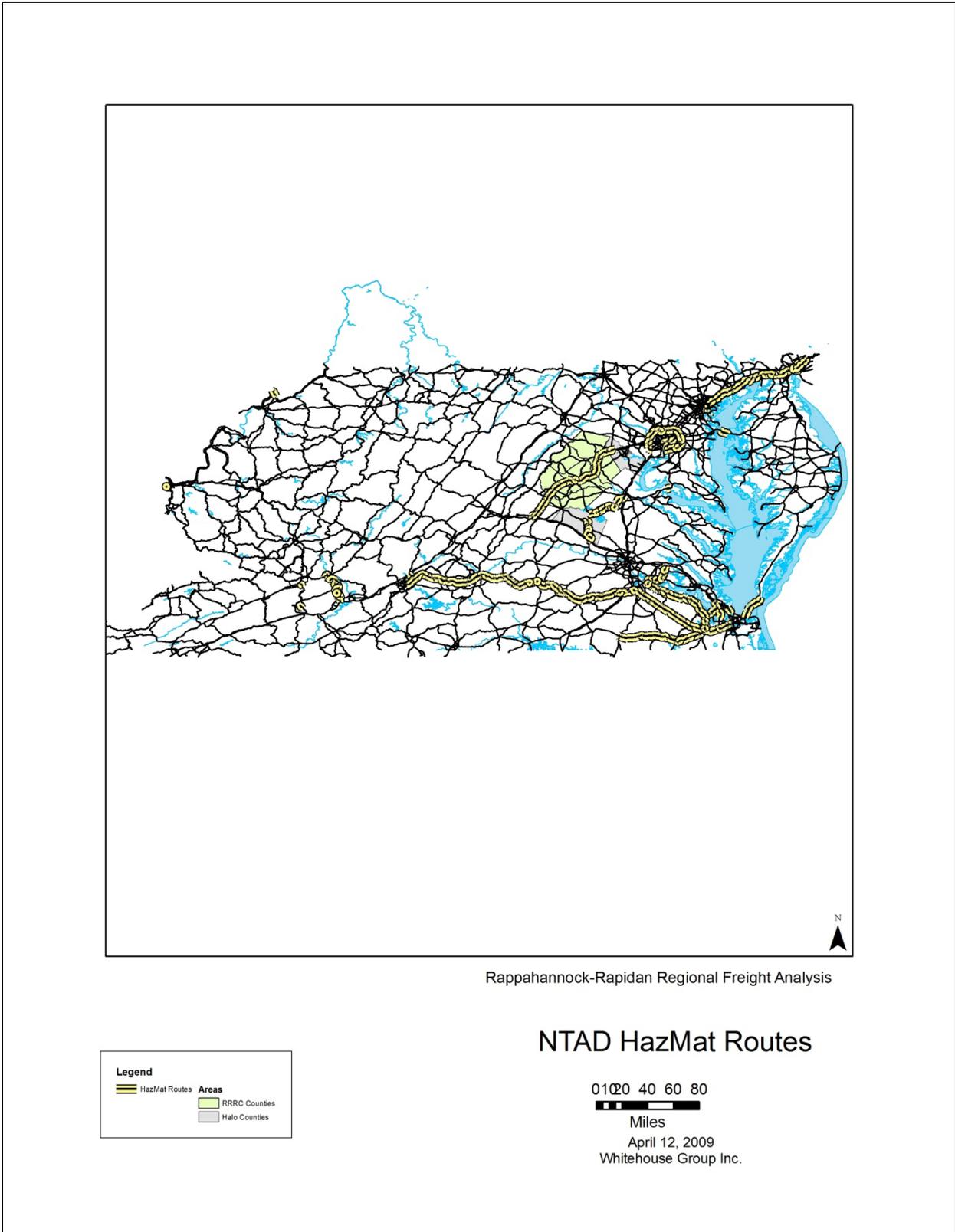


Figure 5 NTAD Hazardous Materials (hazmat) Routes-State of Virginia

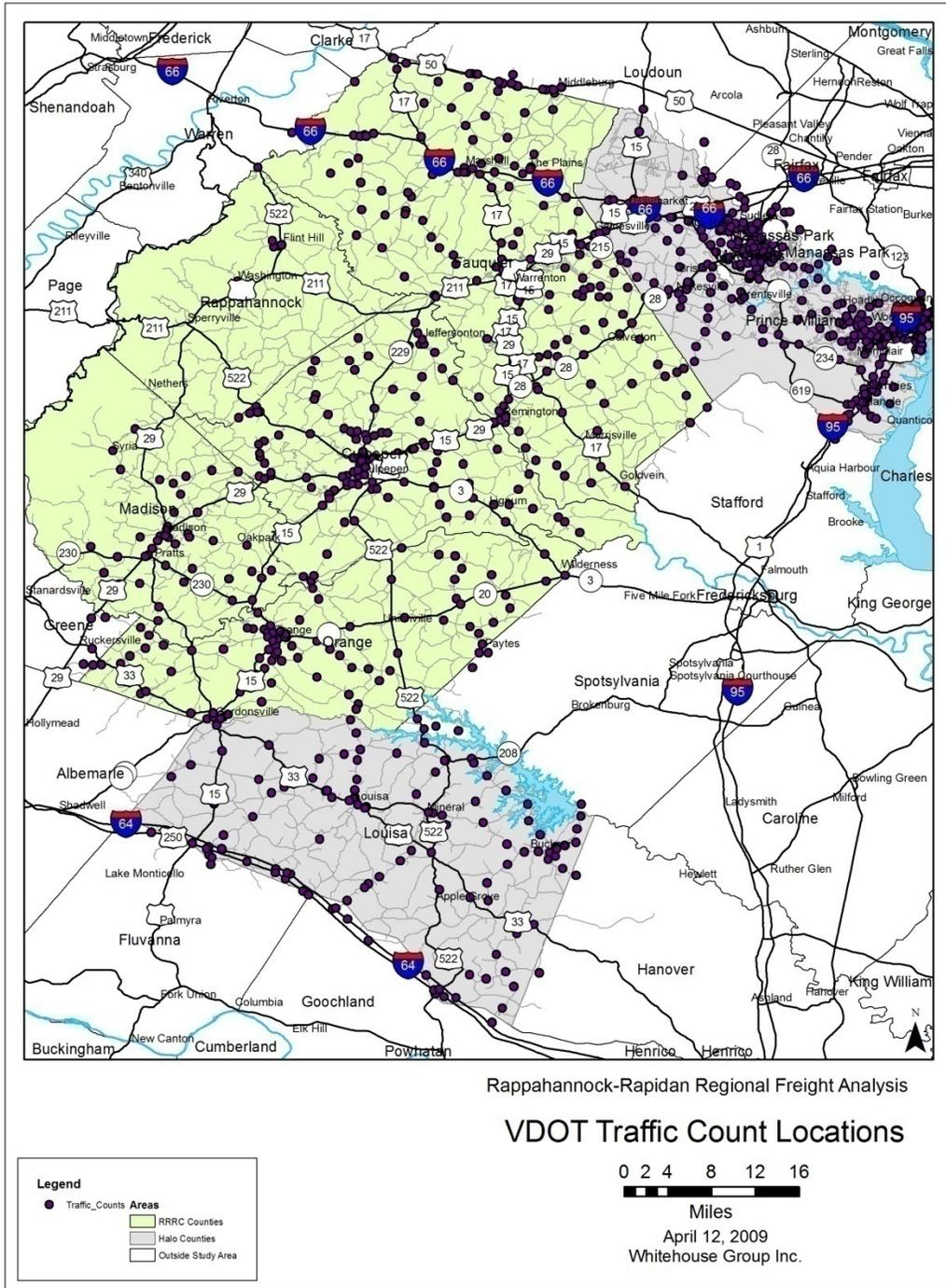


Figure 6 VDOT Traffic Count Locations

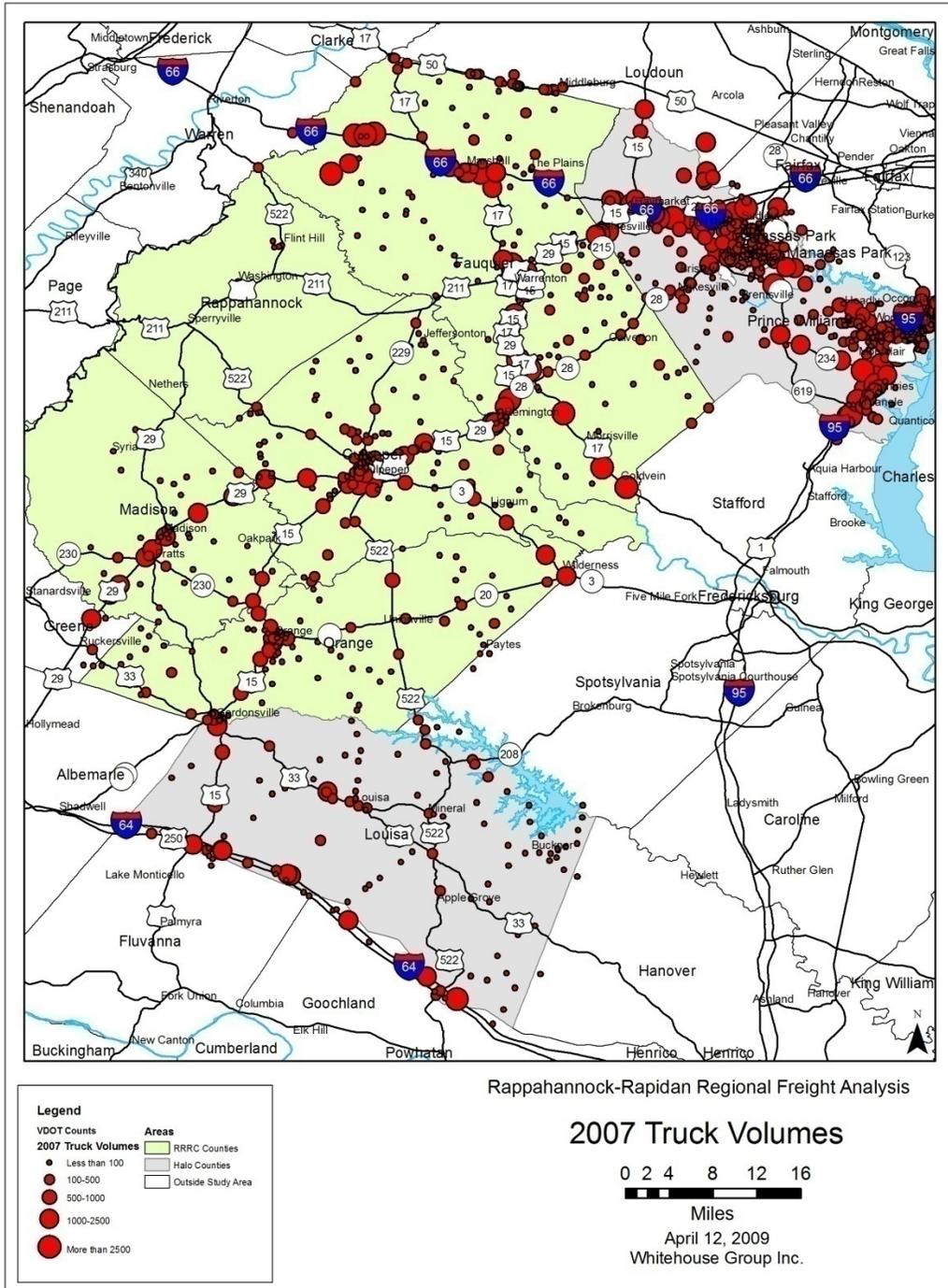


Figure 7 2007 Truck Volumes

Railways

Norfolk Southern is the primary freight rail service provider in the region (**Figure 8**). As shown in **Figure 9**, there are two major freight lines in the region, one line provides service between Manassas and the Virginia Inland Port and the second line runs generally parallel to US 29 which is important to note with regards to the location of current sidings (**Figure 10**), railroad/ traffic crossings (**Figure 11** and **Figure 12**) and potential new shipping or intermodal facilities. NTAD data indicates a spur from the main Norfolk Southern Line to Warrenton; however field observations revealed that this line has been abandoned. CSX owns a small portion of the track which it leases to the Buckingham Branch Railroad. This spur connects the primary Norfolk Southern line to another Buckingham Branch line that serves Hanover and Louisa Counties to the southeast. In Virginia, like most states with regional commuter rail service, Amtrak and Virginia Railway Express (VRE) routes run over the same privately-owned tracks, such as Norfolk Southern, with contracts between the passenger train operators and private freight companies. Additionally, the passenger train operators must work with the freight companies to determine scheduling, maintenance/improvements costs and measures, liability and right-of-way. While the VRE service currently terminates in Manassas, there are plans to expand the service to Haymarket, and combined with existing Amtrak passenger service would share the Norfolk Southern line and effectively reduce the capacity for freight traffic. There are also plans for additional daily Amtrak service from Lynchburg to Washington, DC with planned stops in Culpeper.



Figure 8 Photo of Norfolk Southern Railroad Siding North of Culpeper

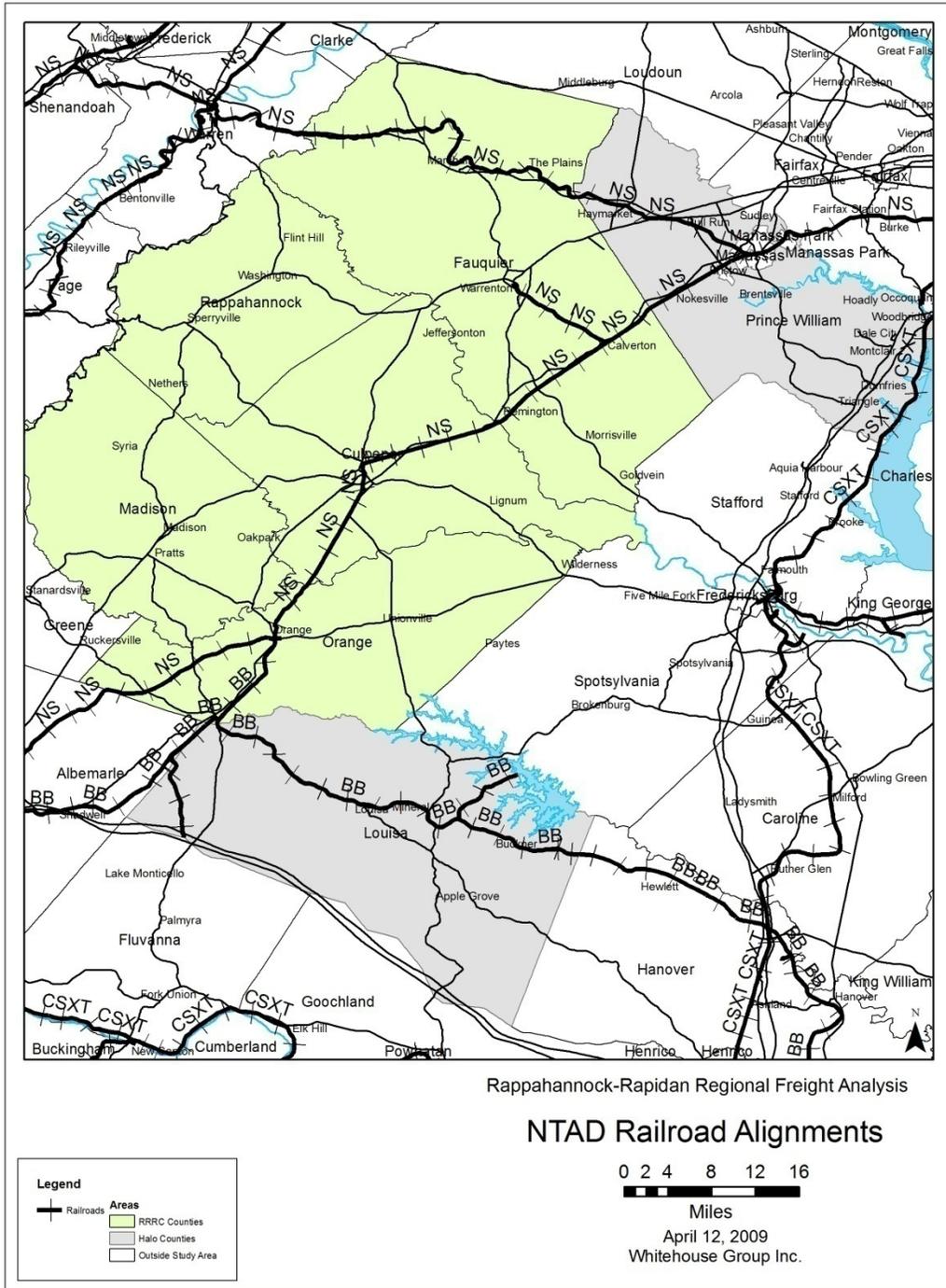


Figure 9 Railroad Alignments and Owners

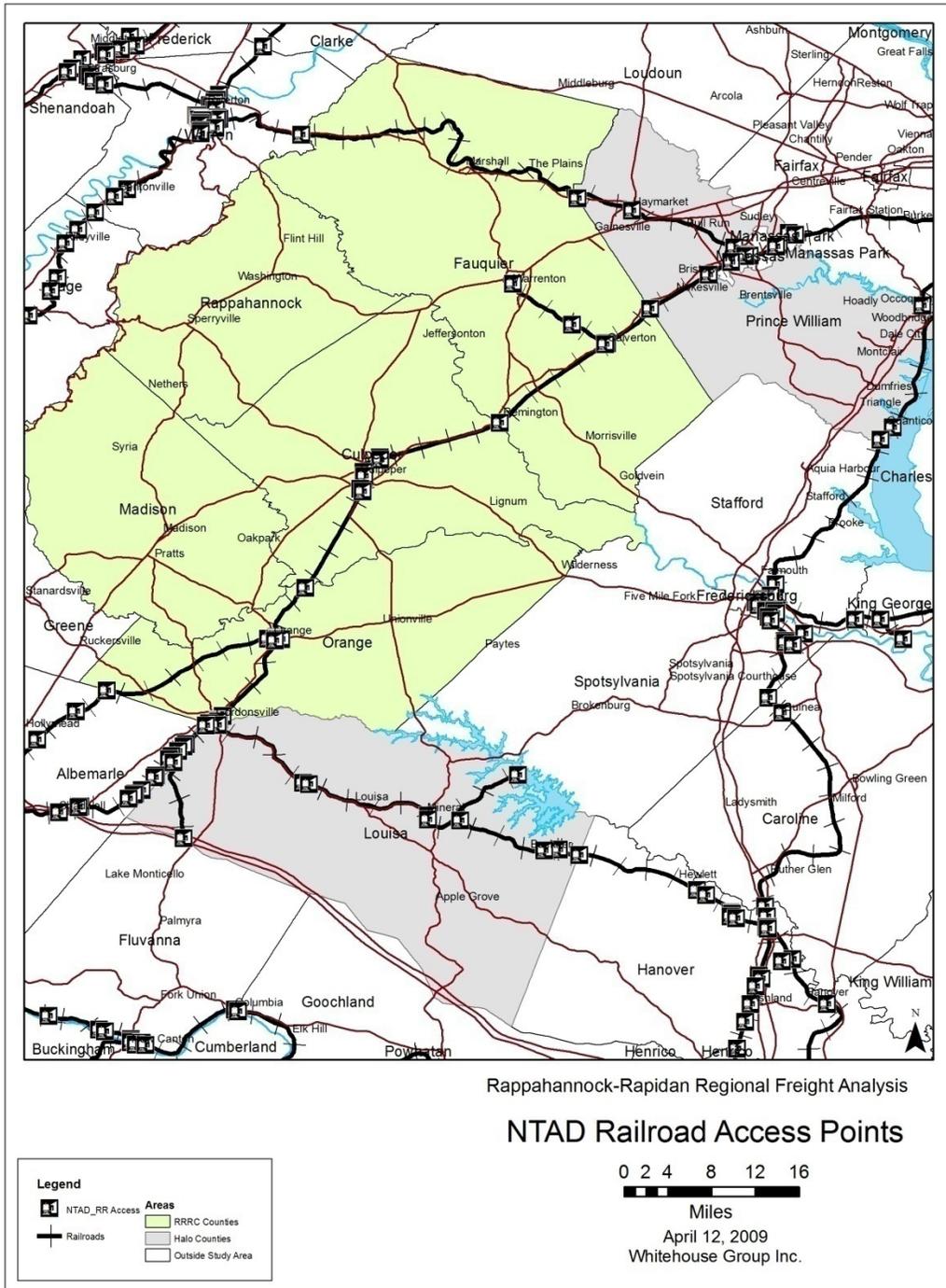
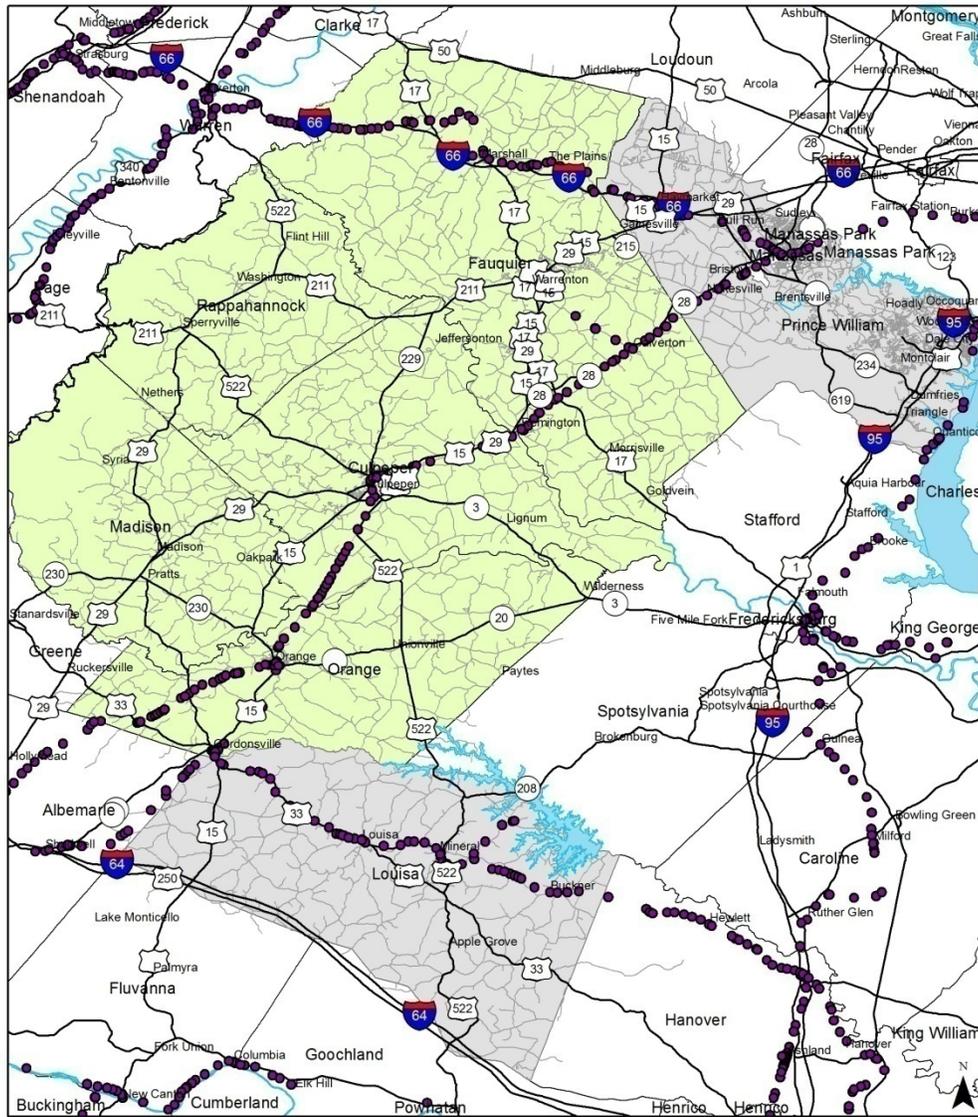
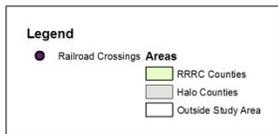


Figure 10 Railroad Access Points (Sidings)



Rappahannock-Rapidan Regional Freight Analysis

NTAD Railroad Crossings



Miles

April 12, 2009

Whitehouse Group Inc.

Figure 11 Railroad Crossings



Figure 12 Photo of Railroad Crossing North of Culpeper

Intermodal Facilities

A review of the National Transportation Atlas Database (NTAD) indicated one intermodal facility, Easton Clearing, currently exists within the RRRC region, Easton Clearing (**Figure 13**). Field review indicates this site does not currently operate as an intermodal facility. While there is a double-tracking to Bealeton and a rail spur onto the property that could provide some opportunities, this site located at the intersection of US 17 and the Norfolk Southern rail line and currently does not allow for rail/truck transfers. A site review of the area indicated that there was limited activity (AmeriGas and a pipe manufacturer) and is immediately adjacent to residential areas.



Figure 13 Aerial Photo of Easton Clearing Intermodal Location

Additionally, as shown in **Figure 14** are the Norfolk Southern rail yard and the Virginia Inland Port located just outside the northwest corner of the study area. The Virginia Inland Port is a freight distribution center for the western Virginia handling a total of roughly 33,000 containers in and out of the facility in 2008 (Davis, 2009). Most containers shipped to or from the facility are going to distribution and manufacturing centers located within 20 miles of the facility. The largest categories of commodities going through the Port are wood and poultry products.

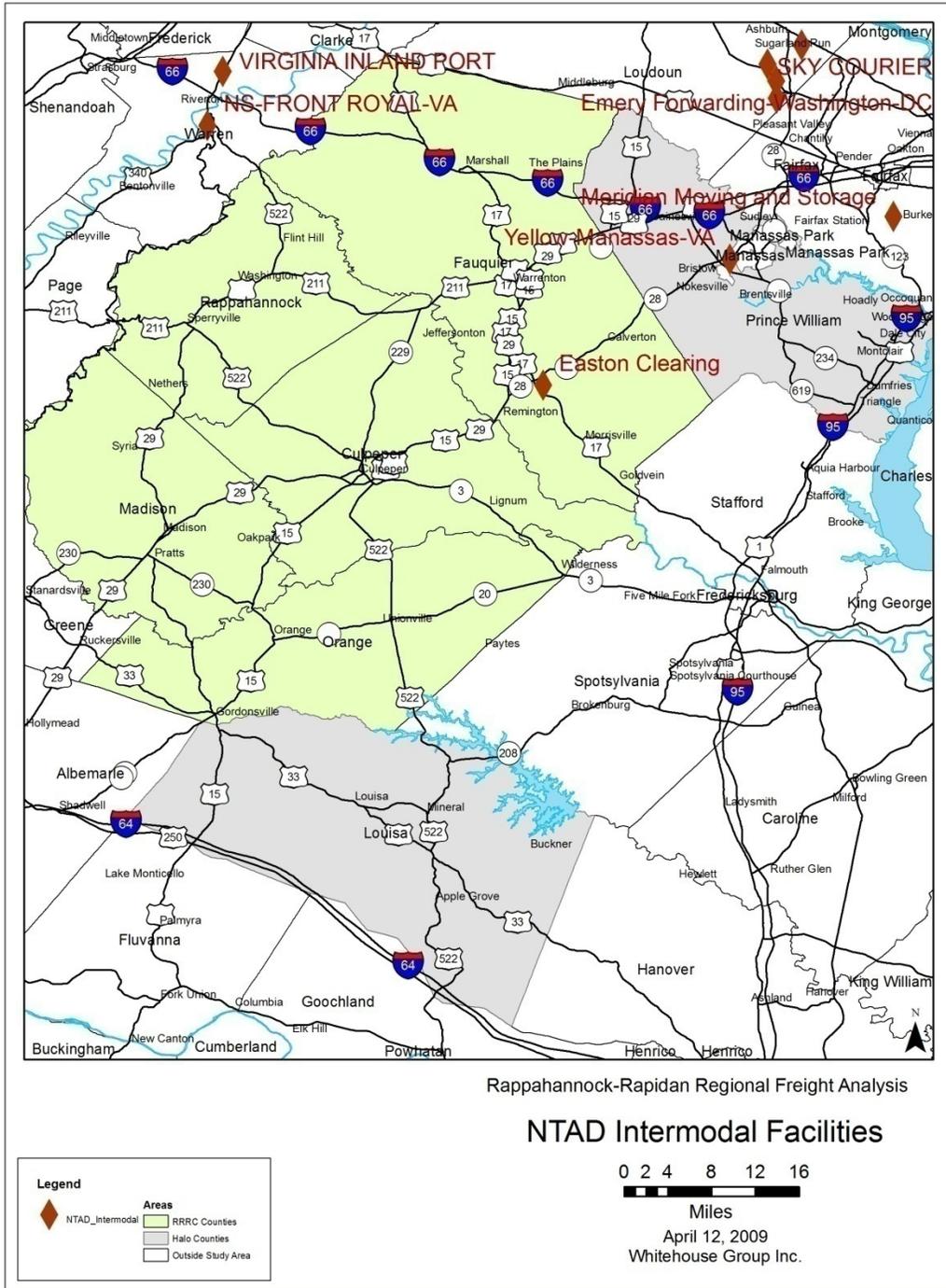


Figure 14 NTAD Intermodal Facilities

Airports

Culpeper Regional Airport (**Figure 15**) is located on Beverly Ford Road in Brandy Station. The airport can accommodate corporate size jets and large twin engine aircraft, but has no air traffic control tower which is a requirement for commercial air service. A new terminal is currently under design, and the runway was extended to 5000' in 2004. Additionally, as shown in **Figure 16**, there are many other small general aviation (GA) airports and airfields in the region that could have the potential to carry small amounts of high value goods. Other GA airports include Warrenton/Fauquier Airport located approximately 12 miles south of Warrenton and Orange Airport is located on VA 20 a few miles south of Orange.



Figure 15 Culpeper Regional Airport

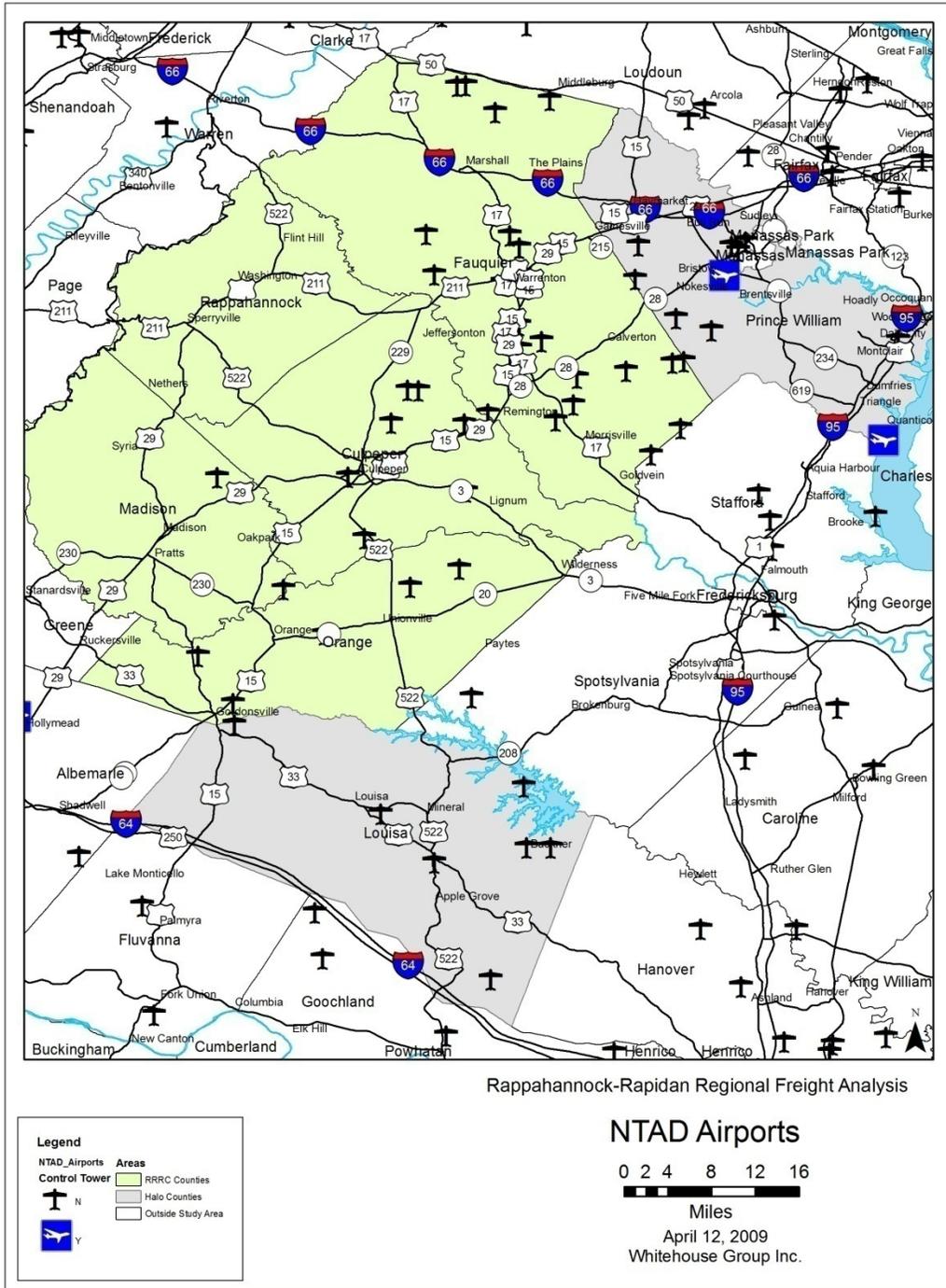


Figure 16 Airports Locations

ASSESSING FREIGHT CAPACITY

The capacity to carry freight to, from and through the region is currently handled through roadway (as shown in **Figure 17**) and rail networks. The following sections describe observed deficiencies and available capacity that could be used in the region.

Current Deficiencies

Roadway

Given that trucks account for over 80% of the goods movements in the region, the performance of the highway system is critical to the efficient movement of goods to and through the region. The Rappahannock-Rapidan Congestion Management System (Rappahannock-Rapidan Regional Commission, 2008) summarizes the highway performance in the region for the years 2005 and 2035. Consistent with federal Congestion Management System guidelines, the RRRC conducted travel time runs between 7:00-9:00 AM and 4:00-6:00 PM for the major arterials in the region. The performance measure that was used for the CMS (**Figure 18**) is Level of Service (LOS) which was calculated from existing and projected volume to capacity ratios. In the RRRC region, a LOS D or better is deemed as acceptable highway performance, while LOS E and F constitute failing operations where congestion management strategies are required. The CMS analysis indicates that a number of roadways are currently experiencing failing conditions in the region, particularly in Fauquier County and the Culpeper area, both of which have experienced significant growth in population and households in recent years.

To supplement this analysis, an additional analysis at “hotspot” locations in the study area as identified by the CMS report and local stakeholders was conducted. Using existing VDOT traffic counts and capacities estimated using HCM methods, while also factoring in the percentage of truck traffic, a generalized LOS analysis was conducted and locations with LOS poorer than D or areas where reported safety or other trucking related concerns are identified in **Figure 19** and **Figure 20**. The table indicates that locations along the US 29/US 15 corridor in Warrenton and Fauquier County are experiencing volumes above capacity which is consistent with field observations and the RRRC Congestion Management Report which showed a LOS D in 2005, prior to several years of rapid growth in this portion of the study area. Main Street (Bus US 15/Bus US 29/Bus US 522) has volumes near capacity and based on the historic nature of this corridor, roadway improvements are likely limited to Transportation System Management (TSM) and Travel Demand Management (TDM) improvements. A field review of this corridor indicated that truck traffic is present, though a number of intersections in the Town of Culpeper do not have adequate turning radii for trucks which impact traffic operations at these intersections.



Figure 17 Photo of US29/US17 Intersection in Opal

2005 Roadway Level of Service Designations

in the Rappahannock-Rapidan Region

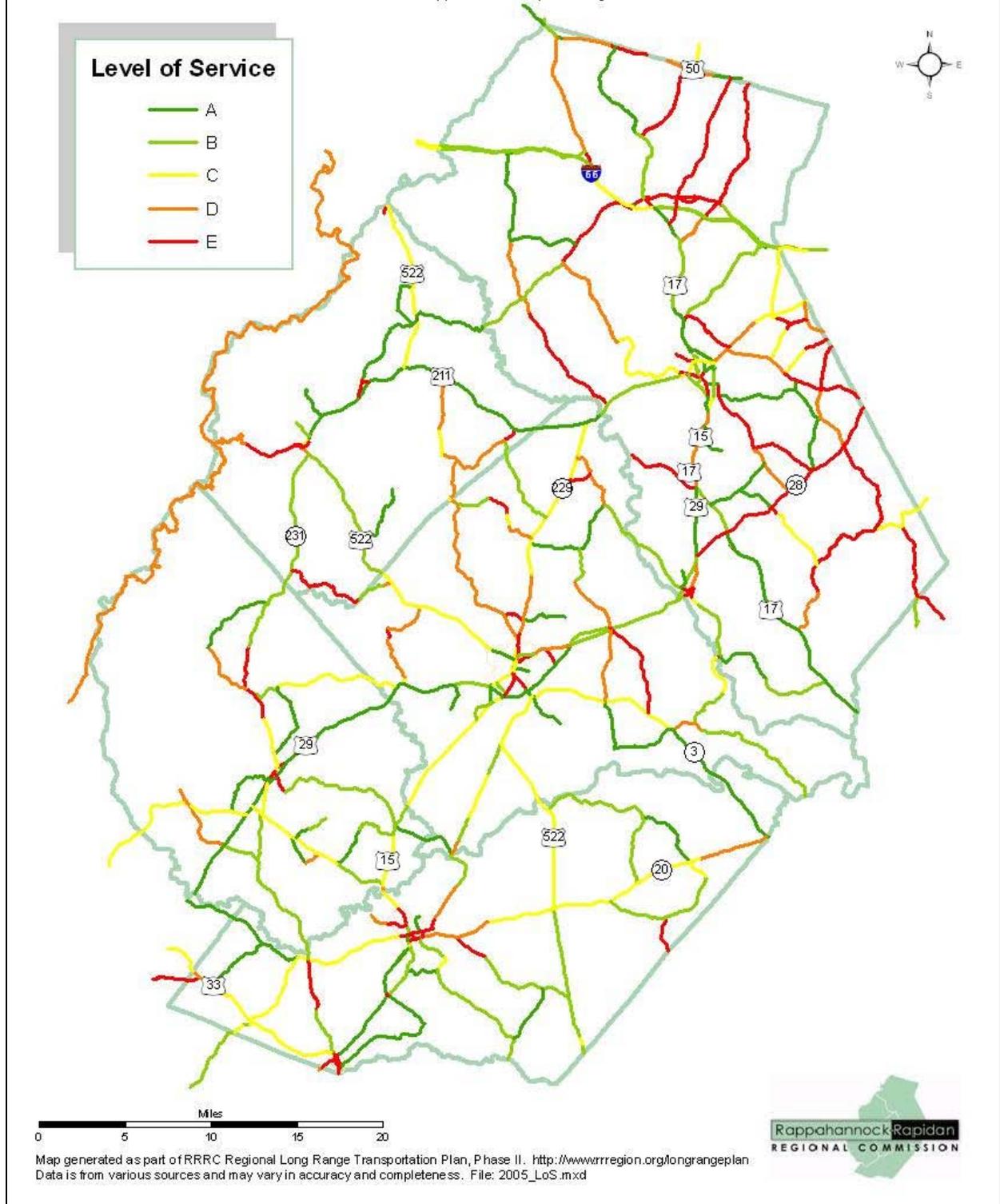
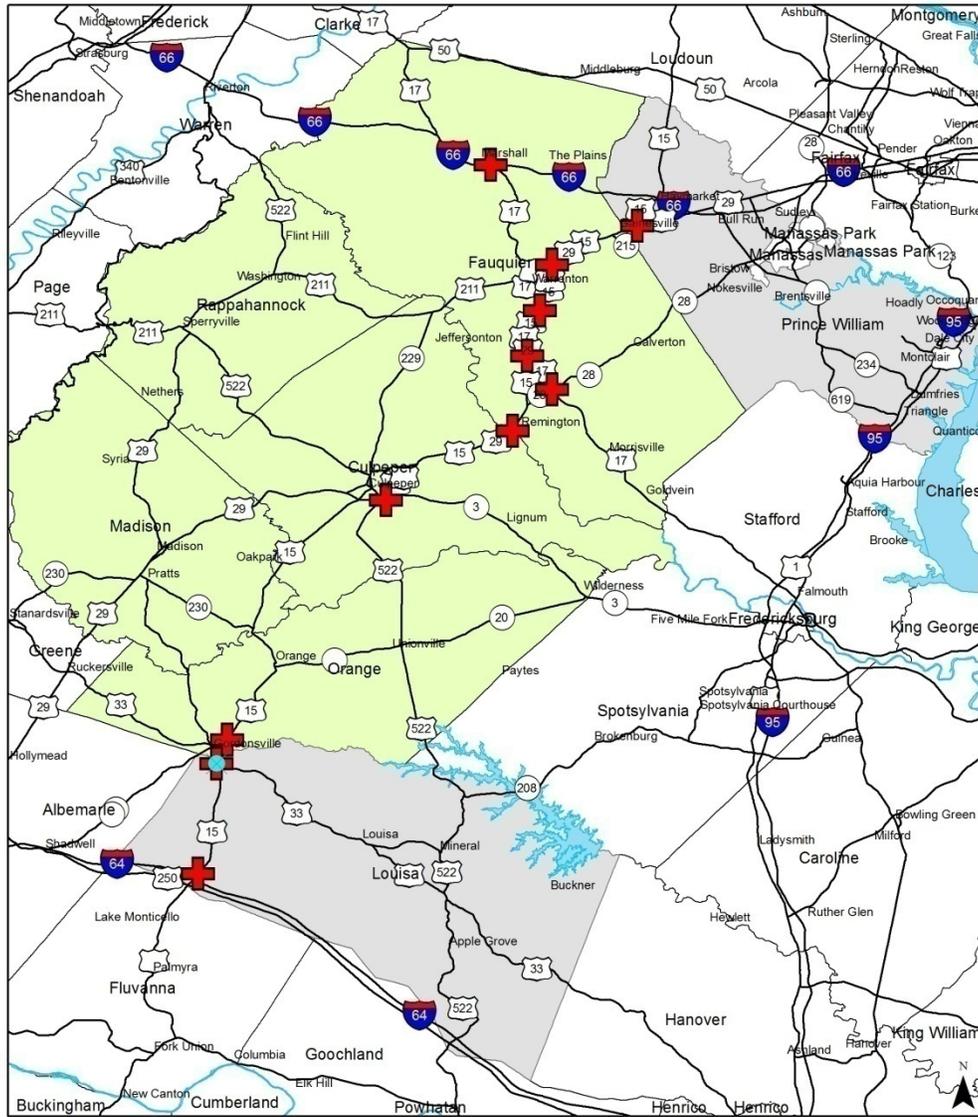


Figure 18 2005 Roadway Level-of-Service as Reported in Congestion Management System



Rappahannock-Rapidan Regional Freight Analysis

Observed Truck "Hot Spots"

0 2 4 8 12 16

Miles

April 12, 2009

Whitehouse Group Inc.

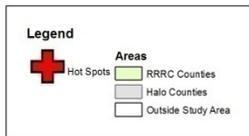


Figure 19 Observed Truck Traffic "Hot Spots"

Figure 20 Hotspot Capacity Analysis Results

| Facility | Name | Jurisdiction | AADT | % Trucks | Adjusted AADT | v/c |
|------------------------------|-------------------|-------------------|-------|----------|---------------|-------------|
| US 522, VA 3 | Germanna Hwy | Culpeper County | 16000 | 8% | 17360 | 0.87 |
| US 15, US 17, US 29 | James Madison Hwy | Fauquier County | 44000 | 8% | 47602 | 1.03 |
| US 15, US 17, US 29 | James Madison Hwy | Fauquier County | 47000 | 8% | 50848 | 1.11 |
| US 15, US 17, US 29 | Eastern Bypass | Fauquier County | 42000 | 8% | 45438 | 0.99 |
| US 15, US 29 | Eastern Bypass | Fauquier County | 42000 | 8% | 45438 | 0.99 |
| US 15, US 29 | Eastern Bypass | Town of Warrenton | 48000 | 8% | 51929 | 1.13 |
| US 15, US 29 | Eastern Bypass | Fauquier County | 48000 | 8% | 51929 | 1.13 |
| US 29, US 15 | Lee Highway | Fauquier County | 48000 | 4% | 49690 | 1.08 |
| US 29, US 15 | Lee Highway | Fauquier County | 45000 | 4% | 46584 | 1.01 |
| US 29, US 15 | Lee Highway | Fauquier County | 49000 | 4% | 50725 | 1.10 |
| VA 28 | Catlett Rd | Fauquier County | 14000 | 2% | 14321 | 1.02 |
| Bus US 15, Bus US 29, US 522 | Main St | Town of Culpeper | 19000 | 2% | 19392 | 0.97 |

Truck Stops and Service Areas

The results of the windshield survey indicated that there are currently no service areas located on US 29 in the study area, truck stops are limited to several gas stations, typified by **Figure 21**, and one truck stop located north of Warrenton. Given the length of the US 29 corridor and the growing role of this corridor in the context of longer haul freight traffic as traffic congestion builds on I-95 and I-81, improving truck stop amenities would provide a valuable service to truck drivers in the future. It would also provide a safe place, out of the roadway right of way, that trucks could park while drivers rest.



Figure 21 Photo of a Sheetz Gas Station on US 29

Available Capacity

Roadway

The results of the hotspot analysis and CMS report indicate that there are capacity constraints along the US 29 corridor north of Opal and in downtown Culpeper as well as VA 28 where rapid development has led to increasing traffic congestion in recent years. There is sufficient roadway capacity south of Warrenton. Generally, available capacity decreases in the study area as you approach I-66 and Prince William Counties in the Washington suburbs as passenger auto volumes increase.

Railway

During several site visits, only one train was observed. With regards to rail crossings, there are a number of rail crossings located in proximity to US 29. If rail traffic increases in the area, the roadway capacity at these locations will be reduced and potentially impact intersections on US 29.

PLANNED AND PROGRAMMED IMPROVEMENTS

The RRRC is strategically located in Central Virginia in proximity to Richmond, Washington DC, and the Virginia Inland Port. Growth in the region has been rapid, particularly in Fauquier County which has seen significant growth in truck and passenger vehicle volumes which has in turn strained the highway network.

Roadway

Given the strategic role of US 29 in the region as the only hazardous material route and an alternative to I-95 and I-81 for freight traffic destined from the Northeast to North Carolina and locations to the south, it is critical that mobility be maintained in the future for this corridor. This can be accomplished by a number of means including signal system coordination, intersection improvements, and strategic intersection upgrades. It is important that any future studies and design efforts factor in the increasing truck traffic in the region. This means collecting accurate truck volumes when conducting pavement design, traffic operations studies, providing adequate turning bay lengths and turning radii, at intersections with heavy truck volumes, and improving truck amenities including truck stops and rest areas which are currently limited to Sheetz gas stations with truck parking. Another important issue is identifying and/or developing redundancy in the freight network. While US 29 is the primary route for freight traffic in the region, parallel routes can be identified using the FAF system as a starting point. In addition, there are potential opportunities to develop and improve other modes such as rail where there are numerous access points which could potentially be developed into intermodal locations and a General Aviation airport has some potential for goods movements. The future growth in Fauquier County has to be considered in any planning effort, as residential and employment growth will add thousands of vehicles to US 29, US 15, US 17, and VA 28. The growth in traffic volumes in the region further reinforces the benefit of identifying redundancy in the transportation network as incidents will have a growing affect on non-recurring delay which has a particularly negative impact on the trucking industry.

The Route 29 Corridor Study was initiated by the Commonwealth Transportation Board to evaluate the 219 mile corridor between North Carolina and Virginia. This study is evaluating issues ranging from local and thru traffic to safety and land use/transportation planning.

Railway

The growth in Fauquier County has prompted VRE to evaluate extending commuter rail service from Manassas to Bealeton which would reduce the capacity for rail freight to some degree. Increased rail traffic in a rapidly growing region also poses potential conflicts at rail crossings, which are numerous in the study area.

Norfolk Southern has plans for double tracking from Culpeper to Linden outside of Front Royal. In addition, Norfolk Southern is also exploring a Culpeper Cutoff which would run from Culpeper to west of The Plains near I-66 reducing an hour of travel time between these two destinations. These two improvements are part of the "Crescent Corridor". While still in the early planning stages, the Crescent Corridor as shown in **Figure 22** would be a private-public partnership connect major shipping centers in the northeastern US with locations in the south including Memphis, New Orleans and perhaps reach as far as Dallas. Service would begin by 2013 add 6 or more 8,000' double-stack intermodal trains per day through the region. However, no stops or rail upgrades are planned for the RRRC region as a result of the Crescent Corridor project. (Schafer, 2009)

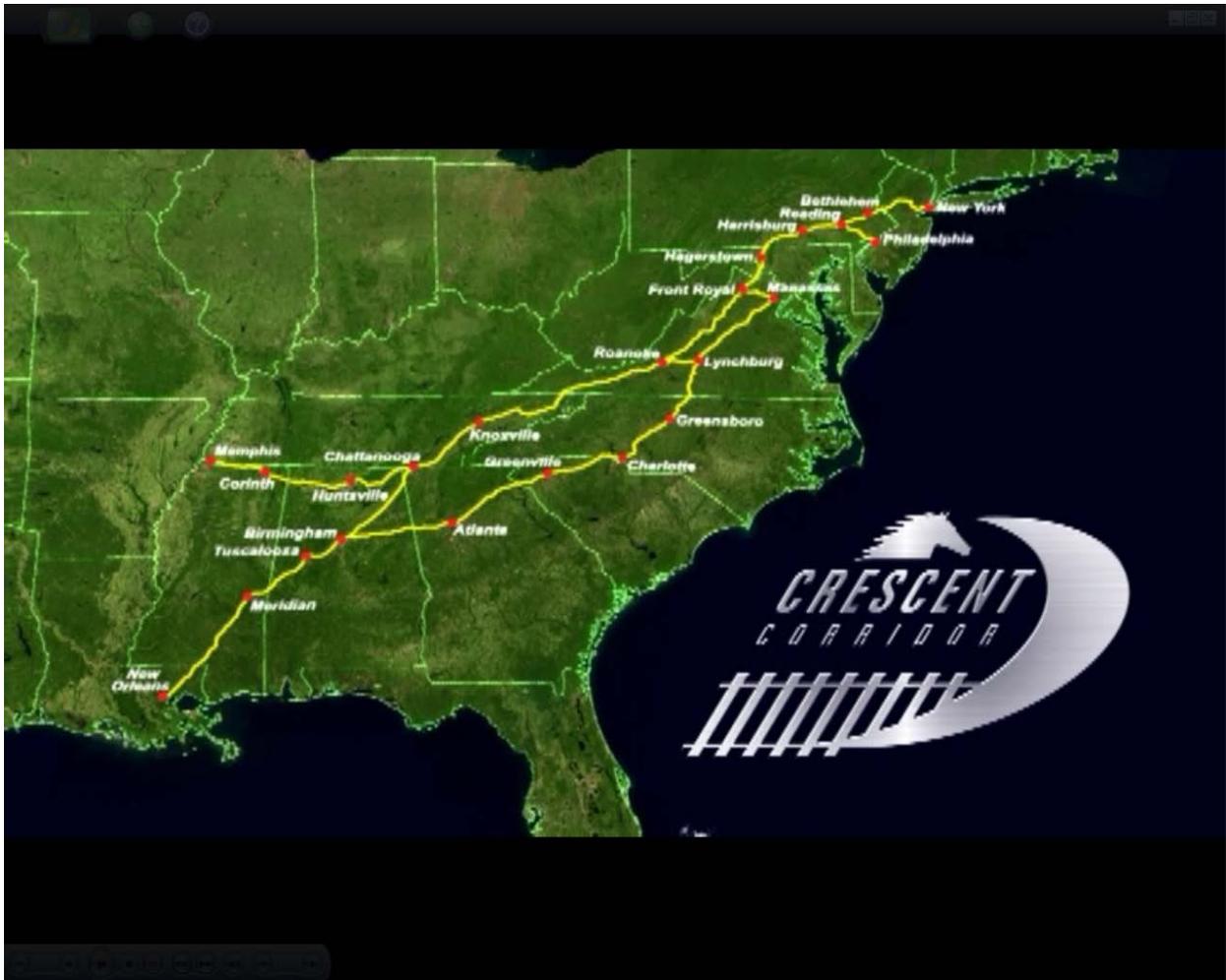


Figure 22 Norfolk Southern Crescent Corridor Conceptual Alignment

Airports

A new terminal is being constructed at Culpeper Regional Airport which will increase the capacity for air traffic in the region. Significant growth in air freight traffic is unlikely until an air traffic control tower is constructed.

Intermodal Facilities

There are no known expansion plans at Easton Crossing or the Virginia Inland Port. However, given the large number of rail access points in the study area, there are opportunities for the construction of more intermodal facilities in the region which would add to the local economy.

ADDITIONAL OPPORTUNITIES

Transportation / Land Use Connection

Freight traffic can have significant impacts on the transportation network, but can also add to a region's economy by creating jobs at shipping distribution centers, multi-modal transfer points, etc. It is important to consider the transportation/land use connection when planning for freight related infrastructure and facilities. The jobs created at distribution centers for example will lead to increased vehicle and truck trips on the roadway network which must be considered in planning efforts. Likewise, freight related land use may be deemed undesirable by local residents if located too close to schools and residential neighborhoods. Jurisdictions across the United States are using brownfields and other underutilized land uses for the location of freight facilities as these locations are often located a significant distance from residential neighborhoods and existing transportation infrastructure is typically available and underutilized.

Coordinating Planning

Given the nature of freight traffic, institutional coordination is critical to the advancement of a comprehensive freight plan for the RRRC region and beyond. Given that VDOT maintains the region's truck routes, freight issues including pavement design, redundancy planning, traffic operation, and planning must be coordinated with the state. It is also critical to involve the rail industry early on in the planning process as freight operators have objectives which may conflict with other planning efforts such as statewide and commuter rail service. The location of intermodal facilities and amenities also requires coordination amongst the counties located along the primary freight corridors. While the economic benefit can be great to a county if it receives a major distribution center, the traffic impacts in a neighboring county may be significant enough to warrant significant roadway improvements which should be considered prior to locating the facility.

State Plans

The US 29 Corridor Study offers a tremendous opportunity for a multi-jurisdiction coordination and the development of a cohesive vision for the US 29 corridor. This study is evaluating transportation and land use from North Carolina to I-66 in Gainesville. The analysis and recommendations from this study can be useful in coordinate freight into the overall planning efforts for this corridor.

Private Providers

The private sector is the key to the development of future intermodal facilities and improving regional truck stop amenities. RRRC can play an important role by providing important demographic and transportation data to potential employers in the freight industry and potentially assisting with transportation related studies, including freight intersection studies which have been undertaken by regional planning agencies in the past. Given the central location of the RRRC region and the connections to rail and major throughways, there are opportunities to attract private providers throughout the US 29 and US 17 corridors.



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