

The vision for the Virginia Rail Plan is included in Chapter 1 and highlights the benefits of rail, and the need for further investment. The statement also references rail's role in supporting other existing Virginia initiatives, such as VTrans.







Virginia's rail network is a valuable asset that drives the will ensure the mission and vision of the Commonwealth's transportation network is achieved.

## **CONTENTS**



# BENEFITS OF RAIL IN VIRGINIA

#### **VIRGINIA'S RAIL SYSTEMS**

Virginia's rail network is a valuable asset for the Commonwealth. It provides an efficient means of moving freight and passengers both within and through the

state. The Commonwealth recognizes the privately owned rail network as part of a multimodal system with public benefits and growing economic impacts. Since the 2000s,

significant state investments have leveraged private and federal funds to improve freight and passenger rail transportation and support the overall transportation system.

#### **GROW THE ECONOMY**

RAIL SERVICES DRIVE 6% OF VIRGINIA'S TOTAL ECONOMY. MORE THAN 6,000 JOBS CREATED DIRECTLY BY RAIL NETWORK



**PASSENGER RAIL** 

\$2.2 BILLION in annual benefits



about 9 cents per ton-mile of rail use





about 46 cents per passenger-mile of rail use

Benefits are largely derived from savings from diverting freight and passengers from highways to rail and includes congestion savings and crash reduction benefits.

#### **BREATHE EASIER**

3M TONS OF CO2 EMISSIONS AVOIDED (6.4% OF TOTAL IN VIRGINIA PER YEAR)



On average, railroads are four times more fuel efficient than trucks



Moving freight by rail instead of truck generates 75% less greenhouse gas emissions



The total estimated level of rail service in Virginia in 2015 was about 25 billion ton-miles

#### **TRAVEL SAFE**

18 LIVES SAVED AND 3,000 CRASHES AVOIDED EACH YEAR



Shipping by rail avoids about **1.7 billion miles** of truck travel in Virginia



Passenger travel by rail avoids about 271 million miles of personal driving in Virginia

#### **SAVE MONEY**

\$123M PAVEMENT MAINTENANCE SAVINGS (6% OF ANNUAL VDOT MAINTENANCE BUDGET)



The CTB Rail Committee prioritized the development of rail related metrics to highlight the benefits of the rail network. These measures highlight the significant return on investment achieved by the rail network.



Virginia is an important crossroads in the national and international transportation network. The Rail Plan serves both the needs of Virginian's, and also supports the movement of people and goods beyond our borders.

The Virginia Constitution prohibits investment in the rail network unless there are direct benefits to the road network. Therefore, the Rail Plan is built on the foundation that investment in the rail network relieves capacity issues on Virginia's roadways.



Virginia's Rail Systems, continued

By diverting freight and passenger traffic from road to rail, Virginia's rail network relieves congestion, saves lives, improves air quality, helps grow the economy, and complements the Virginia highway network while reducing capital and maintenance expenditures.

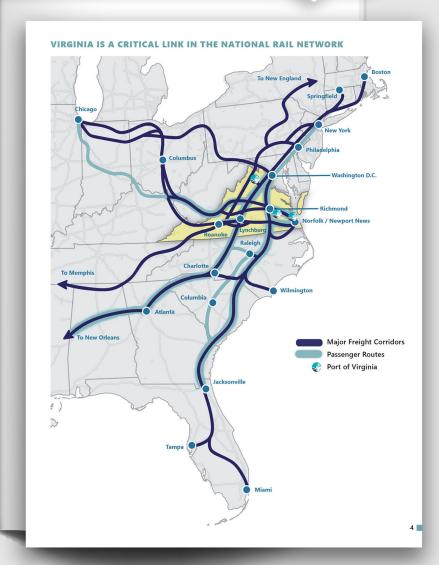
connects the state's ports, businesses, and communities to other major population centers, customers, and manufacturing regions throughout the nation and the world. Corridors within the Commonwealth have unique characteristics that provide alternative transportation options and diverse public benefits to the economy. Many of Virginia's freight corridors also carry passenger trains. All of the freight corridors are privatelyowned and serve the Port of

Virginia in Hampton Roads in some capacity.

- CSX Transportation's I-95 Corridor spans the entire Eastern U.S., linking cities, ports, and manufacturing regions along the eastern seaboard. This corridor also carries the majority of Virginia's Amtrak passenger services, and serves as the gateway to Washington, D.C. for Virginia Railway Express commuter trains.
- CSX's National Gateway also uses the I-95 Corridor route through Virginia. This key rail artery diverges from the I-95 Corridor in Washington, D.C. to link the Port of Virginia and other mid-Atlantic ports with cities and markets in the U.S. Midwest.
- Norfolk Southern's Crescent Corridor runs from north to south, serving consumer markets and manufacturing regions between New Orleans, Memphis, and the Northeast. In Virginia, the

Crescent Corridor serves the Virginia Inland Port – an intermodal container transfer facility in Front Royal – and carries several Amtrak services into the Northeast.

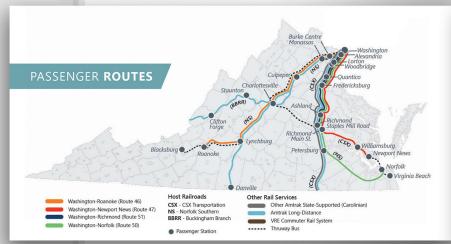
- Norfolk Southern's Heartland Corridor links Virginia's Port to Midwest markets, carrying intermodal containers from the docks in Hampton Roads to consumers in Chicago.
- · Amtrak services are shown on the map as light blue shading along the privately owned freight corridors. Amtrak services operate over privately-owned railroads in Virginia. State-supported regional trains provide oneseat rides from Virginia's major cities to Washington, D.C. and the Northeast Corridor, while Amtrak long-distance trains carry passengers through Virginia between the Northeast, Southeast, and Midwest.





The Virginia passenger rail network includes multiple services aimed at multiple constituencies, including commuter, regional, and long distance services. Many passenger services aim to get Virginia residents to and from the Northeast Corridor.

Rail line owner's and operators know their network better than we do, we gathered their input to create this map, including a few critical updates since the last plan.

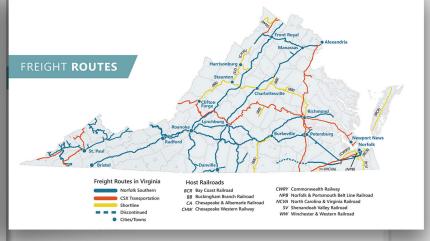


Passenger trips to, from, and within Virginia are growing and highways in Virginia are increasingly congested. Passenger rail service provides an alternative to congested highways, and the Commonwealth therefore invests in Amtrak intercity passenger routes, as well as Virginia Railway Express commuter service to improve mobility and meet the growing demand for travel. Projects and plans underway in CSXT's RF&P subdivision and the Long Bridge across the Potomac to Washington, D.C. will alleviate

**5** 

existing rail bottlenecks to better connect the entire Southeast region with Amtrak's Northeast Corridor. Since 2013 Virginia has provided dedicated funding to support and expand intercity passenger rail operations across the state. Virginia's busiest passenger rail routes parallel the heavily traveled I-95 corridor, where a growing number of statesupported Amtrak trains serve Richmond, Newport News, and Norfolk. Additional state-supported Amtrak services extend southwest

from Washington, D.C. to Lynchburg and Roanoke. Passenger volumes on state supported Amtrak service totaled over 830,000 riders in FY2016. When combined with long distance service, passenger volumes exceeded 2.5 million riders. Virginia also supports commuter rail operations provided by Virginia Railway Express, which serves the heavily congested I-95 Corridor from Fredericksburg to Washington, D.C. as well as the I-66 Corridor between Manassas and Washington, D.C.



As the economy grows, so do the freight demands on Virginia's highways. The Commonwealth recognizes the public benefits and economic impact of investments in a multimodal freight transportation system. The freight rail network has a unique role supporting the Port of Virginia's target markets in the Midwest. Both CSX and Norfolk Southern have

intermodal rail corridors that connect Virginia to the nation, providing a cost-effective way to bring needed raw materials and products to our ports, manufacturers, and consumers and to carry Virginia-made products and materials to destinations throughout the nation. In 2012, Virginia's rail network carried more than 800,000 carloads of coal, 534 000 carloads of mixed

goods, 120,000 carloads of chemical products, 103,000 carloads of food products, and 85,000 carloads of pulp and paper products, keeping more

# 5.5 million trucks off the Commonwealth's highways.

maintenance costs alone are estimated to be over \$123 million per year, almost 6% of VDOT's annual maintenance budget.





These driving factors inform our outlook for the future. The Rail Plan goals, objectives and investment priorities aim to incorporate and react to these rail industry drivers.

## **FUTURE OF RAIL IN VIRGINIA**



#### **FUTURE OF RAIL**

Virginia's passenger and freight are reflected in a decrease rail networks are affected by many external factors that drive demand for services. Freight rail corridors serving the Port of Virginia and the main north-south freight routes are experiencing growth in intermodal traffic, while changes in domestic energy production and use

in coal traffic. Population growth, an aging population, and increasing highway congestion along the "urban crescent" between Washington and Hampton Roads is helping drive demand for environmentally friendly and safe alternatives to automobile travel. The Commonwealth

invests in the rail network as part of a multimodal approach to meet the growing demand for freight and passenger transportation service and support the economic changes and travel preferences of Virginians.



#### Freight tonnage is expected to grow by 50% in Virginia by 2040

Movement by rail will increase by 14%; additional rail investment can enhance rail's modal share and keep additional freight from congested roadways.

#### **FREIGHT**



#### Port of Virginia Shipments TEUs anticipated to more

than triple from 2.1 M in 2012 to 7.2 M in 2040. Capacity to move 45% by rail in 2040, up from 35% today.



#### **Expected Evolution** of Major Freight Markets

Growth in intermodal traffic will impact operational approach to major freight corridors. Intermodal movement relies on tight timetables and high demand for on-time performance.

### **NETWORK SIGNIFICANCE**



The Washington, D.C. metropolitan area has the nation's highest rate of congestion.

The Hampton Roads area also experiences high levels of congestion. [Measuring Traffic Congestion in Virginia - Virginia Performs, Virginia.Gov]



#### Vehicle use per road-mile has been increasing for decades.

Since the mid-1960s Virginia has experienced a decline in relative capacity as both population and state gross domestic product (GSP) have steadily risen.

[Measuring Traffic Congestion in Virginia - Virginia Performs, Virginia.Gov]



## **Economic Growth**

Virginia's rail network is a key link between two mega-regions, the Northeast mega-region and the Piedmont Atlantic megaregion to the south. Most of the nation's population growth and economic expansion is occurring in ten emerging mega-regions.



Growth in Intermodal Traffic



Energy Production:
Oil, Gas and Coal







Aging Infrastructure



Changes in Rail Governance Framework





#### **PASSENGER**



Population concentrated in the urban crescent

Since 2010, the share of Virginia's total population growth in the urban crescent rose to 93 percent, up from 81 percent between 2000 and 2006.



Population is growing older – 1 in 8 Virginians is 65 or older,

and the largest concentration of Virginia's aging population lives in the urban crescent.



Increasing demand for public transportation

Urban environments conducive to public transportation and an older demograhic create more reliance on multi-modal options.

Demographic Changes



## VIRGINIA'S VISION FOR THE FUTURE



## VTrans Vision

Good for business, good for communities, and good to go.

# **State Rail Plan Vision**

Virginia's rail network is a valuable asset that drives the economy, reduces congestion, improves safety, and saves taxpayer money. Continued investment in rail infrastructure will ensure the mission and vision of the Commonwealth's transportation network is achieved.

Goals and objectives link visions to prioritize investments in rail.

Virginia's Statewide
Transportation Plan
(Vtrans2040) provides a
planning framework for
all transportation modes
in the state, including rail
and public transit. Virginia's
vision for its multimodal
transportation system,
described in Vtrans2040, is to
be "Good for Business, Good
for Communities, and Good
to Go" Virginians will benefit

from a sustainable and reliable transportation system that advances Virginia businesses,

attracts a 21st century workforce, and promotes healthy communities where Virginians of all ages and abilities can thrive.

The Department of Rail and Public Transportation (DRPT) serves as Virginia's lead agency for rail and public transportation, with the mission to facilitate and improve the mobility of the citizens of Virginia and to promote the efficient transport of goods and people in a safe, reliable, and cost-

effective manner. DRPT is also responsible for administering funds for rail investments and public transportation agency formula funds.

The Virginia State Rail Plan recognizes Virginia's vision and DRPT's mission and provides a framework for achieving both of these desired future outcomes through investments in Virginia's rail network as part of a multimodal transportation system supporting economic growth.

## GOALS AND OBJECTIVES

## RAIL PLAN GOALS AND OBJECTIVES

The Virginia Rail Plan goals are listed in blue and reflect the Vtrans2040 Guiding Principles. Corresponding objectives for each goal are shown in tan on the right. The objectives show how DRPT can advance freight and passenger rail through

planning efforts and funding programs under DRPT's purview. Together the Rail Plan goals and objectives are tools to evaluate and prioritize shortterm and long-term planning efforts and investments.



10

Investment in the rail network helps Virginia and DRPT meet the existing mission and vision for a multimodal future.



**11** 







Efficiently Deliver Programs

Deliver high-quality projects and programs in a cost-effective and timely manner

#### OBJECTIVES:

Update grant guidance annually and develop a grantee workshop to review program guidance and procedural updates

Continually update DRPT grant management practices to ensure efficient administrative processes and project implementation Proactively identify projects and programs to support the DRPT mission

Work with legislators and appointed officials to ensure policies are up-todate and understood



GOAL:
Consider
Operational
Improvements
and Demand
Management First

Maximize
capacity of the
transportation network
through increased use
of technology and
operational
improvements before
investing in major
capacity expansions

#### **OBJECTIVES:**

Encourage use of Intelligent Transportation Systems to improve operational efficiency

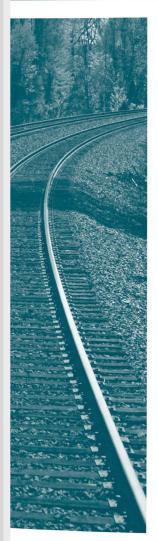
Evaluate operations when considering investment in capacity to ensure the investment yields a lasting benefit

Incorporate program criteria that prioritize low-cost improvements to relieve bottlenecks and provide capacity

12



# **GOALS AND OBJECTIVES**





Ensure
Transparency
and Accountability,
and Promote
Performance
Management

Work openly with partners and engage stakeholders in project development and implementation, and establish performance targets that consider the needs of all communities

### OBJECTIVES:

Publicize application evaluation metrics and project data for rail funding programs

Implement passenger rail station stop policy

Develop program scorecards to measure impact of rail investments

Market economic impact of rail investment

# 2

Improve Coordination between Transportation and Land Use

Encourage local governments to plan and manage transportation-efficient land development by providing incentives, technical support, and collaborative initiatives

## OBJECTIVES:

Encourage local governments to support state funding decisions by making compatible investments and zoning

Educate localities on appropriate land uses around both freight and passenger rail infrastructure

Encourage local governments to support rail services with multimodal last-mile connections

Integrate with and expand upon other state, regional, and local planning efforts

# OBJECTIVES: Prioritize rail projects that benefit



Enhance rail service to the Port

Provide seamless connections between modes

Ensure

Efficient

Intermodal

Connections

Support "State of Good Repair" and capacity projects with shortlines

#### OBJECTIVES:



GOAL:
Support
Regional
Economic
Development

Encourage local and regional economic development through investment in the rail network Work closely with Virginia Economic Development Partnership to attract rail conducive industries

Promote the use of the Rail Industrial Access program through education and outreach with local economic development offices

Include input from local and regional freight railroads in economic development planning and initiatives

Expand transportation options between regional markets through enhancements to passenger rail service



14



# PRIORITY IMPROVEMENTS & INVESTMENTS

# **WASHINGTON TO NORTH CAROLINA CORRIDOR** CSX owned/operated · Intermodal freight service • Primary north-south route for Amtrak long-distance service

#### BACKGROUND

Virginia's Washington to North Carolina Corridor is served by two CSX rail corridors: CSX's I-95 Corridor between New York and Jacksonville. and CSX's National Gateway Corridor linking mid-Atlantic ports with the Midwest. The two rail corridors share one alignment that parallels I-95 from Washington, D.C., through Richmond to Petersburg and the south. This corridor also serves as a primary passenger rail route. Amtrak Virginia-supported regional trains from the Northeast Corridor and Washington, D.C. operate on the line to reach terminals in Richmond Newport News, and Norfolk, while Amtrak long-distance trains from New York and Lorton, Virginia, continue farther south to Savannah, Sanford, Florida, and Miami. VRE Fredericksburg Line commuter trains also use the corridor from Spotsylvania County north to Washington, joined at Alexandria by Manassas Line commuter trains.

#### SIGNIFICANCE

The Washington to North Carolina Corridor is the most heavily used corridor in Virginia, with increasing freight, regional and long distance passenger rail, and commuter rail services. The corridor provides a critical link between Amtrak's Northeast Corridor and the federally designated Southeast Corridor.The corridor also provides another rail link between the Port of Virginia

and the Midwest, which process priority projects include adding helped to clear for double capacity to the Long Bridge, a major container service. The cor chokepoint affecting CSX, Amtrak, the most severe bottlene and VRE service, the freight rail network, sp across the Potomac River.

performance.

**PROJECTS** 

adequate access and multimodal

options to both the residents and

businesses along this dense and

thriving corridor. The passenger

of Virginia, require high on-time

rail, commuter rail, and intermodal

freight services that use this corridor,

including shipments serving the Port

Washington, D.C. Similarly, the parallel highway facilities, I-95 and US 1, are the most heavily used highway facilities with the most severe congestion in Virginia. As a result, capacity on the Washington to North Carolina Corridor must be preserved and improved in order to provide

four track system merges to just two

tracks (the Long Bridge) to cross

from Virginia into

Longer term, additional improvements will be necessary to support improved passenger service. These improvements are outlined in the R2R study, and in the DC2RVA Tier 2 EIS that is currently underway. The long term phasing and timing of these improvements will be based on funding availability, congestion levels, and passenger service

# RACKGROUND

**CRESCENT CORRIDOR** 

· Intermodal freight service

· Norfolk Southern owned/operated

· Amtrak long distance and regional service

The 2,500-mile Crescent Corridor spans 11 states, from New York to Louisiana and Tennessee. In Virginia it includes Norfolk Southern track parallel to I-81 (Winchester-Roanoke-Bristol) and a second route parallel to U.S. 29 (Front Royal-Manassas-Lynchburg-Danville),

The Crescent Corridor is a primary freight route for intermodal traffic moving through Virginia. The corridor also carries both Amtrak long distance trains (Crescent and Cardinal) and Virginia-supported regional passenger service connecting Roanoke, Lynchburg, and Charlottesville to Washington. D.C. and the Northeast Corridor. The corridor connects to Norfolk Southern's Heartland Corridor in Roanoke and Altavista.

#### **SIGNIFICANCE**

The Crescent Corridor makes several vital connections to Vi shortline railroads, including Winchester & Western, Chesa Western, Buckingham Branch Shenandoah Valley railroads addition, the corridor connec the Virginia Inland Port. Main a seamless connection between mainline freight route and these critical elements of the regional freight network is vital to the success of this corridor and regional economic development. Norfolk

Southern estimates the Crescent

Corridor keeps 1.3 million long

distance trucks off the highways

## **PROJECTS**

Priority projects include expanded passenger service to Lynchburg and Roanoke, and improving capacity and connectivity with shortline railroads and the Virginia Inland Port.

#### TOP DRIVERS



Congestion



Demographic Amtrak Northeast











Growth in



Congestion

Demographic Changes



**Amtrak Northeast** Corridor

#### **KEY GOALS**





Each corridor aligns with specific goals and are more heavily influenced by certain rail industry drivers.



The East-West Corridor is a unique corridor that includes two different owners/ operators and multiple different passenger and freight services.

## PRIORITY IMPROVEMENTS & INVESTMENTS

#### **EAST-WEST CORRIDOR**

- · CSX and Buckingham Branch owned/operated
- · Primary coal route
- · Passenger connection to Newport News



#### BACKGROUND

The East-West Corridor parallels I-64 from Hampton Roads through Richmond to Clifton Forge. It serves as CSX's primary coal route from

Loaded coal trains travel east on CSX's James River line, while empty lent is to maintain operability trains return on the Buckingham Branch.

The corridor handles Virginiasupported regional passenger service

ditionally carries the

Amtrak long distance Cardinal route with connections to the Midwest and NEC.

#### SIGNIFICANCE

The East-West Corridor serves primarily as a coal route, however, coal traffic has significantly dropped in response to recent changes in

trends and a decline in for Appalachian coal. As a one of the primary drivers of nultiple passenger

Priority projects includes maintaining a state of good repair, particularly on the Buckingham Branch railroad, and supporting existing passenger services. This includes investments to add a new maintenance facility and improvements to reduce conflicts between passenger trains and freight trains on the corridor between Richmond and Newport News.

**PROJECTS** 

#### HEARTLAND CORRIDOR

- · Norfolk Southern owned/operated
- · Intermodal freight service
- · Passenger connection to Norfolk



SIGNIFICANCE

The Heartland Corridor is a significant intermodal route, which speaks to the changing nature of rail traffic and the new demands on the network.

#### BACKGROUND

The Heartland Corridor is a primary freight route for intermodal traffic investment, the corridor is cleared for double-stack container service traveling between the Port of Virginia terminals in Norfolk and Tight timetables and high midwestern markets, including Columbus and Chicago. The demand for on-time Heartland Corridor also carries

performance are critical Virginia-supported passenger needs to adequately serve between Norfolk and Petersbur as well as a new service extension intermodal customers. between Lynchburg and Roanol Both services ultimately connect to Washington, D.C. and the Northeast

#### **PROJECTS**

Through significant previous Priority improvements include

> adding two additional round-trip passenger trains to Norfolk

to Hampton Roads and expanding capacity to the rail network in Roanoke to accommodate freight movements rerouted for additional passenger services in Southwest

#### TOP DRIVERS

















#### TOP DRIVERS



Corridor. The Heartland Corridor connects to the Crescent Corridor

in Roanoke and Altavista.



















The Port of Virginia carries a significant portion of its traffic via the rail network. We need to ensure that rail infrastructure development can keep up with the increasing demand generated by the Port.

# PRIORITY IMPROVEMENTS & INVESTMENTS

#### PORT OF VIRGINIA

- · 6 terminals
- · 30 miles of on-dock rail · 55 foot deep channel



#### BACKGROUND

The Port of Virginia is the 5th largest container port in the nation. Port facilities include 4 deepwater marine terminals (Hampton Roads), an upriver terminal (Richmond) and an inland intermodal terminal (Front Royal). The Port is served by more than 30 international shipping lines,

#### More than 33% of the Port's freight arrives and departs by rail,

Norfolk & Portsmouth Belt Line and the Commonwealth Railway

The Port primarily ships to customers in Virginia, North Carolina, Maryland, and West Virginia via truck, and to Ohio, Indiana, Illinois, Tennessee, Kentucky, and beyond via Norfolk Southern and CSX.

#### SIGNIFICANCE

drivers of freight rail traffic in the Commonwealth. Due to changes in energy demand and production intermodal traffic is the most dominant growth sector in freigh rail traffic, and the Port is well poise to contribute heavily to that growth market. Ensuring efficient loading and unloading of trains, and last mile connectivity to the freight rail network are vital to ensuring that business at the Port continues to run smoothly

and drive the Virginia economy

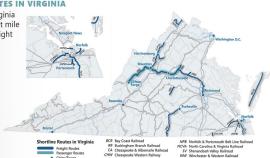
## **PROJECTS**

includes multiple terminal expansions, including VIG, VIP, and NIT, with additional rail capacity,

Additional priority projects include expanding the inland port at Front Royal and improving rail infrastructure, including grade crossings on tracks

### SHORTLINE ROUTES IN VIRGINIA

- · 9 shortlines in Virginia
- · Important first/last mile connection for freight



#### BACKGROUND

Virginia's shortline railroads operate at the regional and local level to connect individual customers to the larger freight rail network and make last mile connections to the Port of Virginia, Shortline railroads often serve as either the point of origin or termination for freight carried in and out of Virginia by Norfolk Southern or CSX.

Virginia supports shortlines through the Rail Preservation Program, which funds both capacity and state of good repair projects.

#### **SIGNIFICANCE**

Shortlines provide a critical link to local and regional customers, as well as the Port, loading, unloading, and building trains that eventually traverse the national rail network through Class I freight service. Many of the shortlines inherited track with years of deferred maintenance requiring additional resources to maintain a state of good repair.

Shortlines are better positioned accommodate smaller businesse with lower traffic volumes. Virgini supports shortlines as both a partner in economic development opportunities at the port facilities and in rural areas, and as a means to divert trucks from congested

#### **PROJECTS**

Priority projects include improving track to FRA Class 2 safety standards; improving signal systems and technology for more efficient operations; and upgrading bridges and track to accommodate heavier

railcars that ha industry stand. Longer term priority projects includes critical infrastructure rehabilitation such as bridges and tunnels,

make the entire rail line inoperable.

#### TOP DRIVERS

















### **TOP DRIVERS**





Infrastructure



#### **KEY GOALS**









The structure and order of the Virginia Rail Plan is in accordance with FRA guidance.

# VIRGINIA STATE RAIL PLAN

#### **VIRGINIA STATE** RAIL PLAN

The 2017 Virginia State Rail Plan was developed by the Virginia Department of Rail and horizon year of 2040, and lists Public Transportation (DRPT) under the guidance of the Commonwealth Transportation Board (CTB) Rail Committee to address changes in the rail industry and prioritize Virginia's investments in freight and passenger rail services and infrastructure across the Commonwealth. This State Rail

Plan guides Virginia's vision for railroad transportation to the strategies to achieve that vision.

The State Rail Plan meets the federal requirements of the Passenger Rail Investment and Improvement Act of 2008, as amended by the Fixing America's Surface Transportation Act of 2015. In addition, this State Rail Plan

also meets the requirements

**State Rail Plan Guidance** provided by the Federal Railroad Administration (FRA)

## **CHAPTER INDEX**

#### THE ROLE OF RAIL IN STATEWIDE TRANSPORTATION

Chapter one introduces you to the role and importance of rail in the Commonwealth's transportation network. From a farm-to-market transportation system to an evolving system supporting a thriving economy and the Port of Virginia, rail has helped Virginia grow and prosper.

## THE STATE'S EXISTING RAIL SYSTEM

Chapter two provides an overview and inventory of Virginia's existing rail system and services, and identifies the economic, demographic, and transportation demand forecasts and trends that will affect future

#### PROPOSED PASSENGER RAIL IMPROVEMENTS AND INVESTMENTS

This chapter introduces projects and initiatives that will enhance Virginia's passenger and commuter rail services to better serve the mobility needs of the state and region.

#### PROPOSED FREIGHT RAIL IMPROVEMENTS AND INVESTMENT

The information in chapter four describes the recent improvements and investments that have been made, and potential future investments, by the state's freight railroads and the Commonwealth.

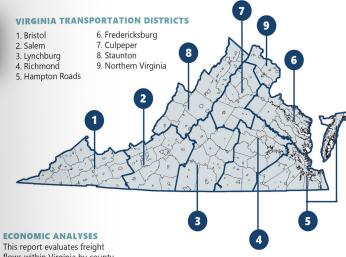
#### THE STATE'S RAIL SERVICE AND INVESTMENT PROGRAM

Chapter five prioritizes short and long range investments for the Commonwealth.

## COORDINATION AND REVIEW

This chapter describes how the DRPT involved stakeholders in the coordination necessary to develop the rail plan.

## **ECONOMIC ANALYSES**



flows within Virginia by county and corridor. The estimation of volumes by location of shippers and receivers is intended to inform local and state discussions about the opportunities and constraints in the existing rail and road transportation network. The report includes: Freight Demand Baseline Analysis, Freight Forecast, and a Regional Economic Analysis of Expanded Freight Demand. County-level results are aggregated and reported by Transportation District.



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