



VIRGINIA

STATEWIDE RAIL PLAN

2022

CTB Rail and Transit Sub-Committee

September 14, 2021

Agenda

- 1 Overview and Development Process**
- 2 Executive Summary**
- 3 Policy Recommendations**
- 4 Initial Freight Findings**

Plan Development Process

Initial Scoping/Visioning Meetings: May 2021

Draft Projects List: Fall 2021

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Project Refinement and Service Development Plan Completion: Winter 2021

Final Plan Adoption: Spring 2022

Individual stakeholder meetings held as-requested throughout the Plan development.

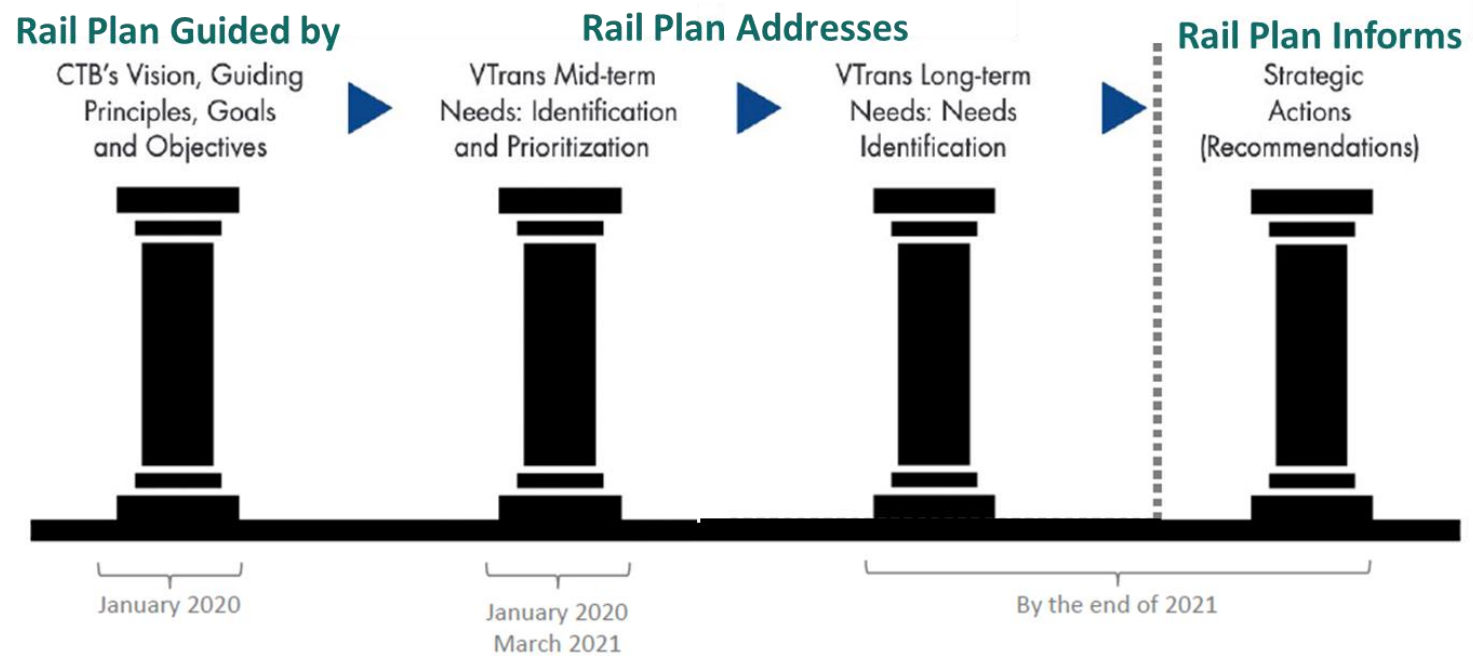
Plan Overview

- Aligns with goals/objectives of VTrans
- Virginia's last SRP was adopted by the CTB in 2018.
- The Federal Railroad Administration (FRA) requires each state to update its SRP every four years.
- Necessary to apply and receive federal rail funding for passenger and freight projects.
- Includes 4-year and 20-year horizons.
- Data points/metrics can be compared plan to plan and state to state.
- Requires close coordination with VPRA.

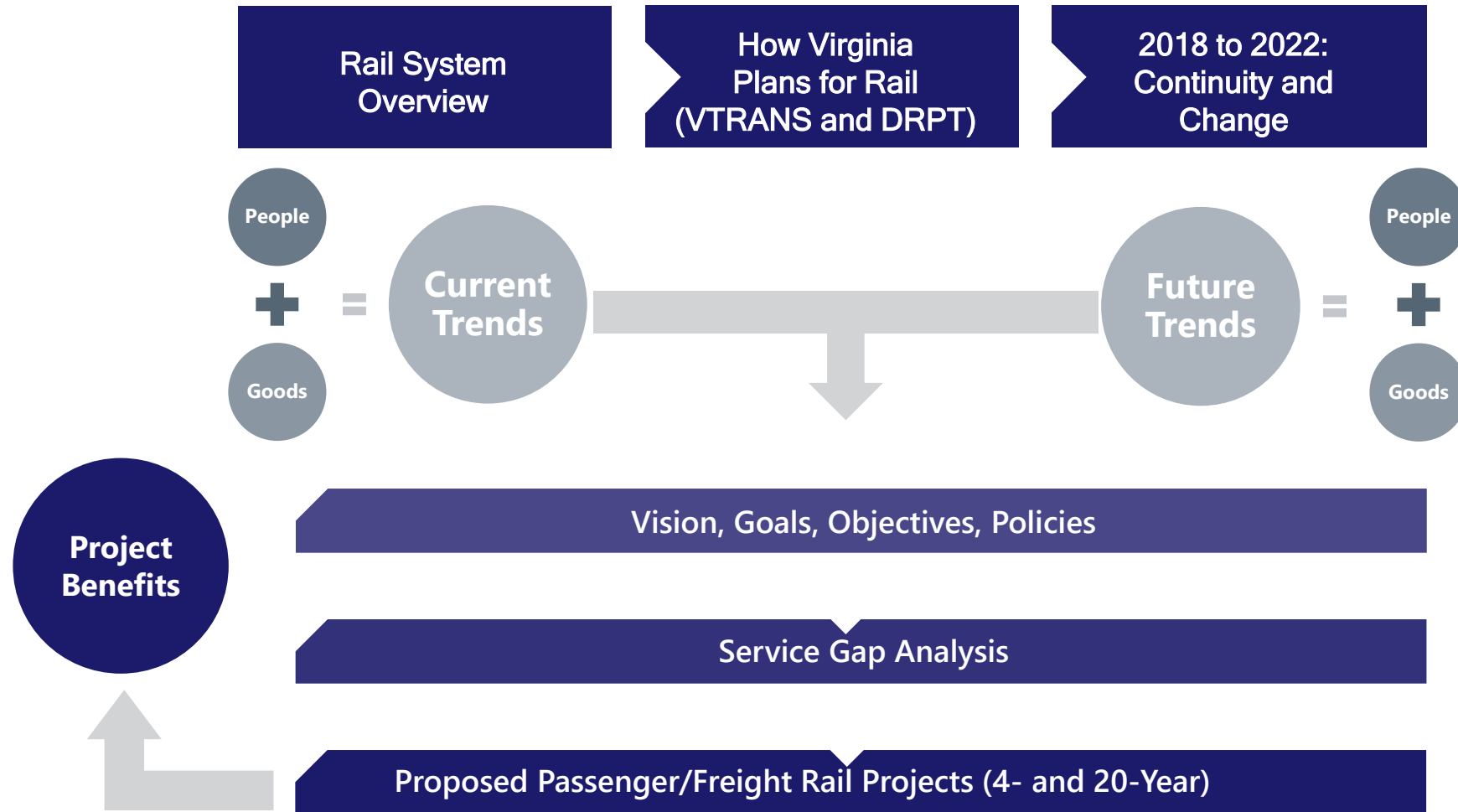


Statewide Rail Plan and VTrans

- **VTrans** is Virginia's multimodal transportation plan that lays out overarching vision, goals, and needs adopted by the CTB.
- **DRPT's Statewide Rail Plan** serves as an implementation plan for rail projects that address mid-term and long-term VTrans needs.



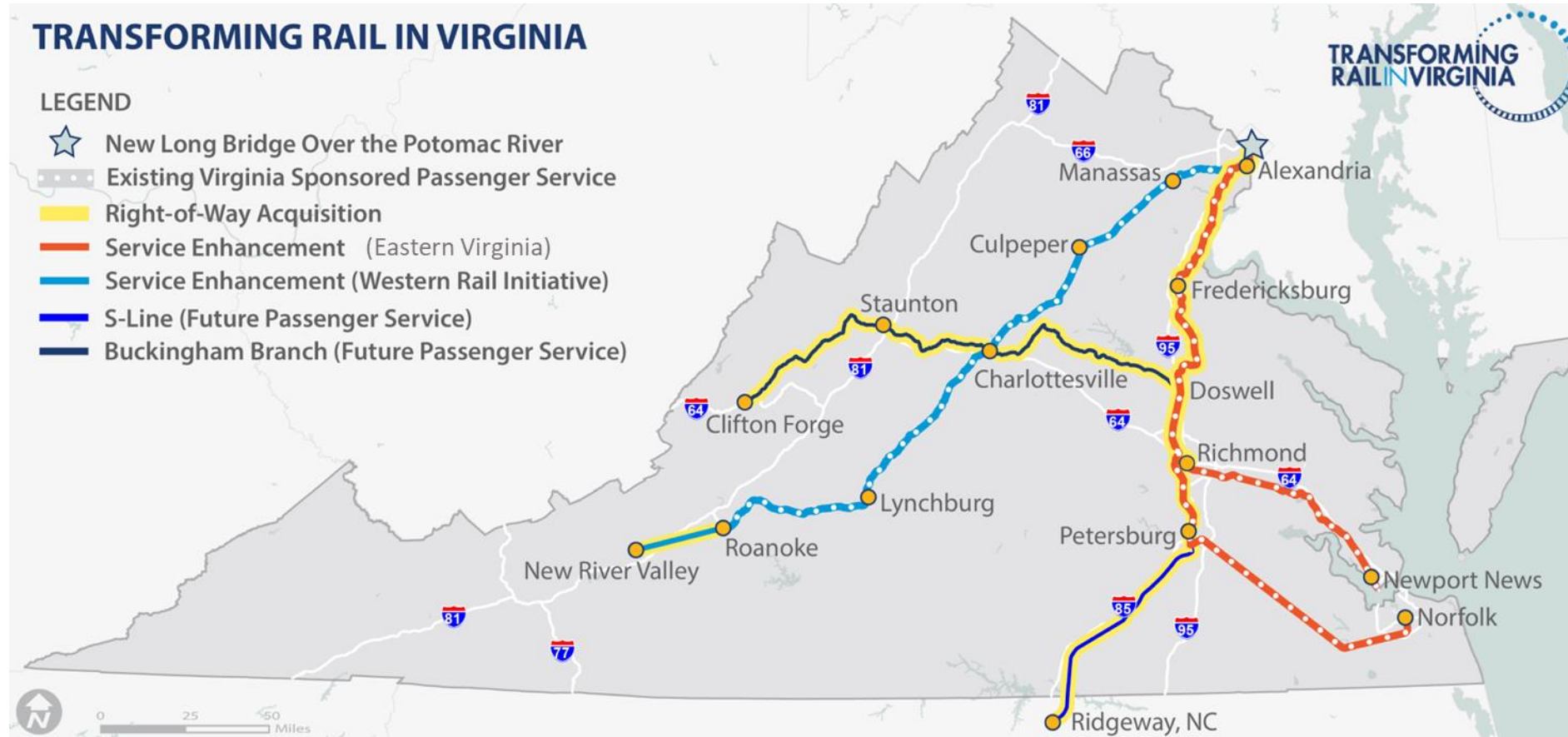
Plan Structure



Plan Executive Summary

- Vision, Goals, Objectives
- Where is Freight Going?
- Where are People Going?
- How Virginia Plans for Rail
- Virginia Rail System Overview
 - 2018 to 2022 – What's Changed?
 - Infrastructure Maps
 - Ridership and freight usage and trends
- General Assembly Studies Results

Recent Changes to Inform Rail Planning Policies



Policy Next Steps

- Result will be DRPT Rail Plan policies that can apply statewide for freight, passenger, and multimodal issues.
- VPRA and partner agencies may build upon policies relevant to their activities with more specifics.

- **VPRA input necessary.**
- **Ultimately will be adopted by CTB and many (passenger-related) are to be carried out by VPRA.**

Freight Rail

Potential Demand by Sector

GOAL

Identify industry-related factors impacting future demand for freight rail services

STRATEGY

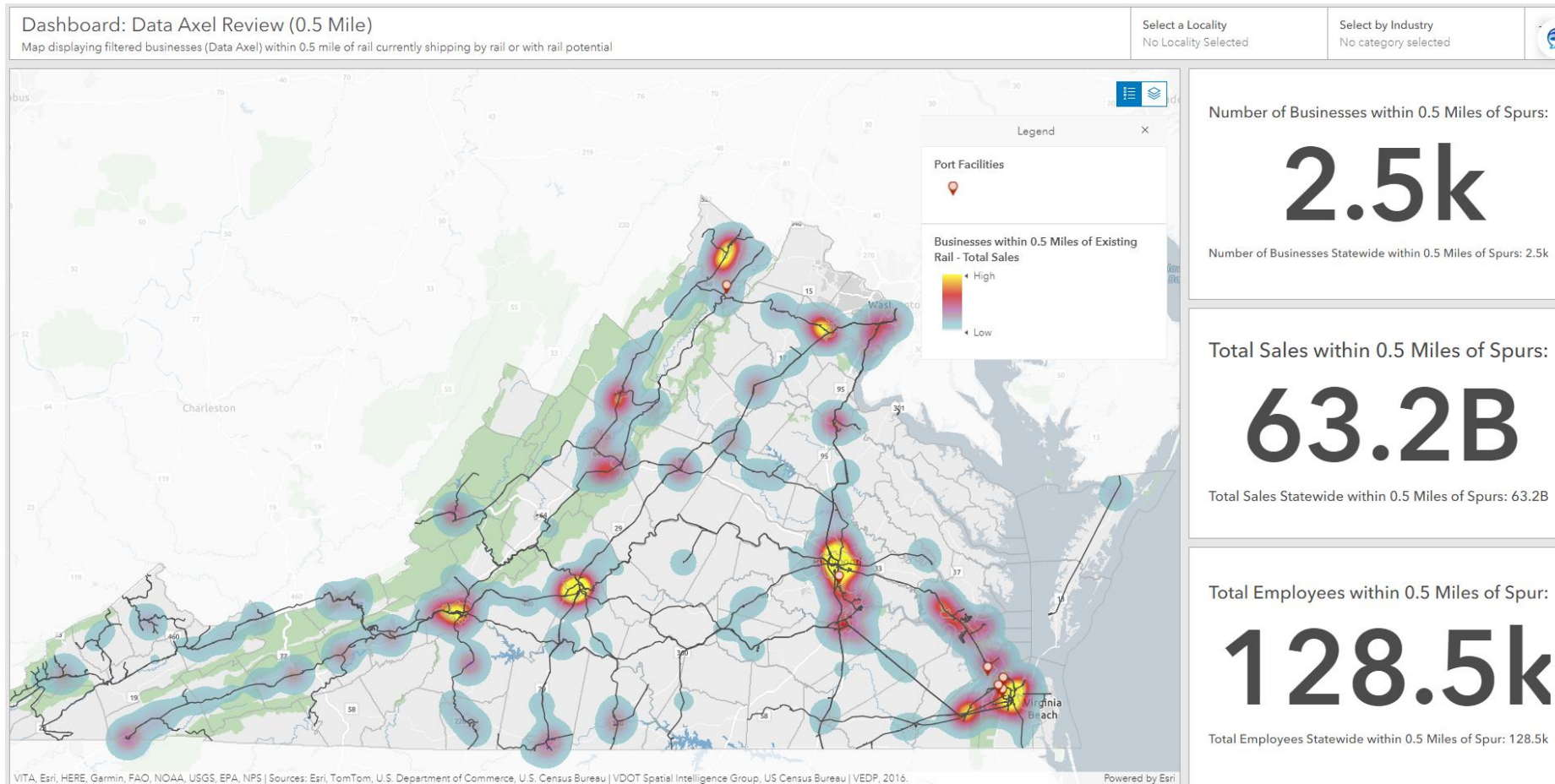
Identify potential freight rail trip generators by analyzing economic activity at production centers and transportation hubs

Businesses are more likely to use freight rail if . . .

- Goods that they produce/use are easily transported by freight rail
- Facilities are close to a rail line



Online Dashboard of Potential Trip Generators



Freight Rail

Trends and Forecasts by Commodity Type

GOAL

Identify drivers of growth for freight rail services at the commodity level

STRATEGY

Analyze recent trends in commodity movements by rail and commodity-level forecasts for the movement of goods by rail

Compare commodity-type movement patterns with previous SRPs

- Explain growth / decline at the commodity level and/or at the origin-destination level
- Identify which goods are most likely to be moved by rail
- Tonnage down/carloads up trend continues

Next Steps



Project identification, additional outreach to railroads/localities for rail projects.



Service Development Plan Draft/ Service Gap Analysis.
Vetting project list.



Please visit the **Virginia Statewide Rail Plan hub site**, accessible through DRPT's main page.

drpt.virginia.gov/rail/planning/



VIRGINIA

STATEWIDE RAIL PLAN












2022

Freight Rail Trends

Average Trip Length by Commodity

Tonnage Rail Modal Share by Distance and Commodity Group for Shipments Originating in Virginia, 2018

This information helps us find potential origins/destinations, by commodity, where rail transportation can grow in the future.

COMMODITY	0 - 99 MILES	100 - 249 MILES	250 - 499 MILES	500-999 MILES	1000 + MILES
 Coal	0%	95%	58%	75%	100%
 Miscellaneous Mixed Shipments	0%	0%	1%	1%	3%
 Chemicals or Allied Products	0%	5%	8%	25%	40%
 Nonmetallic Minerals	0%	9%	12%	5%	20%
 Pulp, Paper or Allied Products	3%	40%	8%	18%	50%
 Petroleum or Coal Products	0%	3%	2%	35%	3%
 Primary Metal Products	0%	5%	1%	13%	25%
 Clay, Concrete, Glass or Stone	3%	14%	17%	67%	2%
 Food or Kindred Products	1%	2%	1%	0%	7%
 Logs, Lumber, Wood Products	0%	0%	1%	2%	6%
 Other	1%	1%	3%	8%	8%

Source: HDR Analysis of FAF4 data.

Freight Rail Trends

Average Trip Length by Commodity

Direction	2012				2017				Percent Change	CAGR Change
	Units (Carloads)	Tons	Tonnage Share of Total	Tons/Unit Utilization	Units (Carloads)	Tons	Tonnage Share of Total	Tons/Unit Utilization	Tonnage	Tonnage
Outbound	327,996	18,256,425	12%	55.7	368,190	13,290,460	10%	36.1	-27%	-6%
Inbound	792,590	61,956,141	41%	78.2	699,250	47,648,932	36%	68.1	-23%	-5%
Intrastate	158,195	14,828,445	10%	93.7	159,373	14,794,767	11%	92.8	0%	0%
Through	860,722	56,291,706	37%	65.4	973,836	55,947,184	42%	57.5	-1%	0%
Total	2,139,503	151,332,717	100%	70.7	2,200,649	131,681,343	100%	59.8	-13%	-3%

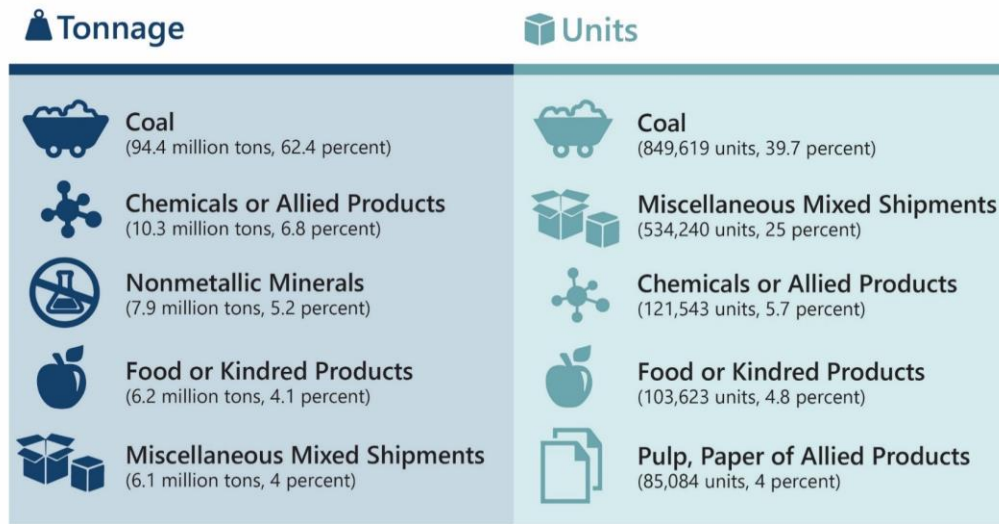
Total tonnage moved by rail in Virginia has decreased by **13%** between **2012** and **2017** (19.6 million tons).

Sources: 2012 and 2017 Transearch Data
Note: CAGR = Compound Annual Growth Rate

Freight Rail Trends

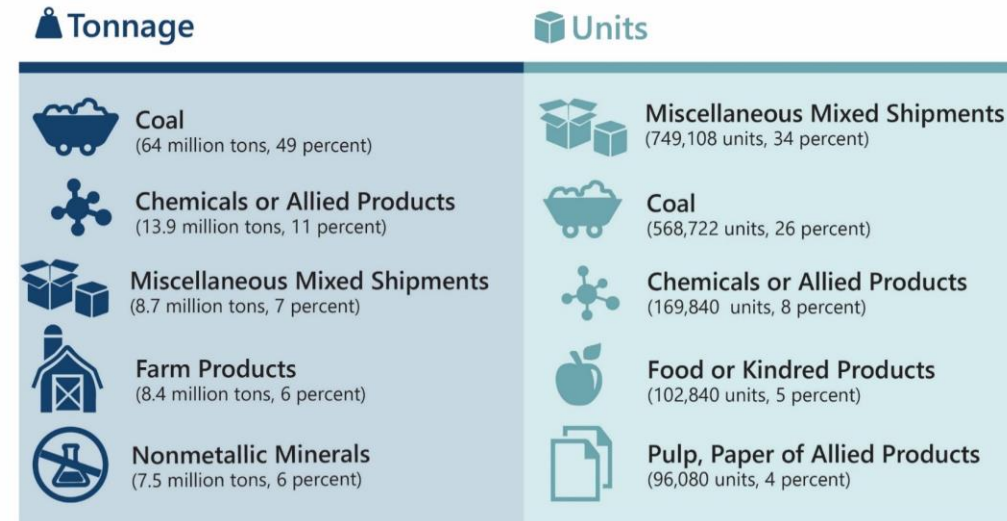
Major Commodities in All Directions

Major commodity movements 2012



Source: 2012 Virginia Statewide Rail Plan Appendix I: Commodity Movements

Major commodity movements 2017



Source: 2017 Transearch Data

Farm products took place of food or kindred products in the top 5 products in all directions.

Freight Rail Forecast Tonnage Comparison

2018 Virginia
Statewide Rail
Plan Forecasts

Direction	2012		2040		Change		
	Amount	Percent	Amount	Percent	Amount	Percent	CAGR
Outbound	18,256,425	12%	24,077,507	13%	5,821,082	32%	0.99%
Inbound	61,956,141	41%	66,967,596	35%	5,011,455	8%	0.28%
Intrastate	14,828,445	10%	17,415,078	9%	2,586,633	17%	0.58%
Through	56,291,706	37%	70,918,521	40%	14,626,815	26%	0.83%
Total	151,332,717	100%	179,378,703	100%	28,045,986	19%	0.61%

2022 Virginia
Statewide Rail
Plan Forecasts

Direction	2017		2045		Change		
	Amount	Percent	Amount	Percent	Amount	Percent	CAGR
Outbound	13,290,460	10%	24,357,427	12%	11,066,967	83%	2%
Inbound	47,648,932	36%	80,042,427	38%	32,393,495	68%	2%
Intrastate	14,794,767	11%	21,290,475	10%	6,495,708	44%	1%
Through	55,947,184	42%	85,693,454	41%	29,746,269	53%	2%
Total	131,681,343	100%	211,383,783	100%	79,702,440	61%	2%

Note: CAGR = Compound Annual Growth Rate