



Rail Plan Workshop

April 2017 CTB Rail Committee



Workshop

- 1. Goals/Objectives
- 2. Economic Analysis
- 3. Stakeholder Feedback

Agenda

Conduct a workshop to gather feedback on the draft goals and objectives for the State Rail Plan and preliminary results for the Economic Analysis







Goals/Objectives

Vision

Virginia's multimodal transportation system will be *Good for Business, Good for Communities, and Good to Go.*Virginian's will benefit from a sustainable, 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 mission of DRPT is 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.







Goals/Objectives

- 1. Optimize Return on Investments
 - 2. Ensure Safety, Security and Resiliency
 - 3. Efficiently Deliver Programs
 - 4. Consider Operational Improvements and Demand Management First
 - 5. Ensure Transparency, Accountability, and Promote Performance Management
 - 6. Improve Coordination Between Transportation and Land Use
- 7. Ensure Efficient Intermodal Connections









Economic Analysis

Step 2: Forecast Conditions Step 3: Future Scenarios

Step 1:
Existing
Conditions

Economic Analysis

Step 4: Economic Impact







Economic Analysis



iiiii348,739

6.6%

Highest: 10.5% Buchana County Lowest: 4.4% Washington County

Unemployement Rate Household Median Income \$37,033

Highest: \$45,294 Bland County Lowest: \$27,731 Norton City

The top three sources of employment are:



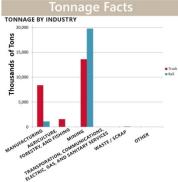


Sales volume is primarily driven by:



37% Bottle /

Source: U.S. Census Bureau, Bureau of Labor Statistics, and InfoUSA

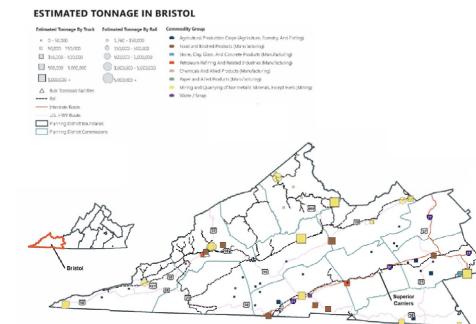


Bristol 831 total miles of rail 1006 AND total miles of highway

Interstates: 81 and 77

Highways: 58, 421, 23, 19, 460, 52 and 21. Railroad systems: Norfolk Southern and CSX

STATEWIDE RAIL PLAN









Economic Analysis

Commodity Growth Explanation

- •The products with the largest contribution to Highway truck tonnages in 2012 are: Broken Stone or Riprap (11 million tons), Petroleum Refining Products (2.3 million tons), Gravel or Sand (1.9 million tons), Stemmed or Redried Tobacco (1.2 million tons).
- •Truck freight tonnages see an overall increase between 2012 and 2040 of 6.5 million tons leading to a Compound Annual Growth Rate (CAGR) of 0.8%.
- •Coal mining dominates rail freight in the Bristol Planning District, accounting for 49% of total freight tons movements either originating or destined for the district.
- •Bristol Planning District is forecast to see a fall in rail Coal tonnage of 13% between 2012 and 2040. This is part of a state wide fall in Coal rail tonnage.
- •Rail freight tonnages see an overall decrease between 2012 and 2040 of 2.6 million tons leading to a CAGR of -0.4%.

Potential Project Recommendations

- •Develop new uses for underutilized coal rail lines
- •Develop rail corridor preservation policies
- •Identify new rail shippers based on possible diversion of appropriate commodities from truck to rail

Freight Commodity Group	Agricultural Production Crops (Agriculture, Forestry, Fishing)	Food and Kindred Products (Manufacturing)	Stone, Clay, Gless, and Concrete Products (Manufacturing)	Potroleum Refining and Related Industries (Manufacturing)	Chemicals and Allied Products (Manufacturing)	Paper and Allied Products (Manufacturing)	Mining and Quarrying of Normetalic Minerals, Except Fuels (Mining)
Main Line Capacity	Ö	Ö	*	*	Ö	Ö	Ö
Branch Line or Short Line Condition, Network Access	Ö	Ö	*	0	Ö	Ö	Ö
Local Rail Service, Classification, Yard Capacity	Ö	Ö	Ö	Ö	Ö	Ö	Ö
Intermodal Terminal Availability, Capacity, Access	Ö	Ó	Ö	Ö	Ö	Ö	Ö
Likely Railroad Railcar Availability	Ö	Ö	Ö	Ö	Ö	Ó	Ö
Railroad Competition	0	O	O	O	O	Ö	0
KEY	() L	n 💍 wc	MEDIUM Č	нібн			

STATEWIDE RAIL PLAN

Bristol's Benefits and Economic Impact Results

	FREI	GHT	PASSENGER		
Benefit Categories	Total Freight Service Benefits	Freight Service Benefits per Thousand Ton Miles (\$/'000 Ton Miles)	Total Passenger Service Benefits (\$M)	Passenger Service Benefits per Thousand Passenger Miles (\$/'000 Passenger Miles)	
User Cost Savings	\$1,635.2	\$65.2	\$95.9	\$232.9	
Pavement Savings	\$122.8	\$4.9	\$0.5	\$1.2	
Congestion Sav- ings	\$251.1	\$10.0	\$60.9	\$147.9	
Truck / Auto Emissions	\$158.3	\$6.3	\$4.0	\$9.7	
Truck / Auto Crash Reduction	\$71.2	\$2.8	\$28.4	\$68.9	
Total	\$2,239.0	\$89.3	\$189.7	\$460.6	

* Statewide Figures used as placeholder



Freight-users generate the most significant impact.

STATEWIDE RAIL PLAN









What is the cost to Virginia for losing a rail line?

What is the cost of a rail line compared to the cost of highway?







Cost for losing rail line:

	FREI	PASSENGER				
Benefit Categories	Total Freight Service Benefits (SM)	Freight Service Tot Benefits per Serv Thousand Ton Miles ÷ 3,394 miles of ra		Benefits	Passenger Service Benefits per Thousand Passenger Miles (\$/'000	
					Passenger Miles)	
User Cost Savings	\$1,635.2	\$500k/mile		15.9	\$232.9	
Pavement Savings	\$122.8	\$35k/mile		3 5	\$ 1.2	
Congestion Sav- ings	\$251.1	\$75k/mile		0.9	\$147.9	
Truck / Auto Emis- sions	\$158.3	\$45k/mile		4.0	\$9.7	
Truck / Auto Crash Reduction	\$71.2	\$20k/mile		18.4	\$68.9	
Total	\$2,239.0	\$650k/mile		89.7	\$460.6	

of Rail Miles Lost







Pro

Regionally Specific

Mirrors economic analysis and REF BCA

Forefront of performance based rail planning

Con

Not Rail Line Specific

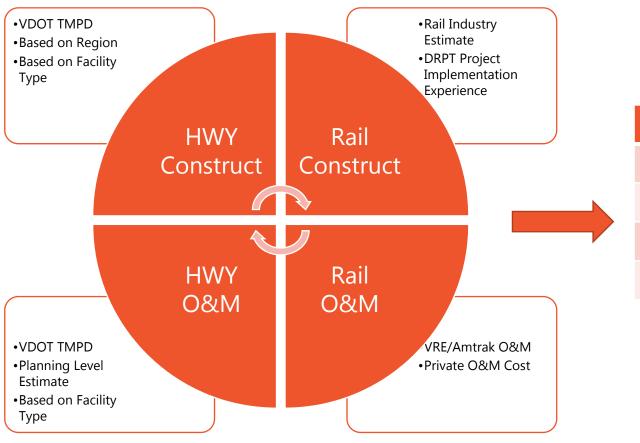
Assumes 100% transfer of rail traffic to HWY







Cost Comparison to Highway:

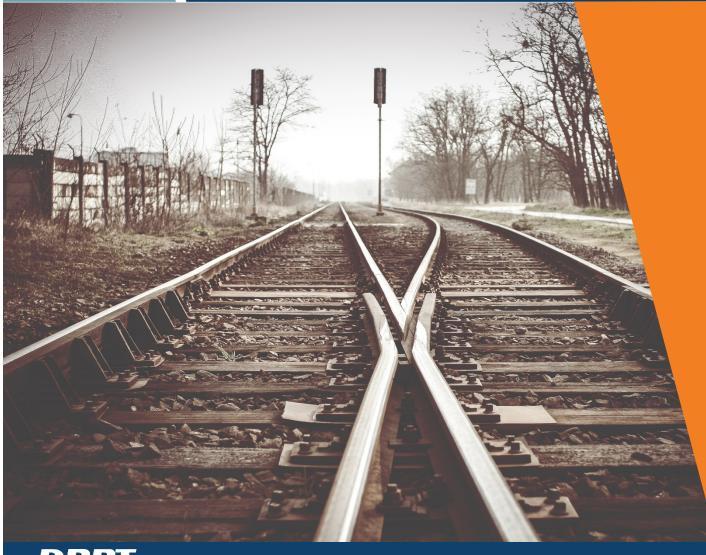


Rail / mi	HWY / mi		
Construction			
\$3M	\$1-4M		
O & M			
XX	\$2.5k – 20k		









Thank You Questions?



