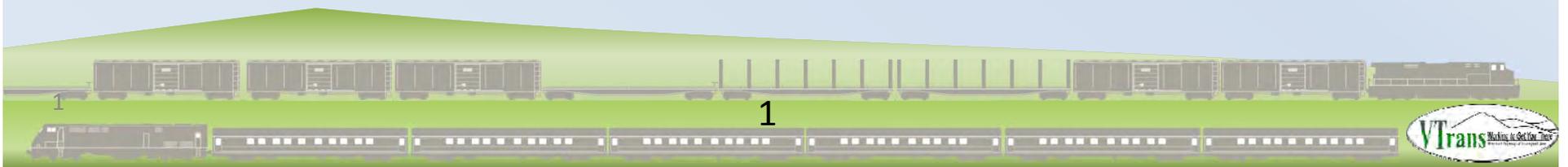


# Draft Vermont State Rail Plan Public Meeting

**July 15, 2015 – 6:30 PM**

**Hotel Coolidge, White River Junction**

Costa Pappis, Planning Section  
Vermont Agency of Transportation



# Agenda

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- Introductions
- Plan Purpose
- Freight and Passenger Rail Systems
- Rail Issues and Opportunities
- Proposed Capital Plan
- Measuring Performance

# Purpose of the State Rail Plan

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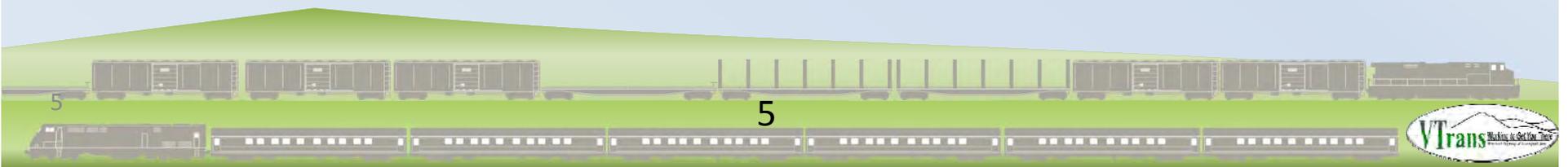
- Provides a framework for future rail investments
  - State funds
  - Federal grants
- Meets state and federal requirements for rail planning
  - State Planning Statute
  - Passenger Rail Investment & Improvement Act (PRIIA)

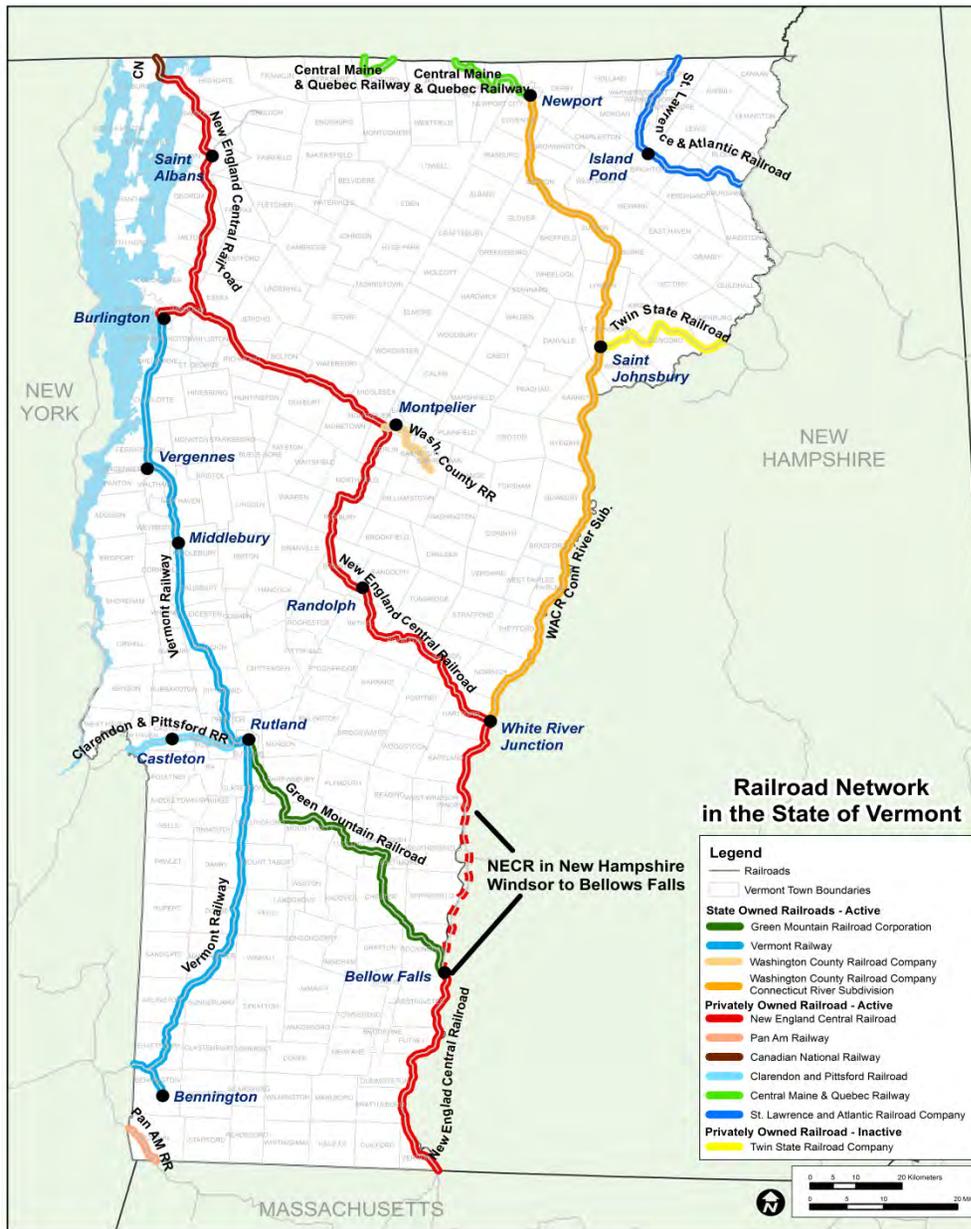
# Why is Vermont Involved in Rail?

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- Vermont owns 305 miles of active rail
  - Abandonment threats of the 1960s
  - Needs of resource-extraction industries
- The State operates two intercity passenger rail services – Ethan Allen Express and the Vermonter.

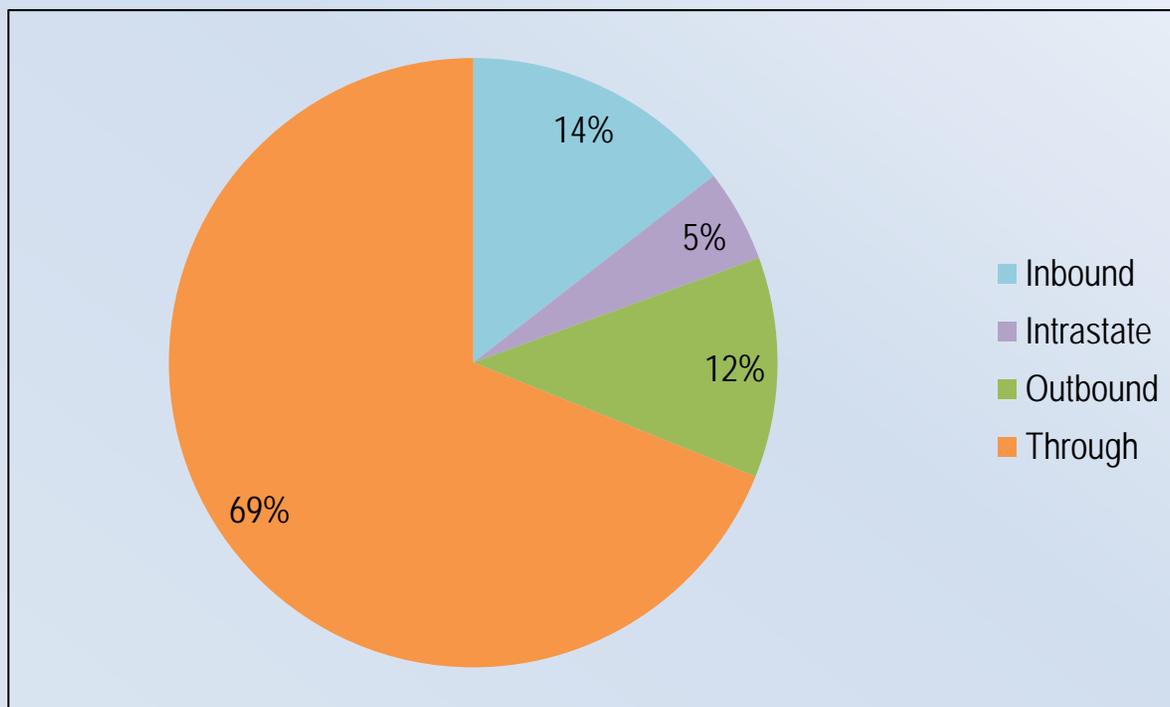
# Freight Rail



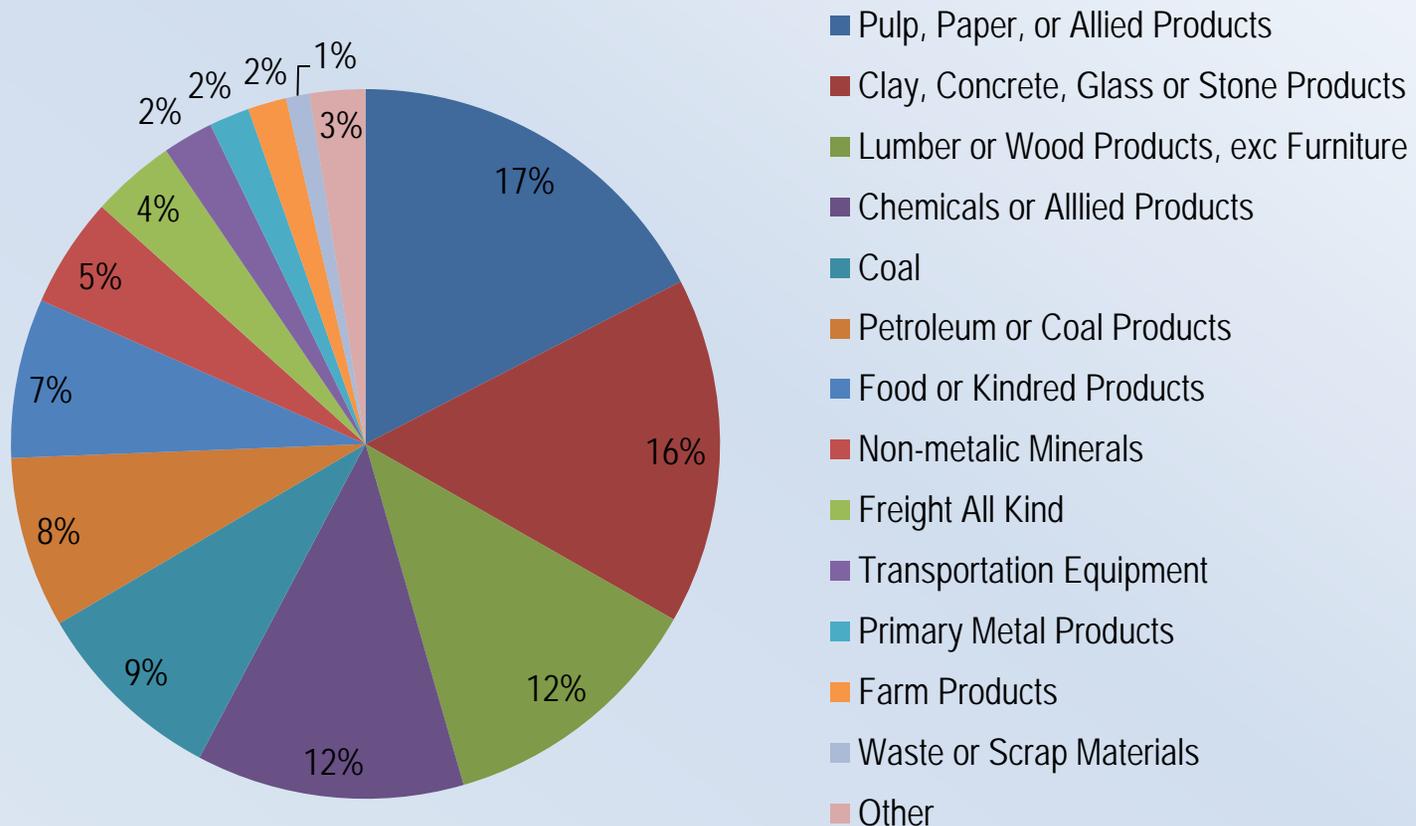


# Freight Movements

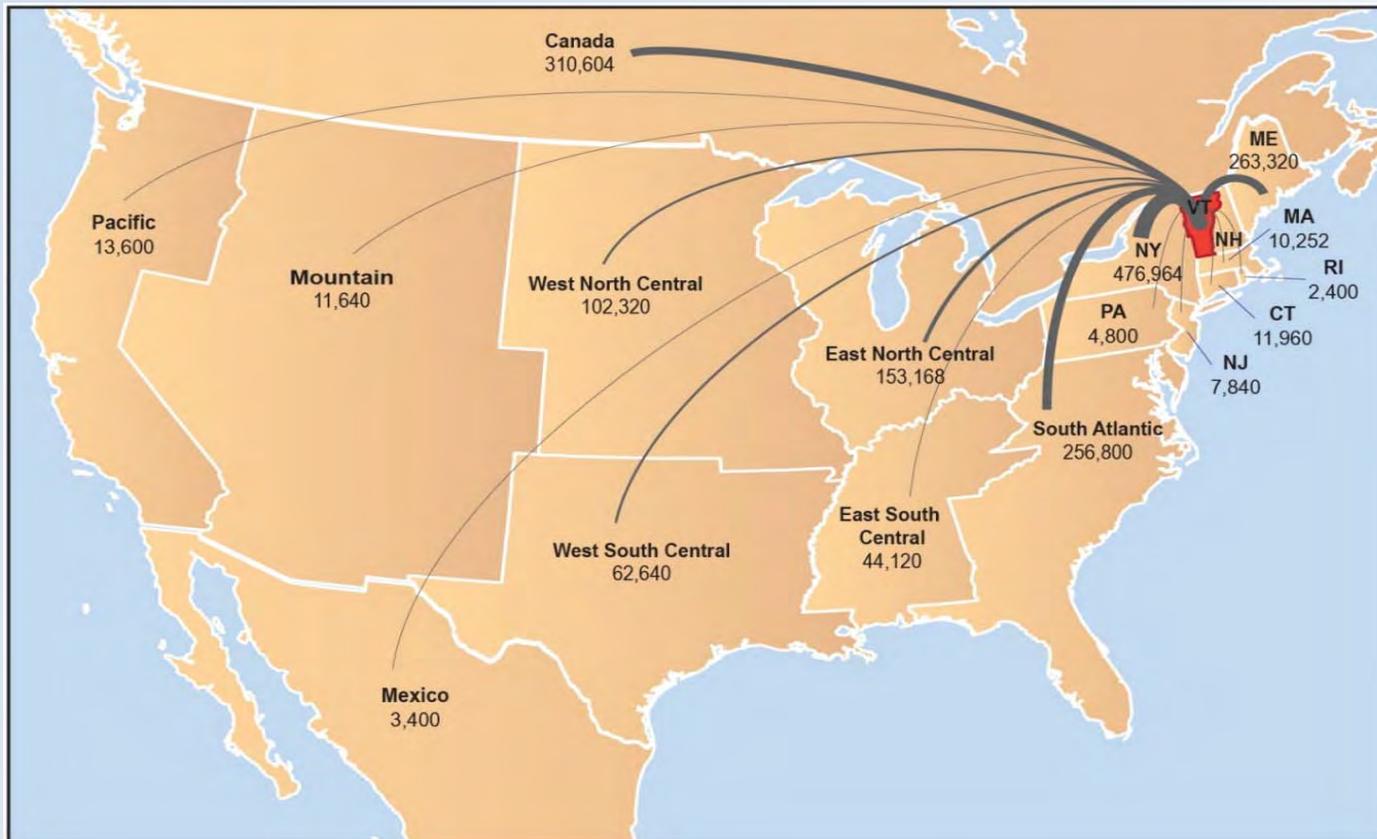
6.7 Million Tons Carried Annually



# Top Freight Commodities



# Our Rail Freight Trading Partners

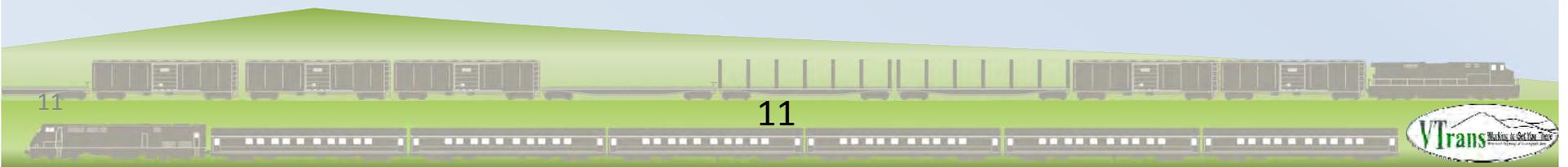


Tonnage

# Trends in Freight Rail

- Rail freight shipments have declined
  - 10 million tons in 2006 to 6.7 million in 2011
  - Changes in carload standards
  - Vermont's changing economy
- Rail has a major economic impact for its shippers
  - 130 railroad employees and 3,700 jobs in businesses that use state-owned rail lines

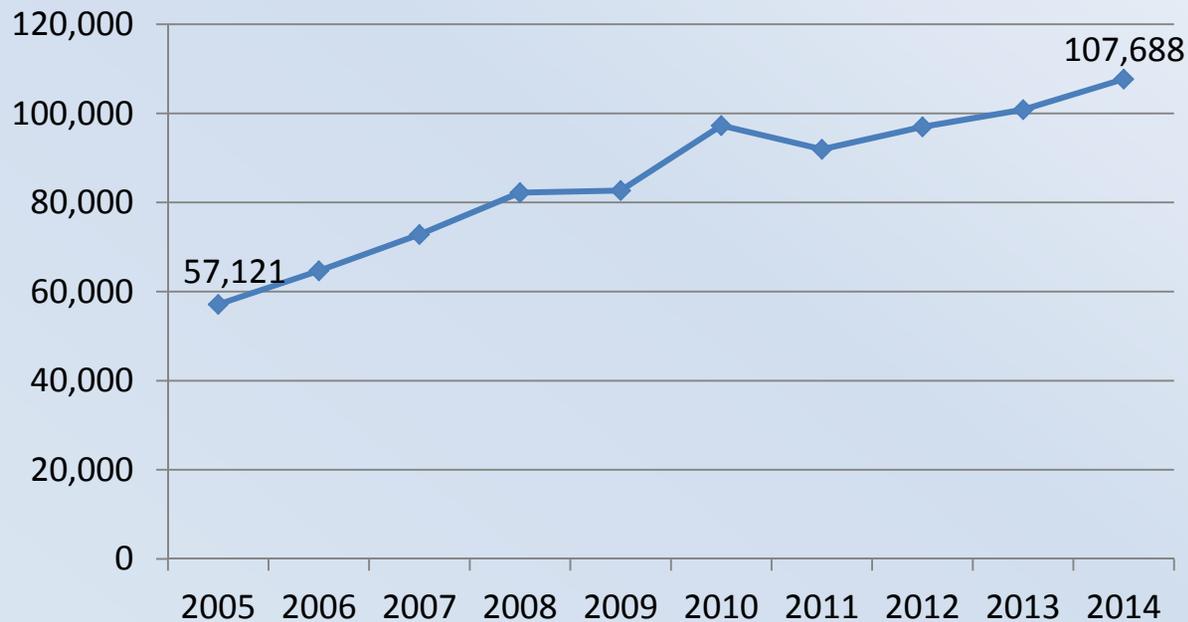
# Passenger Rail





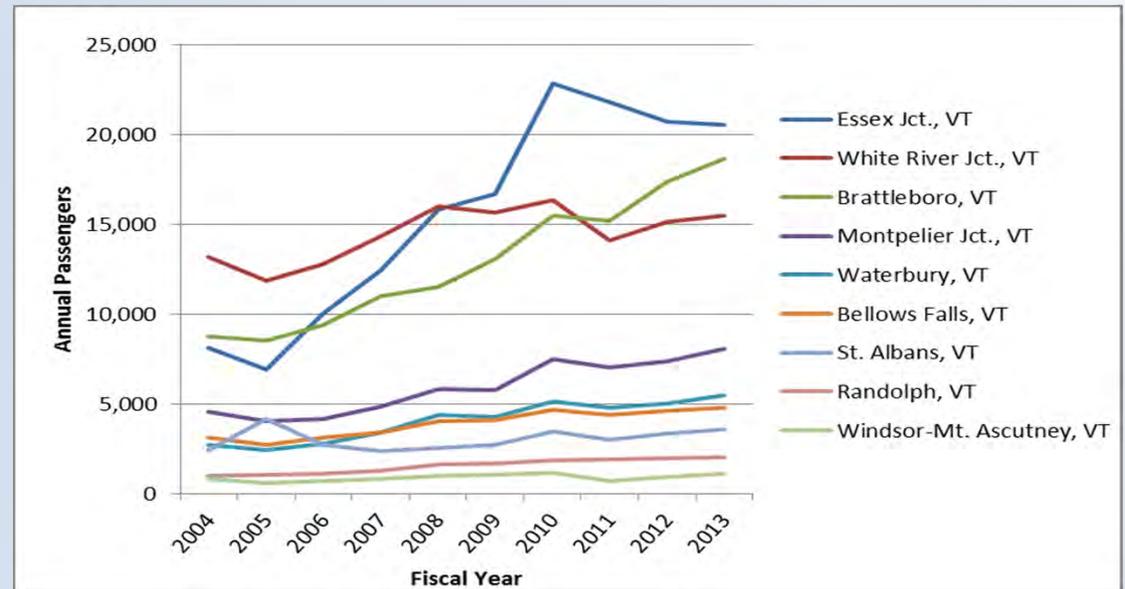
# Ridership Trends

Rail Ridership at Vermont Stations, 2005-2014



Rail was a big beneficiary of earmarks and federal grants during the 2000s which totaled over \$100 million.

# Station Usage

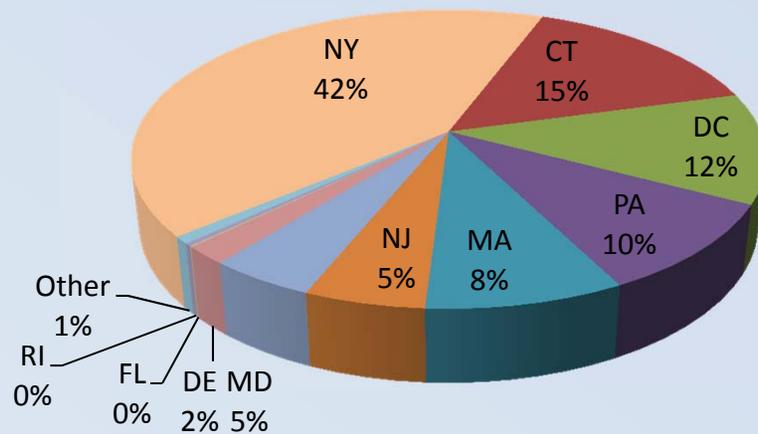


# Where Passengers Travel To

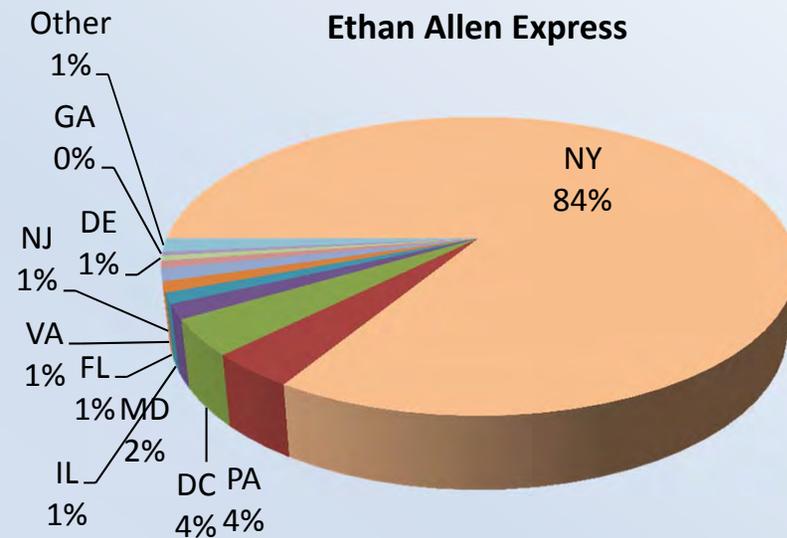
**Total Trips: 79,803  
(VT Stations, 2013)**

**Total Trips: 21,026  
(VT Stations, 2013)**

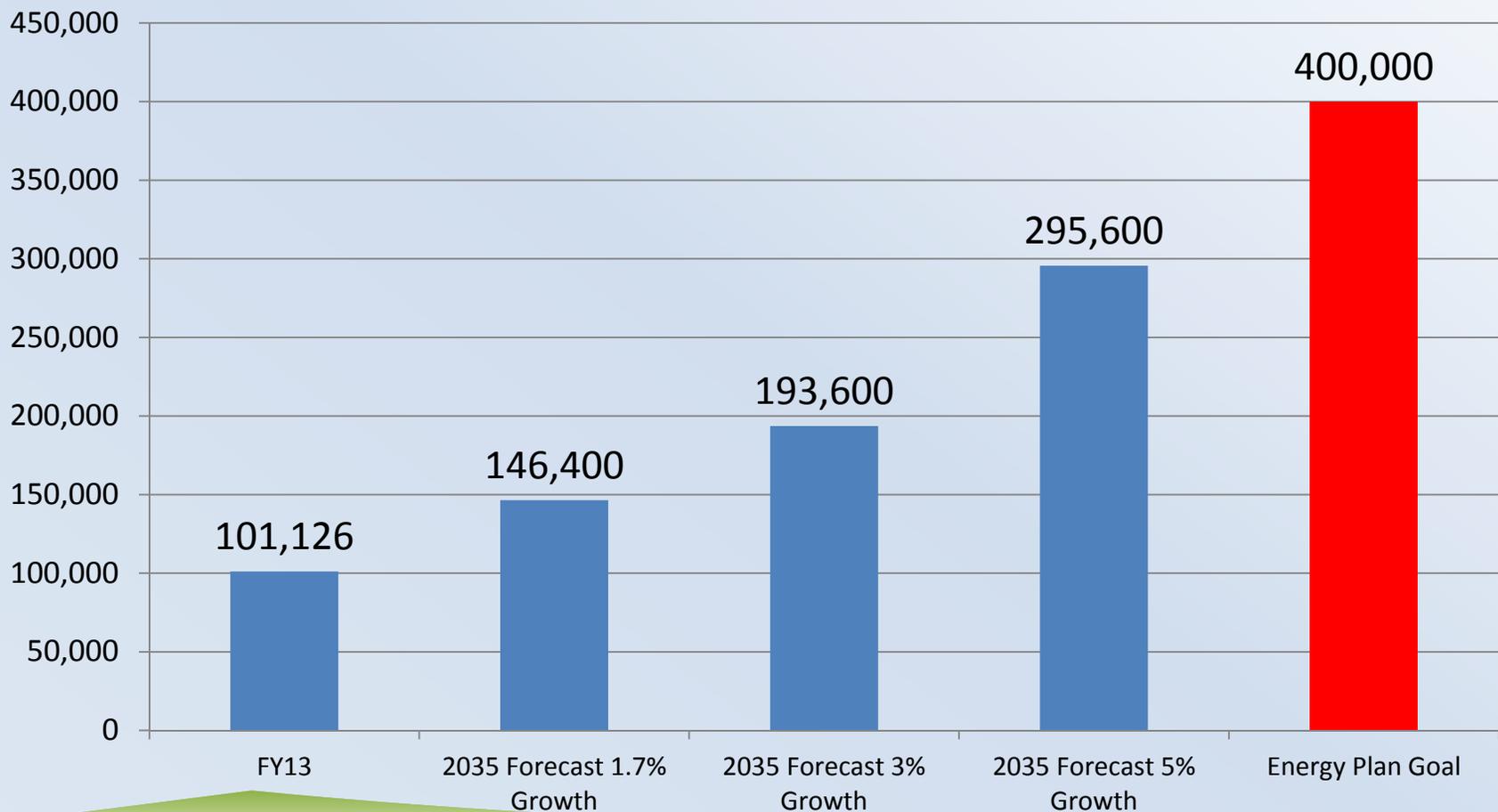
**Vermonter**



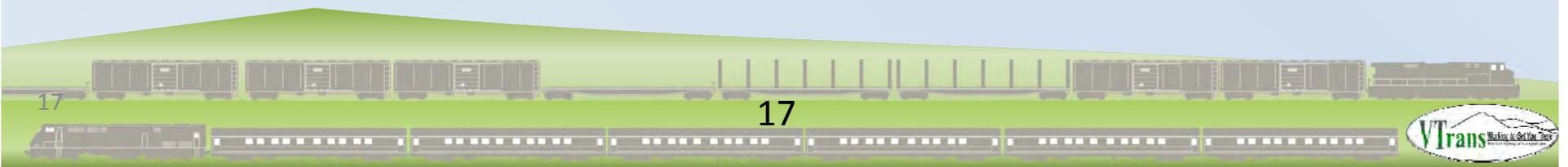
**Ethan Allen Express**



# What Will Passenger Ridership Look Like in 2035 Under Current Trends?



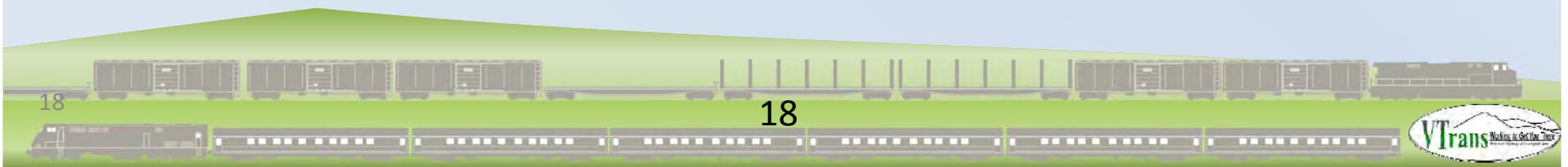
# Issues and Challenges



# Issues: Deferred Maintenance

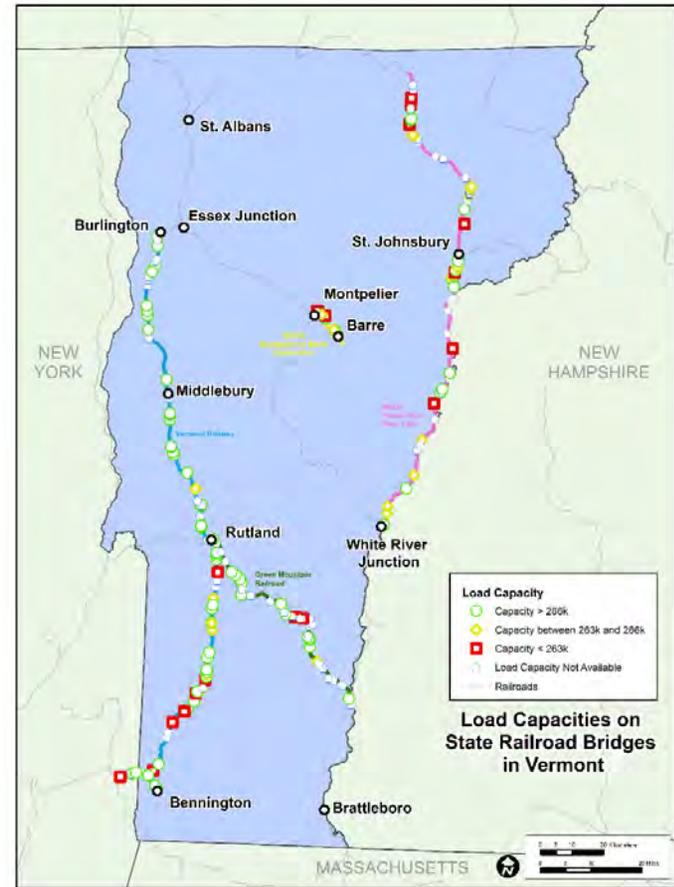
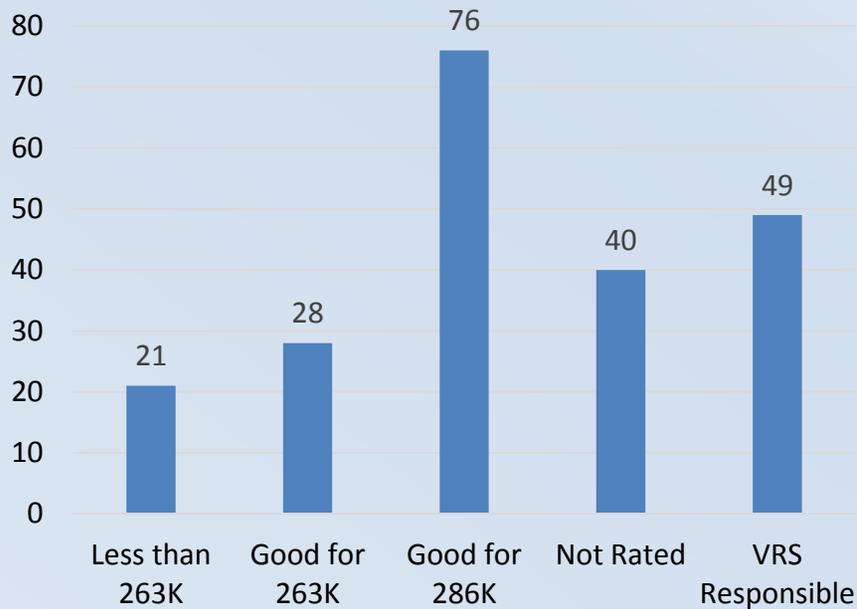
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- Underinvestment in State-Owned Rail Lines
  - Very little investment from 1960s to 1990s
  - System conditions threaten both freight and passenger systems
  - Intercity passenger rail can only function with an active rail freight operator



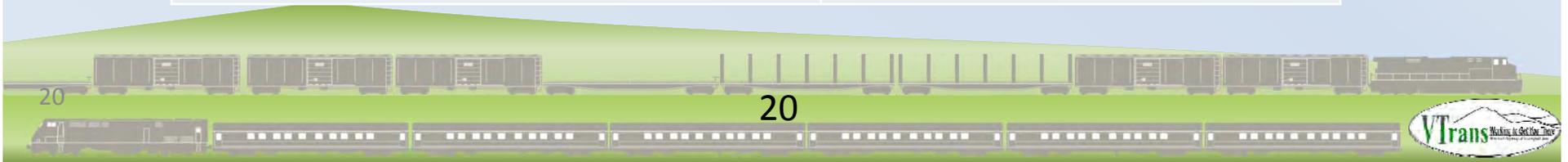
# Issues: Bridge Conditions

**Load Rating of 214 Rail Bridges as of April 2015**



# Issues: Bridge Capital Needs

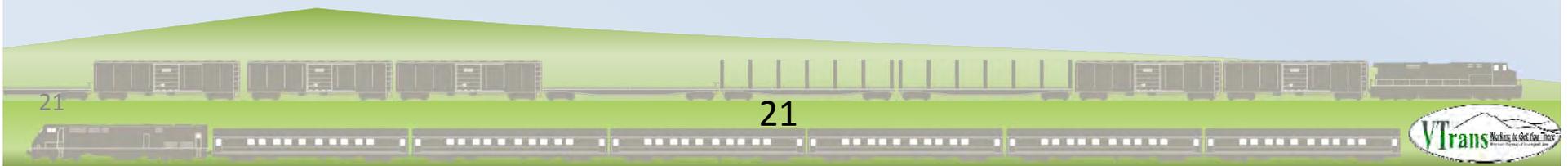
Line	Long Term Cost Estimate
<b>Cost of Bringing Bridge Superstructures to 286K</b>	
VTR Northern	\$18,473,725
VTR B&R	\$28,958,565
VTR Hoosick	\$5,618,000
GMRC	\$46,211,420
WACR CRL	\$60,112,270
WACR M&B	\$4,310,000
<b>Total</b>	<b>\$163,683,980</b>
<b>Repairs to Substructures</b>	<b>\$40,000,000</b>
<b>Total Superstructures and Substructures</b>	<b>Approx. \$203,683,980</b>



# Issues: Track Needs

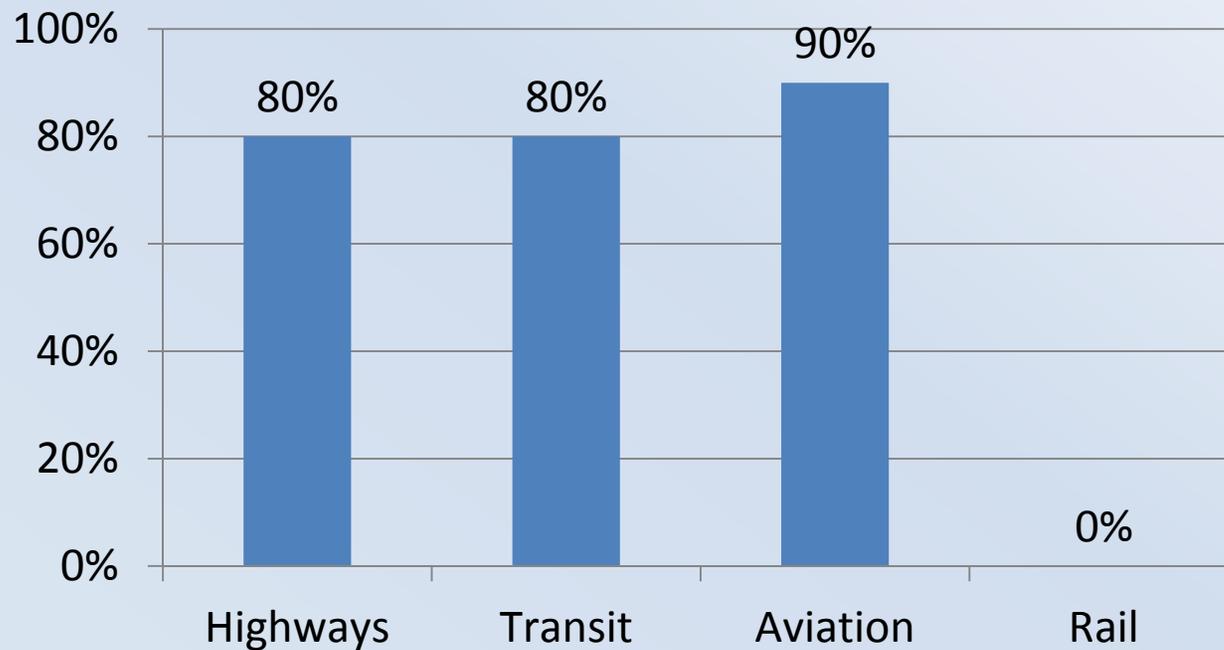
## Estimated Cost of Track Work for Freight Operations

Line	Long Term Cost Estimate
VTR Northern	\$12,000,000
VTR B&R	\$16,500,000
VTR Hoosick	\$4,800,000
GMRC	\$18,500,000
WACR CRL	\$22,500,000
WACR M&B	\$6,500,000
NECR Winooski	\$4,000,000
SLA Track and Bridge	\$3,300,000
CMQ Ties and Bridge	\$1,300,000
<b>Total</b>	<b>\$89,400,000</b>



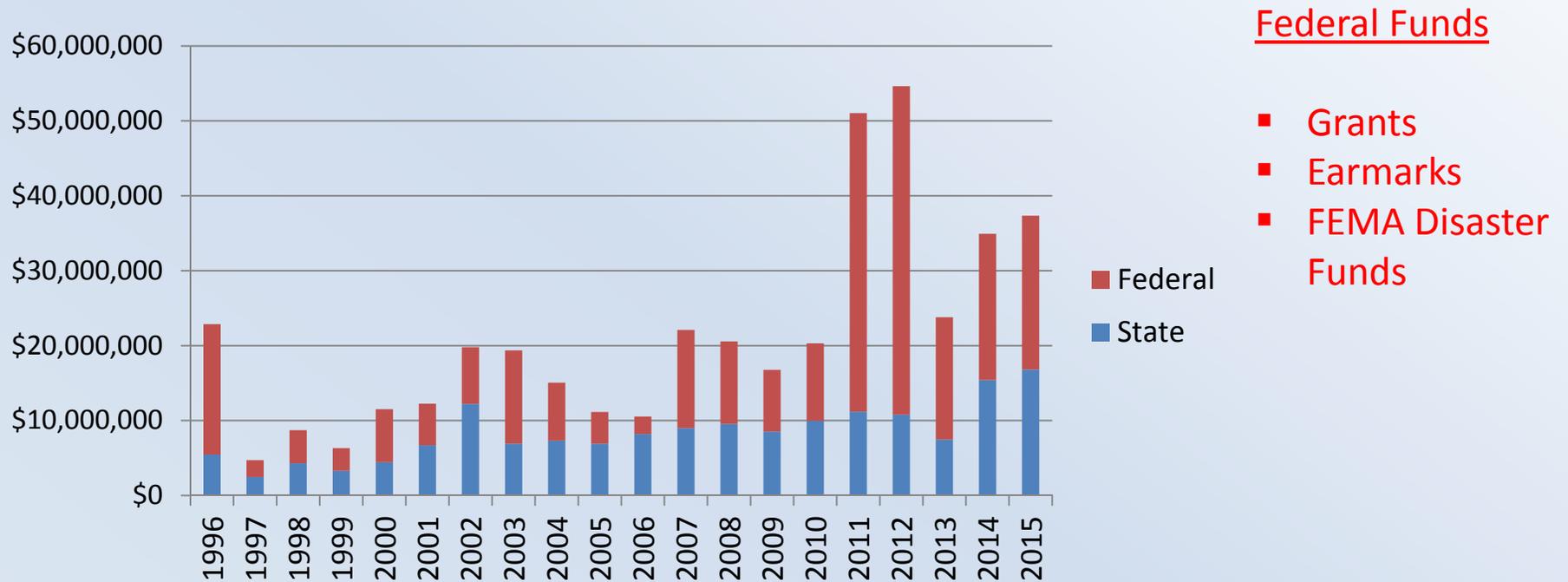
# Issues: No Dedicated Federal Rail Funding

## Typical Federal Cost-Share for Capital Investments



Note: Funding for highways, transit, and aviation also includes other types of federal cost-share

# Historical Rail Program Funding Levels

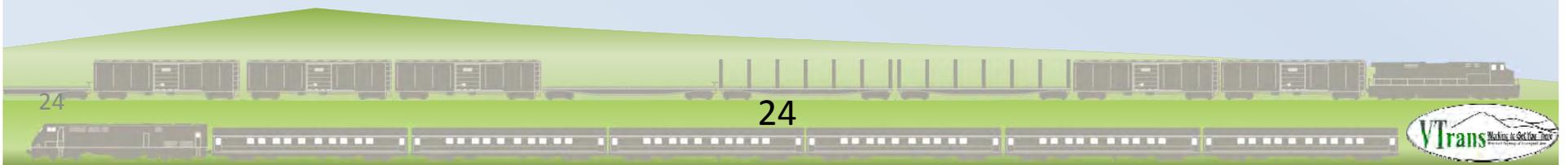


We are highly dependent on federal funding to implement rail projects

# Issues: Freight Volumes Declined

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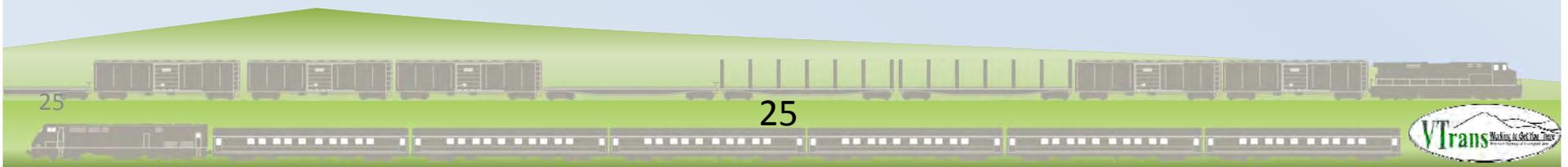
- Declining rail freight places pressure on revenues
  - Rail operator has less to invest in maintenance
  - State collects less revenues from rail operator.



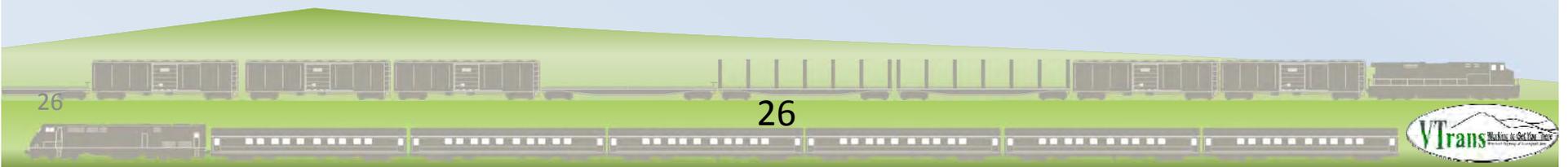
# Issues: Changes in Federal Passenger Rail Funding

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- Escalating costs of passenger services.
  - PRIIA Sec 209 resulted in a two-tiered intercity passenger rail system – *national routes* and *state-supported services*.
  - States must now pay full cost of state-supported services.
  - Vermont's costs have increased from \$4.5 million to over \$8 million annually.



# Plan Focus Areas



# Rail System Goals

- Maintain the State's Rail System in a State of Good Repair
  - Maintain all bridges to the 263,000 lbs carload standard
  - Maintain track to appropriate FRA track class
  - Remove slow orders – with priority along passenger rail routes
  - Upgrade rail to continuously welded rail along passenger routes
  - Rehabilitate passenger rail stations
  
- Expand the Rail System's Capacity to Accommodate Growth Objectives
  - Upgrade all bridges to the 286,000 lbs carload standard
  - Upgrade to 115 lbs/yard rail
  - Eliminate vertical clearance obstacles
  - Install platforms at new passenger stations

# Rail System Goals

- Expand the Rail System's Use
  - Increase the use of rail by shippers and receivers currently using rail
  - Attract new rail shippers and receivers to locate along rail lines
  - Preserve inactive rail corridors
  - Implement new intercity passenger rail service along western corridor (Burlington, Vergennes, Middlebury, Rutland, Manchester, Bennington) and extend *Vermont* to Montreal
  - Exceed FRA Intercity Passenger Rail Performance and Service Quality indicators
  - Increase existing and planned passenger routes to a minimum of FRA Class 4 Track in order to allow operating speeds to 79MPH

# Plan Goals

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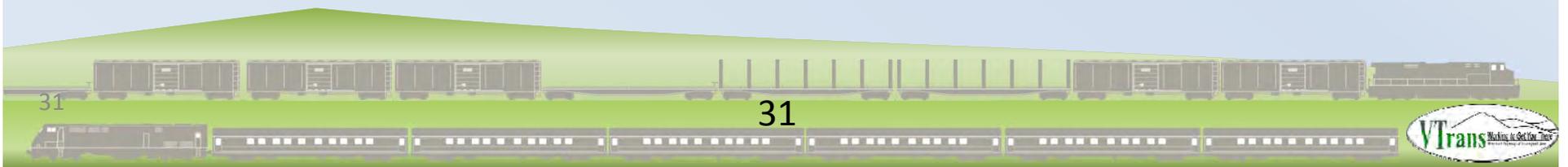
- Provide a Rail System that is Financially Sustainable
  - Examine other passenger rail service providers in order to reduce operating subsidies
  - Pursue federal grant opportunities to rehabilitate the rail network
- Improve Intermodal Connectivity
  - Integrate rail stations with local and intercity bus transportation

# Rail System Goals

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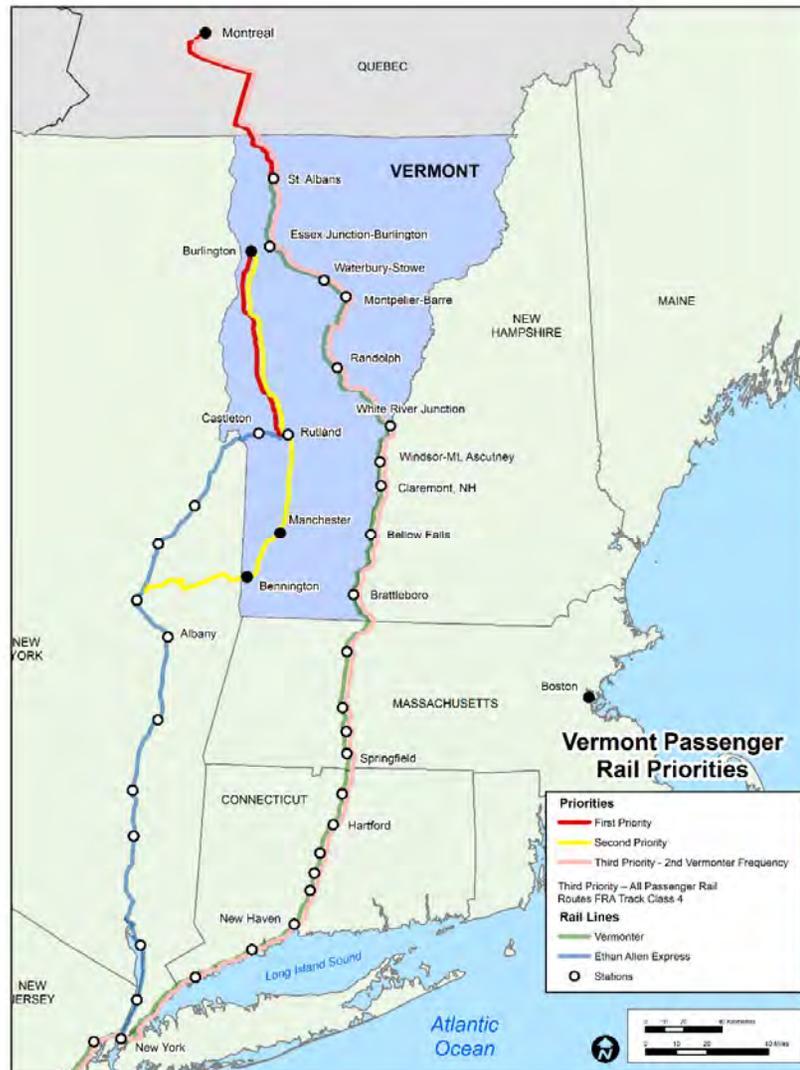
- Improve the Rail System to Support Economic Development
  - Coordinate rail and economic development efforts
  - Provide incentives for new and existing businesses to use rail
  - Support the development of transload facilities
  
- Enhance Safety of the Rail System
  - Reduce rail-highway grade crossing collisions
  - Participate in disaster planning with local, state, federal authorities

# Intercity Passenger Rail



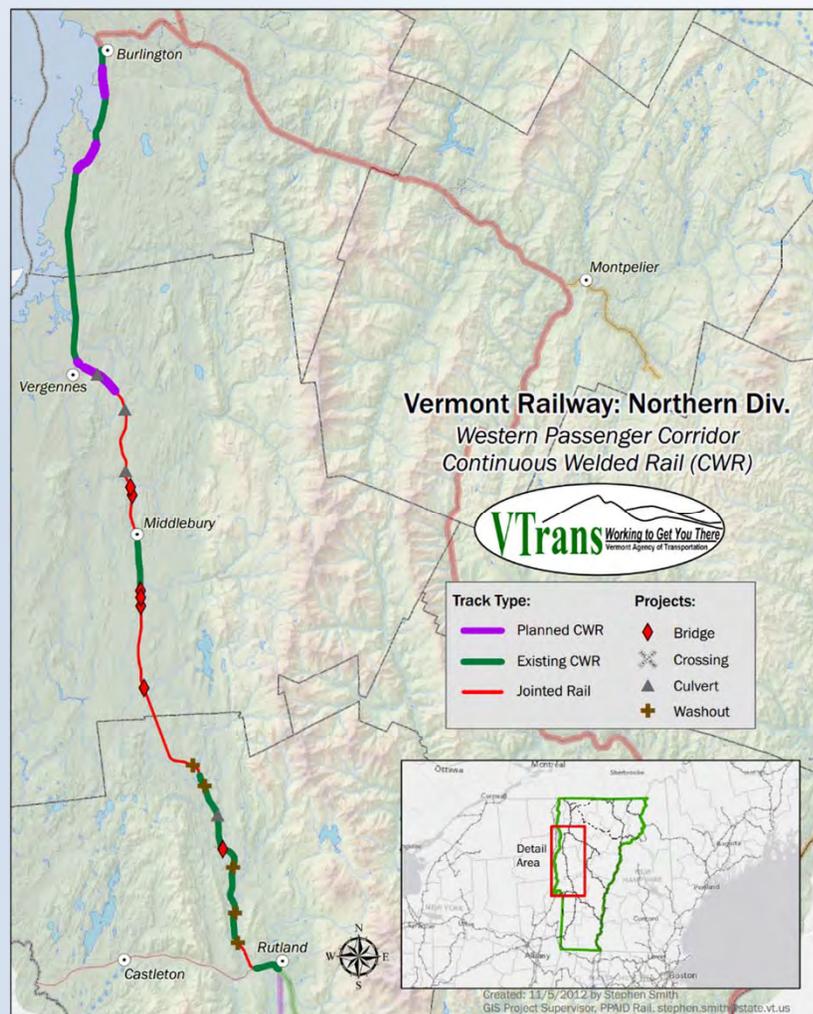
# Intercity Passenger Rail Priorities

- Ethan Allen Express extension to Burlington
- Vermonter extension to Montreal
- New western corridor service through Bennington
- Additional frequency along the Vermonter



## Ethan Allen Extension to Burlington

- Work to upgrade track to FRA Track Class 3 (59 mph maximum) performed in stages
- \$26.4 million capital cost estimate
- Incremental annual subsidy @ \$350K - \$1 million/year



# Vermont Extension to Montreal

- No capital costs to begin operating service (Class 3, 59 MPH track ready).
- High-Speed Rail & TIGER grants + railroad invested over \$90 million along corridor.
- Estimated incremental annual subsidy @ \$2 million for existing single round trip per day.

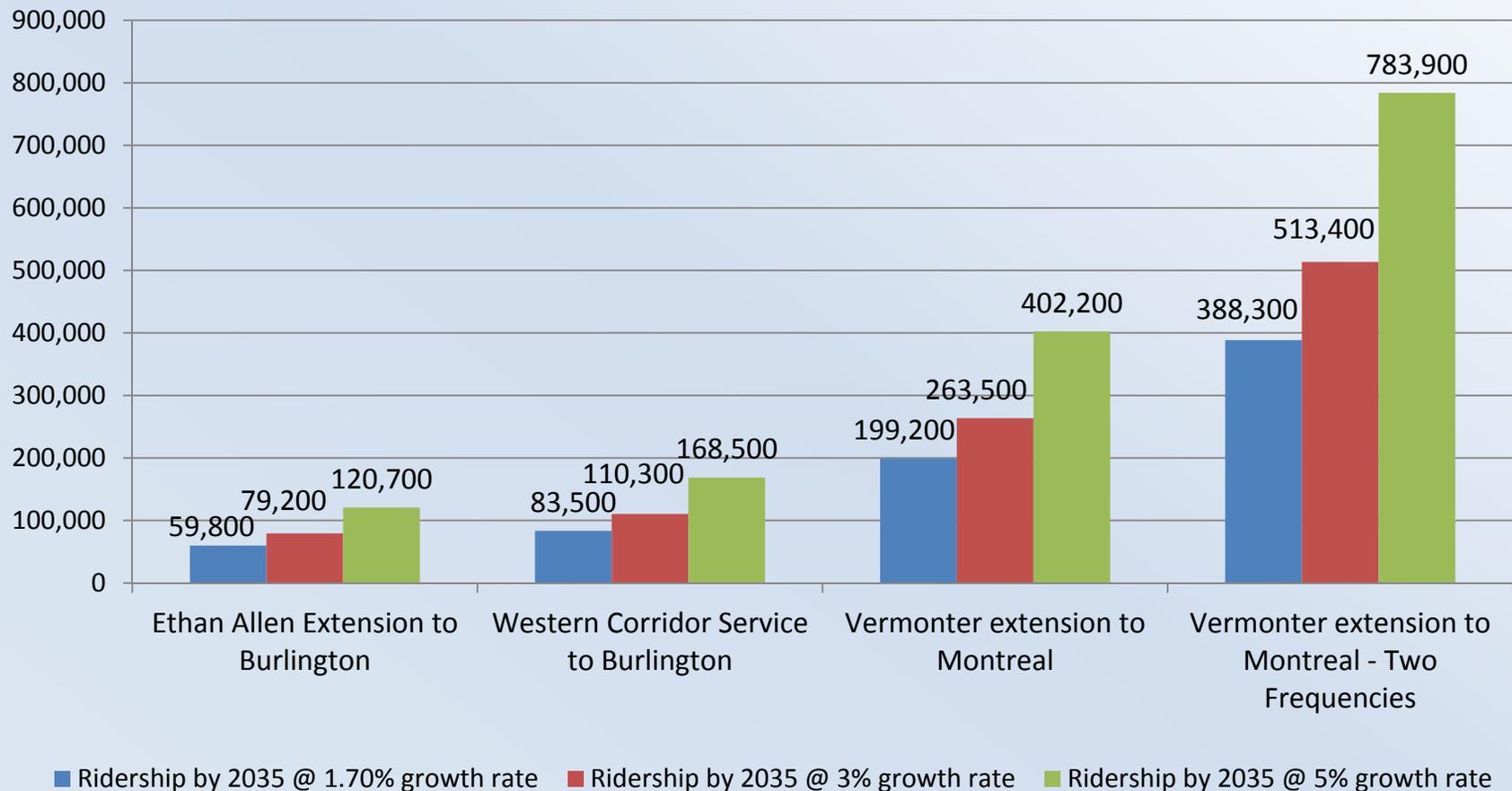


# New Train between Albany and Burlington through N. Bennington and Manchester

- \$88 million capital cost for the Vermont portion of the route.
- Requires parallel investments in New York
- Operating subsidy estimated at \$4.1 million /year



# Summary of Proposed Service Build out Options On and Offs at Vermont Stations in Year 2035



# Long-Term Objective – FRA Track Class 4 (up to 79 mph)

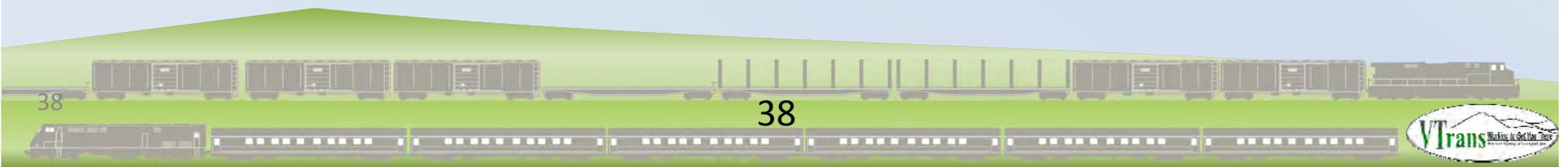
## Short-Term Passenger Needs

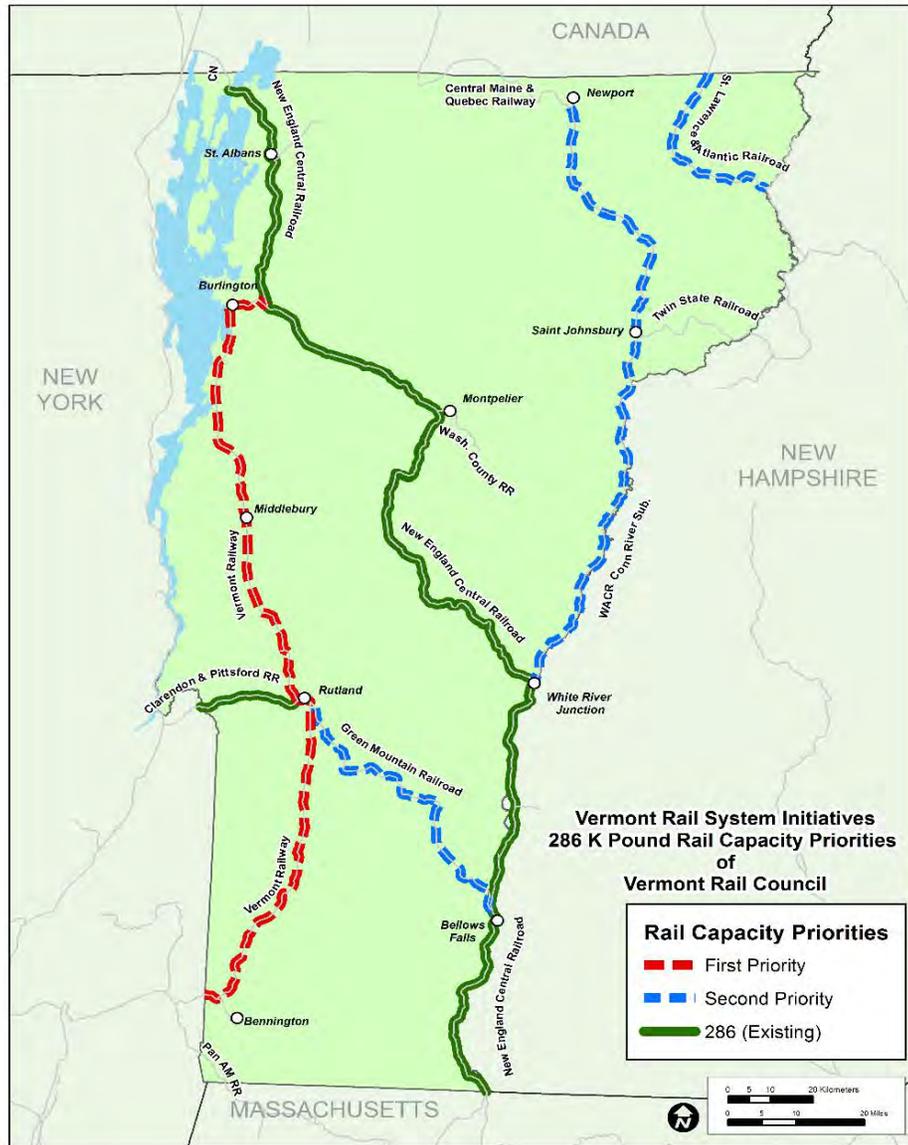
- \$114.4 million
- Extension to Burlington
- New Bennington Route

## Long-Term Passenger Needs

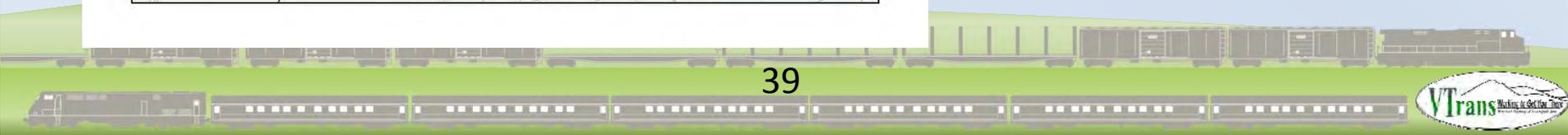
- \$370.3 million
- All Passenger Rail Routes  
Class 4, 79 MPH speeds

# Freight Rail



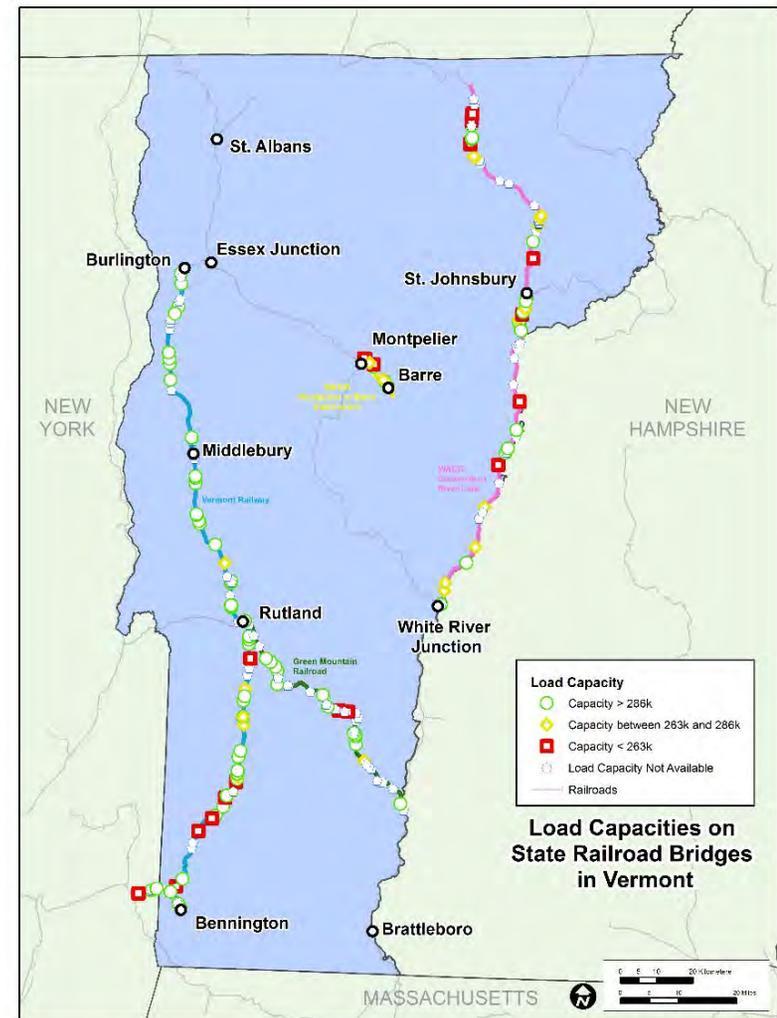
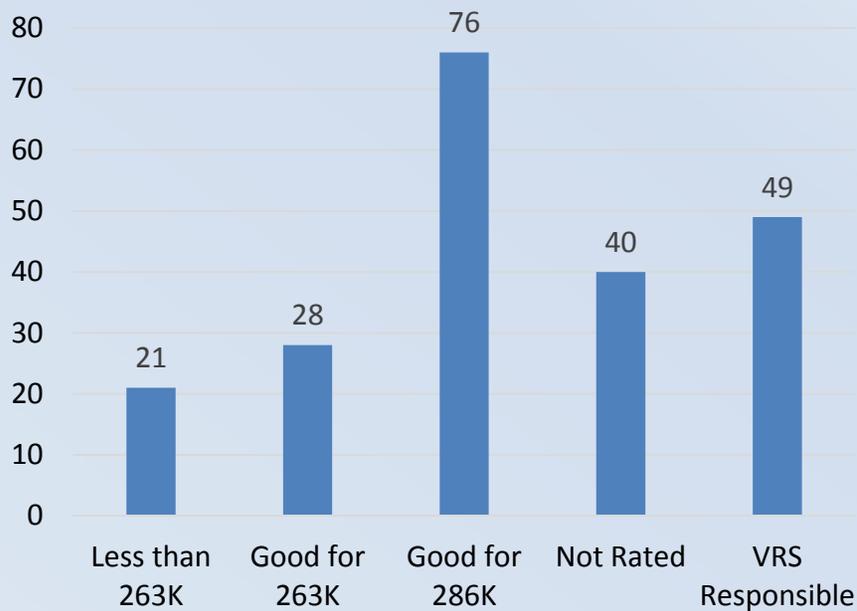


# 286K Track Capacity Priorities



# Freight Rail Needs/Priorities - Bridges

**Load Rating of 214 State-Owned  
Bridges at April 2015**

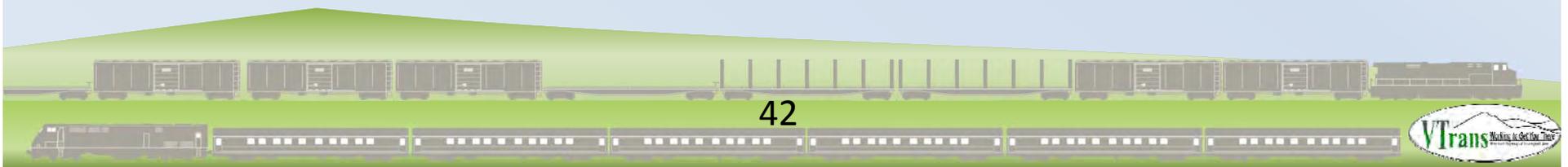


## Bridge Estimates for State-Owned Lines

Line	Long Term Cost Estimate
<b>Cost of Bringing Bridge Superstructures to 286K</b>	
VTR Northern	\$18,473,725
VTR B&R	\$28,958,565
VTR Hoosick	\$5,618,000
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<b>Total</b>	<b>\$163,683,980</b>
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# Estimated Cost of Track Work for Freight Operations

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SLA Track and Bridge	\$3,300,000
CMQ Ties and Bridge	\$1,300,000
<b>Total</b>	<b>\$89,400,000</b>



# Freight Rail Needs/Priorities

## Yards and Industrial Access

### Yard Projects

Project	Cost
CMQ Newport	\$184,000
NECR White River Jct, St. Albans	\$4,339,000
NECR/GMRC Interchange	\$4,003,000
NECR St. Albans Roundhouse	\$300,000
GMRC Yard Projects	\$800,000
VTR Yard Projects	\$800,000
WACR Conn River Yard Projects	\$700,000

### Industrial Access Projects

Project	Cost
Access to Franklin Industrial Park, former Goodyear Power Plant in Windsor	\$260,000
GMRC Sidings	\$478,000
WACR Montpelier Sidings	\$1,584,000
VTR Sidings and Structures	\$1,675,000
WACR Conn River Sidings	\$1,927,000
GMRC Passing Sidings	\$1,155,000
VTR Passing Sidings	\$2,002,000
WACR Conn River Passing Sidings	\$3,344,000

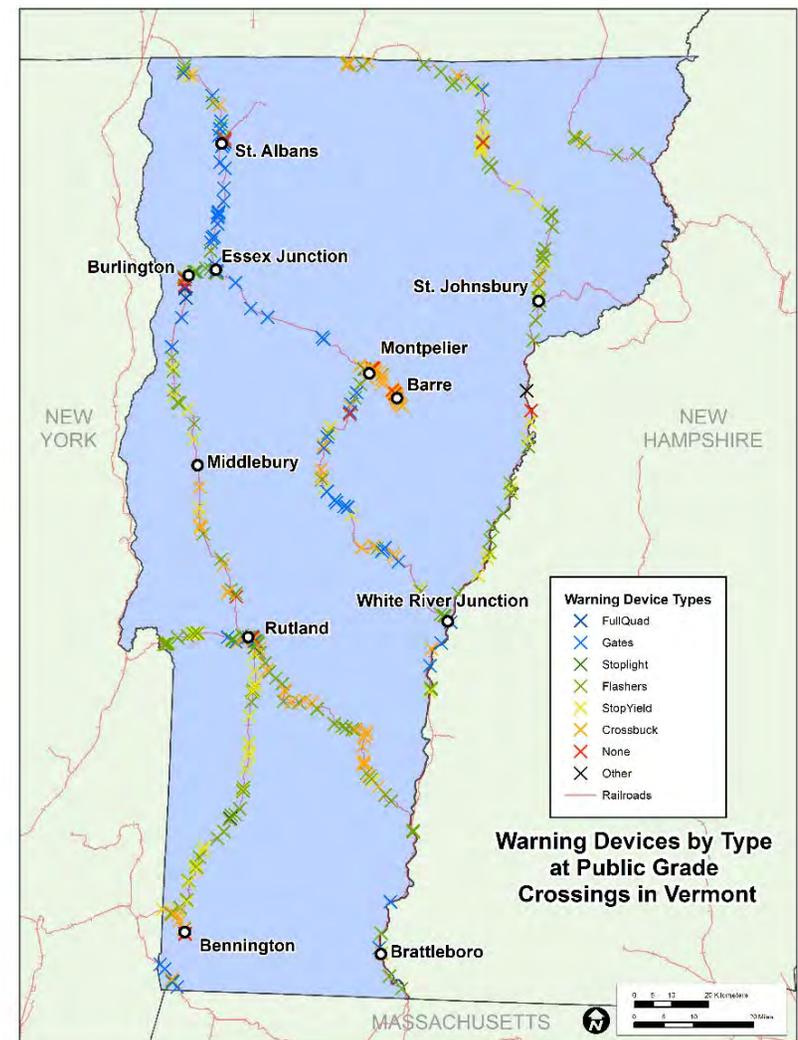
# Grade Crossing Needs

## 2004 – 2013 Public Crossing Accident Statistics

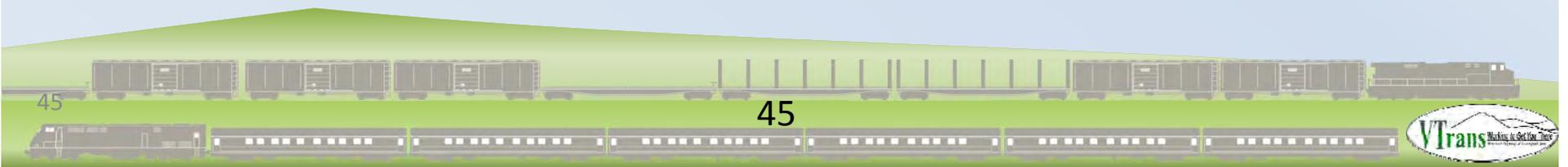
Year	Fatalities	Injuries	Property Only	Total
Freight Total	0	11	12	23
Passenger Total	2	2	6	10
10 Year Total	2	13	18	33

## Public Crossings by Warning Device

Protection Type	Count
Gates	71
Lights	151
Crossbuck/Sign	146
Other	1
None	12
Total	381



# Capital Plan



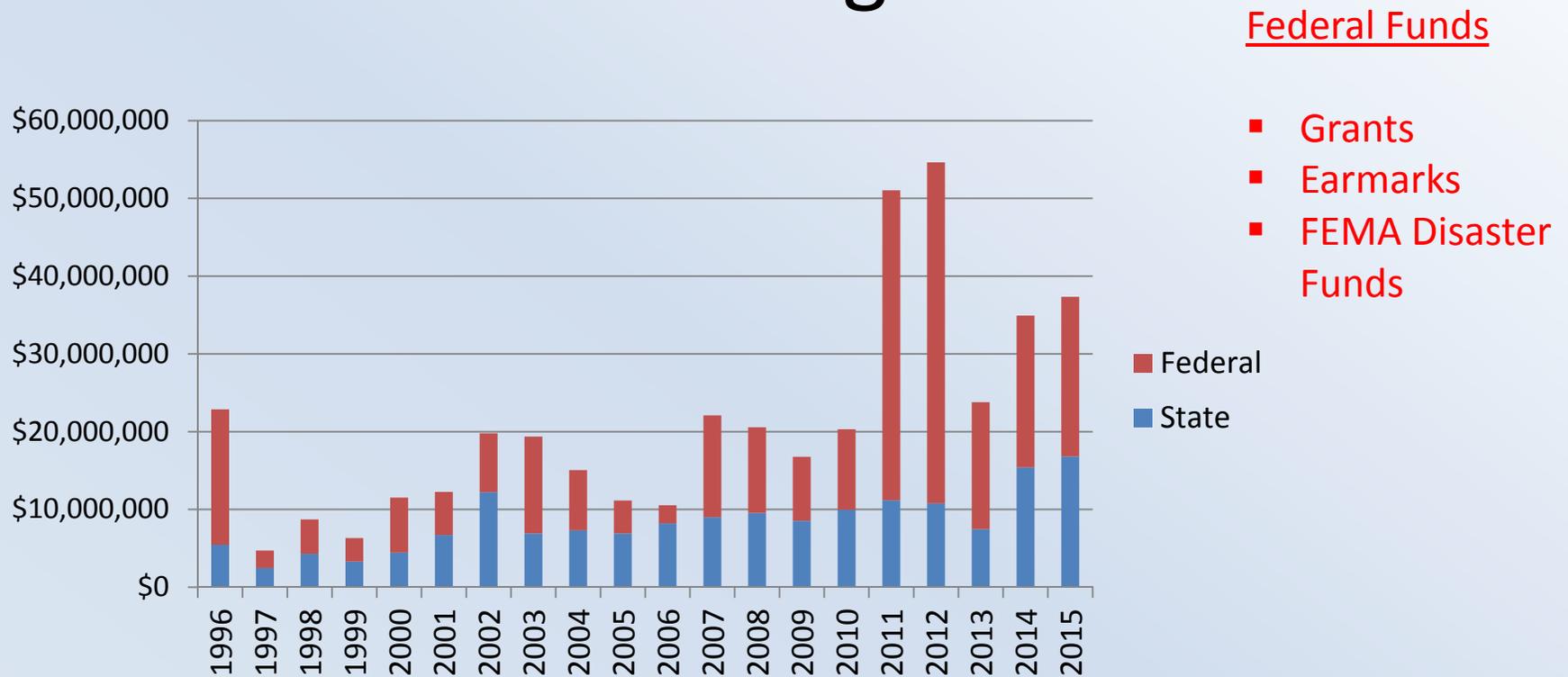
# Capital Plan Focus

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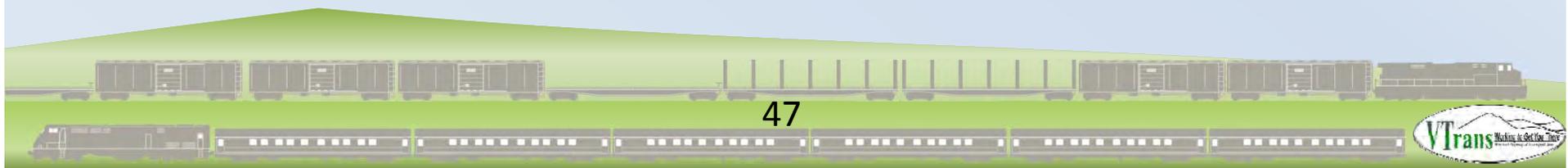
- Maintaining State Rail Lines Operable
  - Bridges and track which can cause system failures
- Economic Development Projects
  - Encourage job growth
- Intercity Passenger Rail Priorities

# Capital Plan

## Past Funding Levels

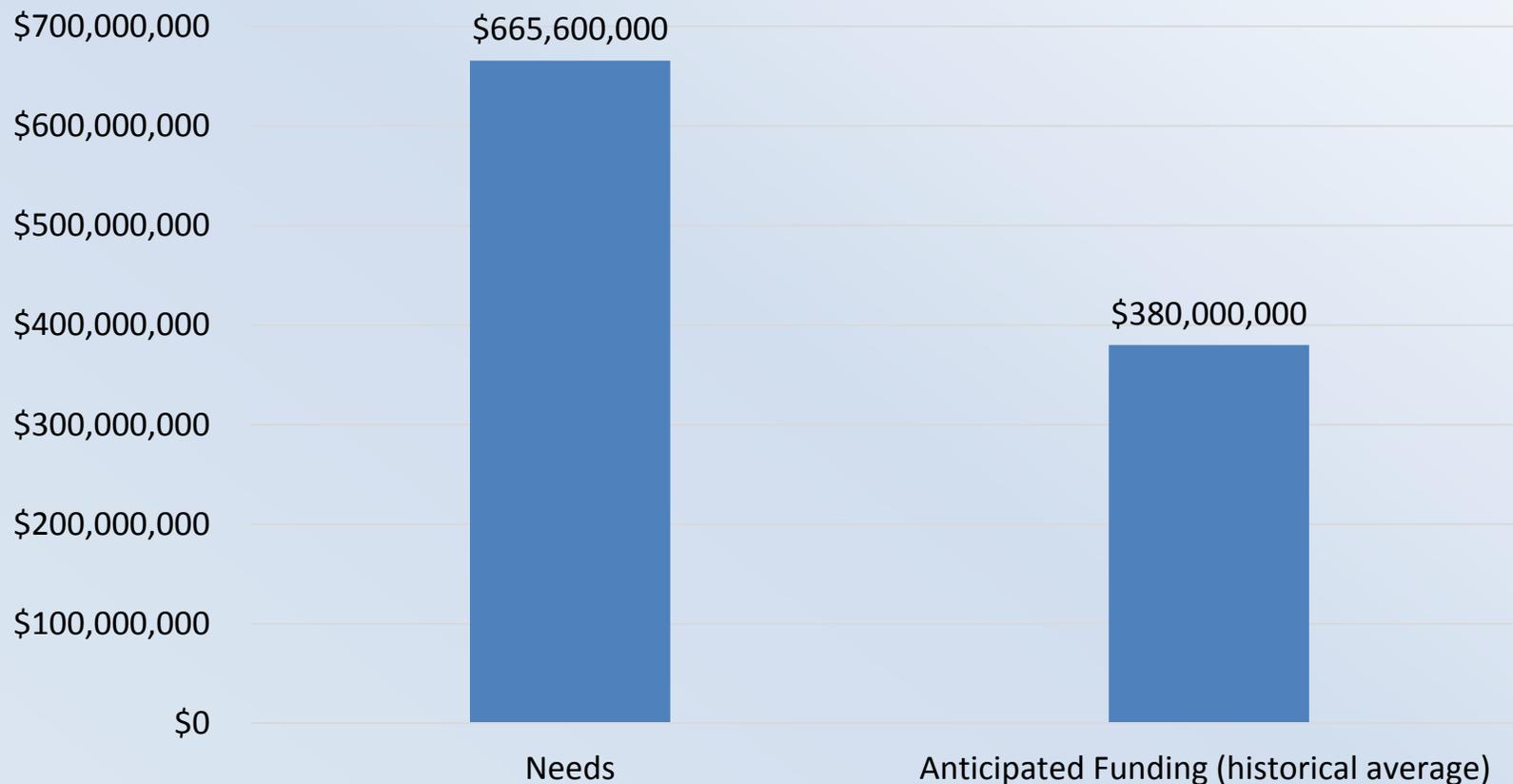


Since 2002, Averaged \$15M in Federal Funding  
 Most State Funding Applied to Operating & Administration Budget, around \$4M Capital Budget



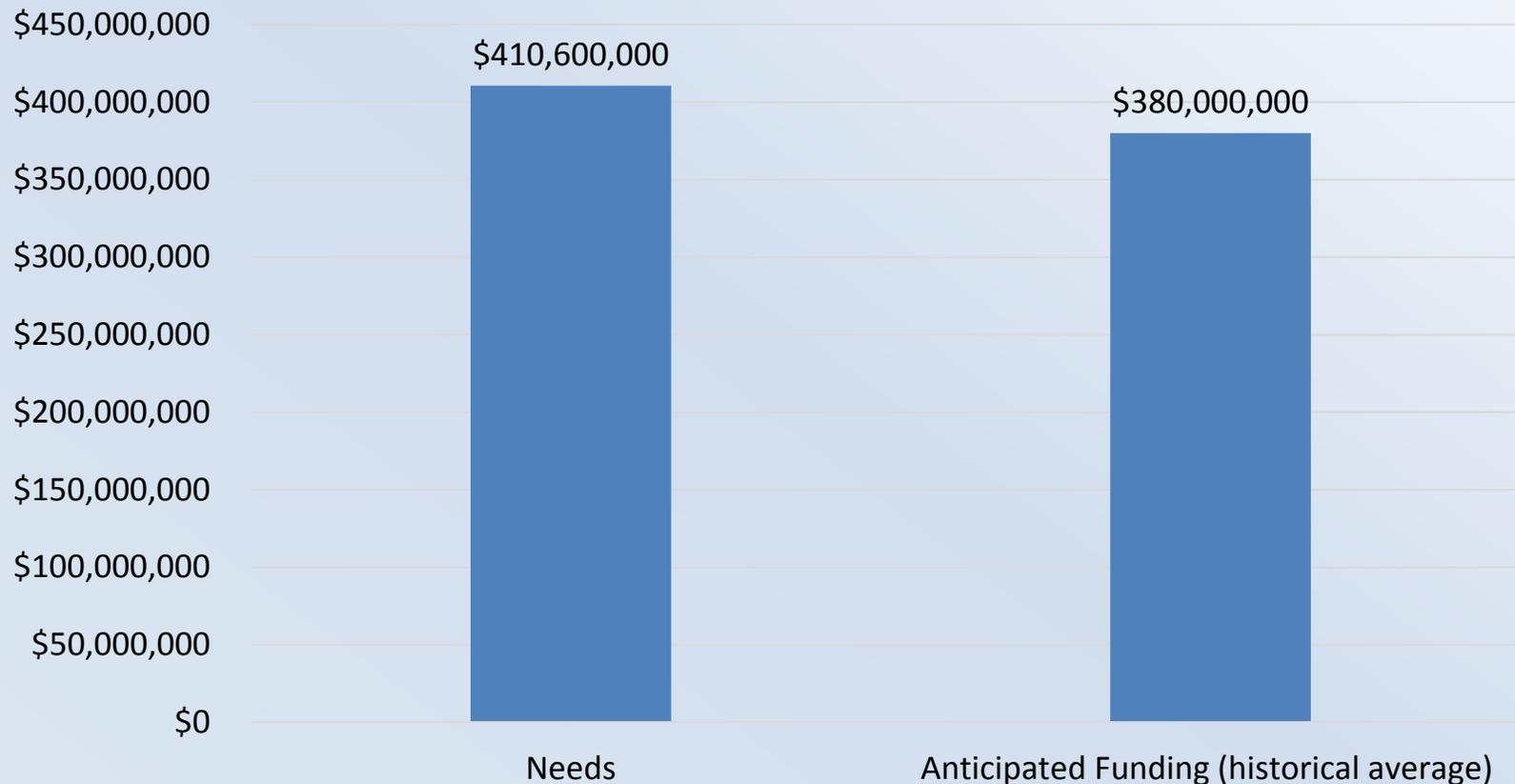
# Comparison of All Needs and Available Funding over 20 Years Based on Past Funding Levels

## All Passenger & Freight Needs



# Comparison of All Needs and Available Funding over 20 Years Based on Past Funding Levels

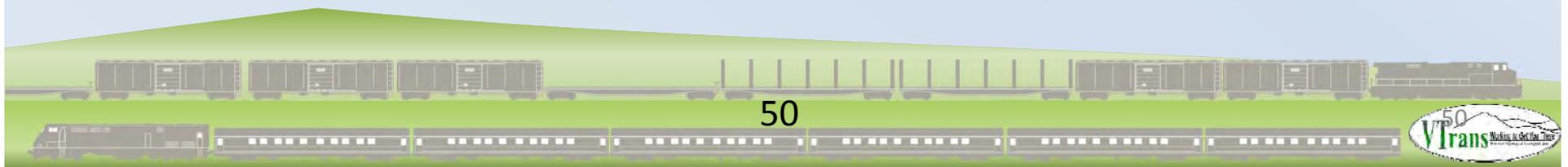
## All Passenger & Freight Needs Except Upgrade to Class 4



# Passenger Rail Proposed 20-Year Capital Plan

2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	
Ethan Allen to Burlington \$26.4M																				
Vermonter Extension to Montreal \$0																				
										Enhanced 79mph Vermonter Upgrades \$177.3M										
				New Albany-Bennington-Manchester Route \$88M																
										Enhanced 79mph Western Corridor Upgrades \$78.6M										

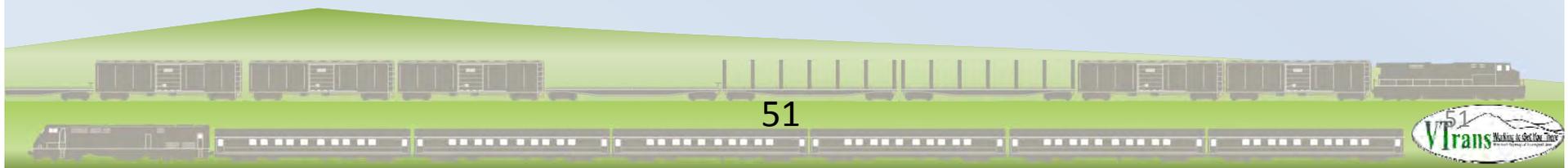
Total: \$370.3 million



# Freight Rail Proposed 20-Year Capital Plan

2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	
Bridge Upgrades on VTR and GMRC \$123.5M																				
										Bridge Upgrades on WACR \$80.2M										
Non Passenger Track Upgrades on GMRC, NECR Winooski, SLR, CMQ \$27.1M																				
										Non Passenger Track Upgrades on WACR \$29M										
Yard Improvements, Economic Dev. Passing Sidings, \$19.5M																				
NECR Unrestricted Double Stack Clearance \$5.7M																				
					GMRC/CLP Double Stack \$10.3M															

Total: \$295.3 million



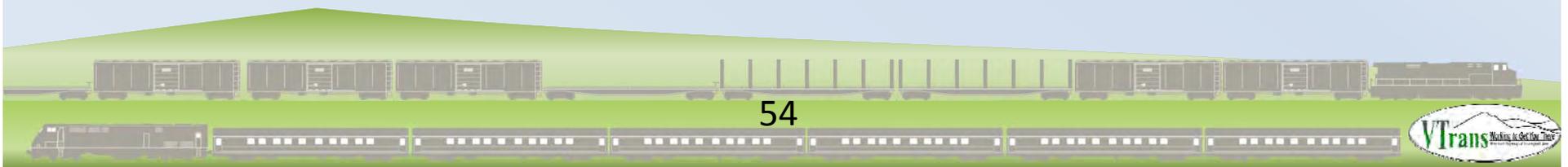
# Measuring Performance

# Performance Measures and Targets: System Effectiveness

Performance Categories	Performance Measure	Associated Rail System Goal	Existing Conditions	Target (annual)
System Effectiveness	Freight rail volumes originating or destined for Vermont	Expand rail system use; Provide a rail system that is financially sustainable; Support economic development	2 million tons	3 million tons
	Recruitment of new rail businesses in Vermont	Expand the rail system's use; Support economic development	1	2 businesses per railroad annually
	Passenger rail trips in Vermont	Expand the rail system's use	100,829	5% increase
	FRA IPR Performance and Service Quality Indicators	Expand the rail system's use	variable	Above national average in half or more reporting categories

# Performance Measures and Targets: System Effectiveness

Performance Categories	Performance Measure	Associated Rail System Goal	Existing Conditions	Target (annual)
System Condition	Bridges meeting 263,000 lbs. standard	State of good repair		All bridges to be 263K
	Bridges meeting 286,000 lbs. standard	Expand rail system capacity	85 of 106 rated	Improve 3 or more annually
	Rehabilitate and upgrade grade crossings	State of good repair; Safety	Unknown	Improve 3 or more annually
	115lbs rail	State of good repair	266 mi <115 lb	5 miles annually



# Performance Measures and Targets: System Effectiveness

Performance Categories	Performance Measure	Associated Rail System Goal	Existing Conditions	Target (annual)
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# Next Steps

- Where: VTrans website, review plan and reports  
[http://rail.vermont.gov/about\\_us/reports\\_plans](http://rail.vermont.gov/about_us/reports_plans)
- When: Will be taking comments until July 31, 2015
- Submit comments to Costa Pappis of VTrans,  
[Costa.Pappis@state.vt.us](mailto:Costa.Pappis@state.vt.us)
- After comment period,
  - Plan modified per feedback
  - Submitted to FRA for comment
  - Finalize plan