



# Vermont Rail Plan

December 2025



# TABLE OF CONTENTS

<b>1.0</b>	<b>Introduction .....</b>	<b>1</b>
<b>2.0</b>	<b>Vision and Goals.....</b>	<b>2</b>
<b>3.0</b>	<b>Stakeholder Engagement .....</b>	<b>3</b>
3.1	Public Involvement Goals.....	3
3.2	Stakeholder Groups.....	3
3.3	Engagement Approaches.....	4
3.4	Comment Themes.....	6
<b>4.0</b>	<b>Rail System Conditions .....</b>	<b>7</b>
4.1	State Rail Program.....	8
4.2	Passenger Rail .....	9
4.3	Freight Rail and Overall System Conditions .....	21
4.4	Rail Safety and Security.....	37
<b>5.0</b>	<b>Rail System Resilience and Emergency Recovery.....</b>	<b>41</b>
<b>6.0</b>	<b>Rail and The Environment .....</b>	<b>47</b>
<b>7.0</b>	<b>Enhancing Access to Rail .....</b>	<b>49</b>
<b>8.0</b>	<b>Economic and Regional Development.....</b>	<b>51</b>
<b>9.0</b>	<b>Performance Measures .....</b>	<b>54</b>
<b>10.0</b>	<b>Ridership Forecasting .....</b>	<b>59</b>
<b>11.0</b>	<b>Recommendations .....</b>	<b>60</b>
11.1	Recommended Initiatives.....	60
11.2	Consideration of Funding .....	62
11.3	Implementing the Recommendations.....	64
11.4	Anticipated Benefits by Initiative.....	72
11.5	Future Studies and Plans .....	80
11.6	Let’s Go!.....	80

# LIST OF FIGURES

Figure 1	Vermont Freight and Rail Plan Elements .....	1
Figure 2	Vermont Rail Plan Goals .....	2
Figure 3	Rail Plan Online Feedback Tool.....	5
Figure 4	Online Comment Tool Included a Map to Support Detailed Feedback.....	6
Figure 5	Vermont Corridor ID Program.....	11
Figure 6	Vermont Passenger Rail Lines .....	12
Figure 7	Vermont Amtrak Ridership (FY2018-2024) .....	13
Figure 8	Vermont Amtrak Ridership by Station.....	14
Figure 9	Rendering of the Proposed Brattleboro Train Station.....	17
Figure 10	Bellows Falls Station.....	18
Figure 11	Essex Junction Station Rendering .....	18
Figure 12	Common Freight Modes By Industry Sector .....	21
Figure 13	VTrans Rail App portal.....	22
Figure 14	National Revenue by Railroad Class in 2023 .....	23
Figure 15	Cargo Weight Carried by Truck and Rail .....	23
Figure 16	State-Owned Rail Bridge Weight Restrictions .....	25
Figure 17	FRA Track Speed Classification.....	28
Figure 18	Vermont Transload Facilities .....	31
Figure 19	Vermont Rail Freight Tons and Carloads, By Source, by Year .....	32
Figure 20	Vermont Rail Tons Moved by Direction in 2017 (Left) and 2023 (Right) .....	33
Figure 21	Vermont Rail Trading Partners By Weight (2022).....	35
Figure 22	Vermont FRA Reportable Incidents between 2014 and 2024.....	37
Figure 23	Crash Rate Per Billion Ton-Miles in 2021 for Rail and Truck .....	39
Figure 24	Active Rail Assets most Vulnerable to Water Damage .....	43
Figure 25	Rail Trail Assets Most Vulnerable to Water Damage.....	43
Figure 26	Storm Damaged Rail Lines.....	44
Figure 27	July 2024 Storm Damage .....	44
Figure 28	Open - Closed Dashboard on July 11, 2024 .....	45
Figure 29	Extremes in one-day Precipitation in the Northeast US (1910-2024) .....	47
Figure 30	Rail vs Truck on One Gallon of Fuel.....	48
Figure 31	Sign at Waterbury Amtrak Station.....	49
Figure 32	Access to Passenger Rail .....	50

Figure 33	Bellows Falls Transloading Platform.....	52
Figure 34	Barton Transload Facility.....	53
Figure 35	Historical Rail Division Funding Sources (2020 – 2026).....	64
Figure 36	Rail Repair in Vermont.....	65
Figure 37	Inspiration Map of Rail in Vermont in the Future.....	81

## LIST OF TABLES

Table 1	Intermodal Availability at Amtrak Stations.....	15
Table 2	Vermont Amtrak Station Amenities and ADA Project Status.....	19
Table 3	Vermont Active Freight Rail Lines.....	22
Table 4	Vermont Freight Railroad Maximum Car Weight.....	24
Table 5	Height Restrictions on Railroad Lines.....	26
Table 6	Vermont Vertical Clearance Restrictions.....	26
Table 7	FRA Track Class Maximum Speeds.....	27
Table 8	FAF5 County Level Tonnage Estimates (2022 data).....	36
Table 9	FRA REportable Railroad Incidents 2014-2024 in Vermont.....	38
Table 10	FRA REPORTABLE RAILROAD INCIDENTS – HAZMAT RELATED 2014 – 2024 IN VERMONT.....	39
Table 11	State-Defined Performance Measures and Status.....	54
Table 12	PRIIA 207 Performance Measures for Ethan Allen Express.....	55
Table 13	PRIIA 207 Performance Measures for Vermonter.....	56
Table 14	Forecasted 2045 Ridership Growth by INITIATIVE Scenario.....	59
Table 15	Tier 1 Recommended Initiatives.....	61
Table 16	Tier 2 Recommended Initiatives.....	61
Table 17	Tier 3 Recommended Initiatives.....	62
Table 18	State of Good Repair and funding Initiatives.....	67
Table 19	Increased Use / Expand Capacity Initiatives.....	68
Table 20	Intermodal Connectivity Initiatives.....	70
Table 21	Economic Development Initiatives.....	71
Table 22	Safety & Resilience Connectivity Initiatives.....	72
Table 23	PROGRAM EFFECTS - Freight Services.....	73
Table 24	PROGRAM EFFECTS - Both Freight and Passenger Services.....	74
Table 25	Program Effects - Passenger Services.....	77

# LIST OF ACRONYMS

AAR	Association of American Railroads
ADA	Americans with Disabilities Act
ACCD	Agency of Commerce and Community Development
AOT	Vermont Agency of Transportation
BIL	Bipartisan Infrastructure Law
BTS	Bureau of Transportation Statistics
BUILD	U.S. Department of Transportation’s Better Utilizing Investments to Leverage Development (grant program)
CAP	Climate Action Plan
CCRPC	Chittenden County Regional Planning Commission
CEP	Comprehensive Energy Plan
CFS	Commodity Flow Survey
CLP	Clarendon & Pittsford Railroad
CN	Canadian National
COVID-19	Coronavirus Disease 2019
CP	Canadian Pacific
CRISI	Consolidated Rail Infrastructure and Safety Improvements
CRS	Carbon Reduction Strategy
CWR	Continuously welded rail
DHCD	Department of Housing and Community Development
FAF	Freight Analysis Framework
FAST	Fixing America’s Surface Transportation Act
FEMA	Federal Emergency Management Agency
FFY	Federal Fiscal Year
FHWA	Federal Highway Administration
FMCSA	Federal Motor Carrier Safety Administration
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
GHG	Greenhouse Gas
GIS	Geographic Information System
GMRC	Green Mountain Railroad
GW	Genesee and Wyoming
HAZMAT	Hazardous Materials
ID	(Corridor) Identification and Development
IIJA	Infrastructure Investment & Jobs Act
L RTP	Long-Range Transportation Plan
MPH	Miles per hour
MPO	Metropolitan Planning Organization
NEC	Northeast Corridor
NECR	New England Central Railroad
NY	New York
NYS DOT	New York State Department of Transportation
PAR	Pan Am Railways
PAS	Pan Am Southern

PIP	Public Involvement Plan
PRIIA	Passenger Rail Investment and Improvement Act of 2008
PROTECT	Promoting Resilient Operations for Transformative, Efficient, and Cost-saving Transportation
PTC	Positive Train Control
RIP	Resilience Improvement Plan
RISC	Railroad Investigation and Safety Courses
RPC	Regional Planning Commission
RRPC	Rutland Regional Planning Commission
SDP	Service development plan
SHMP	State Hazard Mitigation Plan
SLR	St. Lawrence & Atlantic Railroad
STB	Surface Transportation Board
TAC	Transportation Advisory Committee
TIB	Transportation infrastructure bonds
TIP	Transportation Improvement Program
TOD	Transit-oriented development
TPI	Transportation Planning Initiative
TRPT	Transportation Resilience Planning Tool
USDOT	United States Department of Transportation
VAPDA	Vermont Association of Planning and Development Agencies
VEM	Vermont Emergency Management
VHFA	Vermont Housing Finance Agency
VMT	Vehicles Miles Traveled
VPSP2	Vermont Project Selection & Prioritization Processes
VSA	Vermont Statutes Annotated
VRAC	Vermont Rail Advisory Council
VRS	Vermont Rail System
VTR	Vermont Railway
VTrans	Vermont Agency of Transportation
WACR	Washington County Railroad

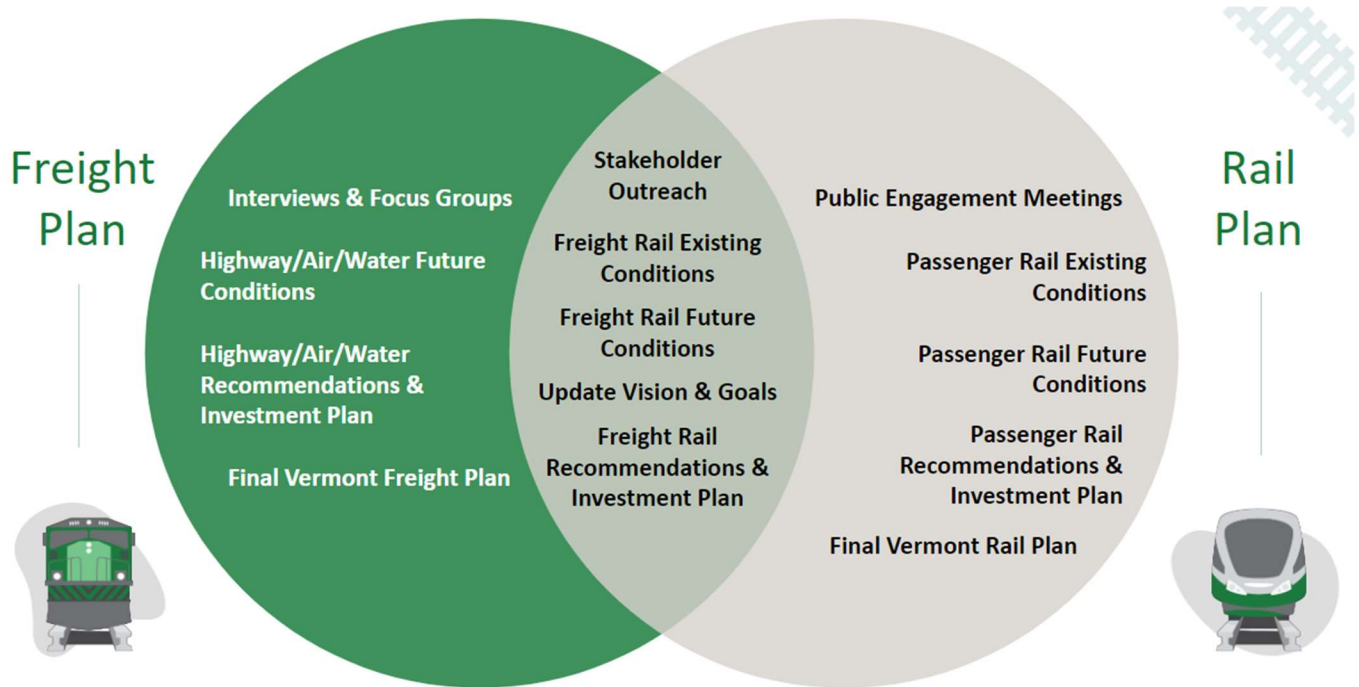


# 1.0 INTRODUCTION

Rail is an integral part of the Vermont multimodal transportation system that keeps people and freight moving. The rail system provides efficient transportation critical to maintaining the health of the economy, the environment, and a high quality of life.

In July 2024, the Vermont Agency of Transportation (VTrans)<sup>1</sup> began updating the most recent Rail Plan (2021) and Freight Plan (2021, with revisions in 2022) to comply with Federal regulations. These include the Passenger Rail Investment and Improvement Act (PRIIA) and subsequent changes in the FAST Act (2015) and the 2021 Infrastructure Investment and Jobs Act (IIJA). Although the two plans are separate long-range documents, there is significant overlap between the efforts (Figure 1). Both plans share a vision and goals, a stakeholder outreach process, and the current conditions of, and recommendations for, freight rail in Vermont. The Rail Plan also covers conditions and recommendations specific to Amtrak intercity passenger rail, while the Freight Plan covers conditions and recommendations specific to freight movement by all modes including highway, air, and water. The State Freight Plan will be published in 2026.

**FIGURE 1 VERMONT FREIGHT AND RAIL PLAN ELEMENTS**



Source: VTrans, 2025

<sup>1</sup> VTrans commonly refers to the division within the Agency of Transportation (AOT) aside from the Department of Motor Vehicles (DMV). The Agency of Transportation includes both the VTrans and the DMV. This document may refer to the pertinent departments as AOT, the Agency, or VTrans.

The Rail Plan provides a framework for maintaining and enhancing the State's rail system in a manner that also supports other State goals. It fulfills Federal Railroad Administration (FRA) requirements, focusing on intercity passenger service provided by Amtrak and rail freight. Vermont does not currently host commuter rail service, a form of regional or metropolitan rail transit. Such rail service would be considered during an update of the coordinated [Vermont Public Transit Policy Plan](#).

The Vermont Rail Plan is fully compliant with PRIIA and the State is compliant with Title 49, USC Section 22102. Appendix A includes a table summarizing how this Plan complies with the requirements for capital grants under Sections 301, 302, and 501 of PRIIA.<sup>2</sup>

## 2.0 VISION AND GOALS

The update of the State Rail Plan uses the vision developed for all modes in the 2040 Vermont Long-Range Transportation Plan (LRTP).<sup>3</sup> It is consistent with and supports the mission and goals of the AOT Strategic Plan.

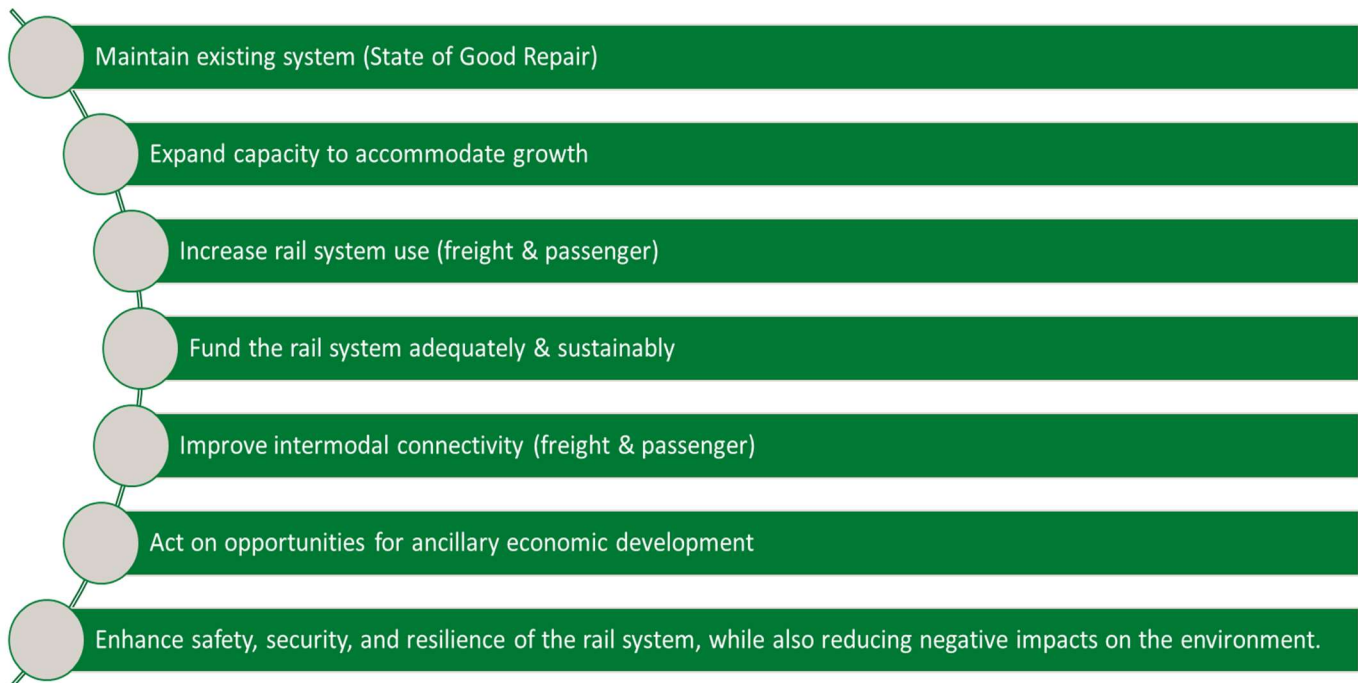
The State Rail Plan helps achieve the LRTP vision with specific goals for rail. **The goals align with the State's LRTP and the VTrans Project Selection and Prioritization Processes (VPSP2).**

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*"A safe, reliable and multimodal transportation system that grows the economy, is affordable to use and operate, and serves vulnerable populations." – VTrans Vision*

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**FIGURE 2 VERMONT RAIL PLAN GOALS**



<sup>2</sup> State Rail Plan Guidance FRA. <https://railroads.dot.gov/rail-network-development/planning/systems-planning/state-rail-plan-guidance> & [https://railroads.dot.gov/sites/fra.dot.gov/files/fra\\_net/3382/Final\\_State\\_Rail\\_Plan\\_Guidance\\_September\\_2013.pdf](https://railroads.dot.gov/sites/fra.dot.gov/files/fra_net/3382/Final_State_Rail_Plan_Guidance_September_2013.pdf)

<sup>3</sup>VTrans. 2040: Vermont Long Range Transportation Plan (2018). [https://vtrans.vermont.gov/sites/aot/files/planning/documents/planning/2040\\_LRTP\\_%20Final.pdf](https://vtrans.vermont.gov/sites/aot/files/planning/documents/planning/2040_LRTP_%20Final.pdf)

The goals were originally developed as part of the 2015 Rail Plan. They have been adjusted during each plan cycle to reflect updated priorities. The 2025 Rail Plan adds improving resilience of the rail system.

## 3.0 STAKEHOLDER ENGAGEMENT

The stakeholder outreach and engagement approach for updating the Vermont Rail Plan calls for two-way dialogue: informing the public regarding rail considerations and collecting comments. VTrans developed a Public Involvement Plan (PIP) (included as Appendix B) that outlines the methods and approaches used to consult with stakeholders and partners. This outreach strategy informed the development of the Rail Plan while complying with FRA and other requirements.

The stakeholder outreach approach provided multiple ways to communicate to establish effective communication.

### 3.1 Public Involvement Goals

The goals of stakeholder outreach were:

- **Open Communication Processes:** Information related to the Rail Plan was communicated in a variety of ways including interactive maps, e-mailed contents, online postings, and varying types of meetings.
- **Multiple Input Opportunities:** Engagement opportunities included interactive tools on the project website, discussions at Regional Planning Commission (RPC) meetings, and public meetings. All individual perspectives and experiences were considered, respected, and valued, regardless of participation method.
- **Feedback Provided:** The process of updating the Rail Plan was transparent and clearly communicated. The nature of the public input requested was described at each step and then incorporated. Feedback was used to develop the recommended initiatives as well as review them.
- **Equity in Engagement:** Efforts were made to elevate a broad range of perspectives in alignment with the vision. Close collaborations with RPC staff and Transportation Advisory Committees assisted with connection to municipal and local viewpoints even when the specific groups were not actively engaged.

Public involvement and engagement are not only good practice but collecting input from consultation with stakeholders is also a Federal requirement (Title 49 USC Section 22102).

### 3.2 Stakeholder Groups

The Rail Plan update process involved a wide range of stakeholders – individuals or groups interested and invested in the outcomes. A variety of methods were used to educate and listen to stakeholders and respond to information that would inform Rail Plan updates. Additional details on the PIP can be found in Appendix B.

Stakeholders deliberately engaged for this effort included the following:

- **VTrans Project Management Team** consisted of the project manager and Agency planning staff;
- **Rail Plan Working Group** included a cross-section of VTrans staff from the System Planning, Rail, and Mapping groups, the Chittenden County Regional Planning Commission (CCRPC) as the State’s only Metropolitan Planning Organization, and a member of the Rutland Regional Planning Commission (RRPC) serving as a representative of the Vermont Association of Planning and Development Agencies (VAPDA).
- **VTrans Rail Program** staff included the Director, program, project, and mapping staff.
- **The Vermont Rail Advisory Council (VRAC)** is a Governor-appointed body that advises VTrans on rail issues. It provides guidance for the update of the Rail Plan. Quarterly VRAC meetings also provide an additional forum for those interested in shaping the Rail Plan and staying engaged in implementation. Membership is drawn from private rail industry, operators of state-owned railroads, freight shippers, environmental and economic development organizations, regional chambers of commerce, RPCs, the Vermont House and Senate Transportation Committees, and travel and recreation organizations.
- **The 11 Vermont RPCs** and the **Vermont Association of Planning and Development Agencies** were engaged through membership in the Working Group, presentations at the VTrans Transportation Planning Initiative meetings attended by representatives of all RPCs, and participation in the presentations held at more than ten Transportation Advisory Committee (TAC) meetings of various RPCs throughout the course of the update. The Chittenden County RPC also serves as the Metropolitan Planning Organization (MPO) for Burlington and surrounding areas.<sup>4</sup> MPOs are policy-making organizations that are funded in part by the federal government and are required for urban areas with populations over 50,000. They are required to maintain a Long-Range Transportation Plan (LRTP) as well as a Transportation Improvement Program (TIP), which include projects to be funded using federal sources.
- **Rail system owners and operators** were engaged in one-on-one dialogue to inform the Rail Plan, assess system performance and the conditions of the system as well as advise on future aspects of the system.
- **Interested members of the public** were invited to submit information through direct e-mail and phone correspondence, as well as through the short video and interactive web mapping tools on the website.

### 3.3 Engagement Approaches

Many approaches were used to engage all the stakeholders listed above. Some of the approaches have already been described, including: conversations in small and large meetings, web contents, and e-mail “blasts” sent to over one hundred interested individuals. Those e-mails provided summaries and helped invite diverse participation in the public meetings.

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<sup>4</sup> This is the only MPO in Vermont.

## Public Meetings

Three public meetings were held across Vermont: in St. Albans (northwest), Brattleboro (southeast), and Montpelier (central). Each meeting offered in-person or remote participation, plus viewing afterwards through the web page.

- Public Meeting #1: October 23, 2024 held in St. Albans, focused on learning of concerns, comments, and opportunities to enhance rail in Vermont.
- Public Meeting #2: March 10, 2025 held in Brattleboro, focused on sharing the feedback received, the range of potential initiatives, the screening process, and preliminary recommendations.
- Public Meeting #3: June 9, 2025 held in Montpelier, focused on the final draft recommended initiatives, how all stakeholders are invited to help implement them, and the final draft Rail Plan document.

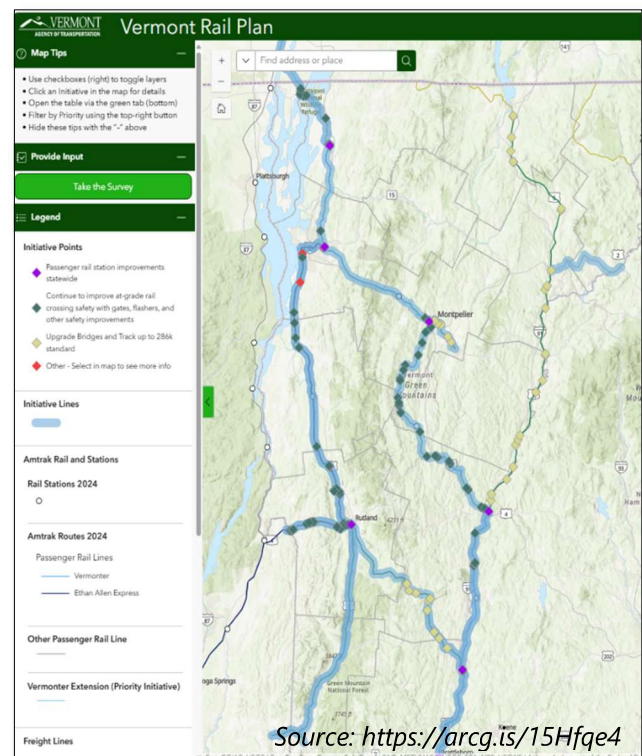
## Video Introduction to Rail Planning

Engaging with stakeholders so often meant hearing questions like “What rail is there in our small state?” or “Why would rail planning matter to me?” This led the project team to develop an under-five minute video to answer those questions. The video is available on the VTrans YouTube channel and through a link on the Rail Plans and Documents web page.

## Online Feedback Tool

One way that the project team obtained public input was through a map-based online survey, where members of the public could drop a pin on a map and leave a comment regarding Vermont’s rail or a rail initiative. The map tool allowed users to join the project e-mail list. The webmap provides access to many diverse map layers, and will continue to evolve and be available as a public resource.

FIGURE 3 RAIL PLAN ONLINE FEEDBACK TOOL



### 3.4 Comment Themes

Stakeholder feedback was collected throughout the Plan update and was used to inform the recommendations for rail system improvements. The following themes emerged from the public comments.

- **Economic Opportunities**

- Railroad operators noted that railroad improvements, like increasing weight capacity and double stack clearance, would help keep Vermont competitive and increase rail freight efficiency in the broader region.
- Rail can support Vermont’s strong tourism markets and strengthen connections to local communities. Improved regional access to all parts of Vermont can improve economic activity. Various ideas were raised to enhance tourism.
- Access to passenger rail was cited as one among many reasons people move to Vermont

- **Community Concerns and Engagement**

- There is widespread support for passenger and freight rail services in Vermont. Even communities without direct access noted the benefits of regional connections and efficient ways to move people and goods.
- Concerns about hazardous material shipping were noted, which is part of a larger interest in enhancing rail as a good neighbor to communities.

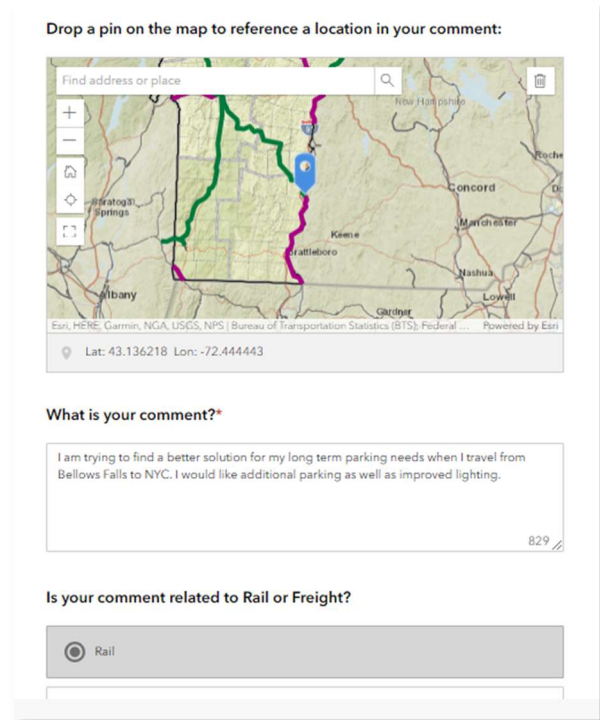
- **Multimodal Enhancements**

- Many comments requested a start of or improved connections with bus services and bicycle and pedestrian facility improvements to access Amtrak service.
- Improving station parking and alternatives to vehicle parking requires connecting with other services, such as regional and intercity transit.

- **Passenger Rail Efficiency and Connectivity**

- More frequent Amtrak service and extensions were frequently requested.
- Connectivity for Vermonters to Boston and Springfield, Massachusetts; New York City and Albany, New York; and Montreal, Quebec was important to stakeholders. The timing of services also matters.
- Many members of the public expressed support for new rail service, recognizing it would likely start as bus service, among Bellows Falls, Chester, Ludlow, and Rutland in part to serve important tourism opportunities and a valuable southern Vermont east-west link.

**FIGURE 4** ONLINE COMMENT TOOL INCLUDED A MAP TO SUPPORT DETAILED FEEDBACK



- There were recommendations for Montreal service to be provided by the Ethan Allen Express complementing the anticipated service by the Vermonter.
- There continue to be comments recommending commuter rail within Vermont, a matter relating to the VTrans Transit Program.
- **Environment and Safety**
  - Stakeholders understand that rail is positive for the environment but expressed concerns about safety around higher-speed trains and noise impacts in communities.
  - There were comments about safety at specific rail crossings.
- **Equity and Accessibility**
  - There were various comments about enhancing access to Amtrak services for people who have mobility constraints or limited access to private vehicles.

## 4.0 RAIL SYSTEM CONDITIONS

This chapter provides an overview of the State’s freight and passenger rail networks and key information on use, existing conditions, and projected future conditions. It focuses on useful background for the discussion of the initiatives. There are nearly 580 miles of active rail lines in Vermont, with just under 300 of those miles owned by the State. Most of these lines only carry freight. Of the passenger rail lines, the New England Central Railroad (NECR) carries the Vermonter, and the Clarendon & Pittsford (CLP) and Vermont Railway (VTR) carry the Ethan Allen Express. The Green Mountain Railroad (GMRC) hosts seasonal tourist service.

The COVID-19 pandemic dramatically disrupted passenger rail ridership, which had previously remained relatively steady with a total of around 95,000 passengers boarding or detraining at a Vermont station annually from Fiscal Year (FY) 2016 to 2019. Vermont ridership recovered and increased in FY2023 with 99,974 Vermonter riders and 86,638 Ethan Allen Express riders. Ridership grew substantially on the Ethan Allen Express after the completion of the extension to Burlington, reaching a 72% increase in ridership from FY2019.

Notable rail projects that were advanced or completed since the most recent Vermont Rail Plan (2021) include:

- The *Ethan Allen Express* was extended to Burlington after the completion of track and station projects and service began in 2022.<sup>5</sup>
- Fourteen bridges were rehabilitated or replaced on the Vermont Railway (VTR) through a Federal Highway Administration (FHWA) Better Utilizing Investments to Leverage Development (BUILD) Grant.
- After the July 10<sup>th</sup>, 2023, storm, 160 sites on state-owned rail lines had individual damage assessments and were repaired, and service was restored within 10 days.
- Storms in 2024 were estimated to have done over half a million dollars in damage to the rail system, despite repairs from the previous year holding up well. The VTrans highway Transportation Resilience Planning Tool (TRPT) was expanded to rail to help identify rail assets most vulnerable to future storm damage to improve planning and preparedness efforts.
- VTrans and operators continued to improve rail safety; sufficiency rating scores increased for 140 rail-highway crossings between 2020 and 2025.
- The heavily used Essex Junction Amtrak station is being improved through a grant procured by Chittenden County Regional Planning Commission and the Vermont Congressional delegation.
- The Brattleboro Amtrak station and track are being fully renovated by Amtrak in coordination with the municipality.

## Ethan Allen Extension

One of the largest projects completed in recent years was the 2022 extension of the Ethan Allen Express Amtrak line from Rutland to Burlington, the biggest city in Vermont. The extension includes intermediate stops in Ferrisburgh-Vergennes and Middlebury.

The project was completed after nearly two decades of investments and improvements made possible by the State of Vermont and included 67 miles of track improvements, 26 crossing projects, and nine bridge projects. The project also included renovations to the historic 1916 Burlington station, track layout and platform; restoration and relocation of the 1840 Ferrisburgh-Vergennes depot; and a new rail tunnel and platform in Middlebury.



**Additional information is available in the Rail Plan appendices on the VTrans Rail Plans and Reports webpage** (<https://vtrans.vermont.gov/rail/reports>). For the latest information on rail matters, visit the VTrans Rail Program webpage (<https://vtrans.vermont.gov/rail>) and for data, the linked Rail Apps Portal (direct link <https://rail-and-aviation-app-portal-vtrans.hub.arcgis.com>).

## 4.1 State Rail Program

Within VTrans' Policy, Planning and Intermodal Development Division, **the Rail Program manages State-owned rail assets in Vermont and serves as a steward of the State's rail network.** The Rail Program also prioritizes and helps coordinate highway-rail at-grade crossings, including safety improvements funded under the Railway-Highway

<sup>5</sup> Garnett, Amber. "July 29, 2022 - Burlington Extension Event of Ethan Allen Express." Amtrak Media, August 11, 2022. <https://media.amtrak.com/2022/08/july-29-2022-burlington-extension-event-of-ethan-allen-express/>.

Crossing improvements Program, specified by 23 U.S. Code 130. This Rail Plan document was developed by the VTrans Policy, Planning and Intermodal Development Division's Policy and Planning Program and Rail Program .

VTrans was designated the State's rail planning agency by the Vermont legislature in 1973. Vermont Statutes Annotated (VSA) Title 5 describe its powers and responsibilities in several areas including rail. Chapter 20 authorizes VTrans to supervise and direct execution of all laws and Transportation Board orders relating to public transportation corporations, firms, and individuals. Chapter 56 gives VTrans the authority to receive, manage, use, or expend federal and State funds to promote or develop intercity passenger rail service or facilities, contract with Amtrak or other railroads, and acquire land (among other powers). Chapter 58 deals specifically with VTrans authority for State Acquisition of Railroads.<sup>6</sup>

The Rail Plan Update was developed in consultation with key stakeholder groups as described more fully in Section 3.2.

## 4.2 Passenger Rail

### Overview

Two regularly scheduled interstate passenger rail services serve Vermont: the *Vermont* and the *Ethan Allen Express*, with routes shown in Figure 6. Both services are operated by Amtrak with financial support provided by the State.

### Vermont

**The *Vermont* operates daily between Washington, D.C. and St. Albans, Vermont**, taking 13 hours and 45 minutes to cover the approximately 600-mile distance. In Vermont, the *Vermont* covers approximately 185 miles using track owned by New England Central Railroad (NECR). The *Vermont* makes 30 stops between Washington, D.C., and St. Albans Vermont, including stops in New York City and southern New England, with a total of nine stops in Vermont and one in New Hampshire at Claremont. The Claremont stop is supported financially by Vermont. Financial support for operating the *Vermont* is provided by the States of Connecticut, Massachusetts, and Vermont.



Source: Waterbury Amtrak Station (RSG)

<sup>6</sup> Vermont General Assembly. *Vermont Statutes Online, Title 5*. <https://legislature.vermont.gov/statutes/title/05>

## Ethan Allen Express

The **Ethan Allen Express** connects Burlington, VT to New York City via Albany. The train covers approximately 310 miles, fifteen of which are in Vermont over tracks owned by the Clarendon & Pittsford Railroad and the extension runs on tracks operated by Vermont Railway. The train is supported financially by Vermont and New York.

**Amtrak, in conjunction with VTrans, New York State Department of Transportation (NYSDOT), and the Vermont Rail System (VRS), has made operational improvements in its Ethan Allen Express service, which have resulted in trip time improvements of up to 15 minutes of reduced travel time.**

## Other Regional Efforts

In Massachusetts, **Compass Rail** is a vision for intercity passenger rail within Massachusetts and beyond, and includes several rail initiatives.<sup>7</sup> The West-East Route is an ongoing initiative to provide eight daily round trips between Boston, Massachusetts and Albany, New York by way of Springfield Union Station in Massachusetts. Construction of the first stage from Boston to Springfield (the Inland Route section track improvements), is expected to begin in 2027. The **Northern Tier Passenger Rail Study** examined potential passenger rail service along the Massachusetts Route 2 corridor between Boston, Greenfield, and North Adams, Massachusetts. The study concluded in late 2024 and implementation is a major priority for the Franklin Regional Council of Governments, the Berkshire County Planning Commission and the Berkshire/Franklin County state legislative delegation. These service expansions would provide passenger rail connections between the Connecticut River Valley and the Greater Boston Metropolitan area, currently a gap in the overall passenger rail network in New England. The second initiative, the Boston & Albany corridor via Pittsfield is currently being evaluated as part of a Corridor Identification and Development effort managed by MassDOT.

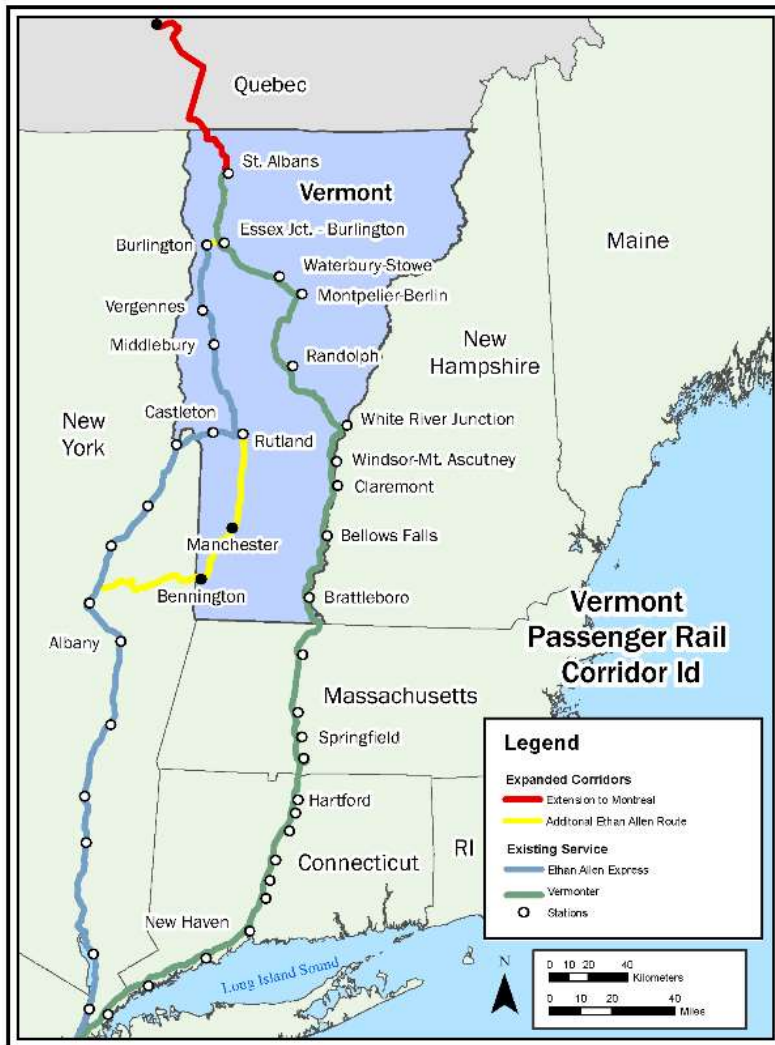
## Federal Corridor ID Program

The Corridor Identification and Development (Corridor ID) Program, established under the Infrastructure Investment and Jobs Act, is a comprehensive intercity passenger rail planning and development program overseen by the Federal Railroad Administration. It is intended to guide intercity passenger rail development throughout the country and create a pipeline of intercity passenger rail projects ready for implementation.

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<sup>7</sup> Massachusetts Compass Rail website <https://www.mass.gov/compass-rail>

**FIGURE 5 VERMONT CORRIDOR ID PROGRAM**



For each rail corridor selected for the program, FRA initially awards the grantee \$500,000 for eligible activities related to the initiation of a grantee’s Corridor development efforts including the development of a scope, schedule, and cost estimate for preparing a service development plan (SDP) for a Corridor.

VTrans received two awards for Step 1 in the Corridor ID program.

The first award is for the **Vermont Corridor**. The proposed corridor would provide improvements to the existing Amtrak Vermonter service between Washington, D.C., and St. Albans, VT, via Philadelphia, PA, New York, NY, Hartford, CT, Springfield, MA, and other intermediate points by adding frequencies, improving track conditions and ratings to reduce travel time (by 90 minutes between Springfield, MA, and St. Albans, VT), improving reliability, and extending service north to Montreal, Quebec, Canada (with the completion of a new U.S. Customs Preclearance facility at Montreal’s Central Station).

The AOT also received an award for the **Green Mountain Corridor**. The proposed

new corridor would connect New York, NY, with Burlington, VT, via Albany, NY, and Rutland, VT, complementing the existing Amtrak Ethan Allen Express by providing new service to communities in southwestern Vermont (including Bennington and Manchester) and east-central New York State (Mechanicville).

Work on Step 1 for both corridors is near conclusion as of June 2025. Draft scopes of work, schedules, and cost estimates for completion of SDPs for each corridor are with FRA for their review and approval. Step 2 will commence as soon as FRA approval is given and funding for the SDP development is identified.

**FIGURE 6 VERMONT PASSENGER RAIL LINES**

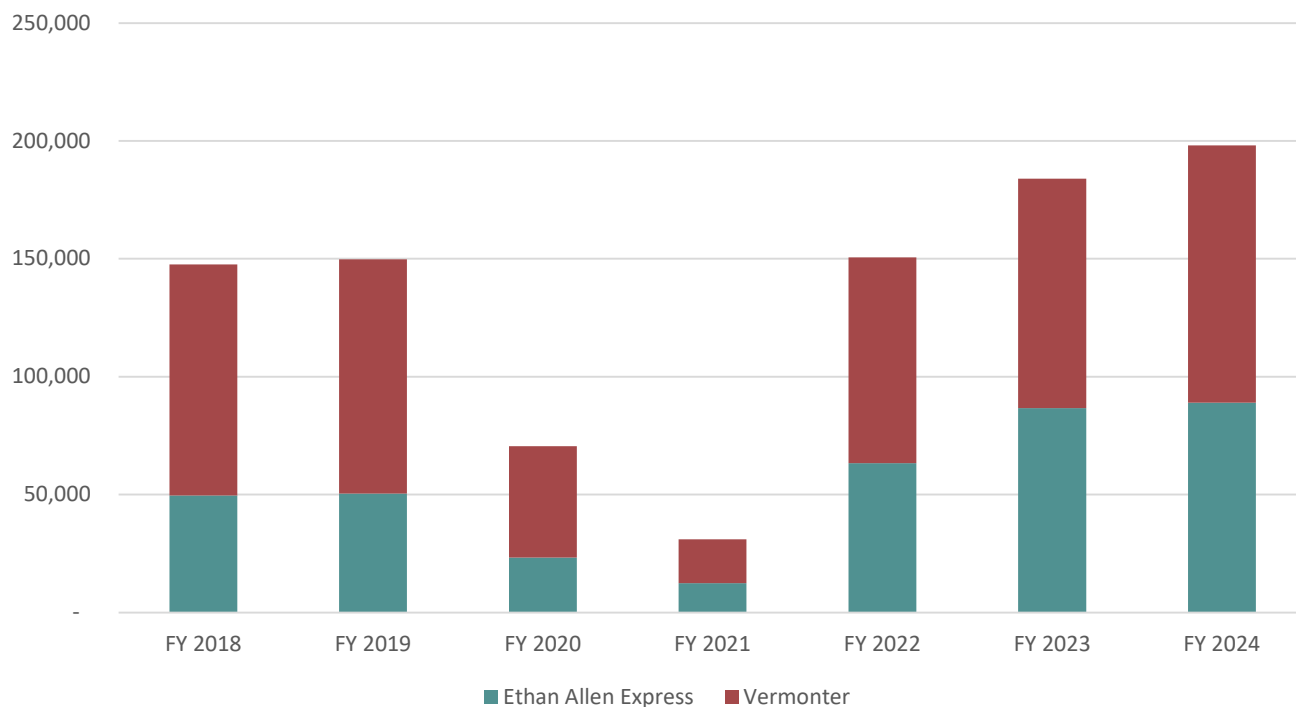


Source: Vermont Rail Plan/RSG, 2025.

### Passenger Ridership Trends

The COVID-19 pandemic dramatically disrupted Amtrak ridership, which previously remained steady with around 95,000 passengers boarding or detraining at a Vermont station annually from Federal Fiscal Year (FY) 2016 to 2019.<sup>8</sup> Vermont ridership recovered in FY2022 and continued to increase in FY2023 and FY2024, reaching over 100,000. The Ethan Allen Express ridership significantly increased after the 2022 extension to Burlington, as shown in Figure 7. Ridership on the Ethan Allen Express grew from 12,500 in FY2021 to 63,400 in FY2022. In FY2024, Ethan Allen Express ridership was 89,000, which is a 76% increase from FY2019.

**FIGURE 7** VERMONT AMTRAK RIDERSHIP (FY2018-2024)



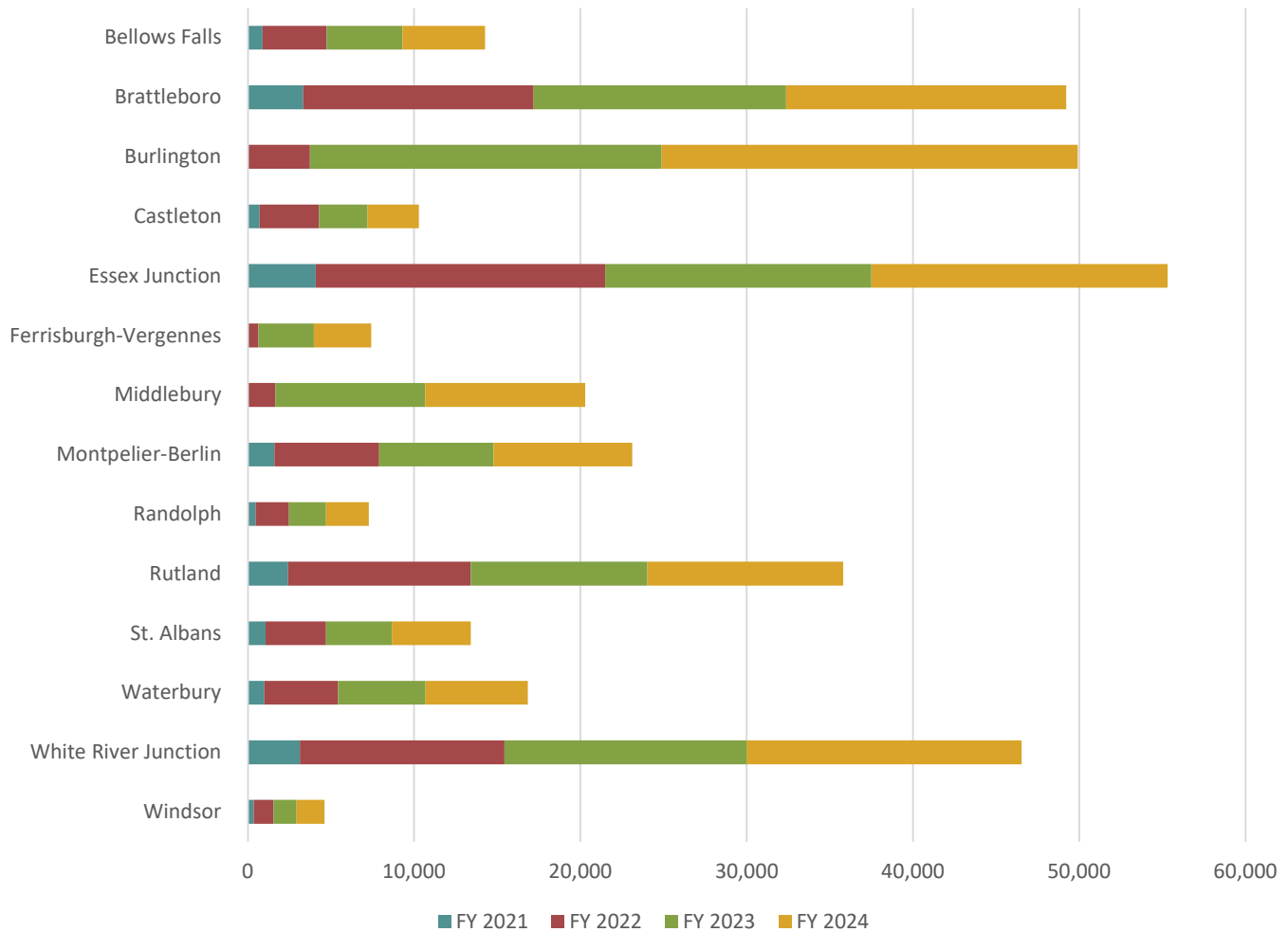
Source: Amtrak, 2024 Note. Federal Fiscal Year is October 1 – September 30

Figure 8 shows ridership by station from FY2021 to FY2024. Ridership was lowest for all stations in FY2021 and grew through FY2022-2024. Middlebury, Ferrisburgh-Vergennes, and Burlington stations were not open until 2022 with the opening of the Ethan Allen Express Extension.

Historical Vermont Amtrak ridership from 2005-2022 is shown in Appendix C.

<sup>8</sup> All dates are Federal Fiscal Year unless otherwise noted.

**FIGURE 8 VERMONT AMTRAK RIDERSHIP BY STATION**



Source: Amtrak, 2025. Federal Fiscal Year is October 1 – September 30

**Vermont is committed to intercity passenger rail.** The 2025 Rail Plan continues to use a performance target from the 2015 Rail Plan of five percent annual growth in ridership. The 2011 Vermont Comprehensive Energy Plan (CEP) set a goal of increasing Vermont-based passenger rail trips to 400,000 annually by 2030. The passenger trips in the year 2011 in Vermont totaled 91,942. The 2022 CEP maintains this goal as part of an overall strategy to, “Reduce total transportation energy use by 20 percent from 2015 levels by 2030.”<sup>9</sup>

### Multimodal Connections and Station ADA Status

**The “last mile” (or ten) to a passenger’s final destination is an essential part of using passenger rail.** Passengers exiting a train need access to a well-maintained parking lot, a safe place for pick-up, or a convenient next mode. In Vermont there is a particular need to enhance that “next mode.” It is difficult to serve the needs of Amtrak passengers with Vermont-scale fixed route bus services in terms of dropping off and picking up passengers at convenient times, especially since trains can run behind schedule. These last-mile needs are the subject of several recommended initiatives of this Rail Plan.

<sup>9</sup>Vermont Department of Public Service. *Comprehensive Energy Plan (2022)*. [2022VermontComprehensiveEnergyPlan\\_0.pdf](#)

Thirteen of the fourteen Amtrak stations in Vermont are in proximity to fixed-route bus service, the Windsor-Mt. Ascutney station being the exception. The White River Junction Amtrak station has Advance Transit Orange and Yellow lines running on the half hour within a five-minute walk. The Montpelier-Berlin Amtrak station has micro-transit service: MyRide by GMT. MyRide provides flexible schedule, flexible route service for southbound Vermonter trains except on Sundays. Rides can be booked online and by phone for curb-to-curb service<sup>10</sup> As of July 2025 the Middlebury station can be accessed by the EZ Trip micro-transit service running Monday to Friday 7 AM to 6 PM for area covering all of downtown Middlebury.<sup>11</sup> This works for the outbound (southbound) trip but isn't available for the northbound leg.

Some Amtrak stations are served by taxis and Transportation Network Companies such as Lyft or Uber. A few may be served by private vans operated by resorts or hotels. Several intercity bus services operate in Vermont. For example, Greyhound operates two routes, one between Montreal and Boston that includes stops at the Burlington Downtown Transit Center, Montpelier Transit Center, and White River Junction. The other Greyhound route is between White River Junction and New York City with stops in Bellows Falls and Brattleboro.<sup>12</sup>

Table 1 summarizes transit services available at Vermont train stations.

**TABLE 1 INTERMODAL AVAILABILITY AT AMTRAK STATIONS**

Station/Stop	Ferry	Intercity Bus	Commuter Bus	Local
Bellows Falls	No	Yes	Yes	Yes
Brattleboro Train Station	No	No	Yes	Yes
Burlington Union Station	No	Yes	No	Yes
Castleton	No	No	Yes	No
Essex Junction	No	No	No	Yes
Middlebury	No	Yes	Yes	Yes
Montpelier/Berlin	No	No	No	Yes
Randolph	No	No	Yes	Yes
Rutland	No	Yes	Yes	Yes
St. Albans	No	No	Yes	Yes
Vergennes Park and Ride	No	Yes	Yes	Yes
Waterbury/Stowe	No	No	Yes	No
White River Junction Train	No	No	Yes	Yes
Windsor/Mt. Ascutney	No	No	No	No

<sup>10</sup> "MyRide by GMT." Green Mountain Transit. <https://ridegmt.com/myride/>

<sup>11</sup> EZ Trip Middlebury coverage. <https://www.trivalleytransit.org/wp-content/uploads/2024/05/Middlebury-weekday-2025.pdf>


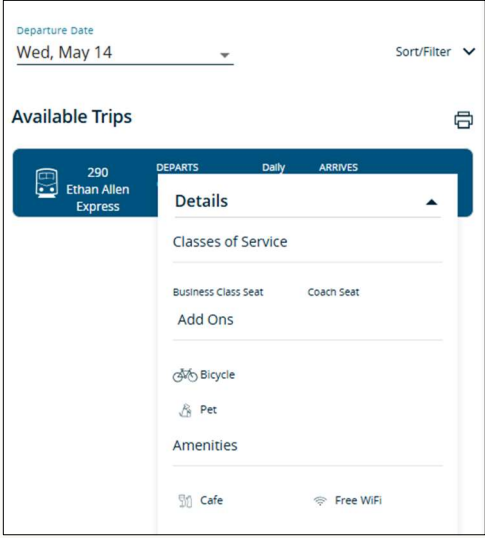
<sup>12</sup>"Bus Routes Overview." Greyhound. <https://www.greyhound.com/bus-routes>

The Route 7 bus service operated by Vermont Translines provides connections along Route 7 from Colchester through Burlington Downtown Transit Center, Middlebury, Brandon, Rutland, and Castleton to Albany International Airport, Albany’s Greyhound Bus Terminal, and Albany-Rensselaer Amtrak Station.<sup>13</sup> The trip between Burlington Union Station and the Downtown Transit Center is approximately a 12- minute walk or 6-minute bike ride.<sup>14</sup> Many fixed-route bus services in Vermont are equipped with bike racks.

Safety is essential where pedestrians need to cross railroad tracks. Educating both pedestrians and drivers is an important on-going effort. Some strategies to increase safety where roads cross railroads, especially in municipal centers, include sidewalks and well-maintained crosswalks. Multiuse paths may be considered in some situations to support pedestrian access to and from rail stations. Some states have also developed “rails with trails” pathways for longer-distance access to the vicinity of train stations.

### Bring Your Bike

**VTrans worked with Amtrak to develop a consistent cost for bringing bikes on the Ethan Allen and the Vermonter. Capacity for bicycles has not been an issue. Adding additional bicycle capacity in the future could be a challenge as additional bicycle storage space can’t be added without removing seating.**

The Americans with Disabilities Act (ADA) requires that all potential users can board a train and utilize station amenities such as restrooms, parking lots and waiting areas. As shown in Table 1, most of the amenities at Vermont’s stations are ADA accessible, and additional projects are in development to improve accessibility, overall function, and condition. In FY 2023, Amtrak’s ADA Stations Program over \$4.4 million in Vermont.<sup>15</sup>

### *Passenger Station Upgrades*

Multiple Vermont passenger rail stations have exciting improvements planned or underway. Platform upgrades, accessibility improvements, and other enhancements are coming to stations including Brattleboro, White River Junction, Bellows Falls, and Essex Junction.

<sup>13</sup>“Connecting Bus/Rail Service.” Vermont Translines. (2023). <https://vttranslines.com/connecting-busrail-service/>

<sup>14</sup> “Amtrak Connections.” CCRPC. (2022). <https://studiesandreports.ccrpcvt.org/wp-content/uploads/2023/08/Amtrak-Connections-Report-wAppendix-2023-06-23.pdf>

<sup>15</sup> “Amtrak Fact Sheet”. Amtrak. (2024). [https://www.amtrak.com/content/dam/projects/dotcom/english/public/documents/corporate/statefactsheets/VERMONT\\_23.pdf](https://www.amtrak.com/content/dam/projects/dotcom/english/public/documents/corporate/statefactsheets/VERMONT_23.pdf)

## Brattleboro Station Upgrade

The Brattleboro train station is being upgraded as part of the Amtrak ADA Stations Program that aims to bring all station components, for which Amtrak has responsibility, into compliance with ADA requirements to provide the best possible service to all passengers. The station will be the first level boarding platform in Vermont. A public groundbreaking event was held on June 24, 2024. Substantial Completion is currently projected for January 2026 and Final Completion in February 2026. The Brattleboro station upgrade project includes:

- Rebuilding existing siding track and switches.
- New 345-foot-long concrete platform 48 inches above top-of-rail (“level-boarding”) with an electric snow melt system, lighting, signage, and drainage.
- An all-new station building with waiting area, restroom, covered outdoor area, engineer room and storage.
- ADA parking, paths of travel, and bike shelter.

**FIGURE 9** RENDERING OF THE PROPOSED BRATTLEBORO TRAIN STATION



Source: Amtrak

## White River Junction and Bellows Falls Station Upgrades

Platforms at the White River Junction and Bellows Falls stations (Figure 10) are being upgraded as part of the train station enhancements. Cracking asphalt at both stations is being replaced along with an improved harder edge to improve stability and safety for ADA wheelchair users.

**FIGURE 10 BELLOWS FALLS STATION**



### Essex Junction Station Upgrade

The Essex Junction Multimodal Train and Bus Station Improvements Project, funded through a \$3 million FY22 CRISI Program grant, aims to modernize and enhance the Essex Junction Amtrak Station in Vermont. The funding has not yet been obligated by the FRA, so the project's scope is subject to change. The intended project includes the development, final design, and construction of upgrades to improve safety, comfort, and multimodal accessibility for rail and transit passengers. Key elements involve constructing an open-trussed roof canopy, upgrading surrounding infrastructure such as roads, stormwater systems, and sidewalks, and improving passenger amenities like waiting areas, signage, and display boards. The initiative also emphasizes environmental compliance, community coordination, and strong labor standards, with substantial completion targeted for April 2028.

**FIGURE 11 ESSEX JUNCTION STATION RENDERING**



**TABLE 2 VERMONT AMTRAK STATION AMENITIES AND ADA PROJECT STATUS**

Station	Amenity <sup>16</sup>					ADA Project Status
	Waiting Area	Restrooms	Wi-Fi	Same Day Parking	Overnight Parking	
Bellows Falls	Yes	Yes	No	Yes	Yes	Project planned FY2024 (Waiting Room, Ticket Counter, and Restrooms)
Brattleboro	Yes	Yes	No	No	No	FY2024-2025 (Structure, Platform)
Burlington	ADA	ADA	Yes	No	No	Project completed FY 2022 (Platform)
Castleton	ADA	ADA	No	ADA	Yes	Project completed FY2017-2020 (Structure, Platform, and Parking all under Amtrak responsibility)
Essex Junction	No	Yes	No	ADA	Yes	Projects under construction (Platform, Restrooms) FY2024-2025
Ferrisburgh-Vergennes	ADA	ADA	Yes	ADA	Yes	FY2022-2023 (Platform); Station and parking projects completed FY2017
Middlebury	No	No	No	ADA	Yes	Project completed FY2022 (Platform)
Montpelier-Berlin	Yes	ADA	No	ADA	Yes	Infrastructure Improvements (Platform, parking) FY24
Randolph	No	No	Yes	ADA	Yes	Project completed FY2019-2020
Rutland	ADA	ADA	No	ADA	Yes	Project completed FY2019-2022
St. Albans	Yes	Yes	No	ADA	ADA	FY2020 (Structure)
Waterbury	ADA	Yes	No	ADA	Yes	Project completed FY2022-2023 (Platform)
White River Junction	ADA	ADA	No	ADA	Yes	Project planned FY24 (Platform, Parking)
Windsor	No	No	No	Yes	Yes	Project completed FY2021 (Platform, Parking)

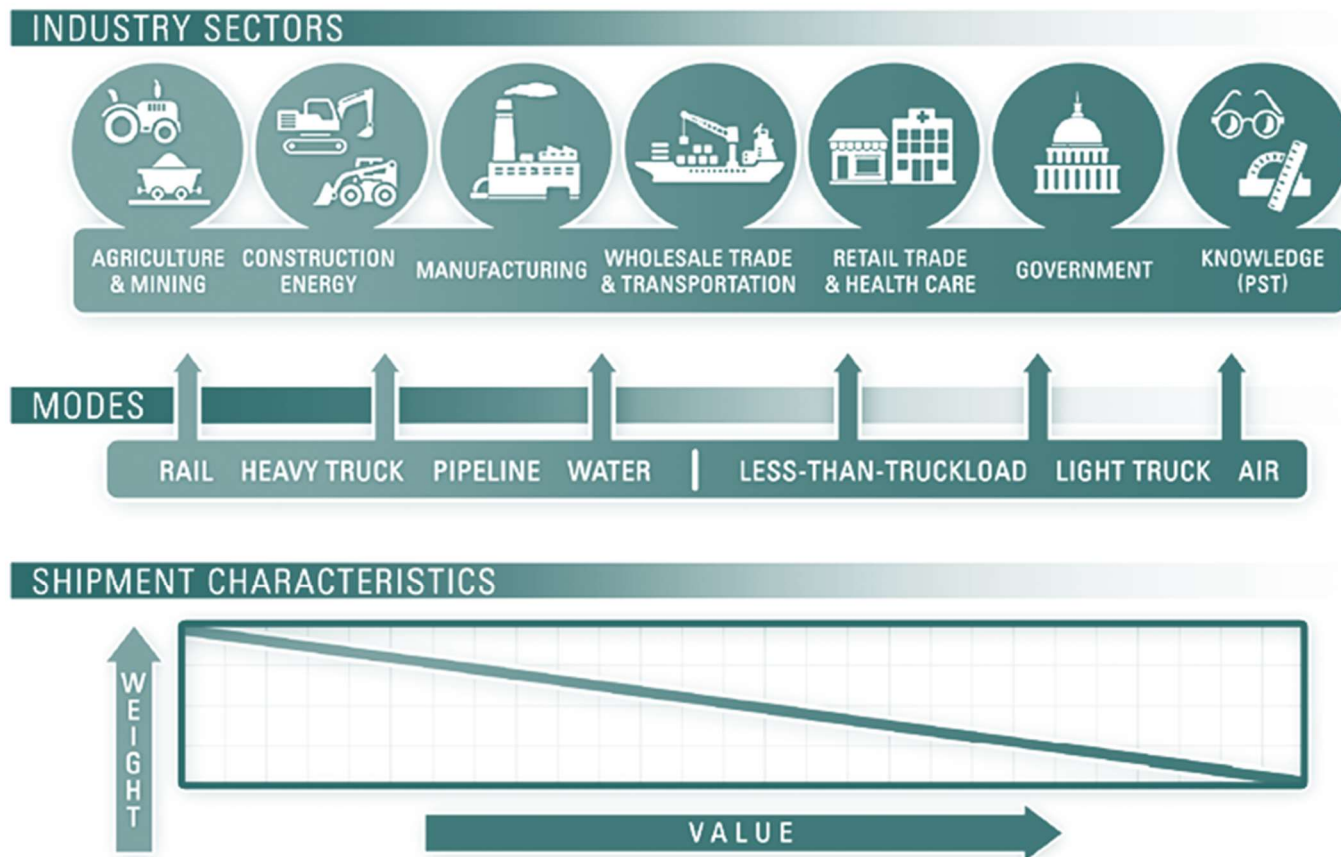
<sup>16</sup> All Vermont Amtrak stations are ADA accessible and have wheelchair lifts available. No Vermont Amtrak stations have payphones, ATMs, or vending machines.

Source: Amtrak, VTrans (2024). ADA = Amenity is Americans with Disabilities Act accessible.

### 4.3 Freight Rail and Overall System Conditions

**Freight rail offers an important option to businesses in Vermont. Freight rail can be a cost effective alternative to trucks while helping trucks to deliver goods.** Industries such as agriculture and mining, construction, energy, and manufacturing tend to rely more on rail and heavy trucks to move bulky, lower value goods. Intermodal rail service, which handles goods loaded in containers and truck trailers intact, can be used to transport virtually any commodity that can be moved in dry or refrigerated trailers. Transload facilities can support transfer of non-containerized shipments. This relationship between modes and multiple economic sectors is shown in Figure 10.

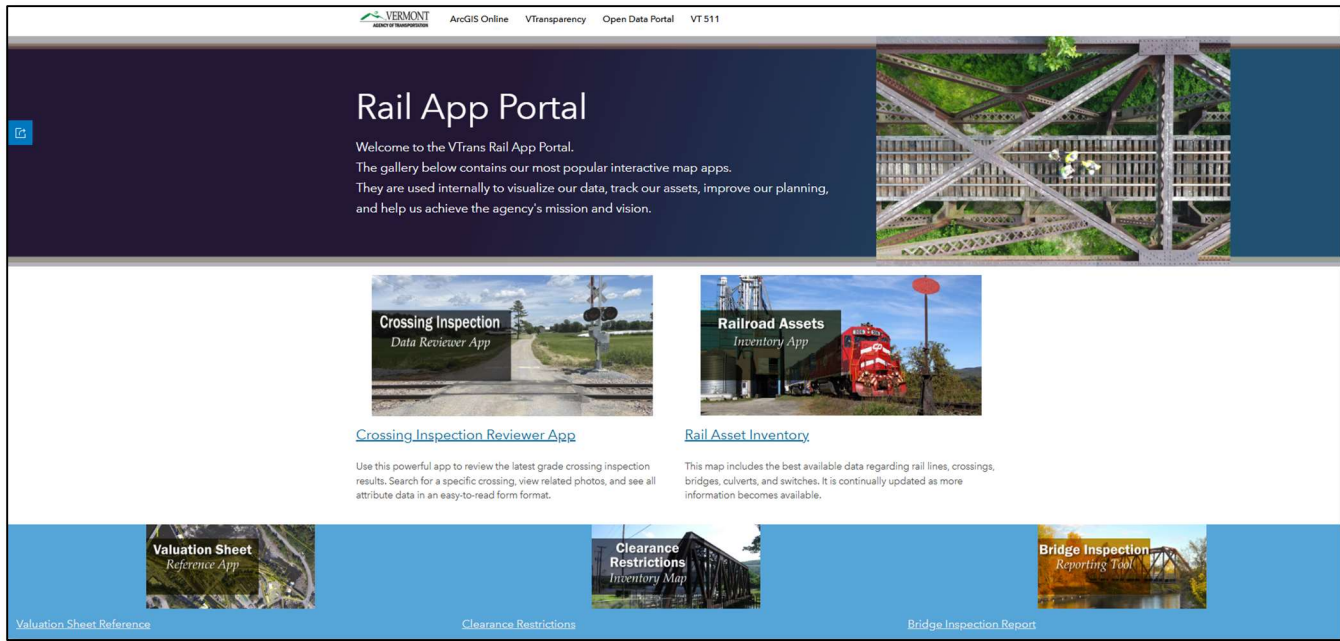
**FIGURE 12 COMMON FREIGHT MODES BY INDUSTRY SECTOR**



Note: PST includes the professional, scientific, and technical services industry sectors.

VTrans maintains a Rail App Portal (Figure 11) that includes up to date information on crossings, rail assets, and restrictions on clearances. This portal is intended to widely share the latest information on the rail system conditions and contains spatial datasets which are viewable through interactive map interfaces.

**FIGURE 13 VTRANS RAIL APP PORTAL**



Source: <https://rail-and-aviation-app-portal-vtrans.hub.arcgis.com/>

### Rail Lines/Operators

**There are nearly 580 miles of active rail lines in Vermont, with almost 300 of those miles owned by the State.** Most of these lines carry freight only. Passenger rail services consist of the New England Central Railroad (NECR), which carries the Vermonter and the Clarendon & Pittsford (CLP) and Vermont Railway (VTR), which carries the *Ethan Allen Express*. In addition, the Green Mountain Railroad (GMRC) hosts seasonal tourist service. Table 2 provides an overview of these assets.

**TABLE 3 VERMONT ACTIVE FREIGHT RAIL LINES**

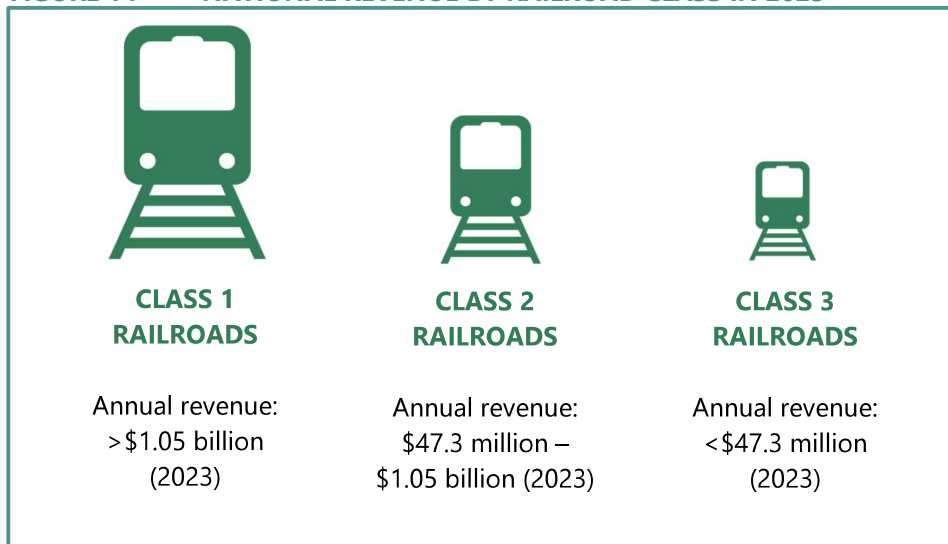
Active Rail Line	Revenue Class	Ownership	Track Mileage
New England Central Railroad (NECR)	III	Private	189.4
Vermont Railway (VTR)	III	Public-State	131.0
Connecticut River Division (WACR)	III	Public-State	103.3
Green Mountain Railroad Corp (GMRC)	III	Public-State	52.2
St. Lawrence & Atlantic Railroad (SLA)	III	Private	31.9
Canadian Pacific (CP)	I	Private	23.5
Clarendon & Pittsford (CLP)	III	Private	18.8
Washington County Railroad (WACR)	III	Public-State	11.7
Pan Am Southern (PAS)	II	Private	5.7
Canadian National (CN)	I	Private	3.4
<b>Total Active Mileage</b>			<b>570.3</b>
<b>Total Active Mileage Public-State Owned</b>			<b>297.6</b>

More details about each line are available in Appendix C.

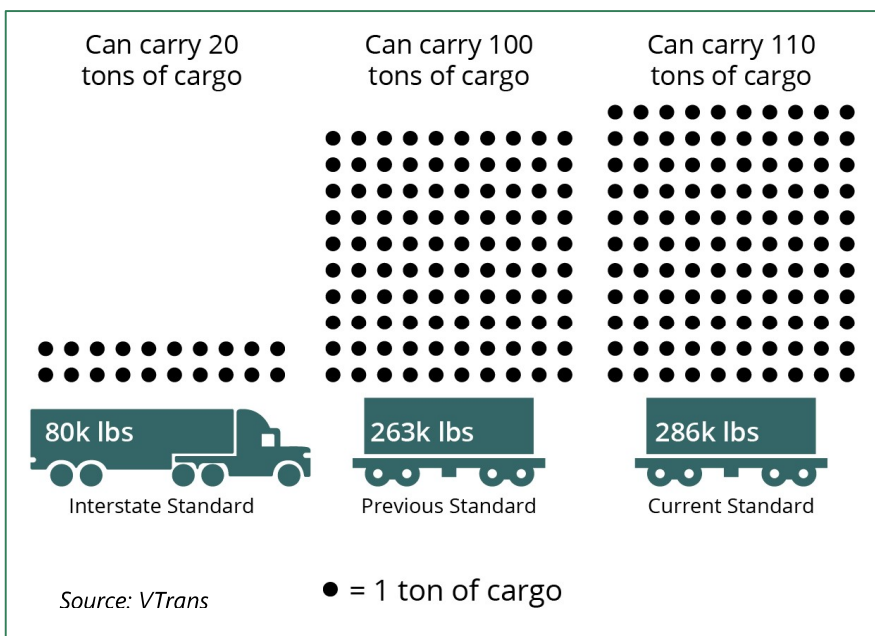
Railroads are classified by the amount of revenue they generate. There are seven Class I railroads in the US, which provide the greatest amount of service and over the largest territories. There are over 500 smaller Class II "regional" and Class III "short line" railroads.

The current national standard is a rail car that can be loaded with up to 110 tons of cargo for a total maximum car weight of 286,000 pounds (286k). Some rail lines outside of Vermont can carry cars weighing up to 315,000 pounds. Prior to 1995 rail cars with a total maximum car weight up to a maximum of 263,000 pounds were the national standard. Vermont and other owners of active freight rail in Vermont have made major progress upgrading to the 286k standard. However, there are still approximately over 200 miles of State-owned track that need upgrading to the 286k standard. In the meantime, they can handle these standard cars at reduced speeds. Freight rail has advantages for moving appropriate commodities over trucks, the other main freight mode. **A single rail car can carry approximately five times the weight of cargo as carried by a truck** (see Figure 15).

**FIGURE 14 NATIONAL REVENUE BY RAILROAD CLASS IN 2023**



**FIGURE 15 CARGO WEIGHT CARRIED BY TRUCK AND RAIL**



Vermont companies can use rail to ship their goods depending on multiple factors, including: supply chain considerations, the specific commodity being shipped, access to rail either on property or through a nearby facility that can move goods between rail and truck (transload), and the condition of the rail network itself. Six factors that impact the ability of the rail network to move freight are described on the pages that follow. Additional information on these topics is in Appendix C.

## Weight Restrictions

The weight limits for Vermont’s rail network vary between 263,000 and 286,000 pounds (Table 3). This limit is based on both bridge and rail conditions. Weight limits or restrictions on a line located outside Vermont can unfortunately limit weights in Vermont due to the connected nature of the network. For example, although the NECR in Vermont can carry 286,000-pound cars, the line is limited to 263,000 pounds due to weight limits in Massachusetts and on the CN line that it connects to in Alburgh.

## Bridge Weight Capacity

A rail line’s weight limit is often established by bridge weight limits. All of Vermont’s bridges can handle 263,000-pound rail cars. However, of the 293 bridges on State-owned lines, 60 (20 %) cannot carry 286,000-pound rail cars. The State is responsible for maintaining 27 of these structures as shown in Figure 16.

## Rail Track Weight (115 Pound Rail)

Rail weight and tie conditions can also limit rail car weight. While trackage with light weight rail (typically under 105 pounds/yard) can accommodate 286k cars, it does so at increased operating and maintenance costs, slower speeds, and higher derailment risk, irrespective of whether the bridges could handle the heavier rolling stock or not. One performance target in this plan is set to increase 115-pound rail by 5 miles annually. Over the past five years, this target has been met largely through work on the VTR. Approximately 34 miles of track between Proctor and South Burlington have been upgraded to 115 pounds since 2015, an average of more than six miles per year.<sup>17</sup> However, sections of VTR track south of Rutland with less than 90-pound rail still pose problems for both freight and possible future passenger service from Albany to Rutland via Bennington. In addition, any work to improve bridges on the GMRC should also include rail work to allow for 286,000-pound cars as this corridor provides an essential east-west alternative to the PAS route through southwest Vermont.

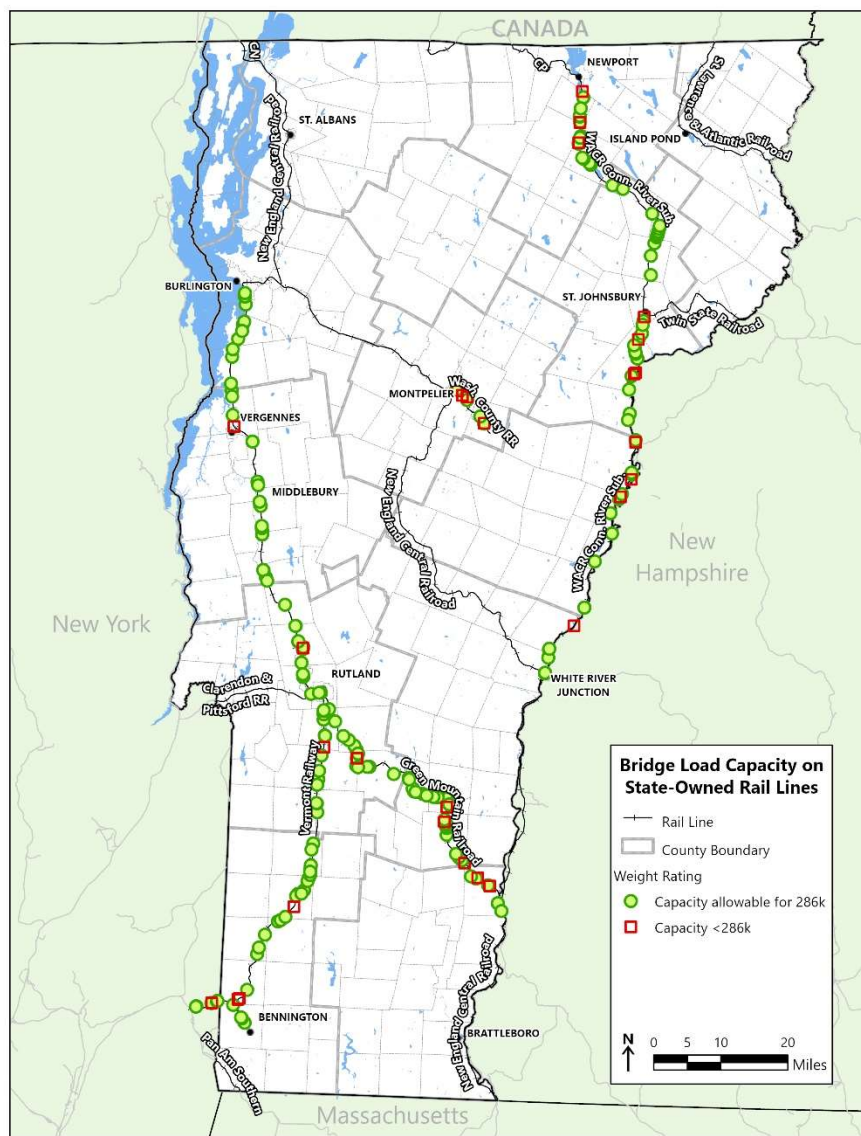
**TABLE 4 VERMONT FREIGHT RAILROAD MAXIMUM CAR WEIGHT**

Railroad	Maximum Railcar Weight (Pounds) in Vermont
New England Central Mainline	286,000
New England Central Burlington Branch	286,000
Canadian National	263,000
Clarendon & Pittsford	286,000
Green Mountain Railroad	263,000
Vermont Railway	286,000 (north of Rutland); 263,000 (south of Rutland)*
Washington County Railroad (M&B)	263,000
Washington County Railroad – Connecticut River Div.	263,000
St. Lawrence & Atlantic	286,000
Canadian Pacific	286,000
Pan Am Southern	286,000

Source: Rail company websites and interviews with VRS and Genesee and Wyoming, 2020. \*Note: VTR south of Rutland will be 286,000-pound capable pending completion of BUILD Grant related work, expected completion in 2025

<sup>17</sup> Verified with VRS, 2025

**FIGURE 16 STATE-OWNED RAIL BRIDGE WEIGHT RESTRICTIONS**



Source: VTrans, 2024

### Vertical Clearances

Moving two containers stacked one on top of the other, known as “double-stack”, greatly improves the capacity and operating efficiency of a train. The Association of American Railroads (AAR) has established a vertical clearance standard of 22 foot six inches for unrestricted operations, though most rail rolling stock requires less clearance. CSX, a Class 1 railroad,

lists 3 height options for double stack containers (18'2", 19'2", and 20'2") with 21-foot clearance as the standard for the double stack network.<sup>18</sup>Table 4 notes the number of height restrictions below 21' within Vermont.

**TABLE 5 HEIGHT RESTRICTIONS ON RAILROAD LINES**

Line, Subdivision	Height Restrictions Below 21'
<b>CLP</b>	<b>1</b>
	1
<b>GMRC</b>	<b>2</b>
Bellows Falls	2
<b>NECR</b>	<b>12</b>
Palmer	2
Roxbury	8
Swanton	2
<b>VTR</b>	<b>8</b>
B&R	3
Northern	5
<b>WACR</b>	<b>8</b>
Lyndonville	8
<b>Grand Total</b>	<b>31</b>

Source: VTrans (January 2025)

There are numerous obstacles to unrestricted double-stack service, both within Vermont and in neighboring states and Canada. Table 5 shows vertical clearance restrictions in Vermont.

**TABLE 6 VERMONT VERTICAL CLEARANCE RESTRICTIONS**

Railroad	Obstructions to Unrestricted Double Stack Operations
NECR	Lowest clearance is 19'6" (US 5 in Hartland and US 7 in Georgia, VT). 14 total restrictions in Vermont
CLP	Lowest clearance is 19'2" in Rutland Center
VTR	17'8" clearances in Proctor, VT (projects in design phase)
GMRC	Lowest clearance is 19'2" in Proctorsville
WACR (Conn River)	Lowest clearance is 18'10" in Fairlee
PAS	None in Vermont. 23 total between Mechanicville, NY and Ayer, MA including the Hoosick River Bridge just west of the Pownal, VT border (bridge is in New York).
SLA	None
CN	None
CP	One clearance restriction

Source: VTrans

<sup>18</sup> EA for Baltimore Howard Street Tunnel Project to achieve regional double-stack network.

<https://railroads.dot.gov/elibrary/csx-howard-street-tunnel-project-environmental-assessment>

Currently, CN must reshuffle containers bound for Worcester, Massachusetts in Montreal to accommodate clearance limitations on the NECR and Providence & Worcester that prevent the operation of double-stacked domestic containers. Saving this step would allow for the NECR route to be more fully integrated into CN’s double-stack network, thereby offering the potential of a competitive intermodal option between southern New England and major Canadian and US trade centers.<sup>19</sup>VRS handled some limited double-stacks between Bellows Falls and Hoosick Jct. during the Hoosick Tunnel outage. There is the possibility of double stack on the WACR line in the future. Clearance improvements on the NECR would also benefit the NECR interchanges with VRS, specifically at White River Jct. and Bellows Falls for future double stack opportunities.<sup>20</sup>

### Train Speed (FRA Track Class)

The FRA has established minimum track safety standards requirements and maintenance levels for train operators at given operating speeds. The lower the track class, the lower the allowable operating speed (see Table 6).

**TABLE 7 FRA TRACK CLASS MAXIMUM SPEEDS**

Track Class	Maximum Allowable Operating Speed (mph)	
	FREIGHT TRAINS	PASSENGER TRAINS
Excepted Track	10	Not Allowed
Class 1	10	15
Class 2	25	30
Class 3	40	60
Class 4	60	80
Class 5	80	90

Source: <https://www.govinfo.gov/content/pkg/CFR-2011-title49-vol4/pdf/CFR-2011-title49-vol4-part213.pdf>

**Most of Vermont’s rail lines are FRA Track Class 2 or 3, with the NECR south of White River Junction the only segment with faster Class 4 rating** (see Figure 17). There are also segments with the slowest FRA allowable speeds (Class 1), including the NECR Winooski Branch that connects Burlington to Essex Junction.

**The State has set a performance target that all track carrying passenger service be able to convey Amtrak trains at 79 miles per hour (MPH) or faster.** This is an aspirational target. It may not be possible through some mountainous parts of Vermont but achievable in other parts at varying levels of cost.

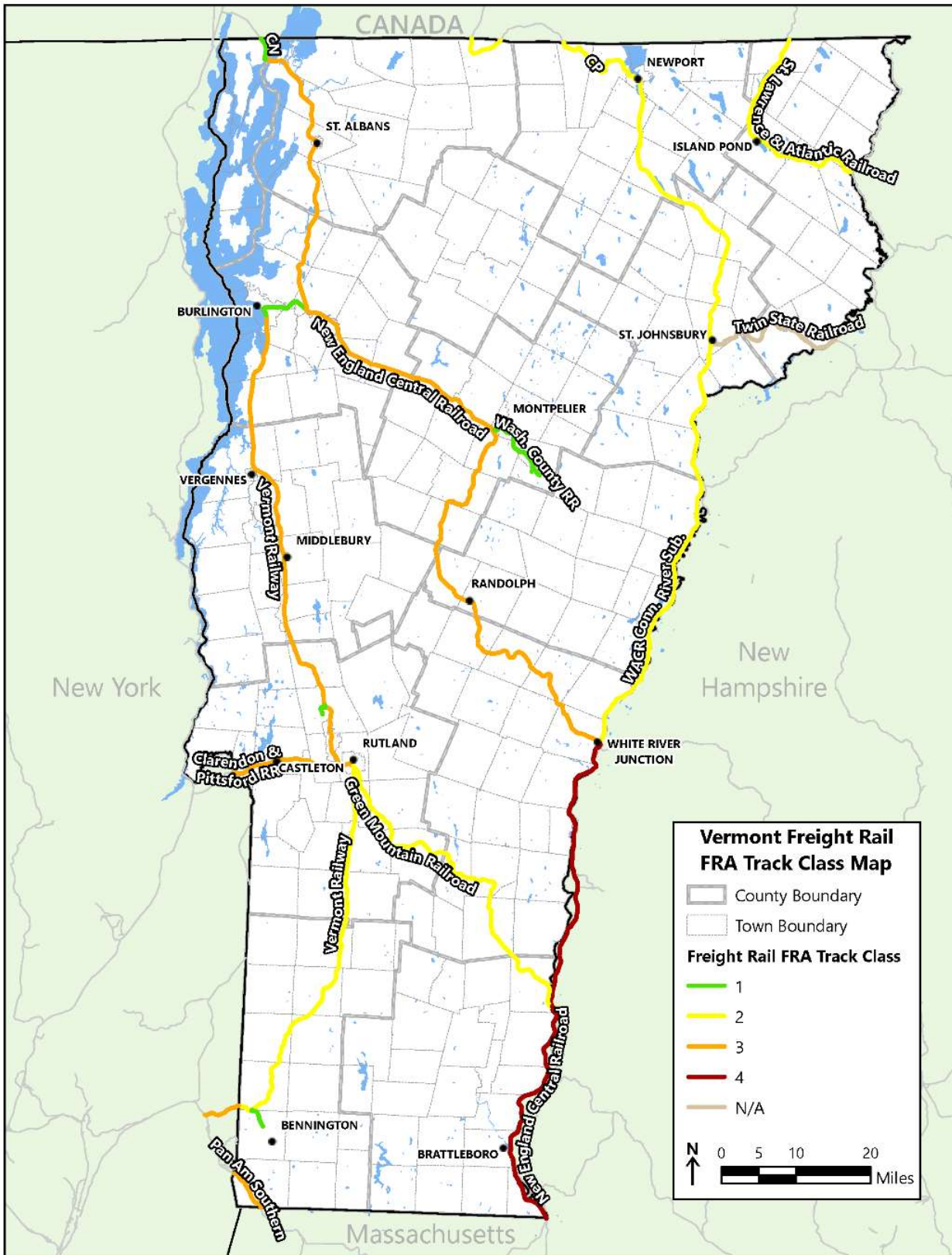
Although Track Class 4 allows operating passenger trains at speeds of up to 79 MPH, achieving such speeds requires meeting additional conditions including, at minimum, suitable track geometry and a signaling system. Other conditions will also affect maximum speeds, including civil works, visual sight lines, and mitigating right-of-way incursion risks. It is

<sup>19</sup> NECR was interviewed as a stakeholder, but was not able to confirm these statements at the time of outreach

<sup>20</sup> VRS comment, 2025

acknowledged that the Vermonter line (north of White River Jct.) may have greater challenges and that the Western Line may be more suitable for this performance measure.

**FIGURE 17 FRA TRACK SPEED CLASSIFICATION**



Source: VTrans, Interviews with railroads. Analysis by VHB, 2020.

## Eliminate Permanent Slow Orders Along Passenger Routes

Slow orders (either temporary or permanent) are speed restrictions that limit train speeds on specific sections of track. Reasons for a restriction can vary. For example, some bridges may require trains to cross them at a lower speed than the adjacent track to reduce infrastructure degradation, or specific segments of track could have slow orders due to embankment erosion or recurring rock falls.

Vermont has a performance target to remove three such restrictions per year, with priority placed on passenger routes. Additional efforts are needed to reach this performance target.<sup>21</sup> This is an aspirational target as progress is determined by rail operators and depends on funding available to conduct the work. The 2021 Rail Plan highlighted the upgrades to the VTR line between Manchester and Rutland where track weights below 90 pounds limit speeds to 10 MPH. Vermont secured a USDOT Better Utilization Investments to Leverage Development (BUILD) grant to upgrade or replace 29 rail bridges to the 286k carload standard. The project will help transform businesses and communities along the rail line, providing new opportunities by creating jobs, raising incomes, and unlocking the full potential of over \$70 million in federal investments made along the rail line in the past two decades. The Vermont Railway provides freight service along a rural beltway which encompasses agricultural, manufacturing, and resource extraction industries. The Project will be beneficial in supporting cost-effective access to national and international export markets for the region's agricultural producers. This will provide support for agricultural industries, allowing them to participate more fully in our nation's economic growth for a critical economic sector facing increased competitive pressures from overseas producers. The lack of interstate highways in western Vermont means that the region's businesses will continue to rely heavily on rail for access to markets.

## Continuously Welded Rail Along All Passenger Routes

Another performance target is for all passenger rail routes in Vermont to be equipped with continuously welded rail (CWR). CWR entails the creation of continuous lengths of rail that may be several miles long. Advantages over conventional jointed rail include longer rail life, maintenance savings, reduced wear on equipment, and reduced noise.

The entire existing *Vermont* route has CWR, though there are segments on the NECR mainline that may need to be replaced to maintain a state of good repair. For the *Ethan Allen Express*, the last five miles of CWR track on the CLP

were installed in 2024 as part of FRA/Amtrak grant. As of mid-2025, Vermont Railway was awarded a safety improvement grant from Amtrak to replace aging CWR north of Vergennes which will improve speeds and safety of the Ethan Allen line into Burlington. Sections of the VTR that are used for the extension of the *Ethan Allen Express* to Burlington have been upgraded to CWR. For the *Vermont* extension to Montreal, approximately three miles of CN-owned track from Alburgh to the US/Canada border would need to be upgraded to CWR to meet this requirement.

## Positive Train Control

Positive Train Control (PTC) is a federally mandated railroad safety improvement that is capable of reliably and functionally preventing train-to-train collisions, over-speed derailments, incursions into established work zone limits, and the movement of a train through a main line switch in the improper position. As of 2021, Vermont's rail network is not equipped with PTC, nor is it required under current federal regulation on the basis of freight traffic density, hazardous materials (HAZMAT) risk, and passenger train traffic. Both passenger services in Vermont have received waivers from FRA from requiring PTC. Thus far,

<sup>21</sup> Interviews with VRS, (2024) and subsequent emails.

PTC installations in the US have supplemented existing lineside signaling and traffic control systems, whose new installation costs typically exceed \$1 million per mile. The only Vermont locations where such a system currently exists is on PAS and the NECR between White River Junction and Brattleboro. Initiatives are currently underway to develop a “lightweight” lower cost version of PTC that will provide most or all the safety and operational benefits associated with the technology, including the potential for passenger train speeds exceeding 60 mph. Switch monitoring technology has been installed on the Ethan Allen Route and the Vermonter route.<sup>22</sup> Additional passenger service lines will need to be reviewed relative to the PTC waivers.

### *Transload Connections*

The ability to transfer freight between rail and other modes (chiefly truck) is an important part of the freight system. Creating opportunities to leverage rail for as long as possible and then transfer to trucks to move goods the “last mile” to and from freight facilities such as warehouses, stores, and manufacturing facilities is a critical step to help promote additional use of rail for freight movement. For rail-truck transfers, there are two common methods. First, **intermodal terminals** allow for the transfer between rail and truck of intact containers and trailers. These goods are transferred between modes without moving the contents from one container to another, thereby increasing speed, reducing cost, and minimizing lading damage and loss. While there are no intermodal terminals located in Vermont, numerous facilities exist nearby in Massachusetts (Ayer, Worcester, West Springfield), New York (Mechanicville), and Quebec (Montreal).

Second, **transload facilities** provide locations for the transfer of non-containerized shipments between modes that can include rail, truck, water, and pipeline. This allows for a wide range of goods to be transferred, particularly bulk and break-bulk commodities where the risk of product loss and damage is modest. Such commodities include stone and building materials, lumber, and bulk food products. All of Vermont’s 16 transload facilities are operated by private customers. These facilities are shown in Figure 18.

There are several benefits of transloading, including:

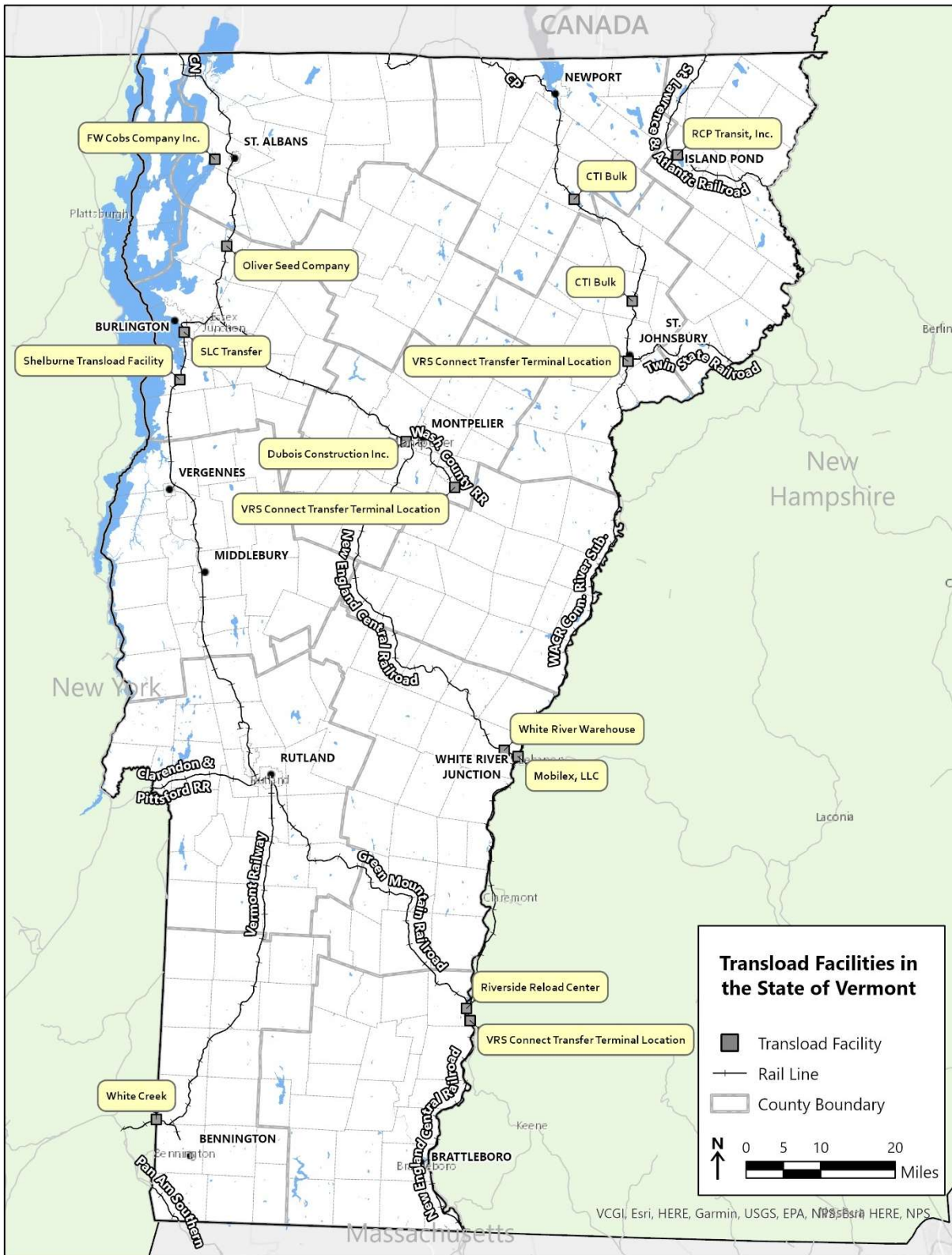
- Improves overall efficiency by leveraging each mode’s strengths
- Can reduce overall costs of transport
- Reduces energy and emissions associated with the freight



*Transload operation to move salt between rail and train. Source: VRS*

<sup>22</sup> VRS comment, 2025

FIGURE 18 VERMONT TRANSLOAD FACILITIES

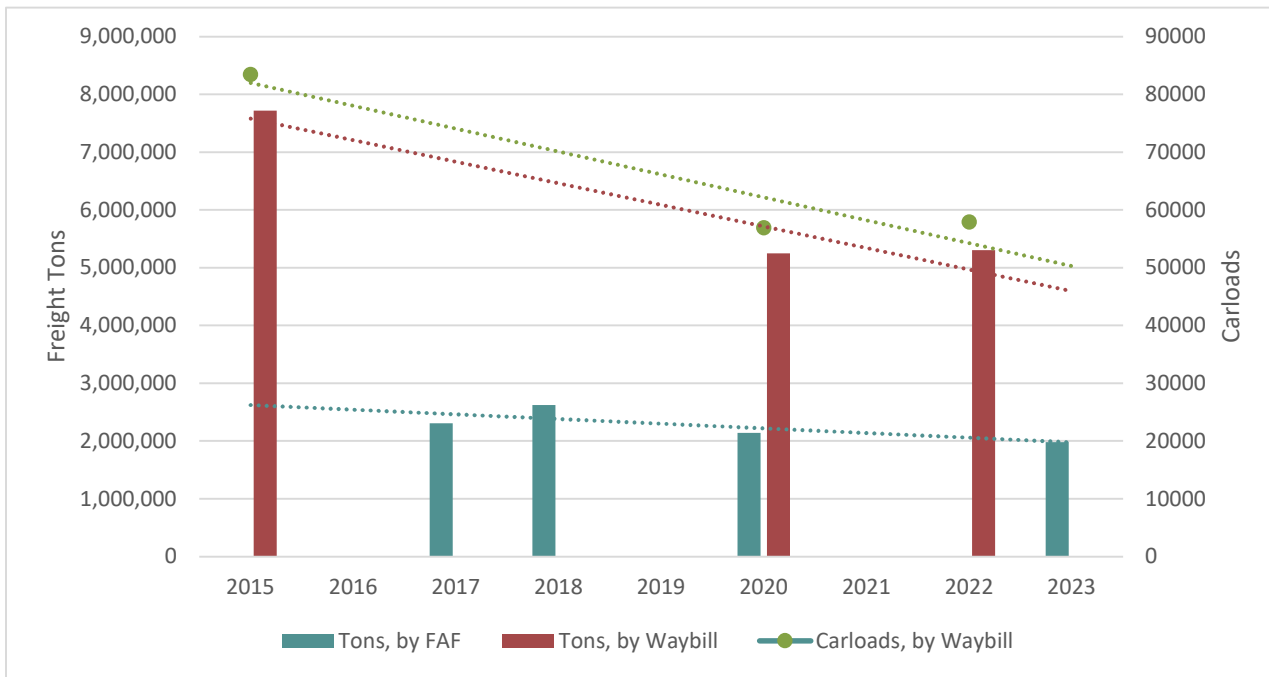


Source: FRA

## Commodity Flow Overview

The rail system in Vermont carried 1.98 million tons of freight in 2023, slightly lower than each of the prior five years based on data in the Freight Analysis Framework (FAF). 2023 marks an approximate 32% decrease in total freight moved from 2018, as shown in Figure 19. Regardless of data source utilized (see below), rail freight volumes in Vermont have dropped from pre-2019 years, and seem to have settled on a new, slightly decreased, baseline. The chart summarizes the available data from FAF version 5 and aggregated confidential data from the Surface Transportation Board (STB) carload waybills. The data is not available for all years from all sources. Thus, the chart is missing data for 2016, 2019, and 2021 from both sources. For other years only one of the two data sources are available. Only the year 2020 includes both data sources.

**FIGURE 19 VERMONT RAIL FREIGHT TONS AND CARLOADS, BY SOURCE, BY YEAR**



Source: FAF5 & STB Waybill

Although the freight totals transported by Vermont’s rail system were down to 1.98 million tons of freight and 58,000 carloads (by rail transport alone) in 2023,<sup>23</sup> examining historical data reveals fluctuations in Vermont’s rail freight tonnage over the years. Waybill data shows that between 2010 and 2022, Vermont’s rail system handled an average of 68,000 carloads annually, peaking at approximately 84,000 carloads in 2015. Notably, the external commodity flow (which accounts for traffic that passes through Vermont but is not on- or off-loaded in Vermont), a significant contributor, saw carload levels declined from 72,000 in 2015 to 48,000 in 2022. The relative decline since and then stability more recently aligns with trends at the national level. According to the Association of American Railroads (AAR) the Freight Rail Index grew from 2009 to 2015 but has since varied

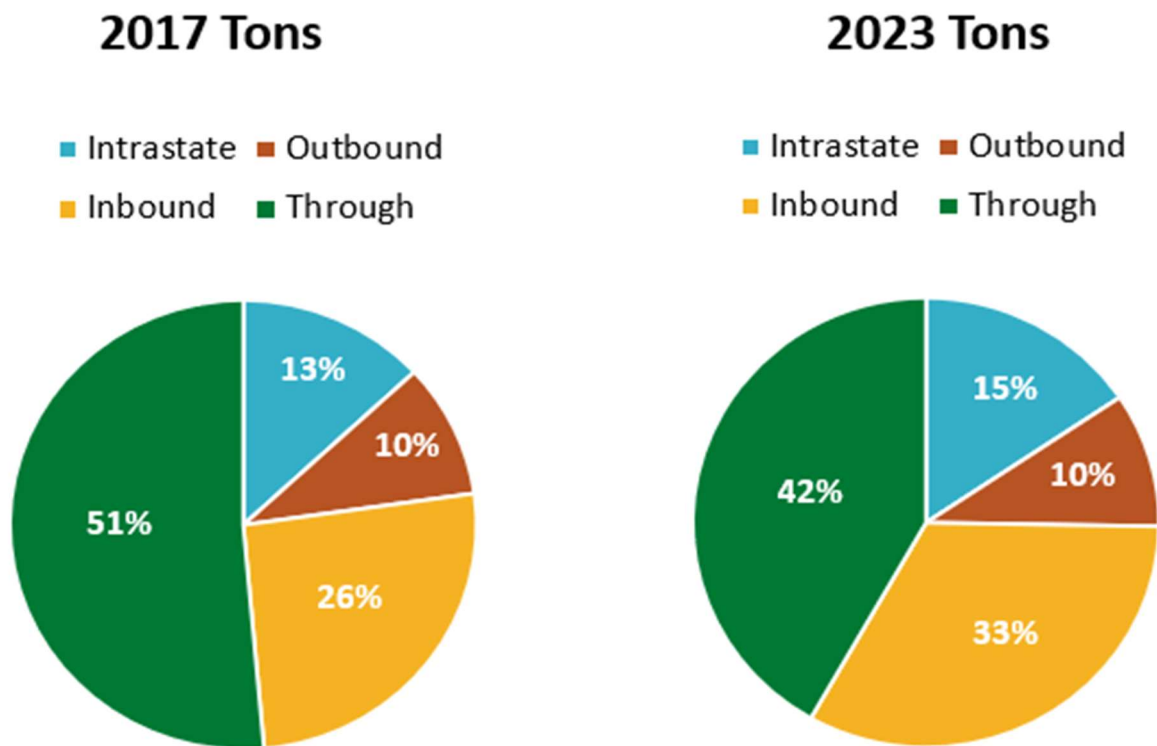
<sup>23</sup> Due to the multiple counting nature of STB Waybill Data, where shipments are recorded multiple times when transferred between carriers, the combined rail and multimodal flows from that data source amount to a total of approximately 5.3 million tons for 2022 (the last available data when this report was developed). This figure represents a decrease from the 6.9 million tons reported in the 2021 Rail Plan using that data source, which itself was developed using a confidential Waybill sample.

significantly and as of late 2024 the index is about equal to the 2015 value. The Index showed dramatic decreases in '22, and '23 from 2015 levels.<sup>24</sup>

FAF5 data complements this historical view by providing projections, which show that tonnage is expected to grow from 1.98 million in 2023 to 2.91 million tons by 2050 (32% increase). These projected growth numbers from the Federal Highway Administration (FHWA) and Bureau of Transportation Statistics (BTS) underscore Vermont’s strategic role in national and international commodity flows, especially considering its proximity to Canada. It should be noted, however, that these projections were released in April 2024, prior to any changes to international trade agreements that occurred in early 2025. This expected growth is primarily due to growth in nonmetallic materials and lumber or wood products. Food and similar products were also predicted to grow by nearly three times over two decades. These projections differ from previous iterations of FAF, which indicated larger growth in construction materials (concrete, stone, lumber, etc.), and nondurable goods (paper, paper products, apparel, etc.).

According to FAF data, of the total rail tons, approximately 33% arrived in Vermont from other states or North American countries, an increase of 7% from 2017. Ten percent departed from Vermont to other states or North American countries. Fifteen percent traveled within Vermont. Goods traveling through Vermont without a stop accounted for 42% of all rail traffic by volume, a decrease of 9% from 2017. Figure 20 shows the difference by direction in 2017 and 2023.

**FIGURE 20 VERMONT RAIL TONS MOVED BY DIRECTION IN 2017 (LEFT) AND 2023 (RIGHT)**



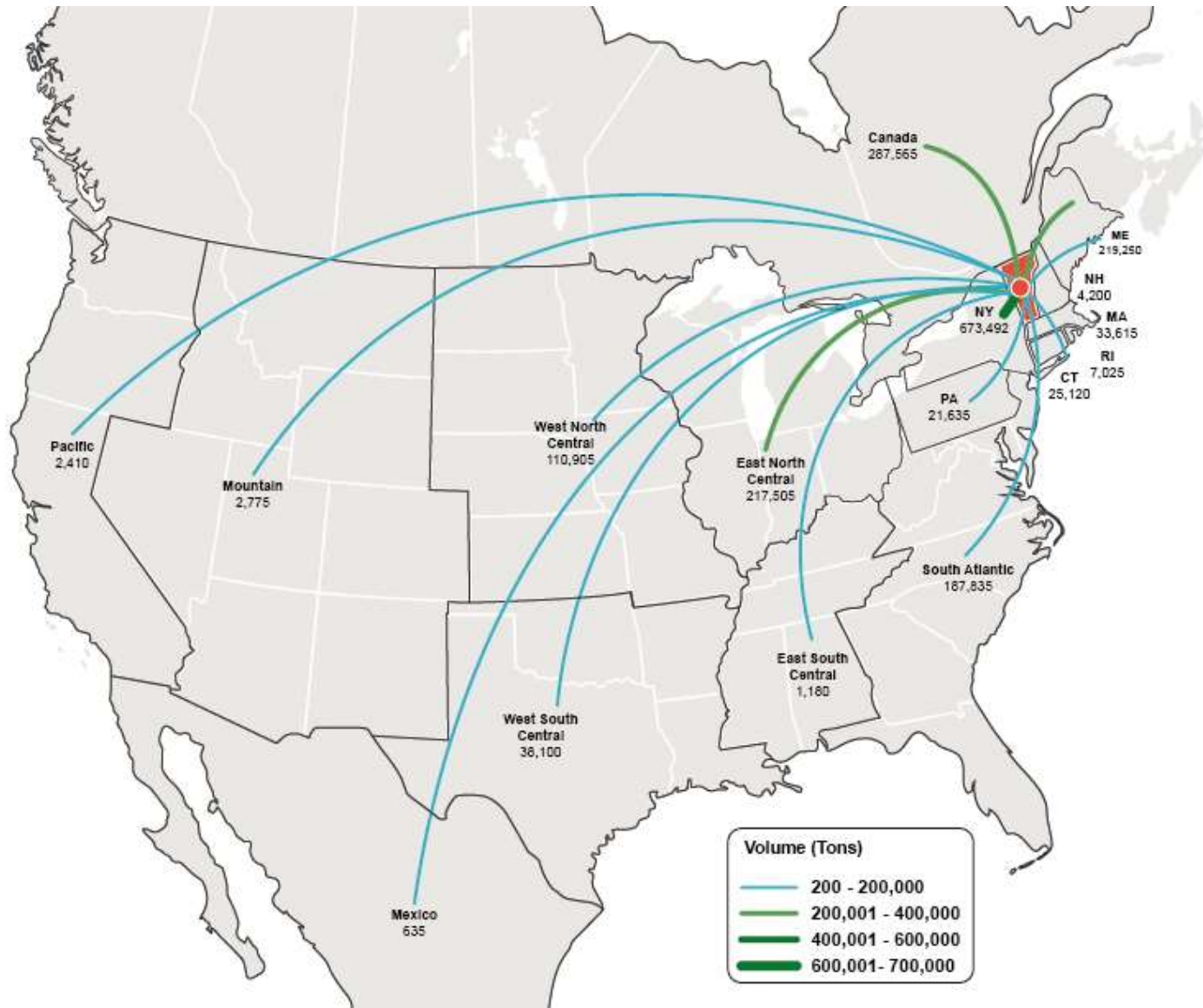
Source: FAF5

<sup>24</sup> Association of American Railroads Data Center. <https://www.aar.org/data-center/>

Most rail freight that travels through Vermont is made up of cars and commodities that cross over track from multiple railroads. This underscores how integrated the Vermont network is, and how vital it is for the various railroads to work as partners with the State. Approximately 79% of all freight by ton is touched by more than one railroad, with the remaining 21% split relatively evenly between Pan Am Southern, Vermont Rail System, and New England Central Railroad. The seven miles of Pan Am Southern that traverse the southwest corner of the State carrying one-fifth of all freight rail traffic by volume in Vermont. However, freight that is moved by rail that stays only within Vermont is mostly handled by the NECR.

Vermont's top rail trading partners, in order, are New York, Canada, Maine, and the East North Central region (Ohio, Michigan, Indiana, Illinois and Wisconsin). Trade with those regions accounted for 76% of total inbound and outbound rail tonnage in 2022. New York accounted for the most trade, 37% of total inbound and outbound rail tonnage in 2022. Vermont's rail trading partners are visualized in Figure 21.

FIGURE 21 VERMONT RAIL TRADING PARTNERS BY WEIGHT (2022)



Source: STB Waybill Data

## Freight Volume Associated with Vermont Industry

All these freight system conditions impact the movement of goods into and out of the State. **With a target of 3.0 million tons of freight moved into or out of the Vermont from the 2015 Rail Plan, Vermont is below this total at approximately 2.3 million tons (using STB Waybill data).** That current total is similar to 2012 totals (2.2 million tons) and has fallen from pre-COVID levels of 2.8 million tons in 2018. **Commodity flow projections and stakeholder input both indicate that this volume is likely to rise in the coming years.**

Experimental county level FAF5 data provides a sense of the tons by origin county and destination county.<sup>25</sup> For Vermont, the top five counties for origin tonnage and destination tonnage are shown in Table 7.

**TABLE 8 FAF5 COUNTY LEVEL TONNAGE ESTIMATES (2022 DATA)**

		Share of Tons Originating in Vermont via Rail
<b>Origin</b>	Chittenden County	31.80%
	Orleans County	12.41%
	Franklin County	12.36%
	Essex County	9.56%
	Washington County	5.78%
		Share of Tons Destined to Vermont via Rail
<b>Destination</b>	Chittenden County	12.92%
	Rutland County	9.85%
	Franklin County	9.78%
	Washington County	9.71%
	Windsor County	8.47%

Source: FAF5 Experimental county-to-county estimates

## Recruiting Rail-Using Businesses

**Vermont’s population of rail customers has decreased, and the concentration of rail traffic among those customers has declined since the early 2010s.** While user diversity has increased somewhat, there is room for additional improvement. Rail owners and operators are actively trying to recruit and solicit new businesses to consider rail. The Vermont Agency of Commerce and Community Development (ACCD) along with regional economic development corporations are actively working to support growth in rail freight along with passenger service.

**Adding new outbound customers would help the State diversify** and meet the freight volume performance measure (discussed above) while protecting against the probable erosion of the existing customer base. Attracting and retaining shipments to rail, similar to the commodity flow discussion above, is heavily tied to and reliant on the physical condition of Vermont’s rail network.

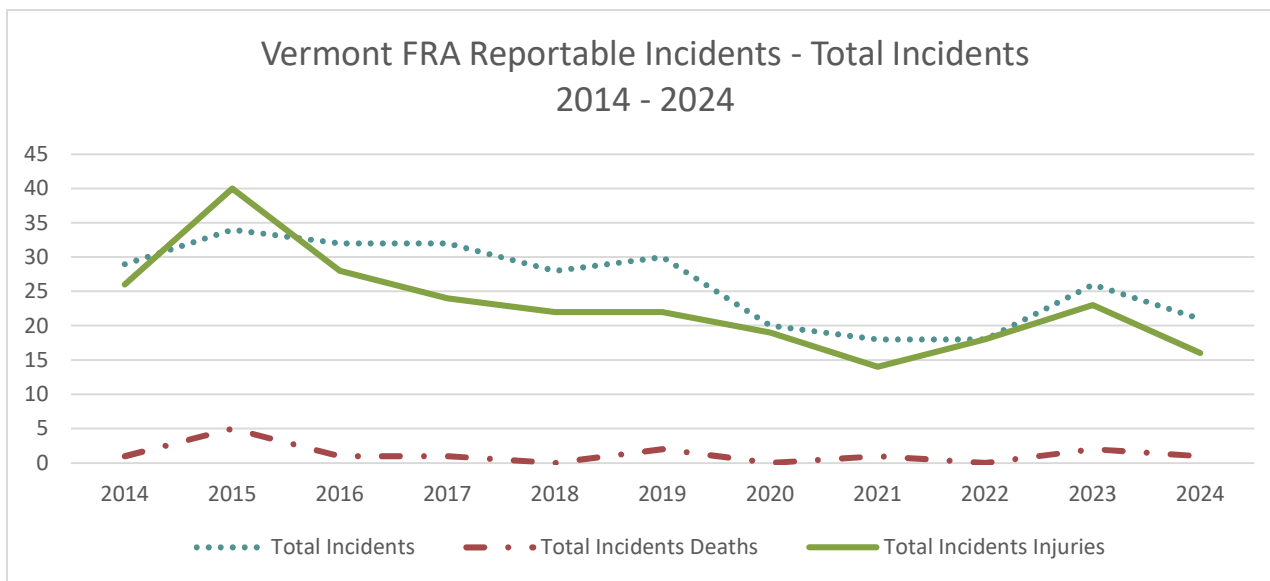
<sup>25</sup> FAF5 experimental county level estimates. <https://www.bts.gov/faf/county>

## 4.4 Rail Safety and Security

Running on almost 140,000 route miles, the US freight rail network is widely considered the largest, safest, and most cost-efficient freight system in the world.<sup>26</sup> Over the past decade, it has also set new records for safety, reinforcing rail’s position as the safest way to move goods over land.<sup>27</sup> Nationally, since 2005, train accident rates have fallen 43%, including an 11% drop since 2023. Derailments are down 33%, and Class I railroads have cut mainline accidents by 43%. Human error and equipment-related accident rates have declined 28% and 36%, respectively, while track-caused incidents dropped 52% reaching a record low in 2024. Yard accident rates also improved, falling 32% from the previous year.

Rail safety and security is a high priority for both rail carriers and public agencies due to potential impacts on the general public and the efficiency of rail operations. **Rail safety in the State is led by VTrans’ Rail Program unit and the Vermont Department of Public Safety’s Vermont Emergency Management Office acts as the State’s lead agency for emergency response.** This agency, with the assistance of VTrans, addresses security and emergency response issues related to rail within the State. Federal and Vermont agencies, along with the State’s rail operators, continue to make progress regarding rail safety and security. **As railroads are engaged in interstate commerce, regulation is principally conducted federally.** As a result, they are generally exempt from local regulations for activities related to their transportation function, such as train operations and maintenance activities that occur within the rail right-of-way. Reportable rail incidents include all injuries and deaths which occur as part of a collision with a train at a grade crossing, train accidents and collisions, and trespassing incidents.

**FIGURE 22 VERMONT FRA REPORTABLE INCIDENTS BETWEEN 2014 AND 2024.**



Source: FRA Office of Safety Analysis, 10-Year Accident/Incident Overview. Retrieved April 2025.

<sup>26</sup> “Freight Rail Overview.” Freight Rail Overview | FRA, 2025. <https://railroads.dot.gov/rail-network-development/freight-rail-overview>.

<sup>27</sup> “Freight Rail Industry Resources: AAR,” Association of American Railroads, April 22, 2025, <https://www.aar.org/resources/>.

**Total incidents in Vermont have remained low and have seen a small decrease over the last 10 years. Train incidents have seen a slight decrease, and highway-rail incidents have remained fairly steady.** The spike in train incident injuries in 2015 is largely attributable to an October incident when a *Vermont* train traveling southbound in Northfield derailed after striking rocks on the track due to a rockslide, injuring four passengers and three crew members.<sup>28</sup>

**Between 2014 and 2025, Vermont had 0.47 rail incidents per route-mile, which is lower than Massachusetts (1.62) and New York (3.31), but slightly higher than New Hampshire (0.13).** Nationally, the total incidents per route-mile over this period was 0.76.<sup>29,30</sup>

Table 8 shows the reportable railroad related incidents from 2014 to 2024 in Vermont. Incidents that involve only a vehicle but occur near a crossing (e.g., hitting infrastructure at the crossing) are not included in rail reported data. Train incidents include rail cars but exclude highway-related incidents and those classified as “other”. Highway-Rail incidents include any impact between on-track railroad equipment and a highway user at a highway-rail grade crossing. Other Incidents includes events not classified as other types. These include single cars during switching, train makeup, setting out, operations, contact between on-track equipment.<sup>31</sup>

**TABLE 9 FRA REPORTABLE RAILROAD INCIDENTS 2014-2024 IN VERMONT**

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
<b>Total Incidents</b>	29	34	32	32	28	30	20	18	18	26	21
<b>Total Deaths</b>	1	5	1	1	.	2	.	1	.	2	1
<b>Total Injuries</b>	26	40	28	24	22	22	19	14	18	23	16
<b>Train Incidents</b>	2	3	.	3	3	4	1	.	.	1	2
Deaths	.	.	.	.	.	.	.	.	.	.	.
Injuries	.	13	.	.	.	.	.	.	.	.	.
<b>Highway-Rail Incidents</b>	2	1	4	6	4	6	.	4	1	3	2
Deaths	.	.	.	1	.	2	.	1	.	1	.
Injuries	2	.	1	1	1	2	.	.	1	2	.
<b>Other Incidents</b>	25	30	28	23	21	20	19	14	17	22	17
Deaths	1	5	1	.	.	.	.	.	.	1	1
Injuries	24	27	27	23	21	20	19	14	17	21	16

Source: FRA Office of Safety Analysis, 10-Year Accident/Incident Overview. Retrieved April 2025.

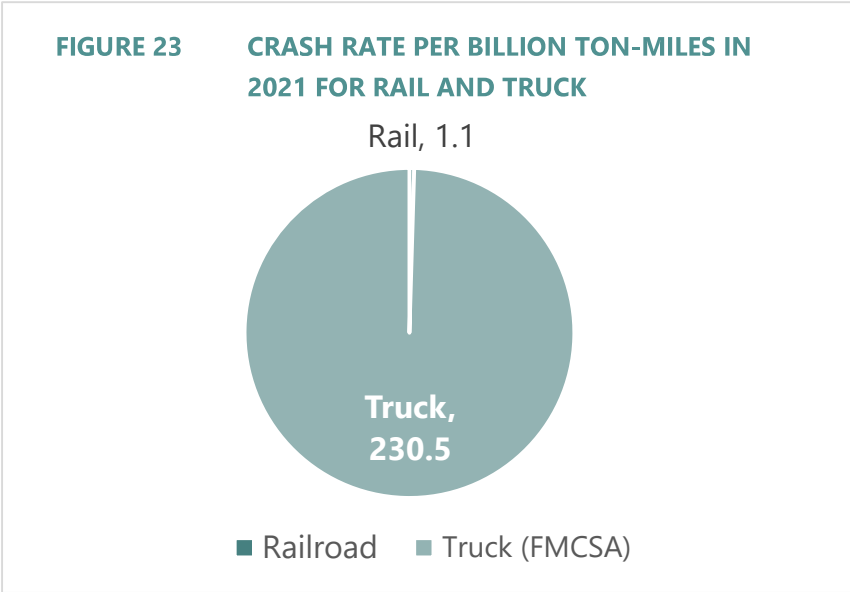
<sup>28</sup> Emily Shapiro. ABC News. “Passenger Describes ‘Heavy Thud’ as Amtrak Train Derailed in Vermont.” October 5, 2015. <https://abcnews.go.com/US/amtrak-passenger-train-derails-northfield-vermont/story?id=34258647>

<sup>29</sup> “USA Railroads.” US Energy Atlas. Esri, 2025. <https://atlas.eia.gov/datasets/esri::usa-railroads-2/about>

<sup>30</sup> “FRA Safety Data.” Federal Railroad Administration, 2025. <https://data.transportation.gov/stories/s/wjun-6kqb>

<sup>31</sup> “FRA Guide for Preparing Accident/Incident Reports.” Federal Railroad Administration. May 23, 2011. <https://safetydata.fra.dot.gov/PublicObjects/FRAGuideforPreparingAccIncReportspubMay2011.pdf>

Hazardous materials (HAZMAT) range from mild environmental hazards—large milk spills into water are potentially hazardous—to more potentially harmful substances including petrochemical products and ignitable, toxic, or corrosive materials. Vermonters rely on access to these materials to heat their homes, make water safe to drink, and fertilize crops, and need them transported safely. FRA national data shows hazmat accident rates per carload have dropped 80% since 2005. **Trains are a safe way to transport such substances, with more than 99.99% delivered safely.**<sup>32</sup>



It is important to understand that processes today include learning from past experiences. For example, during the winter of 2018/2019, the weather was so severe, rail cars that transport most of Vermont’s heating fuel couldn’t make it through to keep up with heating needs of Vermonters. Today, Vermont stocks up on heating oil by storing full cars in strategic locations on rail lines across the state.

Table 10 below shows the number of reported HAZMAT related rail incidents from 2014 to 2024. While there were between 0 and five accidents per year, there were no HAZMAT releases or cars releasing HAZMAT material.

**TABLE 10 FRA REPORTABLE RAILROAD INCIDENTS – HAZMAT RELATED 2014 – 2024 IN VERMONT**

	CY 2014	CY 2015	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024
<b>TRAIN ACCIDENTS (Not at Grade-Crossings)</b>	2	3	.	3	3	4	1	.	.	1	2
HAZMAT Releases	.	.	.	.	.	.	.	.	.	.	.
Cars carrying hazmat	23	.	.	1	.	.	5	.	.	.	39
Hazmat cars damaged/derailed	1	.	.	1	.	.	.	.	.	.	1
Cars releasing	.	.	.	.	.	.	.	.	.	.	.
Incidents with reportable damage over \$100K	.	1	.	1	1	1	1	.	.	.	1
Percent of all train accidents	.	33%	.	33%	33%	25%	100%	.	.	.	50%

Source: FRA Office of Safety Analysis, 10-Year Accident/Incident Overview. Retrieved April 2025.

Railroads consistently maintained a low crash rate, fluctuating modestly from 1.15 in 2018 to 1.22 in 2022, indicating a highly controlled and safe mode of transport over time. In contrast, truck crash rates reported by the Federal Motor Carrier Safety Administration (FMCSA) were significantly higher throughout the same period. FMCSA data shows rates ranging from 189.1

<sup>32</sup> Association of American Railroads. *Freight Rail and Hazmat Safety*. <https://www.aar.org/issue/freight-rail-hazmat-safety/#>

in 2020 (a slight dip likely due to pandemic-related reductions in traffic) to 230.5 in 2021. Similarly, NHTSA figures are slightly higher, peaking at 246.6 in 2022, with a low of 196.6 in 2020. The full data and charts are included in Appendix E.

**Operation Lifesaver is a key factor in preventing rail incidents.**

Operation Lifesaver coordinates a nationwide network of volunteers to educate people about rail safety. It partners with federal transportation agencies, national transportation organizations, railroads, and other organizations. Operation Lifesaver offers free presentations to schools, businesses, and civic organizations. In addition, Vermont provides funding for Railroad Investigation and Safety Courses (RISC) to help officers more effectively investigate incidents.



*At-Grade Crossing Protection*

Rail grade crossing incidents can slow the movement of goods and people on both the rail and highway networks. Between 2019 and 2023, there have been 14 incidents at highway-rail grade crossings resulting in four deaths and four injuries. Various types of protection are currently used to influence the interaction and awareness between rail and non-rail traffic at Vermont's more than 350 public at-grade rail crossings.

Vermont established a long-term goal in the 2015 Rail Plan of protecting all public highway-rail grade crossings on passenger rail routes with flashing lights and gates. It is important to note that there are also many private at-grade crossings where safety concerns may arise. Identifying and addressing safety issues at private crossings can be complicated by the need to identify and develop consensus between the various responsible parties, which include private property owners, the railroads, and in some cases, VTrans.

The VTrans Section 130 Railroad-Highway Crossing Program was updated around the year 2020 after a FHWA compliance review. The state developed updated guidance and has a prioritized list of crossings for upgrades. Annually, the list is reviewed with the highest-ranking locations progressed for preliminary design and engineering and construction. The prioritized list of eligible crossings for using the Section 130 funding was used in the development of the recommended initiatives in this Rail Plan.

**At-Grade Rail Crossing Safety**

**An innovative grade crossing solution was completed in 2020 on Kendall Hill Road in Pittsford. This crossing is at the bottom of a hill and the road carries a higher-than-average percent of trucks. The decline can require hard braking for trucks.**

**This project included the installation of a warning sign at the top of the hill linked to the crossing. The sign reads "Train when flashing" and two lights that activate when a train approaches the crossing. Trucks can see the sign prior to the actual crossing, allowing them additional time to begin braking, reducing the risk of them encroaching into the crossing.**

*The Sounds of Rail*

While the distant sound of a train whistle is often mentioned fondly in discussions with members of the public, the up-close sound of trains also comes up as a community impact. One strategy that is used in some states is quiet zones. These are stretches of track where the sounding of train horns while approaching public crossings is not required. This greatly reduces the aural impact of both freight and passenger rail activities on nearby residents, especially on lines that see substantial use during the night. Noise impacts of trains have been noted by several communities in Vermont, especially where there are efforts to build more housing in established communities with increased rail presence. However it is important to note that crossings in Quiet Zones require substantial additional safety improvements such as gates with channelization or medians,

four-quadrant gates, and crossing closures.<sup>33</sup> FRA resources provide guidance on the implementation of a new quiet rule (<https://railroads.dot.gov/elibrary/how-create-quiet-zone>). Quiet zones are a difficult and costly investment and need to be considered with a broad range of stakeholders as to the benefits and the costs of such a change.

## 5.0 RAIL SYSTEM RESILIENCE AND EMERGENCY RECOVERY

Increasing the resilience of Vermont's transportation system requires assessments of the risks, and planning to manage or mitigate them. It also requires readiness to respond when there are major events. This aligns with the FHWA definition of resilience, "the ability to anticipate, prepare for, or adapt to conditions or withstand, respond to, or recover rapidly from disruptions." (FHWA Order 5520). Efforts to protect the transportation system from the impacts of extreme weather and other natural hazards include identifying where the network is most vulnerable and implementing strategies to mitigate future damage and lessen the severity and impact of service disruptions.

The most significant natural hazards for rail in Vermont come from water: hurricanes, major storms, floods, and ice. There are other hazards as well, some of which peripherally relate to water. Rock ledges and steep slopes adjacent to railroads are a hazard that is exacerbated by freeze-thaw cycles and extreme rainfall.

Vermont has experienced a significant level of disruption and impact associated with storm events. Vermont's counties are some of the nation's highest in terms of number of FEMA-declared disasters since 2011, with two counties in Vermont (Washington and Lamoille) in the top three in the country, with 22 and 17 declared disasters, respectively.<sup>34</sup> Vermont was ranked fifth among all 50 states for the absolute number of disaster declarations between 2011 and 2024.<sup>35</sup> Figure 29 shows the historical extremes in one-day precipitation for the northeast from 1910-2024, as generated by the US Climate Extremes Index at the National Centers for Environmental Information within the National Oceanographic and Atmospheric Administration.

Tropical Storm Irene in 2011 was intensely damaging across Vermont and remains a force for awareness of the risks to our transportation system. The IJJA's PROTECT program (Promoting Resilience Operations for Transformative, Efficient, and Cost-



*There are a variety of risks to operating rail service in Vermont. The GMRR between Bellows Falls and Rutland traverses rock cuts subject to rockfall, slope failure, and flooding.*

<sup>33</sup> Operation Lifesaver. *Quiet Zones*. <https://oli.org/safety-near-trains/track-safety-basics/quiet-zones>

<sup>34</sup> Rebuild by Design Atlas of Accountability. <https://rebuildbydesign.org/atlas-of-accountability/>

<sup>35</sup> Vermont Atlas of Disaster <https://rebuildbydesign.org/wp-content/uploads/2023/08/VERMONT.pdf> (page 22)

Saving Transportation) incentivizes the state to create a Resilience Improvement Plan (RIP).<sup>36</sup> Beyond transportation, the State also maintains a State Hazard Mitigation Plan (SHMP) that assesses natural hazards most likely to affect Vermont and is required for the state to remain eligible to receive FEMA funding before and following disasters. The SHMP identified fluvial erosion and inundation flooding as the two hazards with the highest probability of occurrence and impact in Vermont.

Rail can be a strategy to increase resilience of the transportation network by providing a robust and highly dependable form of transportation for both people and goods. Railroads are also vulnerable because most rail lines are in lower elevations proximate to valleys and waterways. To better protect the rail system the Agency has developed Phase 1 of a planning tool to identify the rail assets most vulnerable to storm damage.

### *Transportation Resilience Planning Tool (TRPT)*

VTrans has been an innovator in developing tools to assist with resilience planning. It developed the highways and structures TRPT (<https://vtrans.vermont.gov/climate/trpt>) to better understand risks to the highway system. It appears to be leading again as it builds on that approach to develop a version of the TRPT for rail. Phase 1 has been completed analyzing vulnerability of the State-owned active rail assets and rail trails. There are differences between roads and rail that are reflected in the methodologies.

The Rail TRPT provides analysis of flood vulnerability for the following assets:

- Railroad Bridges
- Railroad-Highway Public, At-Grade Crossings
- Railroad Culverts
- Railroad Mainline (Embankment)
- Railroad Transload Facilities & Yards
- Railroad Crossings (Under Highway and Over Highway)

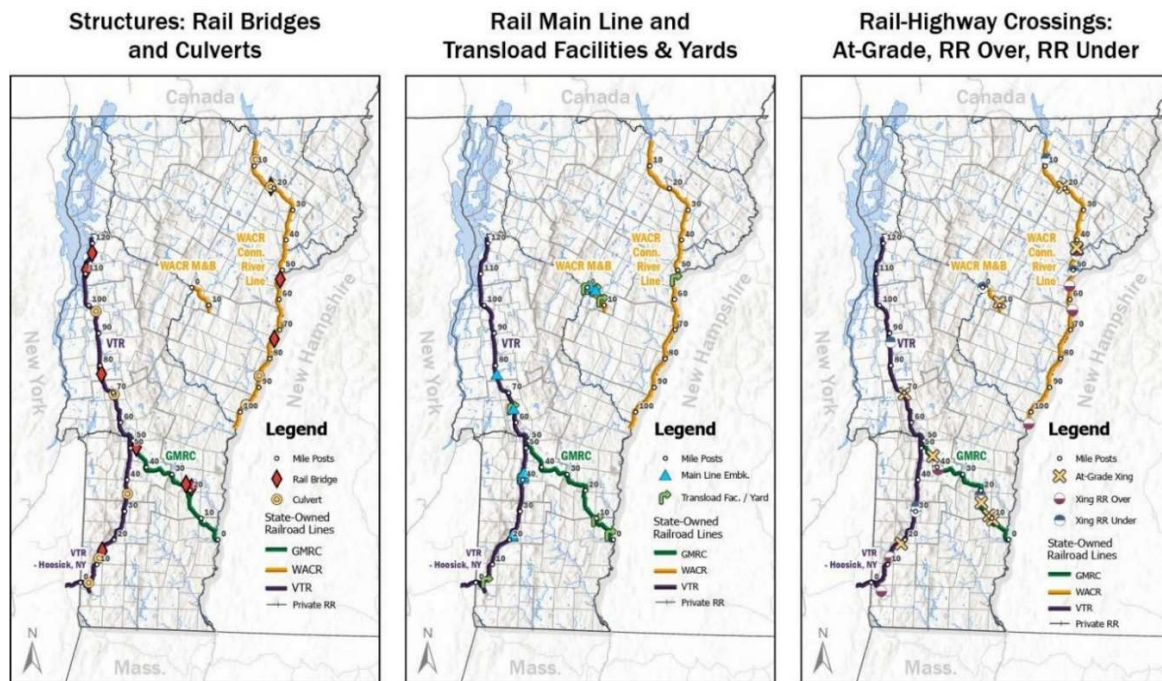
The Phase 1 Rail TRPT was developed with a working group of VTrans and RPC staff members. Draft results were reviewed by staff and operators familiar with the locations. It is a work in progress that suggests data-driven locations for further exploration. The results will be considered in small and larger efforts as funding permits.

From the TRPT analysis conducted and reviewed, highlights of areas that seem most vulnerable to flood damage are shown in the figures that follow. Figure 24 shows the most vulnerable State-owned active rail locations. Note that the State only owns four Amtrak stations and none were indicated as highly vulnerable. Figure 25 shows the most highly vulnerable locations on State-owned rail trails developed with the VTrans Rail Trail Program. More detail on both is included in Appendix F.

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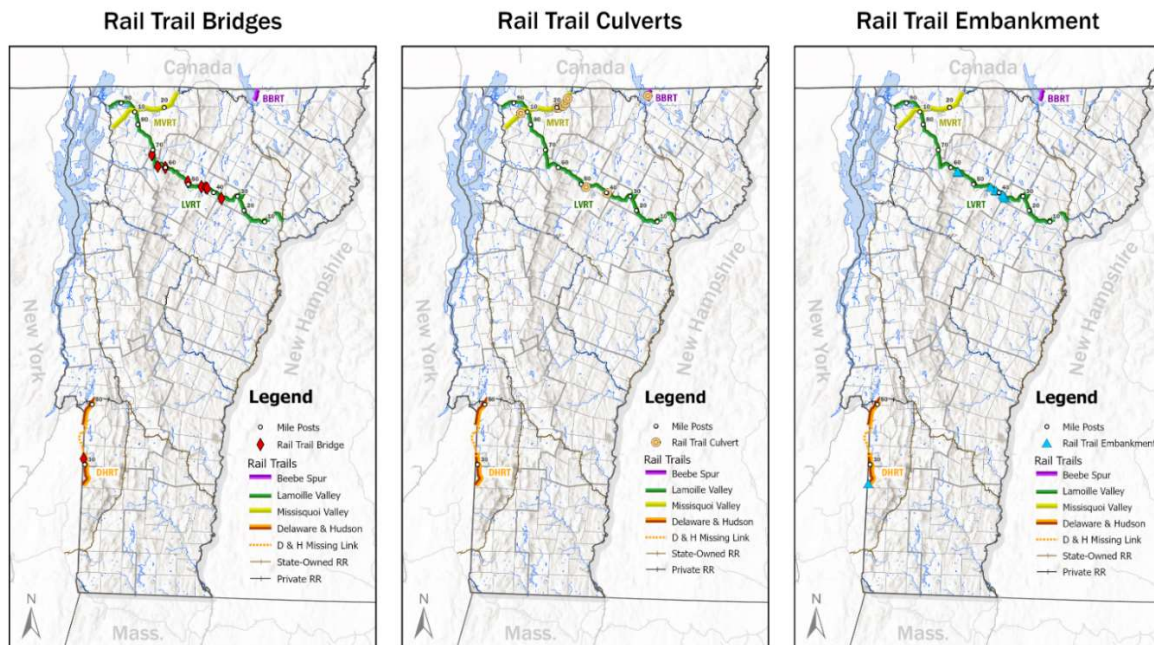
<sup>36</sup> Vermont Resilience Improvement Plan. <https://storymaps.arcgis.com/stories/f67e4a5fa5404f008682b8da3f401be2>

**FIGURE 24 ACTIVE RAIL ASSETS MOST VULNERABLE TO WATER DAMAGE**



Source: VTrans, 2025

**FIGURE 25 RAIL TRAIL ASSETS MOST VULNERABLE TO WATER DAMAGE**



Source: VTrans, 2025

Improvements in the management of upstream watersheds can be an important way to reduce risk at the point where the railway system interfaces with rivers and roads. Vermont is managing watersheds in a holistic manner to reduce risk to infrastructure while also improving the overall ecosystem.

The resilience efforts came into focus again after Vermont experienced two significant storm events two years in a row, on the same day of the year.

### Summer Storm - 2023

A severe storm on July 10th, 2023, caused damage to Vermont rail lines in 23 towns. Statewide State-owned Rail Lines had damage at 225 sites, of which 65 experienced debris-only damage. The damage spanned 123 miles out of the 298 miles of state-owned rail Lines, or 41%. Twenty-five bridges and 32 culverts were affected. Six culverts required replacement. After the storm, 58% of all Vermont rail lines were closed, in less than a week only 11% were still closed. It took a total of five weeks to reopen all Vermont rail lines. Amtrak services were restored within 10 days.

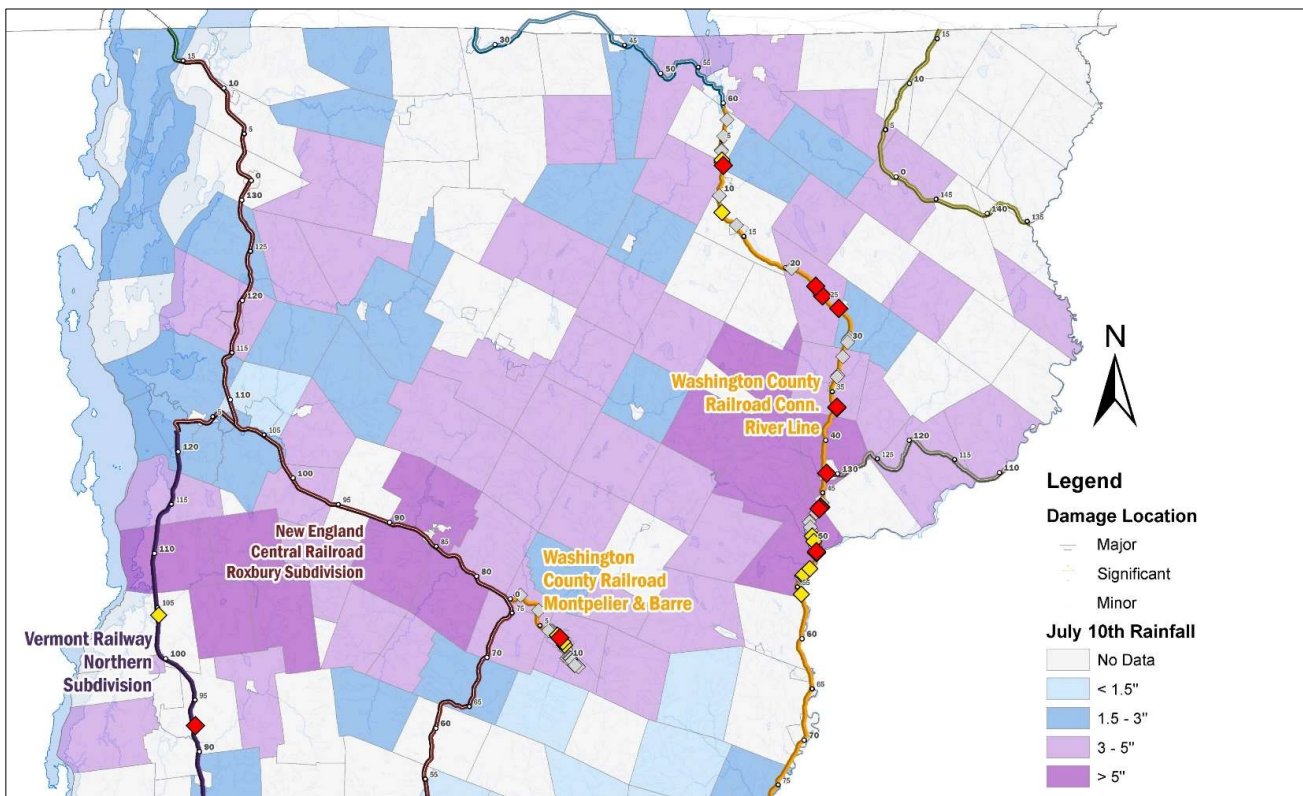
FIGURE 26 STORM DAMAGED RAIL LINES



### Hurricane Beryl - 2024

Heavy rainfall occurred overnight on July 10th and rainfall amounts of over 6" were observed leading to a total of 74 FEMA damage sites. While many of the repairs from the July 10th, 2023 storm held up in 2024, some of the same sites did require immediate repairs. The WACR Montpelier & Barre line reopened on July 13th, the NECR Roxbury re-opened on July 23rd, and the WACR Connecticut River Line was open on July 28th. The WACR Connecticut River Line experienced another storm on July 29th causing further damage to this line. Rail damage estimates for the July 10th Storm were over six million dollars and for the July 29th Storm, the Rail damage estimate was greater than \$500,000.

FIGURE 27 JULY 2024 STORM DAMAGE

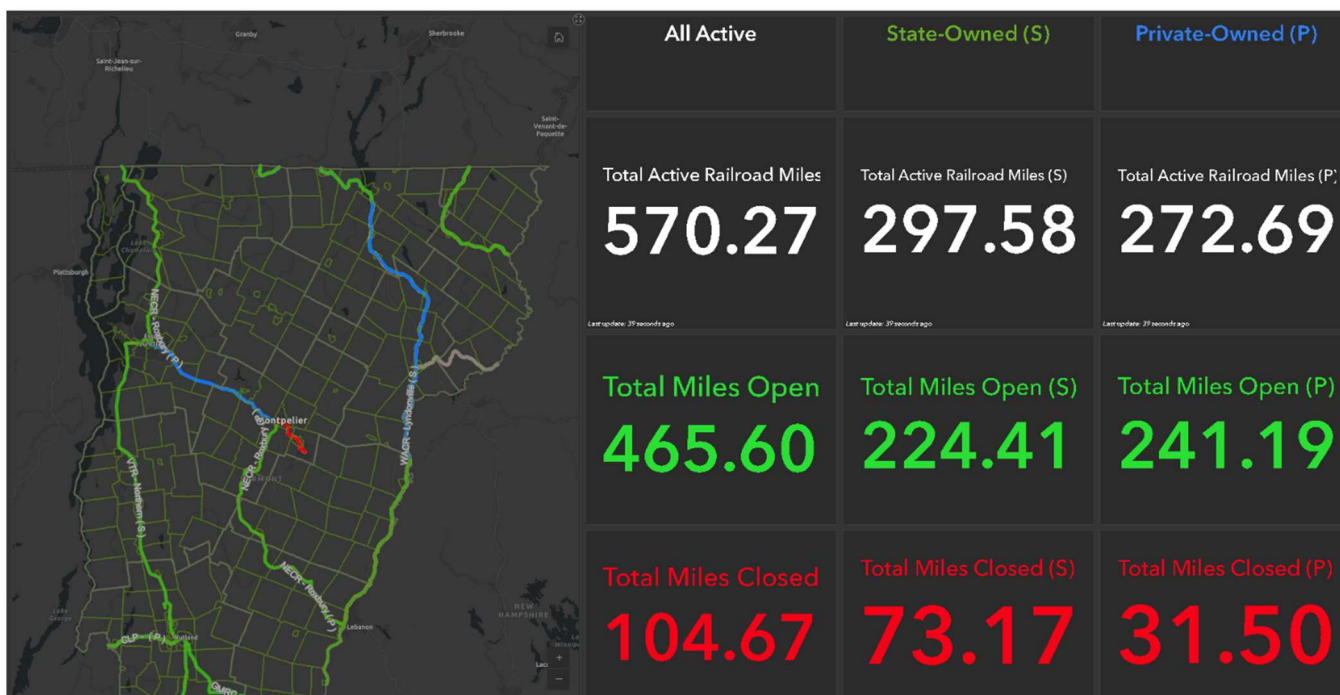


Source: VTrans

The extensive damage to the rail system underscores the network vulnerability. When one bridge or culvert is washed out, the entire system suffers. Limited redundancy in the rail system reinforces the importance of planning, mitigation, and preventative efforts to strengthen vulnerable areas.

Figure 28 shows the dashboard with real-time status of the rail lines. The image captures the status as of July 11, 2024. Such dashboards are critical and valuable to communicate real-time conditions to a wide range of audiences. Given the ability to efficiently move large amounts of material (e.g., ballast, heavy equipment, or food), the rail system can be an important asset during any time of disaster if the rail system is operational. Dashboards such as this can help disaster response planning across organizations.

**FIGURE 28 OPEN - CLOSED DASHBOARD ON JULY 11, 2024**



Source: VTrans

### Emergency Management and Disaster Response

Rail can play an important role in the State’s ability to respond to major events, complementing highway and air response.

Vermont Emergency Management (VEM), VTrans Emergency Management, Vermont National Guard, and other entities coordinate to prepare for and respond to major events such as floods.

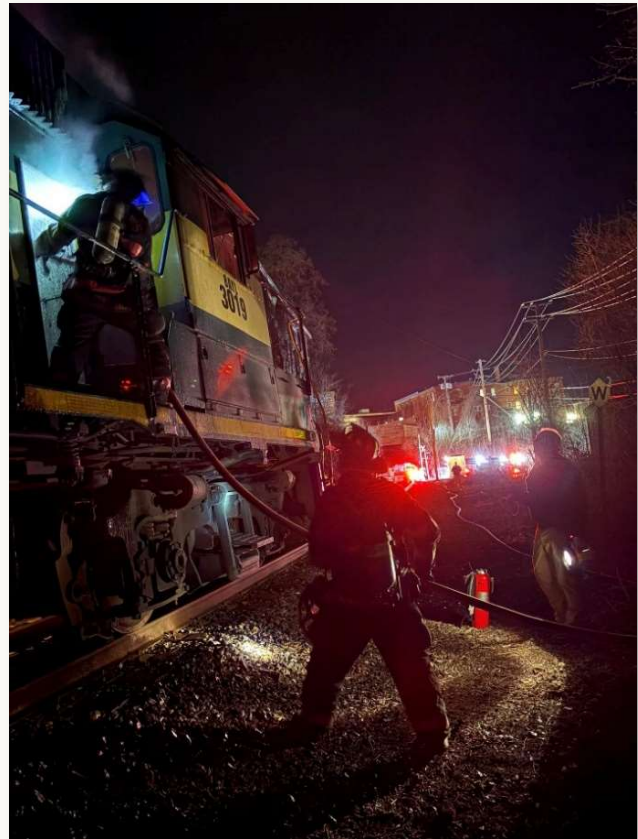
One of the many roles of VEM is to maintain statewide plans for receiving and distributing commodities after a major event, such as in a period when there isn't power to supermarkets and road closures significantly limit transportation. One of these plans is for Commodity Points of Distribution (CPODs). These would be important if there was need to receive and distribute food, water, and fuel due to a disaster. VTrans and VEM continue to discuss the potential role of rail in such a situation. It is likely that the Vermont National Guard would help get trucks of basic supplies to CPODs, however there would be many additional needs for Vermont to recover.

During recovery from Tropical Storm Irene there was discussion among VTrans, VEM, and others about use of rail to transport large replacement equipment such as a substantial generator and heavy repair equipment. Rail is well-equipped for these uses with faster permitting and structure to move heavy loads.<sup>37</sup> Continuing these discussions is an example of VTrans, VEM, and others efficiently preparing for such needs by the public or private sectors in a disaster recovery environment.



## Rail and Emergency Management

The State of Vermont Emergency Management Plan mentions rail passenger train derailment as one example of an incident requiring Partial Activation, meaning that this type of incident could require several mutual-aid resources beyond what neighboring municipalities can provide or may include a request for state-owned special response assets loaned to the local response. Beyond derailments, rail owners and operators engage with local first responders and conduct periodic training exercises. VRS has provided Bellows Falls Fire Department with a rail storage container for training purposes. On the night of April 14, 2025 the training proved valuable as the Bellows Falls Fire Department responded to a fire on the Berkshire and Eastern freight train operating on the New England Central. Fire Chief McGinnis, "the training that we did with the Vermont Rail System certainly helped us to be better prepared."

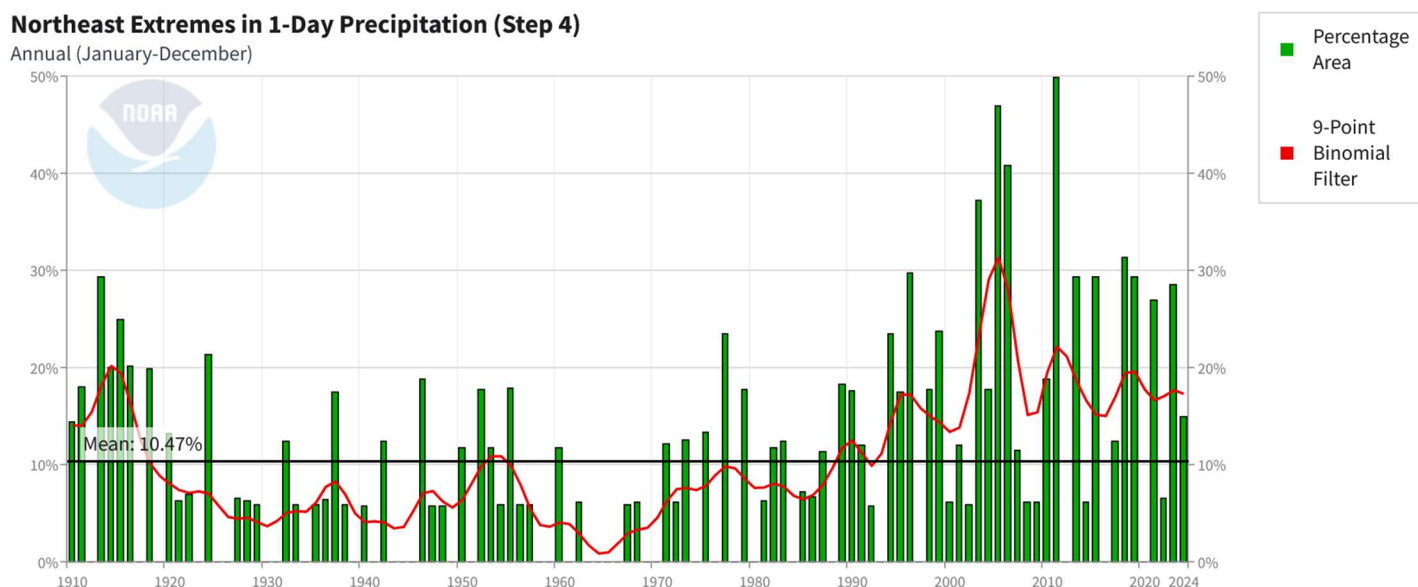


<sup>37</sup> Email correspondence with former VTrans Policy Analyst Karen Songhurst 6/23/25 and <https://railchat.com/the-role-of-the-railroad-industry-in-disaster-recovery>. Accessed 6/23/2025.

## 6.0 RAIL AND THE ENVIRONMENT

Major storm events and extreme precipitation are becoming increasingly common in Vermont and Northeast US, as shown in Figure 29. This trend requires proactive planning to manage long-term impacts to infrastructure such as the rail system. The resilience improvements to reduce risks from major storms described in Chapter 5 rail can reduce negative impacts in the short- and medium-term. Longer term it is likely beneficial to consider the negative and positive impact of transportation policies on the environment; decisions now could reduce risk to rail in the future.

**FIGURE 29 EXTREMES IN ONE-DAY PRECIPITATION IN THE NORTHEAST US (1910-2024)<sup>38</sup>**



Source: NOAA

Freight railroads invest approximately \$23 billion annually to fortify the nationwide network against climate-related disasters like floods, wildfires, and storms, supporting uninterrupted supply chain operations.<sup>39</sup> In Vermont, resilience measures concentrate on the impacts of damage from flooding and rockslides. As climate-related disasters continue to impact rail, the rail industry, including the Class I railroads and Amtrak, continues to support initiatives for reducing fossil fuel consumption.

Initiatives are underway to develop and commercialize battery powered and fuel cell locomotives<sup>40</sup>, the adoption of which will help to reduce the use of fossil fuels and the associated emissions of GHGs. Amtrak has adopted operating and policy initiatives to make their system more sustainable and to increase their system resilience.

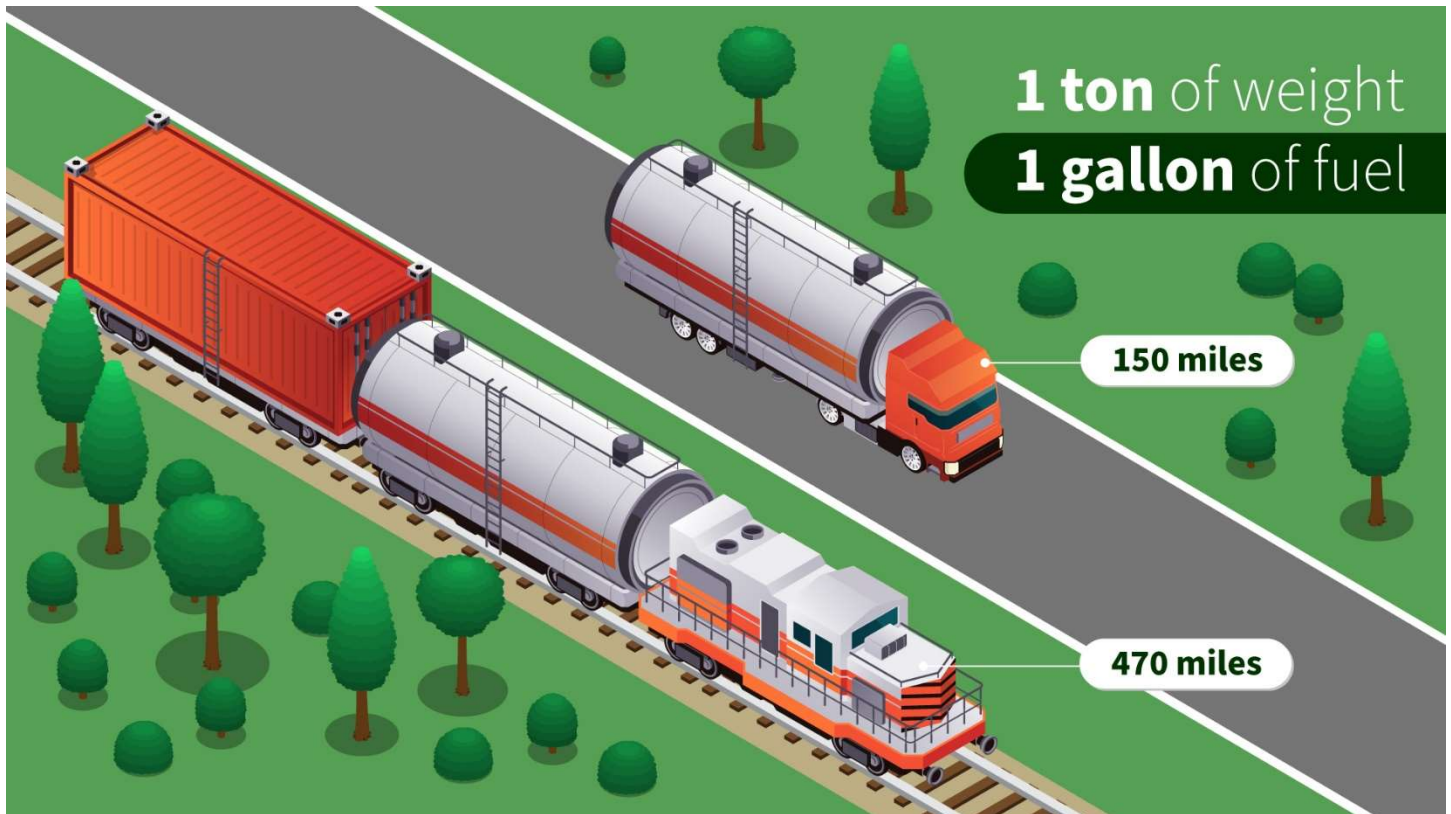
<sup>38</sup> Generated through US Climate Extremes Index at <https://www.ncei.noaa.gov/access/monitoring/cei/graph/ne/01-12/4> (accessed 7/2/2025)

<sup>39</sup> AAR. <https://www.aar.org/issue/freight-rail-climate-change/>. Accessed 6/28/2025.

<sup>40</sup> Railway Age, *Zero-Emission Locomotives on U.S. Railways?* (February 12, 2021). <https://www.railwayage.com/mechanical/zero-emission-locomotives-on-u-s-railways/?RAchannel=home>

**Rail is four times more fuel-efficient than trucks on average, moving one ton of freight more than 470 miles on a gallon of fuel—the distance from Burlington to Baltimore, MD.<sup>41</sup> Moving goods by rail instead of truck lowers GHG emissions by up to 75%, on average.<sup>42</sup>** Rail’s efficiency means that shipping approximately 150 gallons of maple syrup (or one ton) from Vermont to Baltimore requires only a single gallon of fuel compared to the roughly 3 gallons of fuel needed by a semi-truck. As shown in Figure 15, a single rail car can carry approximately five times the weight of cargo carried by a truck.

**FIGURE 30 RAIL VS TRUCK ON ONE GALLON OF FUEL**



Source: <https://www.rsilogistics.com/> & RSG

The Vermont Carbon Reduction Strategy (CRS) indicates that rail (passenger and freight) represents just over 2 % of the annual 2.9 million metric tons of GHGs emitted by the transportation sector in the baseline year of 2022.<sup>43</sup> The Vermont Climate Action Plan (CAP) identifies that increased availability of transit, micro-transit, and rail is a strategy to reduce transportation emissions. Even with rail’s efficiency, the share of overall GHG’s associated with rail is anticipated to rise given the trend towards a decline in emissions of on-road vehicles associated with electrification of the vehicle fleet.

<sup>41</sup> Association of American Railroads. *The Economic Impact of America’s Freight Railroads* (2020). <https://www.aar.org/wp-content/uploads/2018/05/AAR-Economic-Impact-US-Freight-Railroads.pdf>

<sup>42</sup> Association of American Railroads, “The Environmental Benefits of Moving Freight by Rail,” July 2019. Available at: <https://www.aar.org/wp-content/uploads/2018/07/AAR-Environmental-Benefits-Moving-Freight-by-Rail.pdf>

<sup>43</sup> Vermont Department of Transportation. “Carbon Reduction Strategy.” (November, 2023). <https://vtrans.vermont.gov/sites/aot/files/climate/VTrans%20Carbon%20Reduction%20Strategy%20Final.pdf>

Amtrak passenger service can be more efficient in terms of energy use and GHG production than most other modes. As occupancy increases, the per-mile efficiency increases. For trips to New York City from Burlington, for example on a diesel train, full trains produce fewer emissions per person than a loaded four-person vehicle. However, as certain services electrify, for example the Vermonter south of New Haven, those emissions will decrease further.

Increasing the utilization of existing rail for the movement of both passengers and freight in Vermont can help to lower GHG emissions from the overall transportation sector. Switching modes from less efficient fossil fuel on-road vehicles to more fuel efficient, per ton of freight or per full passenger rail car, will require less burning of gasoline and diesel and reduce the amount of total GHGs emitted. Electrification of rail locomotives, to the extent possible and practicable based on cost and technical challenges, would also greatly increase the GHG emissions benefits from making this mode shift.

**FIGURE 31** SIGN AT WATERBURY AMTRAK STATION

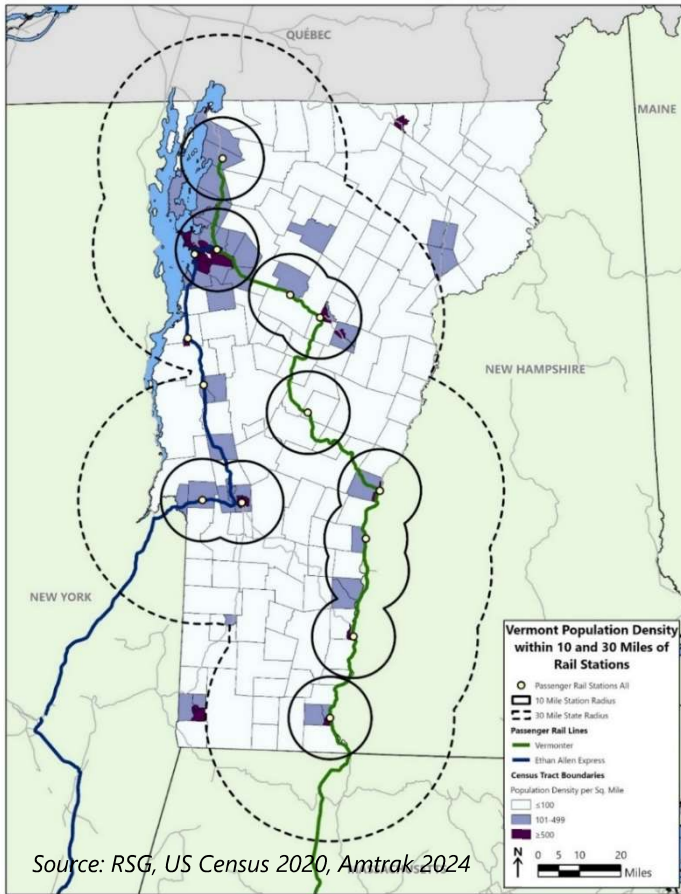


## 7.0 ENHANCING ACCESS TO RAIL

Amtrak rail service is oriented to long-distance travel so it makes limited stops, however, it is still an important resource for people to travel to health care, social services, family gatherings, and other destinations. Figure 32 shows that most of the Vermont’s residents live within 30 miles of an Amtrak station, with some exceptions in the Northeast Kingdom and Bennington. However, Bennington will be included if Green Mountain Corridor continues to advance as covered in the Corridor ID discussion. Living within 30 miles of a station is only one element of access to rail. A few others include access to the Amtrak station regardless of car ownership or disabilities. VTrans manages the GoVermont! Program (<https://www.connectingcommuters.org>) that is a resource for many ways to find transportation options.

Figure 31 shows a notice outside of the Waterbury train station with information about various transportation options that exist in the community. This is one example of a concept that could potentially be repeated across the state with assistance from RPCs.

**FIGURE 32 ACCESS TO PASSENGER RAIL**



Another way to increase the percentage of Vermont's population with ready access to Amtrak stations is to encourage housing development in and around community centers. At a minimum, this makes driving, ridesharing, and taking transit to stations more feasible. If a housing development is in a community center near an Amtrak station, that usually increases access by more modes. If the development includes more affordable and multi-unit housing, it increases access for more people who may not otherwise be able to meet their long-distance transportation needs. Passenger rail success can be difficult in a state with population densities as low as Vermont's, so land development rates and patterns can contribute to achieving Rail Plan goals.

In recent years, Vermont lawmakers have adopted two pieces of legislation to promote housing development consistent with increasing access to rail. The HOME Act (Act 47 of 2023) and Act 181 (2024) made significant changes to land use laws in Vermont. Act 181 makes modifications to the Vermont land use law that is commonly referred to as Act 250. It included temporary interim exemptions that expire in 2025 and permanent changes to Act 250.

The permanent changes provide a process for municipalities to seek exemption from Act 250 requirements. In addition to the exemption process offered through Act 181, the Act 47 HOME Act requires communities to specify a housing target in their municipal plans. The Statewide and Regional Housing Targets report was required as part of the HOME Act of 2023 and ACT 181 of 2024. Vermont Department of Housing and Community Development (DHCD) and VAPDA coordinated to produce the housing production targets and Vermont Housing Finance Agency (VHFA) was contracted to support the development of the targets. The Regional Housing Target assessment finds:

- By 2030, for Vermont to address its demographic challenge it needs to add 41,000 new rental and owner-occupied residences. That translates to 8,200 housing units per year for the next five years.
- By 2050, the projected need is 172,000 new homes. That translates to an average of 7,000 new homes annually over the next 25 years.<sup>44</sup>

The target growth for new residential construction will be centered in the communities that have capacity for growth – namely available water, wastewater, and robust community land use regulations. The communities with Amtrak stations are all included. These regulations will support demand for passenger rail service in Vermont.

<sup>44</sup> Vermont ACCD Regional Housing Target press release. <https://accd.vermont.gov/press-releases/new-regional-housing-targets-and-housing-data-dashboard-help-set-roadmap-addressing>

## 8.0 ECONOMIC AND REGIONAL DEVELOPMENT

Passenger and freight rail service are important drivers of economic activity in Vermont. Amtrak service is a benefit identified by residents in multiple sources, and it directly supports Vermont's important tourism sector. Intermodal facilities in the region help economic hubs thrive by providing means to efficiently access the national and international freight rail network. Transload sites enable shipments of a wide range of non-containerized goods, particularly bulk commodities, to be transferred between modes. These facilities allow for easier access to freight rail and additional flexibility in the origins or destinations of freight rail trips.

### Development Driver

Enhancing regional connectivity to promote well-planned development and economic growth in communities requires regional coordination, cooperation, and public outreach. VTrans supports this work through its relationship with the Regional Planning Commissions (RPCs) that represent all the municipalities in Vermont. VTrans has run a program called the Transportation Planning Initiative (TPI) for over 30 years. The TPI program fulfills Federal and State requirements for transportation planning that benefits Vermonters, including through disbursement of Federal transportation funds to RPCs and municipalities.

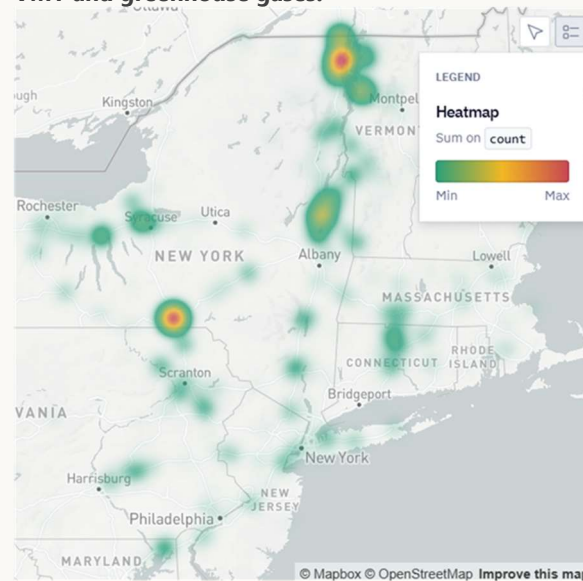
The TPI program contains tasks that RPCs complete and report on. The Rail Planning Coordination task encourages RPCs to coordinate municipal efforts with statewide rail planning through public outreach and education. It also provides funding for RPCs to maintain the potential of priority unused industrial zoned parcels with access to active freight rail for multimodal use now or in the future and encourages their reactivation. Once a rail-accessible property has been developed for other uses it becomes very difficult to restore its original use when needed in the future.

**Owners of underused or unused industrial properties with sidings to active rail may have opportunities they are not aware of to bring these sites back into use for shipping, receiving, or transloading.** A first step would be to speak with RPC transportation staff. Next potential steps could be discussions with the rail operator, VTrans Rail Program manager, or Vermont Department of Economic Development Director of Business Recruitment and International Trade. VTrans has a small three-way grant program in which the owner, operator, and State each invest in rail upgrades to bring these industrial sites back into multimodal use.

### Exploring A Potential Transload Site

Fair Haven has a vacant industrial area between US 4 and VRS rail that has support to explore as a transload site. The municipality, in cooperation with others, applied for a Federal grant to develop a transload site to shift shipments of goods, particularly agricultural commodities, currently moved by truck to rail.

VTrans explored the Fair Haven transload idea using big data resources. The initial analysis was of the origins and destinations of long-distance trucks that pass in the general vicinity of the Fair Haven site. If some small percent of the long-distance trucks transferred their freight to rail for the main part of the trip, it is possible to estimate the decrease in VMT and greenhouse gases.



Heatmap showing trips  $\geq 200$  miles that start, stop, or pass through a 50-mile buffer around the Fair Haven potential Transload location (total trips: 2,950).

## Access to Employment and a Driver of Growth

The Windham Regional Commission wrote in a comment on the draft Rail Plan, “A March 2024 Regional Economic Development report from the Brattleboro Development Credit Corporation estimated that approximately 14% of Windham County’s workforce commutes from a nearby county connected to the region by the Vermonter service and that approximately 15% of employed Windham County residents work in an adjacent region served by the existing Amtrak service. Additionally, a 2022 report from the City of Greenfield, MA Community and Economic Development Department found that Brattleboro was the second most visited community by Greenfield area residents, with 41% of Greenfield Area residents reporting they visited downtown Brattleboro during the past year. Their spending is significant to the Brattleboro area economy, the City of Greenfield report estimating that residents spent upwards of \$92 million annually in the Brattleboro Area.<sup>45</sup> The commuting and visitation statistics described in this comment help to illustrate existing economic connections of communities along the Vermonter rail line. A follow-up comment indicated this is an existing base of movement that may help support additional rail service.

Rail is an important resource for many Vermont businesses, including the Burlington Electric Department. With difficult access and limitations on the number of freight trucks able to park on site at the mainly wood fired McNeil Power Plant, rail provides an important way to bring in woodchips from the Swanton transload facility on the NECR. However, other limitations including the supply and cost of replacement rail cars for woodchips pose challenges in the future.

Transload facilities, such as the concrete loading platform in Bellows Falls (Figure 33) are important resources for local shippers to access the rail system. The concrete ramp provides trucks access to level boarding to train cars. Shippers can drive loaded vehicles to and from the station. Weight limitations on highway bridges to the Bellows Falls island (where the ramp is located) has limited use of the platform for at least the last five years, but bridge upgrades expected by 2030 should remove these limitations and allow this facility to resume service.

**FIGURE 33** BELLOWS FALLS TRANSLOADING PLATFORM



Source: RSG

In 2016, a new transload facility opened up along the Connecticut River Line in Barton, Vermont. This began as an expansion of the Lyndonville Yard site for bulk grains. Couture Trucking’s transload service of grains for craft brewers in the

<sup>45</sup> Comment from Windham RPC.

Northeastern US outgrew the Lyndonville yard and a new location was started. This 80 acre transload site has seen steady growth with the grains market more than tripling the volumes handled. At the same time the products moved via rail have expanded to other commodities including aggregates. Currently there are efforts underway to continue the expansion of freight moved through this location, including the possibility of some container shipping via Rail.

As growth continues it is not only increasing the employees connected to this site but is also reducing the overall impact on the climate as a major portion of the journey for this freight is completed using rail. Future expansion will increase the benefits to Vermont as we partner on developing this resource.

**FIGURE 34**     **BARTON TRANSLOAD FACILITY**



## 9.0 PERFORMANCE MEASURES

Performance measures and associated performance targets are a way to set quantitative goals and track success in reaching them. They are a valuable way to organize the analysis of existing conditions and identify gaps and needs. They can also be used to report performance in a concrete manner. While valuable in a rail plan, it is also necessary to keep in mind that many factors influencing progress are outside the control of VTTrans or even the collaborative efforts of rail partners in Vermont. Progress towards achieving these measures provides another way to identify successes and areas for further attention to meet goals for rail in Vermont.

This Rail Plan update carries forward the VTTrans rail performance measures and required Federal PRIIA Section 207 performance measures for passenger rail services. It also summarizes progress on rail-related measures in other AOT and related Vermont plans.

### *VTTrans Rail Performance Measures*

VTTrans established performance measures in the 2006 Rail Plan. They were slightly expanded on in the 2015 Rail Plan and 2021 Rail Plan. The 12 performance measures defined by VTTrans are shown in Table 11 below. As noted in the previous paragraph, these are voluntary and in some cases aspirational targets. They address matters influenced by factors external to Vermont and to VTTrans. Some of the measures could be influenced more by VTTrans if there was funding in existing tasks or funding provided that more directly focused on some of the measures. These measures span three categories and address needs for both passenger and freight rail. The three categories are:

- System Effectiveness
- System Conditions
- System Initiatives

**TABLE 11 STATE-DEFINED PERFORMANCE MEASURES AND STATUS**

Category	Performance Measure	Target	Status
<b>System Effectiveness</b>	Freight rail volume originating and terminating in Vermont	3 million tons (Waybill)	Not being met
	Recruit new rail-using businesses	2 businesses per year	Partially being met
	Passenger trips in Vermont	5% increase	Being met
	FRA PRIIA performance and service quality indicators (as summarized in Table 13 and Table 14 that follow)	Above national average in half or more reporting categories	Partially being met
<b>System Condition</b>	Bridges meeting 263,000 pound standard	All State-owned bridges	Being met
	Bridges meeting 286,000 pound standard	Improve 3 or more annually	Being met
	Rehabilitate and upgrade rail crossings	Improve 3 or more annually	Being met

Category	Performance Measure	Target	Status
	115 pound rail	5 miles annually	Being met
<b>System Initiatives</b>	Eliminate permanent slow orders along passenger routes	3 per year	Partially being met
	Continuously welded rail along all passenger routes	Continuously welded rail along all current and future routes	Not being met
	Vertical clearances	Remove all obstructions to allow unrestricted double stack operations	Not being met
	Minimum FRA Track Class 4 for all passenger routes	Class 4 operating speeds along all current and planned routes	Not being met

### Federal Rail Performance Measures

In addition to VTrans performance measures, passenger rail services operated within a state must report performance measures in line with PRIIA Section 207 requirements. These requirements allow Amtrak, elected officials, and other policy makers to work together to improve the national passenger rail network. The goals are defined in the legislation, compared to the above measures which can be amended by the State. Data to assess these measures are provided by Amtrak and the FRA on a quarterly basis.

Table 12 and Table 13 show the summarized results for progress toward PRIIA standards for the two services in Vermont. Summarizing comments follow the two tables.

**TABLE 12 PRIIA 207 PERFORMANCE MEASURES FOR ETHAN ALLEN EXPRESS**

Note: It appears that there was a change in Amtrak reporting for some measures, making comparison difficult for this update.

Category	Metric	PRIIA Section 207 Standard	Last Four Quarters Average (2024 Q1-Q4)	Met PRIIA Goals?
Financial	Percentage of operating costs recovered by passenger related revenue (last 8 quarters)	Continuous Improvement	87%	Yes (was 83% at last plan)
	Passengers per train mile (last 8 quarters)	Continuous Improvement	63	Not Available <sup>46</sup>
On-Time Performance	Change in effective speed from FFY2008 baseline (mph)	> =0	Not Available	Not Available
	End point on time performance	80%	Not Available	Not Available
	All stations on time performance	80%	68.1%	No

<sup>46</sup> It appears there have been changes in what data Amtrak provides and how measures are calculated. Passengers per train mile seems no longer able to be calculated.

Category	Metric	PRIIA Section 207 Standard	Last Four Quarters Average (2024 Q1-Q4)	Met PRIIA Goals?
Train Delays	Host Responsible Delays – minutes per 10,000 train miles (by each host railroad)	<=900	MNRR – 1,153.4	No
			Amtrak – 358.4	Yes
			CP – 1835.7	No
			VTR – 669.5	Yes
	Amtrak Responsible Delays – minutes per 10,000 train miles for off-NEC corridors	<=325	464.9	No
Customer Service Indicators	Overall Service	82	82.0	Yes
	Amtrak personnel	80	91.0	Yes
	Information given	80	77.0	No
	On-board comfort	80	79.0	No
	On-board cleanliness	80	78.5	No
	On-board food services	80	63.5	No

**TABLE 13 PRIIA 207 PERFORMANCE MEASURES FOR VERMONT**

Note: It appears that there was a change in Amtrak reporting for some measures, making comparison difficult for this update

Category	Metric	PRIIA Section 207 Standard	Last Four Quarters Average (2021 Q1-Q4)	Met PRIIA Goals?
Financial	Percentage of operating costs recovered by passenger related revenue (last 8 quarters)	Continuous Improvement	78%	No (Was 103% at last plan)
	Passengers per train mile (last 8 quarters)	Continuous Improvement	65	Not Available <sup>47</sup>
On-Time Performance	Change in effective speed from FFY2008 baseline (mph)	>=0	Not Available	Not Available
	End point on time performance	80%	Not Available	Not Available
	All stations on time performance	80%	68.4%	No
Train Delays	Host Responsible Delays – minutes per 10,000 train miles (by each host railroad)	<=900	MADOT – 874.1	Yes
			MNRR – 2719.5	No
			NECR – 1363.3	No
	Amtrak Responsible Delays – minutes per 10,000 train miles for off-NEC corridors <sup>†</sup>	<=325	420.1	No

<sup>47</sup> It appears there have been changes in what data Amtrak provides and how measures are calculated. Passengers per train mile seems no longer able to be calculated.

Category	Metric	PRIIA Section 207 Standard	Last Four Quarters Average (2021 Q1-Q4)	Met PRIIA Goals?
Customer Service Indicators	Overall Service	82	78.5	No
	Amtrak personnel	80	85.8	Yes
	Information given	80	70.3	No
	On-board comfort	80	81.3	Yes
	On-board cleanliness	80	72.0	No
	On-board food services	80	51.8	No

Neither of the Amtrak services operating in Vermont improved in the last four quarters for each and every PRIIA standard. However, Vermont's continued investments in rail have led to improvements towards meeting all standards in comparison to prior Plans. Investments in state of good repair and safety benefit freight rail and passenger rail services. For example, the analysis shows reductions in delays and improvements in financial performance. Customer service indicators also remain high, even if not at performance standards.

The extension of the Ethan Allen Express to Burlington succeeded at spurring ridership, and Vermont seems to have recovered passengers after the pandemic closure better than many states. The shift in how Amtrak calculates certain measures makes some longitudinal analysis difficult or not possible. Some highlights of the performance measure analysis follow.

- Farebox return is impressive, at 87% on the Ethan Allen Express and 78% on the Vermonter.
- Effective speeds on both lines continue to improve compared to the 2008 baseline.
- On-Time performance to the end point, a measure that particularly relates to Vermonters, exceeds Federal targets: it is 93% on the Ethan Allen Express (NYC-Burlington) and 85% on the Vermonter (Washington-St. Albans).
- More than 14 bridges that serve freight and passenger rail were rehabilitated or replaced since the 2021 Rail Plan along with many improvements to rail lines. This suggests that rail measures may have already improved but relevant data is not yet available.

### *Performance Measures in Related Plans*

There are additional Vermont plans and reports that have performance measures related to rail. Two of them are summarized below, the AOT Strategic Plan and the Vermont Programmatic and Performance Measure Budget (PPMB) Report. Other plans include the 2022 Vermont Comprehensive Energy Plan which may be accessed through the Public Service website, <https://publicservice.vermont.gov/about-us/plans-and-reports>.

The AOT Strategic Plan was being updated as the 2025 Rail Plan was being finalized. As noted in Chapter 2: Vision and Goals, the Rail Plan is consistent with and supports the updated mission and goals of the Strategic Plan. It is anticipated that the performance measures of the Rail Plan and the updated Strategic Plan performance measures will be coordinated. Rail Plan performance measures may be more expansive or aspire to higher targets than those in the Strategic Plan.

The PPMB Report includes two performance measures related to rail. They are

- percent change in Amtrak ridership, and
- percent of rail bridges inspected annually.

The first of these performance measures, Amtrak ridership, is in the Rail Plan. The target in the Rail Plan is higher than in the PPMB and is being met. All rail bridges are inspected annually as a standard practice. The PPMB target is 100% inspection which is being met through the standard practice.

## 10.0 RIDERSHIP FORECASTING

General Vermont passenger rail ridership forecasts were prepared based on population growth trends to consider what demand might look like in 2045. This supports the initial exploration of initiatives that add additional rail service. Table 14 below shows forecasted scenarios, which are based on current initiatives and variations of, and the forecasted growth from a No Build baseline for the year 2045. For example, if track upgrades are made to increase speeds to 79 MPH along the Vermonter line, ridership in 2045 could be 15% higher than a future without an upgraded speed. Again, this is general forecasting as it would be very difficult to bring some parts of the Vermonter route through mountains up to that speed. The numbers are for increases in ridership *to and from Vermont stations*, excluding riders who are only traveling through Vermont from points south and north. The scenario modeled include some initiatives, but also include variations of the initiatives, such as the growth of the Vermonter with improved connections to Boston. The scenario anticipated to result in the largest passenger increase would add a second service to the Vermonter or a night train service.

**TABLE 14 FORECASTED 2045 RIDERSHIP GROWTH BY INITIATIVE SCENARIO**

Scenario	Growth (%)	Growth (#)
<b>Vermonter Scenarios</b> (Baseline = 81,000)		
79 MPH Service	15%	93,000
Extension of one Knowledge Corridor Valley Flyer train to Brattleboro	16%	93,000
Extension of one Knowledge Corridor Valley Flyer train to White River Jct.	41%	114,000
Vermonter day train extension to Montreal	29%	104,000
Twice-daily Vermonter service, with both terminating in Montreal	148%	201,000
Night train from Montreal to points south	116%	175,000
Boston connecting train at Springfield to Vermonter serving Montreal	36%	110,000
<b>Ethan Allen Scenarios</b> (Baseline = 55,000)		
79 MPH Service	8%	59,000
Albany – Burlington via Bennington and extension to Burlington (two trains)	26%	69,000
<b>Combined Scenarios</b> (Baseline = 136,000)		
Ethan Allen extension to Essex Junction and Vermonter day train extension to Montreal	20%	163,000

The base demand between all Vermont station pairs and between all Vermont stations and New York City or other out-of-state destinations are assumed to be the 2023 fiscal year demand, as provided by Amtrak. Base demand for new stations (e.g., Montreal, Bennington, Manchester) are assumed based on the specific characteristics of the scenario. Demand growth to 2045 used in the ridership forecasts are based on the growth in population and jobs anticipated taken from the Vermont Long-Range Transportation Plan. The Medium forecast growth rate are used in Table 14. The full ridership forecast details in Appendix H.

## 11.0 RECOMMENDATIONS

The update of the Rail Plan started with the range of initiatives considered in the 2021 update and built from there through analysis, interviews, meetings, and stakeholder comments. The term “initiative” was used purposefully as there are many ways to enhance the value rail brings to Vermont. Initiatives can be potential infrastructure investments, policies, or other actions that any entity could take to advance the Rail Plan goals; this is a State plan and implementation will need to involve many partners. The full set of potential initiatives is included in Appendix G. That appendix also documents how that long set of potential initiatives was evaluated and screened. After more meetings and sharing of information in various ways, 38 initiatives are recommended.

### 11.1 Recommended Initiatives

This section provides an overview of the 38 recommended initiatives. As a general means of engaging, the recommended initiatives are organized into three tiers. The three tiers are not a prioritization, but rather groupings to help communicate the level of investment and progress that has been made so far. There is no ranking within a tier. The tiers are described as follows:

- **Tier 1 initiatives are mainly funded and active or considered essential, such as increasing resilience to storms**
- **Tier 2 initiatives are actively in the planning stage and progressing**
- **Tier 3 initiatives require further study, or are useful but not as pressing as some others**

Note that many initiatives rely on each other to achieve a larger undertaking. For example, reestablishing the passenger rail service to Montreal is a recommended initiative in active planning with various studies completed and underway. However, it relies on additional initiatives including the following:

- Upgrade East Alburgh rail bridge
- Maintain State-owned passenger rail trackage at Class 4
- Continue to improve at-grade rail crossing safety
- Work to reduce causes of delay to Vermont Amtrak services within and beyond Vermont’s borders through partnerships.

The following tables show the 38 recommended initiatives organized by tier. ***Bold italicized text*** denotes policy and program initiatives. Plain text denotes initiatives that are more specific to the infrastructure of particular locations.

#### *Tier 1 Recommendations*

Table 15 shows the recommended initiatives that could be organized as within Tier 1, recognizing there can be movement of initiatives in any tier based on funding, needs, and other reasons. An initiative such as seeking grants and innovative funding may sound self-evident but is so essential to everything else that it is purposefully included.

**TABLE 15 TIER 1 RECOMMENDED INITIATIVES**

<b><i>Seek grants and innovative funding approaches for freight and passenger rail</i></b>
<b><i>Increase resilience of rail system to make critical infrastructure more resilient now and to prepare for increasing storm severity</i></b>
<b><i>Further enhance marketing of Vermont passenger rail</i></b>
Upgrade NECR Winooski Branch Bridges and Track to 286k standard (Burlington to Essex Junction)
Upgrade WACR Connecticut River Line Bridges and Track up to 286k standard (White River Junction to Newport)
Vermont Extension to Montreal – one round trip/ day
<b><i>Upgrade all rail lines to 286K weight-bearing capability, emphasizing bridges and weight restricted locations</i></b>
Burlington Railyard Enterprise Project - Improve safety in rail yard, interconnections for the community, and multimodal transportation infrastructure
Continue to improve at-grade rail crossing safety with gates, flashers, and other safety improvements at existing and planned public road crossings with an emphasis on the top 50 prioritized sites on state highways.
Passenger rail station improvements statewide, prioritizing stations based on usage trends and station needs, with a focus on multimodal access.
VTR track upgrade between Hoosick and Rutland to continuous welded rail (CWR) with a minimum of 115 lb. rail

The Tier 1 initiatives includes the top priority of the State – which is returning passenger service to Montreal. This initiative includes many specific projects, studies, and anticipated investments as part of the singular initiative included in the recommendations.

### *Tier 2 Recommendations*

Table 16 shows the recommended initiatives that may be organized as within Tier 2, recognizing there can be movement of initiatives in any tier based on funding, needs, and other reasons.

**TABLE 16 TIER 2 RECOMMENDED INITIATIVES**

<b><i>Maintain and improve freight network connections for Vermont businesses to regional short-haul markets and competitive Class 1 railroad (mix of physical and policy matters)</i></b>
<b><i>Maintain State-owned freight trackage at FRA Track Class 2 or better and State-owned passenger rail trackage at Class 4 or better where viable based on geography</i></b>
<b><i>Preserve and fully use industrial land parcels with access to rail sidings as well as the rail infrastructure that provides access to them.</i></b>
Upgrade GMRC Bridges and Track to 286k standard (Rutland to Bellows Falls) – <i>Evaluation is underway whether this is better grouped in Tier 1 based on funding and scheduled work.</i>
<b><i>Facilitate development of freight transload or potentially intermodal facilities in or near Vermont</i></b>
<b><i>Improve multi-modal connections including bicycle, pedestrian, and transit to Amtrak stations. Improve wayfinding, Pick-up/Drop-off, supply of nearby parking (vehicles and bicycles) for short and long term uses. These efforts include partnerships and collaboration with adjacent neighbors.</i></b>
Coordinate to upgrade the privately owned East Alburgh Bridge that is important for international freight movement and would be used by the passenger train to Montreal.
<b><i>Support smart land use growth likely to increase rail use, such as transit-oriented development (TOD) and other housing strategies near Amtrak stations.</i></b>

**Improve multimodal coordination between Amtrak stations with broader intercity and interstate highway access (intercity buses including Greyhound, VT Translines, etc.). Including special combo fares and other incentives for multimodal travel. Connections from stations, such as Dartmouth from White River Jct.**

### Tier 3 Recommendations

Table 17 shows the recommended initiatives that may be organized as within Tier 3, recognizing there can be movement of initiatives in any tier based on funding, needs, and other reasons.

**TABLE 17 TIER 3 RECOMMENDED INITIATIVES**

<b>Educate shippers about rail carload and intermodal service options and contracting approaches</b>
Extend one Valley Flyer service from Greenfield, MA to White River Junction, VT
Investigate a coordinated connection (rail, bus, etc.) at both Rutland and Bellows Falls to connect passengers between the Ethan Allen Express and the Vermonter to Killington, Ludlow/Okemo and Chester.
<b>Publicize existing voluntary efforts of railroads and encourage "freight as a good neighbor" (e.g., NCHRP Syntheses 320) while respecting rail's exemptions from local control</b>
Upgrade WACR Montpelier & Barre Sub. Bridges and Track up to 286k standard (Montpelier to Barre)
Vermonter Extension to Montreal – two round trips/ day
<b>Work to reduce causes of delay to Ethan Allen Express and Vermonter service within and beyond Vermont's borders through partnerships</b>
Bring the Vermonter up to 79 MPH where conditions allow, primarily south of White River Junction
Bring the Ethan Allen Express up to 79 MPH where conditions allow
<b>Reduce and eventually eliminate restrictions to domestic double stack clearance across the state. For example, on the NECR and the GMRC/CLP.</b>
Extend one Valley Flyer service from Greenfield, MA to Brattleboro, VT
<b>Modernize freight rail yards.</b>
<b>Enhance public safety relating to rail infrastructure, for example by further publicizing and encouraging participation in Operation Lifesaver of Vermont.</b>
Add signs to help drivers know about and find Amtrak stations on I-91, I-89, and other major corridors in Vermont.
<b>Explore increases to peak season passenger capacity on both Amtrak lines.</b>
Extension of Ethan Allen Express from Burlington to Essex Junction to connect with Vermonter.
Add passenger service on the Albany-Bennington-Burlington freight route to supplement Ethan Allen Express service (Green Mountain FRA Corridor ID study)
Confirm and address the sections of rail that are most vulnerable to flood damage using results of the expansion of the Transportation Resilience Planning Tool (TRPT) to rail. See Appendix F of Rail Plan for priority locations.

## 11.2 Consideration of Funding

When available, most funding for Vermont's rail program comes from federal sources. There is no consistent, dedicated federal funding source for rail capital projects. **It is difficult to predict the amount that would be available to fund the capital needs identified in this Plan.** In the past Vermont has been successful in securing federal grants for rail projects, however, it is not certain that VTrans will be as successful moving forward.

Vermont's rail program receives funding from sources including federal grant and loan programs, and State and local funding options such as private activity bonds and transportation infrastructure bonds (TIB). Federal grant funding continues

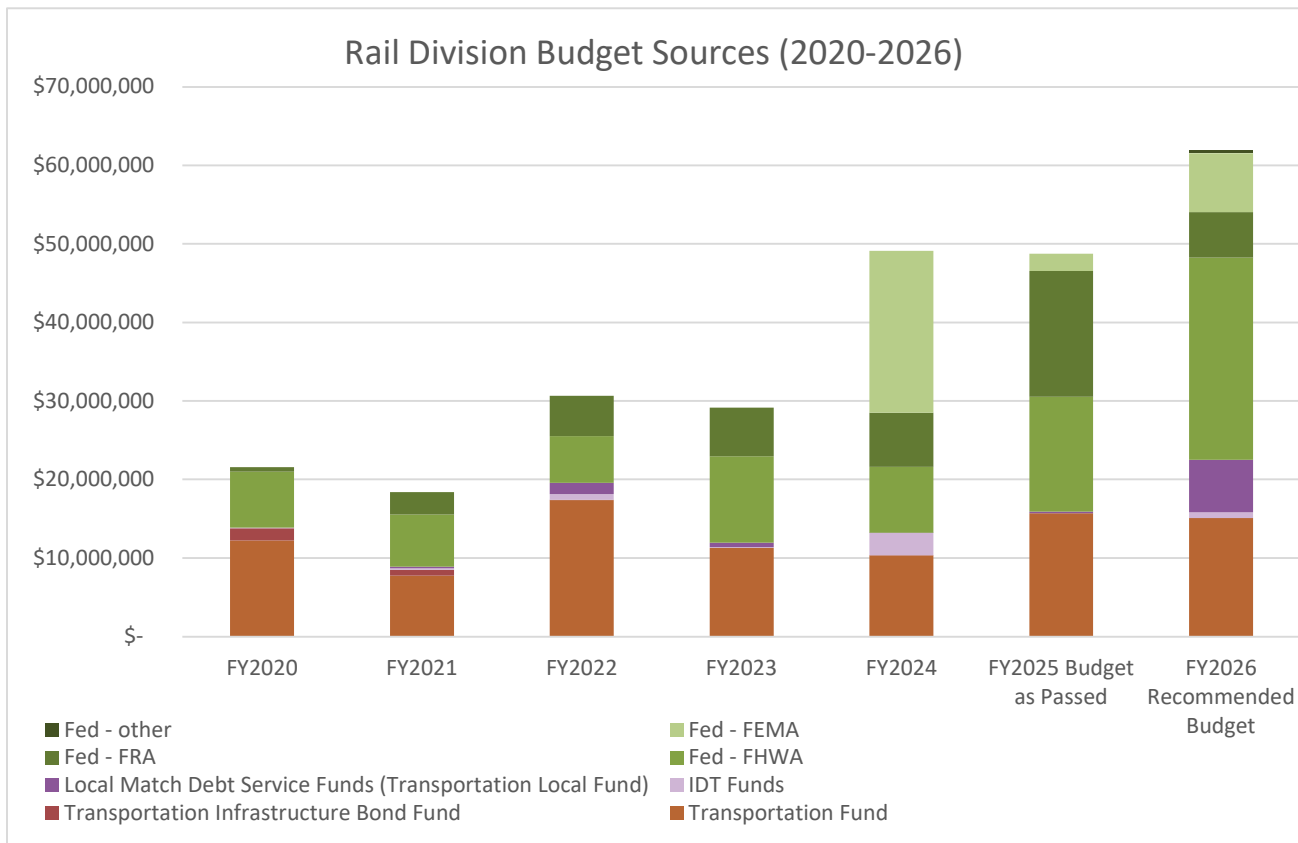
to evolve with changes in federal priorities. The Consolidated Rail Infrastructure and Safety Improvements (CRISI) Program is an important and active program that is supporting several major ongoing enhancements in Vermont. The CRISI program provides funding for capital projects that improve passenger and freight rail transportation systems in terms of safety, efficiency, or reliability. The East Alburgh Bridge upgrades and the enhancements to the NECR line from Burlington to Essex Junction are two recently funded projects using CRISI grants. Upgrades to crossings are supported by the FHWA Section 130 Crossing Improvement Program.

The 2021 Bipartisan Infrastructure Law (BIL), the Promoting Resilient Operations for Transformative, Efficient, and Cost-saving Transportation (PROTECT) Grant program provides funding for some rail projects and includes increasing transportation resilience to natural hazards. USDOT grant programs that provide funding across all modes of transportation have been important to fund Vermont rail projects. They have shifted in name and precise focus over time, for example, RAISE replaced BUILD, which replaced TIGER grants.

Vermont also has two FRA Corridor ID grant awards underway. The two \$500,000 grants fund the analysis for both Corridor ID studies. One is for the Western Line and one is for the Eastern Line. See Section 4.2 for more information on the Corridor ID program.

Vermont's Transportation Program includes approximately \$62 million for rail in State Fiscal Year (SFY) 2026 including capital investments, operating subsidies and other non-capital costs. This is nearly triple the funding from SFY 2021 due to several federal grants and FEMA disaster recovery response funds. Vermont received funds from FEMA following the destruction from Hurricane Beryl (July 2024). The next federal transportation reauthorization bill is anticipated in calendar year 2026 which will eventually affect rail funding in Vermont. The rail funding within VTrans has represented 3.90%, 3.8%, and 4.8% of total VTrans program budgets in 2024, 2025, and 2026. The increase in overall rail spending in the 2026 budget is evident in the overall increase shown in historical rail funding summary in Figure 35.

**FIGURE 35 HISTORICAL RAIL DIVISION FUNDING SOURCES (2020 – 2026)**



Source: VTrans Budgets <https://vtrans.vermont.gov/about/capital-programs>

Focusing only on capital funds, the recent historic funding trends dedicated around \$10 million in annual State funding for rail capital needs and an average federal funding level of approximately \$5.7 million per year. FHWA and FRA have provided elevated funding levels more recently, averaging nearly \$13 million over the recent three-year period (excluding FEMA funds). If future funding is closer to the first four years in Figure 30 (years 2020 – 2023), then available funding over the next 20 years would be approximately \$5.7 million of federal funds plus \$9 million state funds for each of the next 20 years. **This represents \$300 million of state and federal capital funds available for rail capital projects in Vermont over the next 20 years.**

This level of funding is similar to past forecasts and has a reasonable likelihood of being sufficient to advance Tier 1 and Tier 2 initiatives. The Tier 1 initiatives generally have momentum and a pathway to completion – although most require identifying additional funding. Tier 2 initiatives are longer-term actions that have a higher potential and likelihood of being funded with this expected level of funding. The Tier 3 initiatives are less certain as to the timing and as such the costs and sources of funding are also unclear. Many of the Tier 3 initiatives require planning and can scale up or down depending on the availability of funding.

### 11.3 Implementing the Recommendations

The first section of this chapter summarized the recommended initiatives by tier generally based on their level of progress but noted that some initiatives rely on each other to achieve larger undertakings or make progress toward Rail Plan goals. This section considers the recommended initiatives by the goal they seem to most strongly help advance. It is common for

an initiative to also help advance multiple goals so this is not a black-and-white categorization. The organization by goal helps group together recommended initiatives that may be implemented by similar sets of partners. An example is the goal area of increasing intermodal connectivity; many of the initiatives to increase access to Amtrak stations involve partners in the transit, bicycling, and pedestrian field.

In addition to grouping recommended initiatives by goal most strongly served, the tables that follow provide high-level initial considerations for implementation. Each table includes broad-brush estimates of cost range (low to very high), general assessments of feasibility (low to high), and some of the partners who would likely lead implementation.

## State of Good Repair

Maintaining the existing system in a state of good repair and sufficient quality to maintain levels of service and safety is essential for the rail system. This goal is essential, furthers other goals, and leverages systemwide benefits. For example, increased system reliability for customers can reduce costs and attract additional demand. Achieving and maintaining a state of good repair is expensive and tightly interwoven with funding levels.

## Funding

Most funding for rail in Vermont comes from federal sources as covered in Section 11.2 Consideration of Funding. Unlike FHWA funding for highway capital projects and maintenance, there is no consistent federal funding source for the rail capital projects needed for state of good repair, so the recommendations for these two goal areas are presented together.

**FIGURE 36 RAIL REPAIR IN VERMONT**



Funding the rail system adequately and sustainability requires long-term partnerships. The Agency of Transportation has leveraged state funds and partnered with private rail owners successfully in the past to provide local matches to unlock federal grants. This is a testament to the alignment between the State and private sector owners and operators. The Rail Plan recommended initiatives for Funding include innovative approaches to be explored in partnership including marketing, promotional opportunities, and exploring alternative funding mechanisms. This work will require collaboration between agencies and partners who may have not historically had as much involvement in the rail system.

Table 18 displays the initiatives that further the State of Good Repair and Funding goals. The table includes information to move each initiative toward implementation. There is momentum behind the first priority initiatives, with on-going efforts to

replace and upgrade existing rail lines in several areas. The second and third tier initiatives require additional investment and effort to attract funding. Many of these initiatives are feasible but require significant funding.

TABLE 18 STATE OF GOOD REPAIR AND FUNDING INITIATIVES

Tier	ID	Description	Concept Cost	Feasibility	Timeline	Lead Agencies
First	2	<b>Upgrade all rail lines to 286K weight-bearing capability, emphasizing bridges and weight restricted locations</b>	High	High	Short to Long Term	VTrans, rail owners/operators
	115	Upgrade WACR Connecticut River Line Bridges and Track up to 286k standard (White River Junction to Newport)	High	Low	Short to Long Term	VTrans, WACR rail owners/operators
	110	VTR track upgrade between Hoosick and Rutland to continuous welded rail (CWR) with a minimum of 115 lb. rail	Low	High	Long Term	VTrans, rail owners/operators
	4	<b>Further enhance marketing of Vermont passenger rail</b>	Low	High	On-going	VTrans, Amtrak, ACCD, VT tourism
	18	<b>Seek grants and innovative funding approaches for freight and passenger rail</b>	Low	High	On-going	VTrans, rail owners/operators
	126	Upgrade NECR Winooski Branch Bridges and Track to 286k standard (Burlington to Essex Junction)	Medium	Medium	Short Term	VTrans, NECR rail owners/operators
Second	3	<b>Maintain State-owned freight trackage at FRA Track Class 2 or better and State-owned passenger rail trackage at Class 4 or better where viable based on geography</b>	High	High	Long Term	VTrans, rail owners/operators
	112	Upgrade GMRC Bridges and Track to 286k standard (Rutland to Bellows Falls)	Medium	High	Short to Long Term	VTrans, rail owners/operators
	2522	Coordinate to upgrade the privately owned East Alburgh Bridge that is important for international freight movement and would be used by the passenger train to Montreal.	High	Medium	Medium Term	VTrans, NECR rail owners/operators
Third	113	Upgrade WACR Montpelier & Barre Sub. Bridges and Track up to 286k standard (Montpelier to Barre)	Medium	Medium	Short to Long Term	VTrans, WACR rail owners/operators

## Expand Capacity and Increase Use of Rail

The goal of expanding the capacity of the rail system will create demand and respond to that growth in passenger and freight services. As additional services are available, time and costs per passenger and per ton can reduce, which will spur additional demand. Many of the initiatives that support this goal are centered around adding additional passenger services, increasing frequency, and reducing the travel time between destinations. On the freight side, this set of initiatives focus on eliminating bottlenecks and restrictions.

The first-tier initiative continues to receive attention and funding, including the Corridor ID work discussed in Section 4.2. The remaining initiatives are all in the third tier. These require additional exploration or investment to progress. The Valley Flyer extensions are relatively new initiatives that will be further investigated in the Corridor ID study.

**TABLE 19 INCREASED USE / EXPAND CAPACITY INITIATIVES**

Tier	ID	Description	Concept Cost	Feasibility	Timeline	Lead Agencies
First	100	Vermont Extension to Montreal – one round trip/ day	Low	High	Short Term	VTrans, Amtrak
Third	21	<b>Work to reduce causes of delay to Ethan Allen Express and Vermont service within and beyond Vermont’s borders through partnerships</b>	Medium	Low	On-going	VTrans, Amtrak
	102	Vermont Extension to Montreal – two round trips/ day	Medium	Medium	Medium Term	VTrans, Amtrak
	103	Extension of Ethan Allen Express from Burlington to Essex Junction to connect with Vermont.	Medium	High	Medium Term	VTrans, Amtrak
	104	Add passenger service on the Albany-Bennington-Burlington freight route to supplement Ethan Allen Express service in Western Corridor. This is part of the FRA Corridor ID study.	High	Low	Long Term	VTrans, Amtrak
	105	Bring the Vermont up to 79 MPH where conditions allow	High	Low	Medium Term	VTrans, Amtrak
	106	Bring the Ethan Allen Express up to 79 MPH where conditions allow	High	Low	Medium Term	VTrans, Amtrak
	108	Extend one Valley Flyer service from Greenfield, MA to White River Junction, VT	Medium	Low	Medium Term	VTrans, Amtrak
	2527	Extend one Valley Flyer service from Greenfield, MA to Brattleboro, VT	Medium	Medium	Short Term	VTrans, Amtrak
	2528	<b>Explore increases to peak season passenger capacity on both Amtrak lines.</b>	Medium	Medium	Medium Term	VTrans, Amtrak
	2529	<b>Reduce and eventually eliminate restrictions to domestic double stack clearance across the state. For example, on the NECR and the GMRC/CLP.</b>	High	Low	Long Term	VTrans, VTR, NECR, other rail lines

### Intermodal Connectivity

This goal is focused on improving intermodal connectivity to enhance access to both passenger and freight rail. The first-tier initiative includes improvements for ADA accessibility improvement as well as coordinating with private and publicly owned

rail stations for multimodal upgrades. Several stations are expected to receive upgrades over the coming years, including Essex Junction, White River Junction, Bellows Falls, and Brattleboro.

The second-tier initiatives include actions to support freight and passenger services. Interest in accessing rail has been growing, with transload facilities being critical parts of the system to provide access to business and organizations that may not have a rail siding available to their property. Supporting upgrades to transload facilities to increase access to more partners has been identified in several community plans in the state.

Several initiatives focus on improving awareness and the ability for individuals to access rail passenger stations, either through improved signage and wayfinding, or through improved drop-off facilities and long-term parking (bicycle and vehicle). Expanding the reach to passenger service by coordinating travel options, bus, taxi, Uber/Lyft, etc. with passenger service can improve access to large areas of the state. Enhancements at stations for multimodal access will require partnerships across a wide range of stakeholders, including municipalities, private landowners, local residents, and others. These may also require innovative funding sources to leverage funding beyond that typically available for the rail system.

**TABLE 20 INTERMODAL CONNECTIVITY INITIATIVES**

Tier	ID	Description	Concept Cost	Feasibility	Timeline	Lead Agencies
First	111	Passenger rail station improvements statewide, prioritizing stations with increasing use or with needs at the station or for multimodal access.	Low	High	Short Term	VTrans, Amtrak, station owners
Second	8	<b>Facilitate development of freight transload or potentially intermodal facilities in or near Vermont</b>	Medium	Medium	Short Term	VTrans, rail owners, operators, local agencies and organizations
	14	<b>Improve multi-modal connections including bicycle, pedestrian, and transit to Amtrak stations. Improve wayfinding, Pick-up/Drop-off, supply of nearby parking (vehicles and bicycles) for short and long term uses. These efforts include partnerships and collaboration with adjacent neighbors.</b>	Medium	Medium	On-going	VTrans, Amtrak, station owners and Municipalities, Public Transit
	2507	<b>Improve multimodal coordination between Amtrak stations with broader intercity and interstate highway access (intercity buses including Greyhound, VT Translines, etc.). Including special combo fares and other incentives for multimodal travel. Connections from stations, such as Dartmouth from White River Jct.</b>	Low	Medium	Short to Medium Term	VTrans, station owners, intercity bus operators, Amtrak, ACCD
Third	2506	Investigate a coordinated connection (rail, bus, etc.) at both Rutland and Bellows Falls to connect passengers between the Ethan Allen Express and the Vermonter to Killington, Ludlow/Okemo and Chester.	Low	Medium	Short Term	RPCs, municipalities, organizations, businesses, transit operators
	2509	Add signs to help drivers know about and find Amtrak stations on I-91, I-89, and other major corridors in Vermont.	Low	High	Short Term	VTrans

### Economic Development

The goal of acting on opportunities for ancillary economic development can be furthered by the initiatives listed in Table 21. The Burlington Railyard Enterprise project is partially funded and more information is available about it online. The project will improve roadway conditions and delay in parts of Burlington, enhance safety and security around the Burlington railyard, and open areas adjacent to the railyard for redevelopment. The second-tier initiatives are all policy and program activities that will increase demand for rail by improving access to the rail system for people, goods and services. The preservation of sidings is important for anticipated future need to access rail. The emphasis on increasing the housing supply in Vermont,

with many areas near train stations, will increase the number of Vermonters with access to the passenger rail system. See Section 7.0 for additional information. Education and awareness for how businesses and organizations can access the rail system will require partnerships across state agencies and regional economic development partners.

**TABLE 21 ECONOMIC DEVELOPMENT INITIATIVES**

Tier	ID	Description	Concept Cost	Feasibility	Timeline	Lead Agencies
First	116	Burlington Railyard Enterprise Project - Improve safety in rail yard, interconnections for the community, and multimodal transportation infrastructure	High	High	Long Term	City of Burlington, CCRPC, VTrans
Second	6	<b>Preserve and fully use industrial land parcels with access to rail sidings as well as the rail infrastructure that provides access to them.</b>	Low	High	On-going	VTrans, ACCD, RPCs
	9	<b>Maintain and improve freight network connections for Vermont businesses to regional short-haul markets and competitive Class I railroad (mix of physical and policy matters)</b>	Low	Medium	On-going	VTrans, rail owners/operators
	15	<b>Support smart land use growth such as transit-oriented development (TOD) and specifically the housing strategies in the 2024 Vermont Act 47 and 2025 Act 181</b>	Low	High	Short Term	VTrans, ACCD, RPCs
Third	5	<b>Educate shippers about rail carload and intermodal service options and contracting approaches</b>	Low	Medium	On-going	VTrans, ACCD, Rail owners/operators, Econ Dev Corps
	20	<b>Modernize freight rail yards.</b>	Medium	Medium	Long Term	Rail owners/operators, VTrans

## Safety and Resilience

This goal aims to enhance safety and resilience of the rail system, while also reducing negative impacts on the environment. The two first-tier initiatives have ongoing and active efforts. The TRPT study identified priority locations for strengthening and mitigation. It is an outcome from the previous Rail Plan. The policy-based initiative aims to increase collaboration on rail system resilience overall. The location-specific resilience initiative focuses on where mitigations may be most beneficial to reduce risks at the rail/water interface.

Safety of moving people and goods by rail requires a range of specific and ongoing initiatives. Awareness and building relationships around the safety of rail in partnership with communities is critical to long-term management of risks.

**TABLE 22 SAFETY & RESILIENCE CONNECTIVITY INITIATIVES**

Tier	ID	Description	Concept Cost	Feasibility	Timeline	Lead Agencies
First	13	<b>Increase resilience of rail system to make critical infrastructure more resilient now and to prepare for increasing storm severity</b>	High	Medium	On-going	VTrans, Rail Owners, DEC
	122	Continue to improve at-grade rail crossing safety with gates, flashers, and other safety improvements at existing and planned public road crossings with an emphasis on the top 50 prioritized sites on state highways.	High	High	On-going	VTrans, Rail Owners
	19	<b>Publicize existing voluntary efforts of railroads and encourage “freight as a good neighbor” (e.g., NCHRP Syntheses 320) while respecting rail’s exemptions from local control</b>	Low	High	On-going	VTrans, rail owners/operators
	2531	Confirm and address the sections of rail that are most vulnerable to flood damage using results of the expansion of the Transportation Resilience Planning Tool (TRPT) to rail. See Appendix F of Rail Plan for priority locations.	Low to High	Medium	Short to Long Term	VTrans, rail owners/operators, DEC
	2532	<b>Enhance public safety relating to rail infrastructure, for example by further publicizing and encouraging participation in Operation Lifesaver of Vermont.</b>	Low	High	Short Term	VTrans

The Agency of Transportation maintains a detailed capital funding budget covering the investments in Rail, project by project at <https://vtrans.vermont.gov/about/capital-programs>.

## 11.4 Anticipated Benefits by Initiative

The Rail Plan supports improving freight rail and intercity passenger rail (Amtrak service). Some initiatives mainly serve one or the other use, and some clearly support both at the same time. This section explores the potential benefits of the recommended initiatives by these uses: freight, passenger rail, and both. It is followed in the next section by consideration of the bigger-picture benefits of action.

### Freight Rail Initiative Effects

The freight rail initiatives aim to increase the efficiency of the Vermont freight rail system through targeted infrastructure and facility upgrades. These initiatives are expected to bring key infrastructure components up to a state of good repair, allowing for increased system reliability for shippers and customers. These initiatives also carry benefits such as increased safety, significantly improved air quality through the promotion of a shift from truck to rail transport, and strong economic development potential.

Table 23 shows the expected benefits of the freight related initiatives.

**TABLE 23 PROGRAM EFFECTS - FREIGHT SERVICES**

State of Good Repair	
<p>Upgrade WACR Connecticut River Line Bridges and Track up to 286k standard (White River Junction to Newport)</p>	<p><b>The State’s Transportation System:</b> Brings bridges, tracks, ties, ballast, turnouts to a state of good repair and current standards.  <b>Public:</b> Brings Vermont-owned rail line to a state of good repair, diverts freight from highways.  <b>Private:</b> Partially enables 286,000 pound operations, removes slow orders, reduces future maintenance.  <b>Rail Capacity and Congestion:</b> Partially enables 286,000 pound operations.  <b>Transportation System Capacity, Congestion, Safety, and Resiliency:</b> Improves safety by diverting freight from highway to rail, which is a safer mode of transportation, and frees roadway capacity.  <b>Environmental, Economic, Livability and Employment Conditions:</b> Reduces greenhouse gas emissions by diverting freight from truck to rail, reduces the cost of rail transportation and enhances competitive class I railroad access.  <b>Distribution of Benefits to Regions:</b> Benefits the WACR Conn. River corridor, corridors that interchange with the WACR Conn. River.</p>
<p>VTR track upgrade between Hoosick and Rutland to continuous welded rail (CWR) with a minimum of 115 lb. rail</p>	<p><b>The State’s Transportation System:</b> Brings bridges on the VTR to a state of good repair and able to accommodate 286,000 pound railcars. Investment could support future passenger service in this corridor (Initiative 104).  <b>Public:</b> Brings Vermont-owned bridges to a state of good repair, diverts freight from highways.  <b>Private:</b> Enables 286,000 pound operations, removes slow orders.  <b>Rail Capacity and Congestion:</b> Enables rail line to accommodate higher capacity railcars.  <b>Transportation System Capacity, Congestion, Safety, and Resiliency:</b> Improves safety by diverting freight from highway to rail, which is a safer mode of transportation, frees roadway capacity.  <b>Environmental, Economic, Livability and Employment Conditions:</b> Reduces greenhouse gas emissions by diverting freight from truck to rail, educes the cost of rail transportation.  <b>Distribution of Benefits to Regions:</b> Benefits VTR corridor, corridors that interchange with the VTR</p>
<p>Upgrade GMRC Bridges and Track to 286k standard (Rutland to Bellows Falls)</p>	<p><b>The State’s Transportation System:</b> Brings bridges and track on the GMRC to a state of good repair and able to accommodate 286,000 pound railcars.  <b>Public:</b> Brings Vermont-owned bridges to a state of good repair, diverts freight from highways  <b>Private:</b> Partially enables 286,000 pound operations, removes slow orders  <b>Rail Capacity and Congestion:</b> Partially enables rail line to accommodate higher capacity railcars.  <b>Transportation System Capacity, Congestion, Safety, and Resiliency:</b> Improves safety by diverting freight from highway to rail, which is a safer mode of transportation, frees roadway capacity.  <b>Environmental, Economic, Livability and Employment Conditions:</b> Reduces greenhouse gas emissions by diverting freight from truck to rail, reduces the cost of rail transportation.  <b>Distribution of Benefits to Regions:</b> Benefits GMRC corridor, corridors that interchange with the GMRC.</p>

<p>Coordinate to upgrade the privately owned East Alburgh Bridge that is important for international freight movement and would be used by the passenger train to Montreal.</p>	<p><b>The State’s Transportation System:</b> Critical link for passenger and freight service to Montreal  <b>Public:</b> Upgrade enables passenger service, reducing miles driven on roads, and diverts freight from highways  <b>Private:</b> Upgrades a private asset  <b>Rail Capacity and Congestion:</b> Improves the resiliency of a critical connection  <b>Transportation System Capacity, Congestion, Safety, and Resiliency:</b> Improves strength and resiliency of a key link. Improves safety by diverting freight from highway to rail, which is a safer mode of transportation, frees roadway capacity.  <b>Environmental, Economic, Livability and Employment Conditions:</b> Reduces greenhouse gas emissions by diverting freight from truck to rail, reduces the cost of rail transportation.  <b>Distribution of Benefits to Regions:</b> Regional benefits of improved connections from the NECR line to Montreal.</p>
<p>Upgrade WACR Montpelier &amp; Barre Sub. Bridges and Track up to 286k standard (Montpelier to Barre)</p>	<p><b>The State’s Transportation System:</b> Brings bridges on the WACR M&amp;B Sub to a state of good repair and able to accommodate 286,000 pound railcars.  <b>Public:</b> Brings Vermont-owned bridges to a state of good repair, diverts freight from highways  <b>Private:</b> Partially enables 286,000 pound operations, removes slow orders.  <b>Rail Capacity and Congestion:</b> Partially enables rail line to accommodate higher capacity railcars.  <b>Transportation System Capacity, Congestion, Safety, and Resiliency:</b> Improves safety by diverting freight from highway to rail, which is a safer mode of transportation, frees roadway capacity.  <b>Environmental, Economic, Livability and Employment Conditions:</b> Reduces greenhouse gas emissions by diverting freight from truck to rail, reduces the cost of rail transportation.  <b>Distribution of Benefits to Regions:</b> Benefits WACR M&amp;B corridor, corridors that interchange with the WACR M&amp;B corridor.</p>

Table 24 shows the expected benefits of the freight and passenger-related initiatives.

**TABLE 24 PROGRAM EFFECTS - BOTH FREIGHT AND PASSENGER SERVICES**

Economic Development	
<p>Burlington Railyard Enterprise Project - Improve safety in rail yard, interconnections for the community, and multimodal transportation infrastructure</p>	<p><b>The State’s Transportation System:</b> Constructs roadways through the Burlington rail yard, potentially causing some portions of the yard to be moved.  <b>Public:</b> Improves connectivity and livability, promotes economic development  <b>Rail Capacity and Congestion:</b> NA  <b>Transportation System Capacity, Congestion, Safety, and Resiliency:</b> May reduce roadway congestion in Burlington.  <b>Environmental, Economic, Livability and Employment Conditions:</b> Promotes livability and economic development in Burlington.  <b>Distribution of Benefits to Regions:</b> Burlington.</p>
Increase Use/ Expand Capacity	

<p>Bring the Vermonter up to 79 MPH where conditions allow</p>	<p><b>The State’s Transportation System:</b> Improves efficiency of the rail passenger system increasing ridership by providing a more attractive option to vehicle travel.  <b>Public:</b> Increases in ridership, improves safety, reduced fuel consumption and congestion posed by vehicle traffic.  <b>Private:</b> Improvements in signaling and track quality will improve private freight and goods movement  <b>Rail Capacity and Congestion:</b> Increases in ridership and rail passenger capacity  <b>Transportation System Capacity, Congestion, Safety, and Resiliency:</b> Increases total capacity of intercity passenger transportation system, improves safety because rail is safer than single occupancy vehicles. Promotes safety because rail is safer than single occupant automobile travel.  <b>Environmental, Economic, Livability and Employment Conditions:</b> Reduces auto emissions and promotes healthy environment by diverting drivers from cars, promotes employment by increasing mobility and supports access to Vermont and beyond.  <b>Distribution of Benefits to Regions:</b> Montreal to NYC, wide regional benefits.</p>
<p>Bring the Ethan Allen Express up to 79 MPH where conditions allow</p>	<p><b>The State’s Transportation System:</b> Improves efficiency of the rail passenger system increasing ridership by providing a more attractive option to vehicle travel.  <b>Public:</b> Increases in ridership, improves safety, reduced fuel consumption and congestion posed by vehicle traffic.  <b>Private:</b> Improvements in signaling and track quality will improve private freight and goods movement  <b>Rail Capacity and Congestion:</b> Increases in ridership and rail passenger capacity  <b>Transportation System Capacity, Congestion, Safety, and Resiliency:</b> Increases total capacity of intercity passenger transportation system, improves safety because rail is safer than single occupancy vehicles. Promotes safety because rail is safer than single occupant automobile travel.  <b>Environmental, Economic, Livability and Employment Conditions:</b> Reduces auto emissions and promotes healthy environment by diverting drivers from cars, promotes employment by increasing mobility and supports access to Vermont and beyond.  <b>Distribution of Benefits to Regions:</b> NYC to Burlington and beyond. Wide benefits to NY and Western Vermont.</p>
<p><b>Safety &amp; Resilience</b></p>	
<p>Continue to improve at-grade rail crossing safety with gates, flashers, and other safety improvements at existing and planned public road crossings with an emphasis on the top 50 prioritized sites on state highways.</p>	<p><b>The State’s Transportation System:</b> Reduces the risk of crashes at grade crossings.  <b>Public:</b> Improves public safety and reduces public costs of incidents at crossings  <b>Private:</b> Improves efficiency of freight operations  <b>Rail Capacity and Congestion:</b> Reduces unreliability and congestion from crashes  <b>Transportation System Capacity, Congestion, Safety, and Resiliency:</b> Improves public safety by reducing the risk of crashes.  <b>Environmental, Economic, Livability and Employment Conditions:</b> Improved safety (including for people biking and walking), promotes equity and livability.  <b>Distribution of Benefits to Regions:</b> Unknown.</p>

<p>Confirm and address the sections of rail that are most vulnerable to flood damage using results of the expansion of the Transportation Resilience Planning Tool (TRPT) to rail. See Appendix F of Rail Plan for priority locations.</p>	<p><b>The State’s Transportation System:</b> Reduces risk of future disasters affecting the movement of goods and services by rail.  <b>Public:</b> Improves operation of public assets and movement of goods and services. Improves the quality of existing assets by strengthening and making them more resilient to storms.  <b>Private:</b> Private assets will also be improved by assessing risks on the system and mitigating those risks. Strengthening the high-risk areas of the system will improve resiliency and provide redundancy during disasters.  <b>Rail Capacity and Congestion:</b> Maintain capacity during storm and emergency events.  <b>Transportation System Capacity, Congestion, Safety, and Resiliency:</b> Improves the resiliency of the rail system by upgrading infrastructure identified as critical and vulnerable.  <b>Environmental, Economic, Livability and Employment Conditions:</b> Improved resiliency will help maximize the probability that the rail system will be operational during storm events and incidents.  <b>Distribution of Benefits to Regions:</b> Statewide.</p>
<b>State of Good Repair</b>	
<p>Upgrade NECR Winooski Branch Bridges and Track to 286k standard (Burlington to Essex Junction)</p>	<p><b>The State’s Transportation System:</b> Upgrades rail on the NECR Winooski Branch between Burlington and Essex Junction.  <b>Public:</b> Diverts freight from highways, enables potential extension of Ethan Allen Express from Burlington to Essex Junction.  <b>Private:</b> Enables 286,000 pound operations, removes slow orders, reduces future maintenance, brings Winooski Branch to a state of good repair, improves operations.  <b>Rail Capacity and Congestion:</b> Enables 286,000 pound freight operations, passenger rail operations.  <b>Transportation System Capacity, Congestion, Safety, and Resiliency:</b> Improves safety by diverting freight from highway to rail, which is a safer mode of transportation, frees roadway capacity.  <b>Environmental, Economic, Livability and Employment Conditions:</b> Reduces greenhouse gas emissions by diverting freight from truck to rail, reduces the cost of rail transportation.  <b>Distribution of Benefits to Regions:</b> Benefits the Winooski Branch, but also potentially benefits the Ethan Allen Express and the Vermonter routes.</p>

## Passenger Rail Initiative Effects

The passenger rail initiatives aim to improve and expand the Vermont passenger rail system through service expansions, station enhancements, and safety upgrades. These initiatives are expected to provide additional reliable and environmentally-friendly interstate/intrastate travel options. These initiatives also increase safety on roads and provide greater equity for people with limited ability to make long-distance trips by private vehicle. Table 25 shows the passenger service-related initiatives.

**TABLE 25 PROGRAM EFFECTS - PASSENGER SERVICES**

<b>Increase Use/ Expand Capacity</b>	
<p>Vermonter Extension to Montreal – one round trip/ day (#100). Two trips per day (#102)</p>	<p><b>The State’s Transportation System:</b> Enables Vermont rail passengers to travel to/from Montreal, reduces automobile travel between Montreal and points in U.S.  <b>Public:</b> New transportation options, increases intercity passenger rail ridership by more than 100,000 riders per year by 2040.  <b>Rail Capacity and Congestion:</b> NA  <b>Transportation System Capacity, Congestion, Safety, and Resiliency:</b> Improves safety because rail is safer than single occupancy vehicles, adds capacity by reducing vehicle trips to/from Montreal.  <b>Environmental, Economic, Livability and Employment Conditions:</b> Reduces auto emissions and promotes healthy environment by diverting drivers from cars, promotes employment by enabling cross border tourism.  <b>Distribution of Benefits to Regions:</b> Benefits will be distributed across Vermont route, but also across Ethan Allen Express route if Ethan Allen Express is extended to interchange at Essex Junction.</p>
<p>Extension of Ethan Allen Express from Burlington to Essex Junction to connect with Vermont.</p>	<p><b>The State’s Transportation System:</b> Will provide passenger with the ability to interchange between the expanded Ethan Allen Express service and the Vermont service. Will also improve efficiency of Ethan Allen Express operations.  <b>Public:</b> Improved connectivity of passenger rail network, also diverts freight from highways.  <b>Private:</b> Ability to operate 286,000 pound railcars, more efficient freight operations.  <b>Rail Capacity and Congestion:</b> Increases capacity of rail line between Burlington and Essex Junction, enabling line to accommodate 286,000 pound cars. <b>Transportation System Capacity, Congestion, Safety, and Resiliency:</b> Increases connectivity of transportation system, improves safety because rail is safer than single occupancy vehicles.  <b>Environmental, Economic, Livability and Employment Conditions:</b> Reduces auto emissions and promotes healthy environment by diverting drivers from cars, promotes employment by increasing mobility.  <b>Distribution of Benefits to Regions:</b> Will benefit passengers on either the Ethan Allen Express or the Vermont interchanging through Burlington.</p>
<p>Add passenger service on the Albany-Bennington-Burlington freight route to supplement Ethan Allen Express service in Western Corridor. This is part of the FRA Corridor ID study.</p>	<p><b>The State’s Transportation System:</b> Provides people traveling to/from western Vermont with a new transportation option between Albany, NY and Burlington.  <b>Public:</b> New transportation options, increases intercity passenger rail ridership by 30,000 riders per year by 2040, supports economy and tourism, also diverts freight from highways  <b>Private:</b> Improves efficiency of freight operations  <b>Rail Capacity and Congestion:</b> Increases capacity of rail line between Rutland and New York border.  <b>Transportation System Capacity, Congestion, Safety, and Resiliency:</b> Increases total capacity of intercity passenger transportation system, improves safety because rail is safer than single occupancy vehicles. Promotes safety because rail is safer than single occupant automobile travel.  <b>Environmental, Economic, Livability and Employment Conditions:</b> Reduces auto emissions and promotes healthy environment by diverting drivers from cars, promotes employment by increasing mobility and supports access to Vermont tourist attractions.  <b>Distribution of Benefits to Regions:</b> Benefits will accrue to Western Vermont</p>

<p>Extend one Valley Flyer service from Greenfield, MA to White River Junction, VT</p>	<p><b>The State’s Transportation System:</b> Improves efficiency of the rail passenger system increasing ridership by providing a more attractive option to vehicle travel. Increases the number and times available for service south of Vermont.</p> <p><b>Public:</b> Increases in ridership, improves safety, reduced fuel consumption and congestion posed by vehicle traffic.</p> <p><b>Private:</b> Improvements in signaling and track quality will improve private freight and goods movement</p> <p><b>Rail Capacity and Congestion:</b> Increases in ridership and rail passenger capacity</p> <p><b>Transportation System Capacity, Congestion, Safety, and Resiliency:</b> Increases total capacity of intercity passenger transportation system, improves safety because rail is safer than single occupancy vehicles. Promotes safety because rail is safer than single occupant automobile travel.</p> <p><b>Environmental, Economic, Livability and Employment Conditions:</b> Reduces auto emissions and promotes healthy environment by diverting drivers from cars, promotes employment by increasing mobility and supports access to Vermont and beyond.</p> <p><b>Distribution of Benefits to Regions:</b> Expands rail travel options connecting to key hubs.</p>
<p>Extend one Valley Flyer service from Greenfield, MA to Brattleboro, VT</p>	<p><b>The State’s Transportation System:</b> Improves efficiency of the rail passenger system increasing ridership by providing a more attractive option to vehicle travel. Increases the number and times available for service south of Vermont.</p> <p><b>Public:</b> Increases in ridership, improves safety, reduced fuel consumption and congestion posed by vehicle traffic.</p> <p><b>Private:</b> Improvements in signaling and track quality will improve private freight and goods movement</p> <p><b>Rail Capacity and Congestion:</b> Increases in ridership and rail passenger capacity</p> <p><b>Transportation System Capacity, Congestion, Safety, and Resiliency:</b> Increases total capacity of intercity passenger transportation system, improves safety because rail is safer than single occupancy vehicles. Promotes safety because rail is safer than single occupant automobile travel.</p> <p><b>Environmental, Economic, Livability and Employment Conditions:</b> Reduces auto emissions and promotes healthy environment by diverting drivers from cars, promotes employment by increasing mobility and supports access to Vermont and beyond.</p> <p><b>Distribution of Benefits to Regions:</b> Expands rail travel options connecting to key hubs.</p>
<p><b>Intermodal Connectivity</b></p>	
<p>Passenger rail station improvements statewide, prioritizing stations with increasing use or with needs at the station or for multimodal access.</p>	<p><b>The State’s Transportation System:</b> Bring stations to a state of good repair, improve accessibility of stations, or provide new passenger amenities.</p> <p><b>Public:</b> Returns stations to a state of good repair, improves public experience of intercity passenger rail travel.</p> <p><b>Rail Capacity and Congestion:</b> N/A</p> <p><b>Transportation System Capacity, Congestion, Safety, and Resiliency:</b> Provides options to auto travel, thereby freeing roadway capacity, improving safety because rail is a safer mode of transportation than single occupancy vehicle transportation.</p> <p><b>Environmental, Economic, Livability and Employment Conditions:</b> Reduces auto emissions and promotes healthy environment by diverting drivers from cars.</p> <p><b>Distribution of Benefits to Regions:</b> Unknown.</p>

<p>Investigate a coordinated connection (rail, bus, etc.) at both Rutland and Bellows Falls to connect passengers between the Ethan Allen Express and the Vermonter to Killington, Ludlow/Okemo and Chester.</p>	<p><b>The State’s Transportation System:</b> Increases resiliency of the transportation system. Scales the level of investment to the level of need. Provides multimodal transportation benefits.</p> <p><b>Public:</b> Provides improved multimodal connectivity. Reduces the need for private vehicle access on one leg of the journey. Can increase ridership and visitor numbers in parts of the state.</p> <p><b>Rail Capacity and Congestion:</b> Freight lines could also be improved by any long-term solutions for additional rail access.</p> <p><b>Transportation System Capacity, Congestion, Safety, and Resiliency:</b> Overall system capacity increases by providing multimodal transportation options to connect new destinations. Improves system resiliency by looking at multimodal means for intermodal transfers. Improves livability in communities not currently served by passenger services.</p> <p><b>Environmental, Economic, Livability and Employment Conditions:</b> Multimodal and coordinated offerings with rail can reduce need for private vehicles, improve overall transportation system safety.</p> <p><b>Distribution of Benefits to Regions:</b> Rural areas between the two routes can increase in visitors and economic activity.</p>
<p>Add signs to help drivers know about and find Amtrak stations on I-91, I-89, and other major corridors in Vermont.</p>	<p><b>The State’s Transportation System:</b> Increases resiliency of the transportation system by improving multimodal connections.</p> <p><b>Public:</b> Improved information for encouraging multimodal use and modal transfers.</p> <p><b>Rail Capacity and Congestion:</b> N/A</p> <p><b>Transportation System Capacity, Congestion, Safety, and Resiliency:</b> Improves system overall performance for efficient intermodal transfers. Education and awareness of modal options.</p> <p><b>Environmental, Economic, Livability and Employment Conditions:</b> Multimodal and coordinated offerings with rail can reduce need for private vehicles, improve overall transportation system safety.</p> <p><b>Distribution of Benefits to Regions:</b> Areas with passenger stations</p>

## 11.5 Future Studies and Plans

There are several follow-on studies that would enhance the development of future initiatives and continue to improve system performance. These include:

- Continue to coordinate within VTrans on the updates of the Vermont Freight Plan, Transit Plan, Long-Range Transportation Plan, and other related efforts. An ongoing area is communication of multimodal options and making it more convenient to use them all as a safe, efficient system.
- Enhance coordination of the Rail Plan with external efforts such as the regional and state Economic Development Strategies, the Vermont Public Service Department Comprehensive Energy Plan (CEP) that includes a transportation section, due in in 2028. The Vermont Climate Council update of the Climate Action Plan (CAP) that will be completed by the middle of 2025.
- Continued testing and using Phase 1 of the rail TRPT as part of rail projects. Phase 1 covered state-owned rail lines and rail trails. The tool could potentially be expanded to cover private rail lines although there would need to be some funding mechanism. A more likely future study is of combining the highway TRPT and rail TRPT in one platform to support multimodal resilience planning
- Complete the Corridor ID studies for the Vermonter line and the Green Mountain Corridor, then continue steps toward appropriate additional services. In the update of the Rail Plan, initiatives were proposed that may be considered as part of these studies. Recommended initiatives include supplementing Vermonter service in southeastern Vermont by extending the Valley Flyer service from Massachusetts up to Brattleboro or White River Junction. Various ideas were proposed to provide access by passengers on the Ethan Allen Express to new Montreal service. These proposed initiatives and comments include providing service to Montreal on the Ethan Allen Express instead of the Vermont, by connecting to the Vermonter in Essex Junction, or in addition to the Vermonter. These ideas are not recommended in the 2025 Rail Plan but are documented for future consideration.

## 11.6 Let's Go!

This Rail Plan covered status, analysis, needs, recommendations and more...but what's needed after all that is action. VTrans staff are fully engaged and committed, but making progress on a vibrant rail system that supports Vermont's economy, communities, and environment takes many partners.

Please consider how your employer could participate and benefit from a robust rail system, how rail relates to the organizations in which you participate, and why your community would benefit from progress on the recommended initiatives in this Rail Plan.

- Would it be new residents who came in part because they can walk to the train for a trip to a big city as reported in Bellows Falls?
- Would it be the additional jobs at an employer benefiting from efficient intermodal freight services as may be helping Beta Technologies?
- Would it be as part of Vermont's efforts to be ready for events like Tropical Storm Irene, when it was only rail that could bring in a heavy generator needed for rebuilding?

Motivating to act takes analysis, collaborative planning, resources, and also a dash of inspiration. To end this Rail Plan, Figure 37 that follows is offered to fuel imagination of what rail could look like at some point in a future where Vermont and nearby partners invest in their strategic rail vision and the recommended initiatives are implemented.

**FIGURE 37 INSPIRATION MAP OF RAIL IN VERMONT IN THE FUTURE**

