

# VERMONT RAIL PLAN

## INITIAL DATA TRENDS & DISCUSSION QUESTIONS – JULY 2020

### 1. Overview

The Vermont Agency of Transportation (AOT or VTrans) is embarking on an update of two important statewide modal plans; the Vermont Freight Plan (2012) and the Vermont Rail Plan (2015). The updates will be closely coordinated to efficiently incorporate the overlap of freight rail components. Keeping these plans current is necessary to meet federal requirements related to Federal Highway Administration (FHWA) Freight Formula funds, and to remain eligible for certain types of Federal Railroad Administration (FRA) grant programs. Both plan updates will address developing issues, including changes to the global economy and evolving trade agreements, e-commerce, technological advancements, and reliability and resilience of our transportation system.

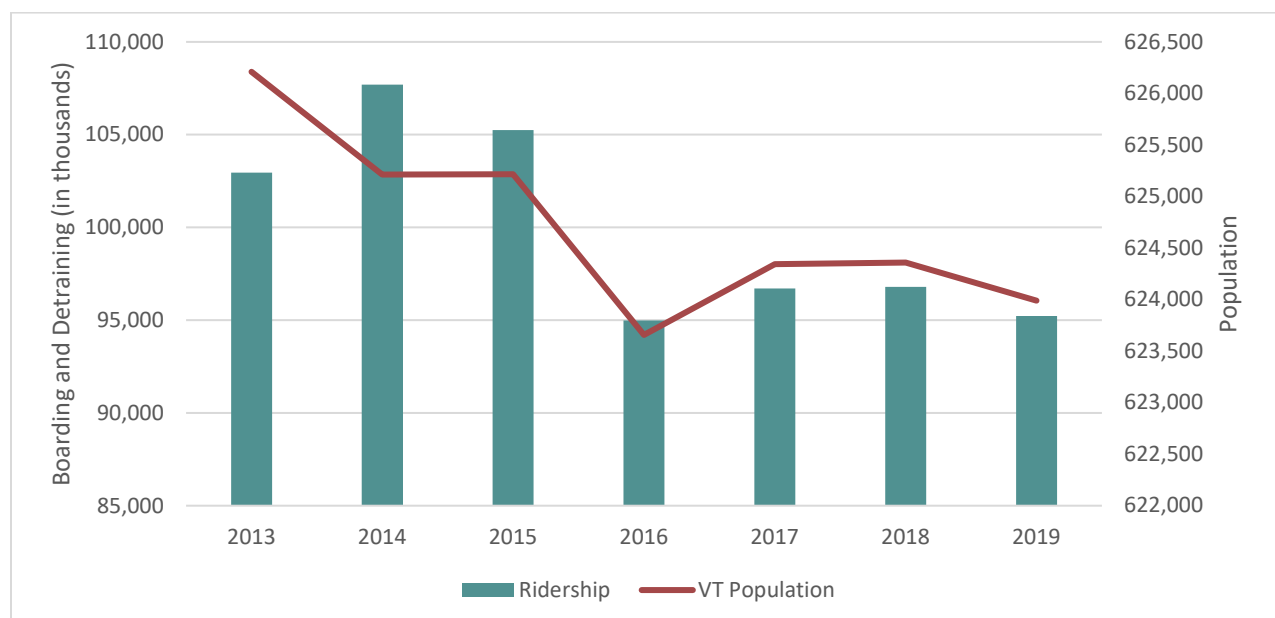
The Vermont Rail Advisory Council will provide guidance on the overall direction and development of the Vermont Rail Plan update. VTrans will update the Advisory Council on progress, discuss approach to public outreach, and solicit topics of concern. VTrans and the consultant team will meet with the Rail Advisory Council three times in 2020, aligning with the Rail Advisory Council's meeting schedule. Each meeting will focus on upcoming key milestones and/or deliverables. In addition, VTrans and the consultant team will meet once in 2021, likely March, to review the final Rail Plan.

This data trends and discussion questions piece presents a sample of key passenger and freight rail trends identified in the data analysis for the updates. It ends with questions for Rail Advisory Council members and others interested in these matters. The insight from responses will add value to both plan updates.

### 2. Intercity Passenger Rail Data Highlights

Amtrak ridership trends on the Ethan Allen Express and Vermonter track with overall population in the State but has decreased from a high in FFY2014, as shown in Figure 1. In comparison, ridership in NY and MA has risen consistently from FFY2013-2019, while NH has seen a growing ridership since a low in FFY2015. Nationally, Amtrak ridership is up slightly to 32.5 million passengers in FFY2019 from 31.7 million in FFY2018, with a similar low in FFY2016 with 31.3 million passengers.<sup>1</sup> It should be noted past ridership trends may be a poor indication of ridership in 2020 and future years given the continuing COVID-19 situation.

Figure 1: Amtrak Vermont Stations Ridership and Vermont Population (FFY2013-2019)



Source: Amtrak. Ridership includes stops at Claremont, NH. Population from US Census.

<sup>1</sup> Amtrak Ridership and Revenue Fact Sheets.

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The top city pairs in FFY2019 by both ridership and revenue are shown in Table 1. The top 7 pairs are the same by both measures.

Table 1: Vermont Top City Pairs by Amtrak Ridership and Revenue (FFY2019)

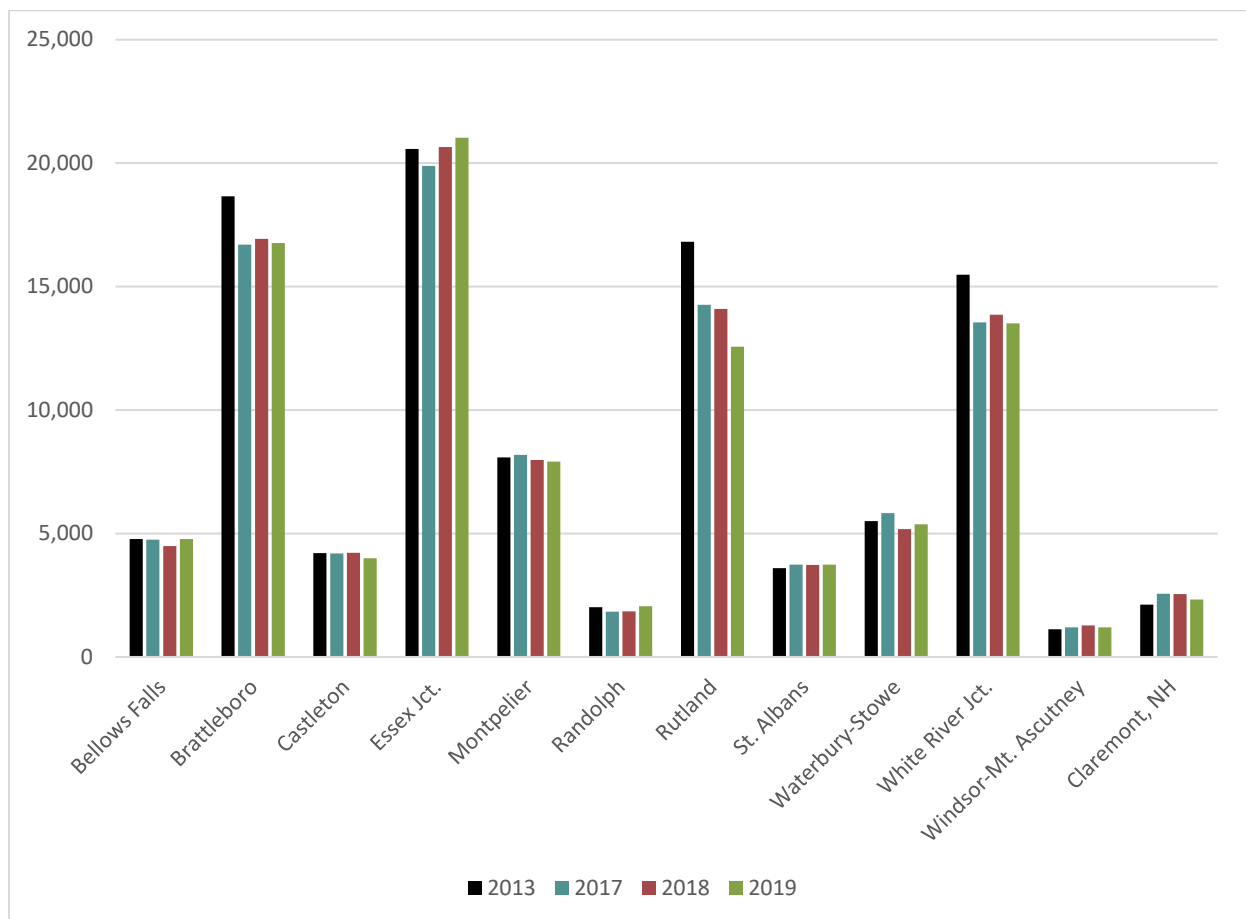
RANK	TOP CITY PAIRS BY RIDERSHIP (2019)	TOP CITY PAIRS BY REVENUE (2019)
1	Rutland – New York, NY	Rutland – New York, NY
2	Brattleboro – New York, NY	Brattleboro – New York, NY
3	Essex Junction – New York, NY	Essex Junction – New York, NY
4	White River Junction – New York, NY	White River Junction – New York, NY
5	Castleton – New York, NY	Castleton – New York, NY
6	Montpelier – New York, NY	Montpelier – New York, NY
7	Waterbury-Stowe – New York, NY	Waterbury-Stowe – New York, NY
8	Bellows Falls – New York, NY	White River Junction – Washington, DC.
9	Brattleboro – Essex Junction	Essex Junction – Washington, DC.
10	Essex Junction – Philadelphia, PA	Essex Junction – Philadelphia, PA

Source: Amtrak for Top City Pairs by Ridership, Rail Passengers Association for Top City Pairs by Revenue.

Essex Junction (closest stop to Burlington), Brattleboro, Rutland, and White River Junction generate the most Amtrak ridership, as Figure 2 shows. Those four stops (out of 11 total in Vermont) account for nearly 69% of all ridership in FFY2019 (67% if ridership at Claremont, NH is included).

Ridership from FFY2013 is included (black bars) to provide a historical reference. Data shows that ridership at Brattleboro, Rutland, and White River Junction has declined since FFY2013 with a slight increase at Essex Junction, consistent with the overall decline in Amtrak ridership between FFY2013 and FFY2019.

Figure 2: Vermont Amtrak Ridership by Station (FY2013, 2017-2019)

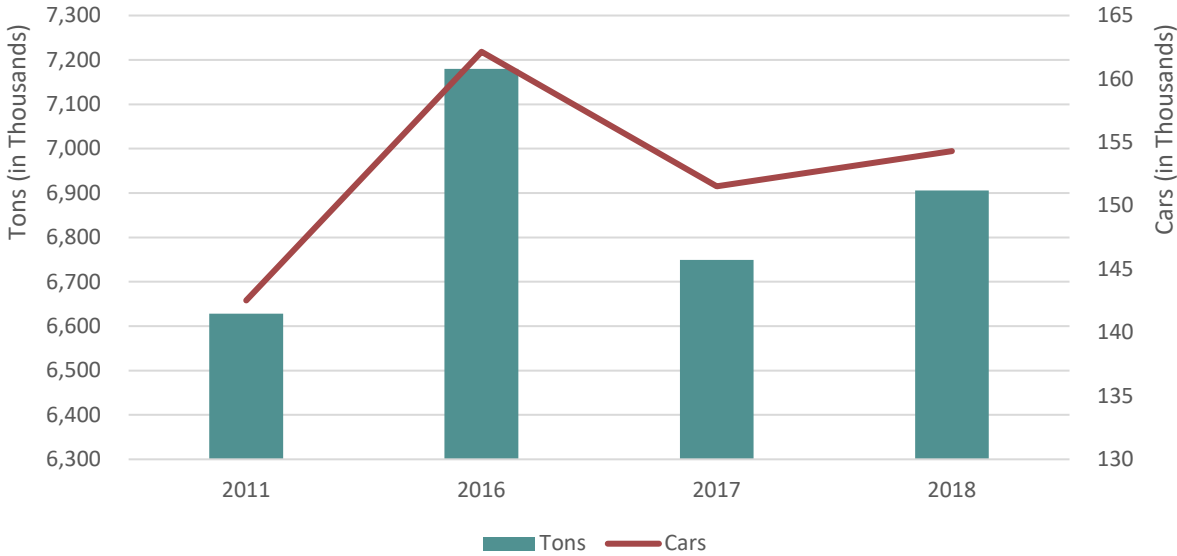


Source: Amtrak.

### 3. Freight Rail Data Highlights

Freight rail volumes have varied year-to-year in Vermont with an overall growth in both tons (4%) and carloads (8%) since 2011. Detail is provided in Figure 3.

Figure 3: Vermont Freight Rail Tons and Cars (2011-2018)

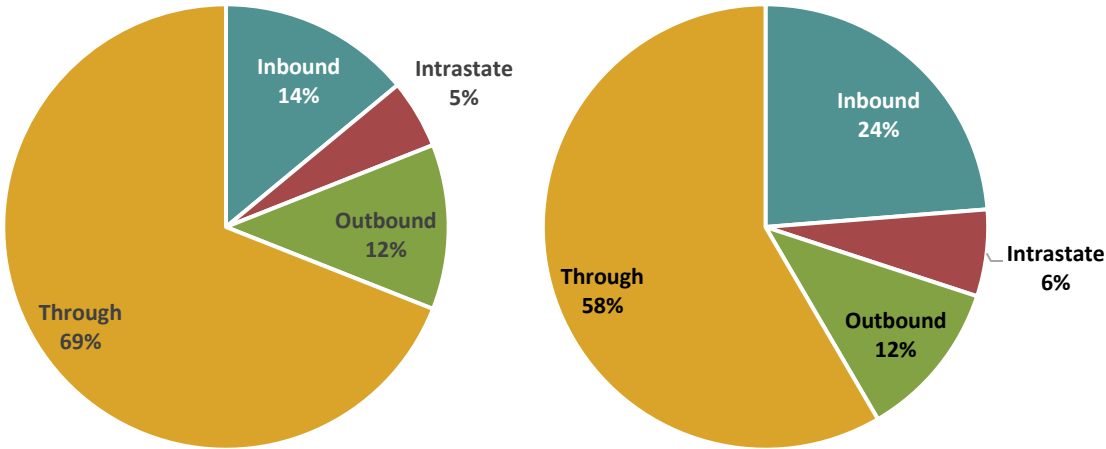


Source: STB Confidential Carload Waybill Sample

Between 2011 and 2018, the overall volume of freight in tons for Vermont increased by 4%. The changes in tons by direction, however, were more variable. Freight rail tonnage inbound to Vermont increased by 71% with substantial growth in petroleum/coal products and nonmetallic minerals. Shipments within Vermont (intrastate) increased by 33% with growth in nonmetallic minerals and clay, concrete, glass or stone products. Outbound tonnage increased by 3% and through decreased by 12%. Nationally, tonnage shipped by rail has declined over the past decade driven in large part by reduced shipments of coal.<sup>2</sup>

New York (inbound) and Maine (outbound) are top trading partners by both tons and cars.

Figure 4: Vermont Rail Tons by Direction, 2011 (Left) and 2018 (Right)



Source: STB Confidential Carload Waybill Sample

Goods shipped into and out of Vermont are dominated by five commodities:

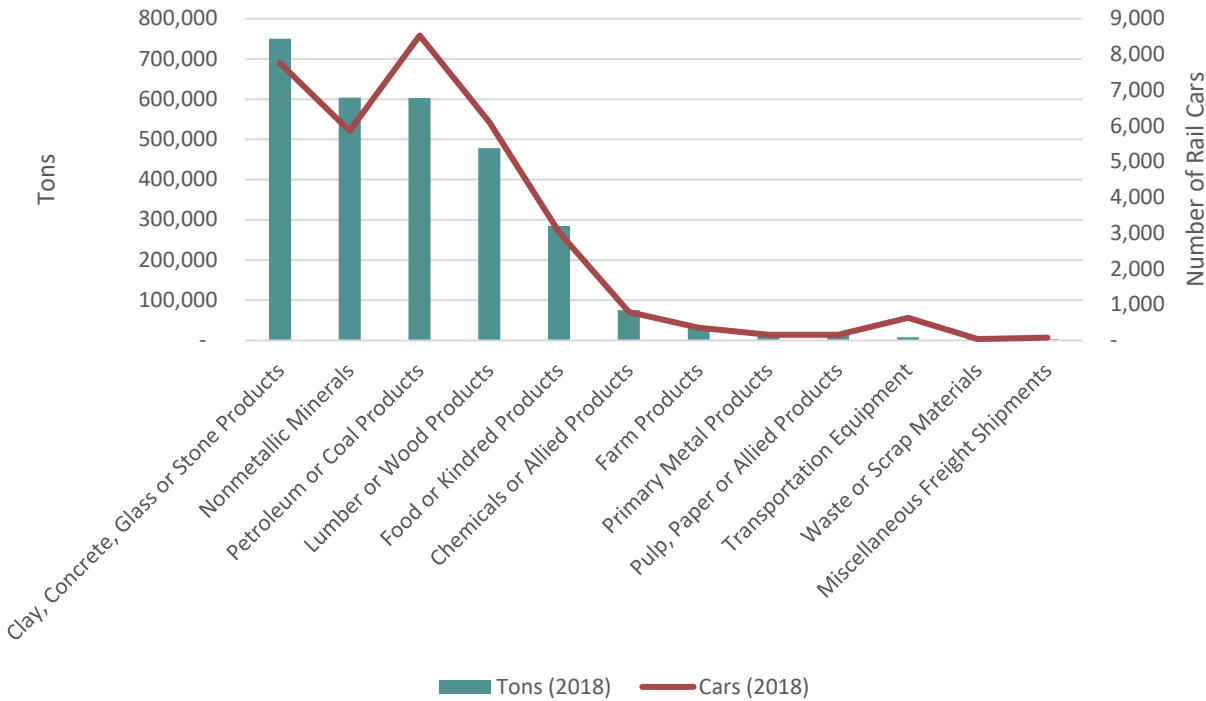
1. Clay, Concrete, Glass or Stone Products (eg., limestone, concrete bricks, gypsum products);
2. Nonmetallic Minerals (eg., rock salt, gravel, sand);
3. Petroleum or Coal Products (eg., gas propane, gasoline, asphalt pitch/tar);

<sup>2</sup> <https://rail.transportation.org/wp-content/uploads/sites/30/2019/10/FRBL-2.pdf>

- 4. Lumber or Wood Products (eg., wood chips, timber, plywood); and
- 5. Food or Kindred Products (eg., animal feed, milled grains, cheese)

These five commodities account for 95% of tons and 93% of carloads that originate or terminate in the State. In 2011, top commodities by weight in 2011 were Pulp, Paper, or Allied Products which is down considerably, and Clay, Concrete, Glass or Stone Products which remains a top commodity. Nonmetallic minerals has seen a substantial growth since 2011 (up from 333,000 tons).

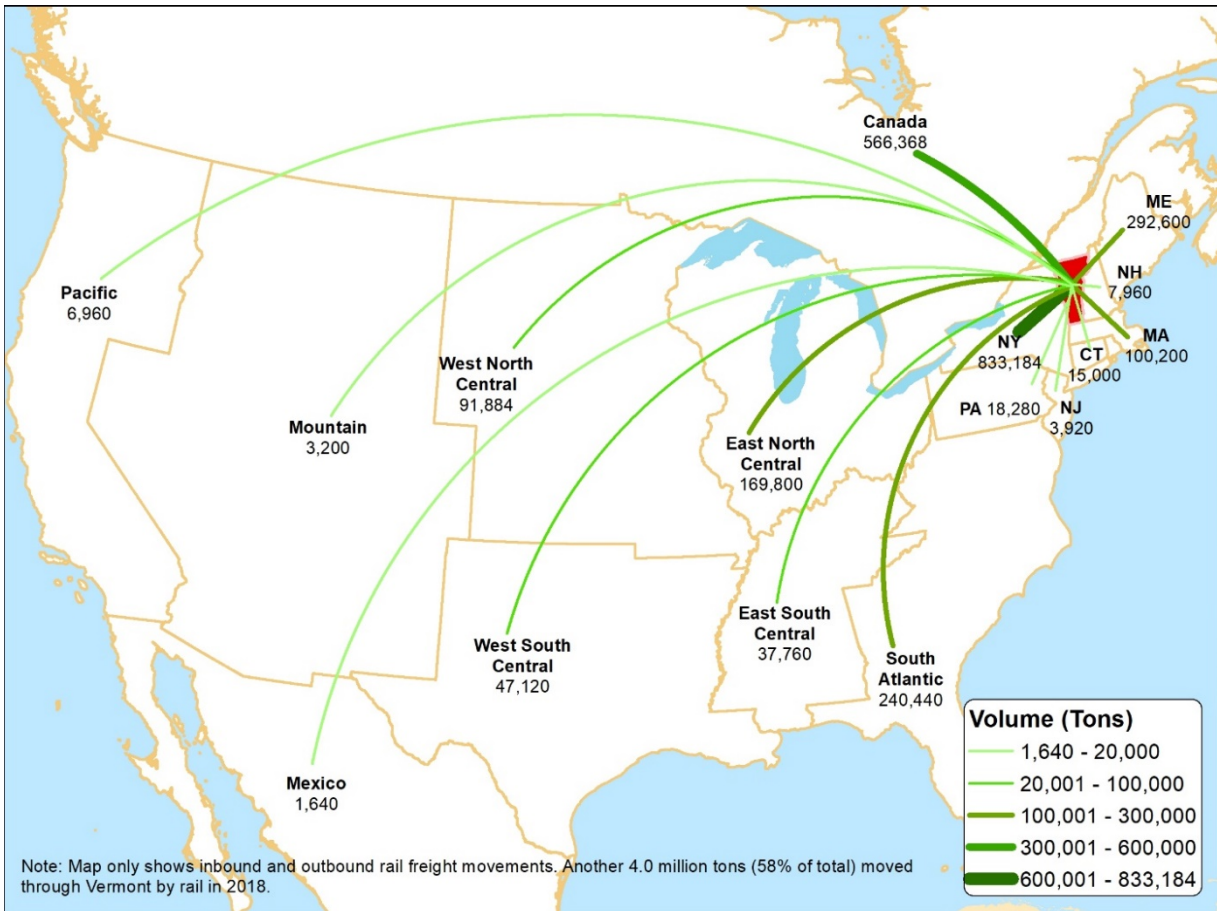
Figure 5: Vermont Top Rail Commodities by Tons and Cars (2018)



Source: STB Confidential Carload Waybill Sample. Note, data excludes through traffic.

Figure 6 shows Vermont’s inbound/outbound trade partners. Since 2011, shipments between Vermont and New York have nearly doubled. There has also been significant growth in trade with Massachusetts and Canada. Inbound/outbound tons to/from regions outside the Northeast are generally lower than in 2011.

Figure 6: Vermont Inbound and Outbound Rail Tons (2018)



Source: STB Confidential Carload Waybill Sample

## 4. Questions for Consideration

Please help update the Rail Plan by responding to the questions below. The questions are oriented to members of the Rail Advisory Council but responses from anyone interested are also appreciated.

1. Are the data trends in this document consistent with newer development: after 2018 and pre-Coronavirus? If not, why? What will the trends be for the next five years? Over the next 20-30 years? What will be the long-term impact of Coronavirus?
  - a. An important concern identified in the 2015 Rail Plan was the dwindling diversity of shippers and receivers using freight rail service in Vermont. How has that trend developed since then? What actions, if any, have been taken? Looking ahead, what actions would be helpful?
  - b. Since the 2015 Rail Plan, virtually all of the major railroads have moved to adopt Precision Scheduled Railroading (PSR), including those serving New England - NS, CSX, and CP. How have the changes imparted by PSR affected the opportunities and risks for freight rail in Vermont? How will PSR affect future traffic development?
2. Do you have recommendations of who to engage from the rest of the freight industry and the best way to reach out to them?
3. Some system performance measures that gauge freight and passenger rail outcomes are required, but others can be updated. Examples of required ones which will be included in the data technical memo are listed below. All the measures are in the 2015 Plan. Do you have refinements or revisions?
  - Passenger Rail: Ridership; Performance and Service Quality; Number of slow orders on passenger routes.
  - Freight Rail: Rail volumes with origin/destination in VT; new rail-served businesses; Bridges meeting 286k and 263k standard; Number of obstructions to double-stack clearance.
4. The update of the Rail Plan includes identifying a small number of new projects or programs, and then prioritizing which existing and new items to implement. Criteria are used to evaluate value of the project or program toward achieving Plan goals. The goals are listed below. Do you have recommendations on how to evaluate which projects or programs to implement?
  - Maintain the existing system (State of Good Repair)
  - Expand capacity
  - Expand use
  - Financial sustainability
  - Environmental sustainability
  - Intermodal connectivity
  - Economic development
  - Safety
  - Resiliency

## 5. Next Steps and Further Information

The Vermont Rail Plan update is expected to be completed by January 31, 2021. The Vermont Freight Plan Update is underway and is expected to be completed by July 2021. VTrans and the consultant team will engage the Rail Advisory Council at quarterly meetings while both plan updates are underway. In addition, a wide range of stakeholders will be engaged and material will regularly be posted at the web pages for the two plan updates: <https://vtrans.vermont.gov/rail/reports> and <https://vtrans.vermont.gov/planning/freight>.

- For more information about the Vermont Rail Plan update, contact Zoe Neaderland at [Zoe.Neaderland@vermont.gov](mailto:Zoe.Neaderland@vermont.gov) or (802) 793-2778.
- For more information about the Vermont Freight Plan Update, contact Dave Pelletier at [Dave.Pelletier@vermont.gov](mailto:Dave.Pelletier@vermont.gov) or (802) 595-9675.