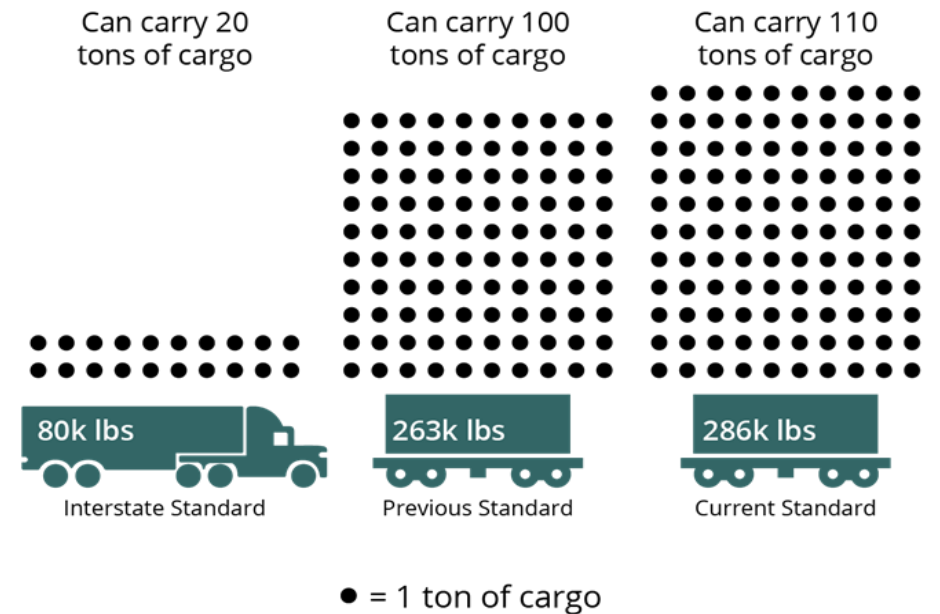




Final Draft Vermont Rail Plan

Background

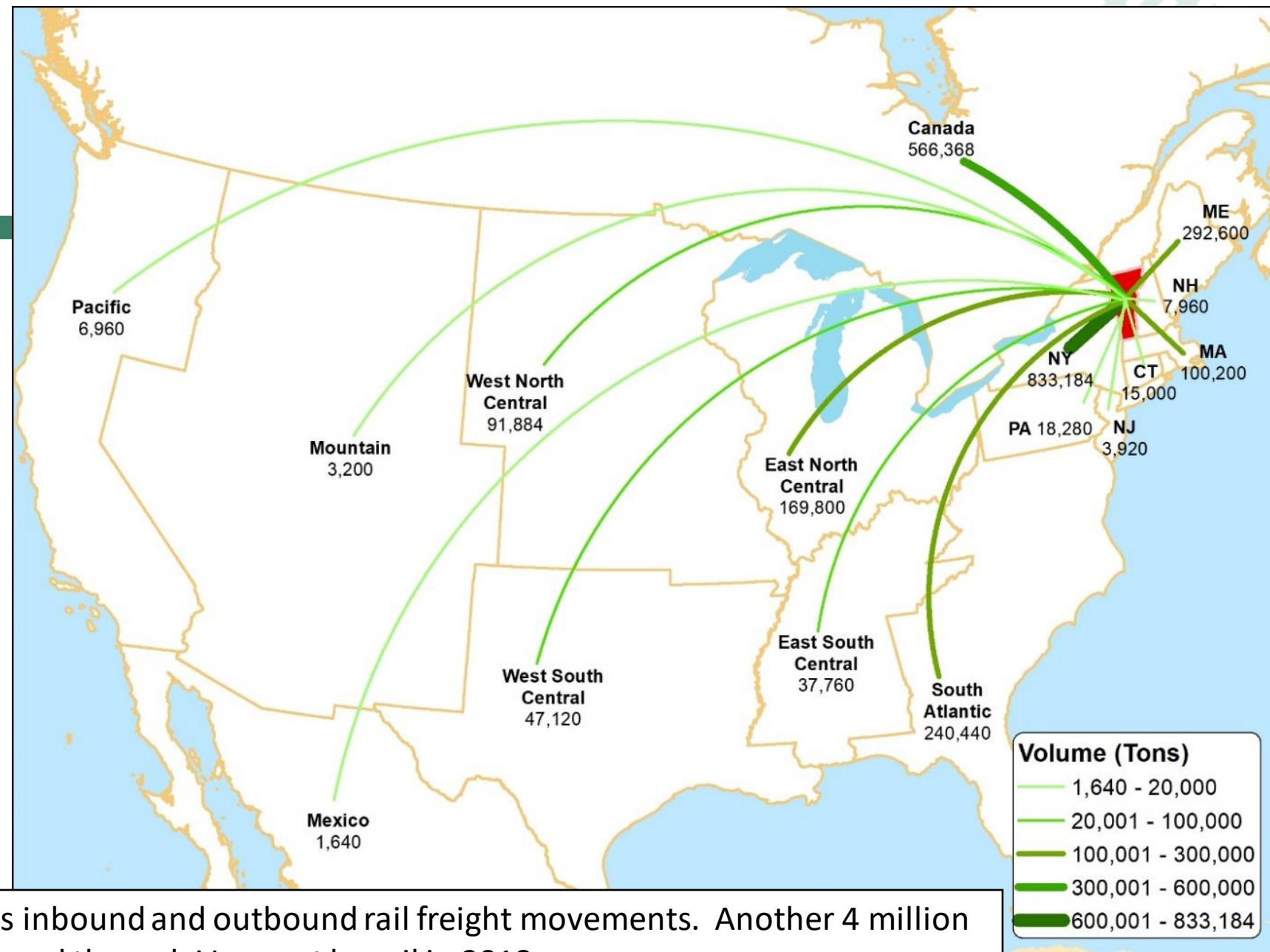
- Good planning makes for efficient passenger and freight rail for Vermont--and making best use of each mode saves the State money
- FRA requires a State Rail Plan at minimum every four years to be eligible for certain rail grants
- FHWA requires a State Freight Plan every five years to obligate Freight Formula funds



How much corn does a rail car carry?

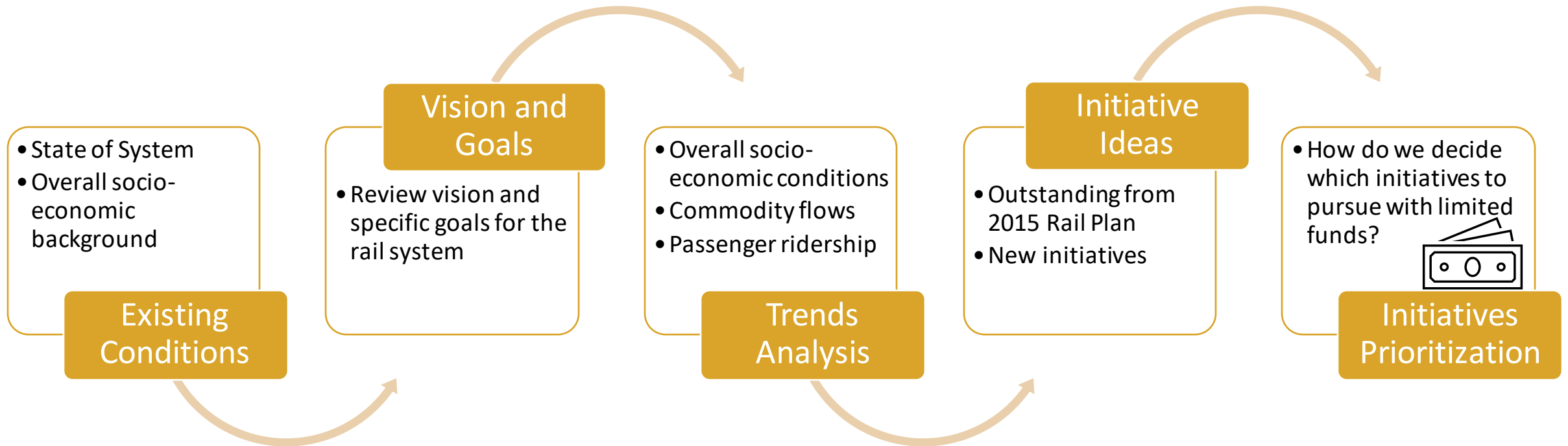
Freight Rail is Important

- Vermont is linked worldwide by short line railroads and then Class I rail networks.
- Tonnage inbound to Vermont increased from 14% in 2011 to 24% in 2018.



Note: Map only shows inbound and outbound rail freight movements. Another 4 million tons (58% of total) moved through Vermont by rail in 2018

Rail Plan Elements



Initiatives can be projects, but also new computer systems, signal updates, improved coordination, etc. that increase efficiency. These operational and policy initiatives are particularly important given limited funding.

Modeling Some Passenger Rail Initiatives

Background Factors

- Economic & demographic trends
- Committed projects
- How quickly will rail service return to 2019 levels?
- How long until passenger rail demand returns to pre-COVID ridership levels?

Note: It is repeatedly clarified in Plan material that initiatives are listed only as an exploration of analysis and discussion.



Passenger Rail Initiatives Modeled

Rail Scenarios

Vermont Corridor

No Build

Vermont train extension to Montreal, one round trip per day

Valley Flyer train extension, one round trip from Greenfield, MA to White River Jct.

Twice-daily *Vermont* service, with both terminating in Montreal

Connection to Boston at Springfield, MA from *Vermont* serving Montreal

79 mph service on *Vermont* to Montreal

Ethan Allen Express / Western Corridor

No Build (*Ethan Allen Express* extension to Burlington included)

Albany - Burlington via Bennington and *Ethan Allen Express* extension to Burlington (separate trains)

79 mph service on *Ethan Allen Express*

Extend *Ethan Allen Express* to Essex Junction to connect with *Vermont* to Montreal

Passenger Rail Modeling – Medium Growth Results

Scenario <i>See Technical Memo #3 for details</i>	Description	2019 Ridership	2040 Ridership	% Change	# Change
<i>Vermonter – No Build</i>	One train per day between Washington & St. Albans	78,673	89,400	14%	10,727
<i>Vermonter</i> day train extension to Montreal	One train per day to Montreal	78,673	196,000	149%	117,327
Twice-daily <i>Vermonter</i> service terminating in Montreal	Two trains per day to Montreal	78,673	382,600	386%	303,927
Extension of one Valley Flyer train to White River Jct.	One Knowledge Corridor train extended from Greenfield, MA	0	33,100	N/A	N/A
Connection to Boston at Springfield, MA from <i>Vermonter</i> serving Montreal	One per day between <i>Vermonter</i> & potential Springfield-Boston service	78,673	212,600	170%	133,927
79 mph service on <i>Vermonter</i> to Montreal	Increase speed where feasible	78,673	228,600	17% (over Montreal extension)	149,927
<i>Ethan Allen Express – No Build</i> (includes Burlington extension)	One train per day between NYC & Burlington	16,561	37,300	125%	20,739
Additional route Albany - Burlington via Bennington	One train per day serving new route in addition to existing <i>Ethan Allen Express</i>	16,561	67,400	307%	50,839
79 mph service on <i>Ethan Allen Express</i>	Increase speed where feasible	16,561	39,100	136%	22,539
Extend <i>Ethan Allen Express</i> to Connect to <i>Vermonter</i> in Essex Junction	Includes Ethan Allen & <i>Vermonter</i> to Montreal (net increase)	95,234	238,500 (5,200)	150%	

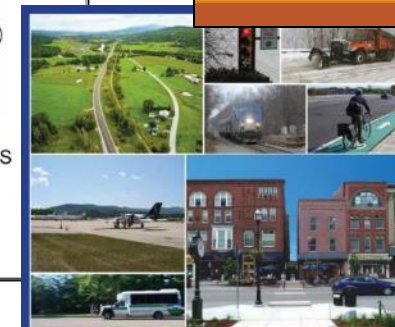
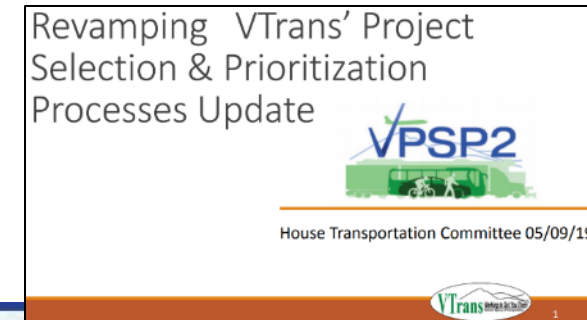
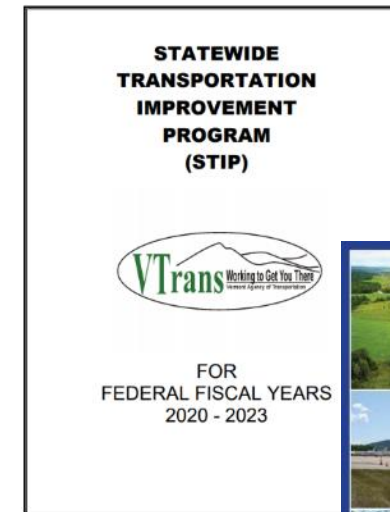
From Goals to Potential Initiatives



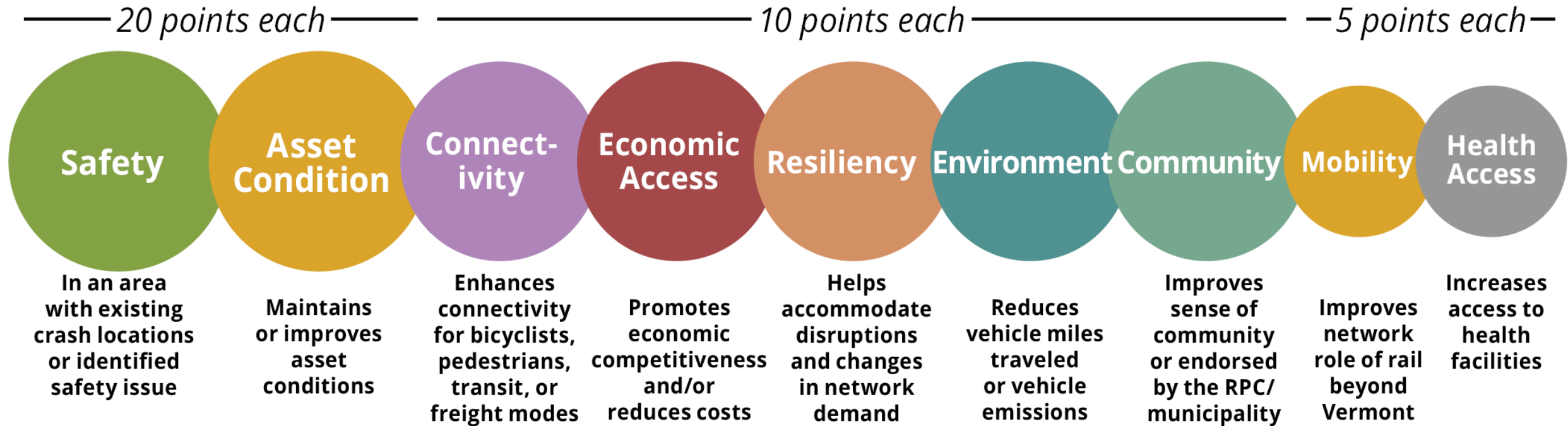
2020 Rail Plan Goals (Minor changes from 2015)

- Maintain existing system (State of Good Repair)
- Expand capacity to accommodate growth
- Increase rail system use (freight & passenger)
- Fund the rail system adequately and sustainably
- Improve intermodal connectivity (freight & passenger)
- Act on opportunities for ancillary economic development
- Enhance safety, security & resiliency

- Aligned with other efforts



Analysis Supported Informed Decisions

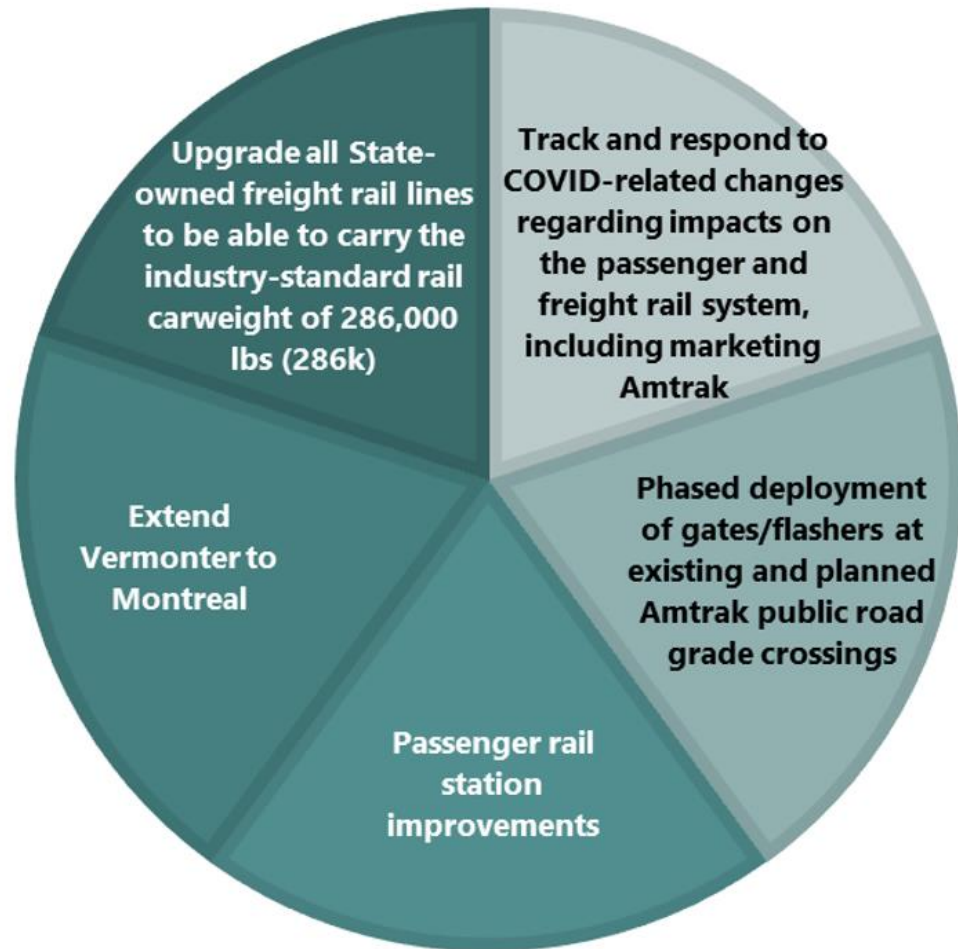


New Analysis

Rail Plan Technical Memoranda:

- Tech Memo 1 – Existing Conditions;
- Tech Memo 2 – Commodity Flow and Economic Futures;
- Tech Memo 3 – Vision, Goals, Needs and Potential Initiatives **(Updated!)**
 - **Expanded info about safety, climate and resiliency, among other updates**
- Tech Memo 4 – Passenger Rail Ridership Forecasting
- Tech Memo 5 – Prioritization and Recommendations **(New!)**
 - **Includes prioritization methodology, funding, cost estimates, and implementation**
- Tech Memo 6 – Public Participation and Comments **(New!)**
 - **Includes comments received and responses**

First Priority Recommendations



Coordinated safety improvements

- Phased deployment of gates/flashers at existing and planned Amtrak public road grade crossings
- Includes Section 130 efforts

Second Priority Recommendations

RECOMMENDATION

Burlington Rail Yard Enterprise project

Seek grants and innovative funding approaches for freight and passenger rail

GMRC Bridges and Track Upgrades

WACR Connecticut River Bridges and Track Upgrades

Upgrade WACR Montpelier & Barre Sub. Bridges and Track up to 286k standard

Maintain and improve connectivity to regional and Class I railroads

Improve transit, bicycle, and pedestrian connections to Amtrak trains. Wayfinding

Work to reduce causes of delay within and beyond Vermont's borders

Maintain State-owned freight trackage at FRA Track Class 2 or better and State-owned passenger rail trackage at Class 4 where appropriate

Publicize existing voluntary efforts of railroads and encourage "freight as a good neighbor"

Third Priority Recommendations

RECOMMENDATION

Preserve and fully use industrial land parcels with access to rail sidings

Passenger service on the Albany-Bennington-Burlington to supplement Ethan Allen Express service first needs VTR track upgrade between Manchester and Rutland

Ethan Allen Amtrak service extension to meet Vermonter; first needs Burlington to Essex Jct./NECR track improvements

Publicize intermodal options to potential shippers. Facilitate development of additional freight transload facilities.

Maintain and modernize freight rail yards

Increase resilience of rail system to make critical infrastructure more resilient now and to prepare for increasing storm severity

Themes Among > 50 Comments Received

Environmental



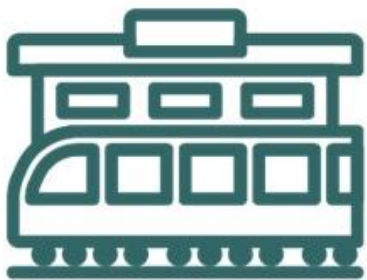
Multi-Modal



Planning



Infrastructure



Publicity



Safety



Service



Summary of Comments

- **Service** – Ideas proposed schedule changes and extensions of services
- **Environmental** – Reduce greenhouse gas emissions and use of fossil fuels; better manage health impacts of rail operations and maintenance
- **Safety** – Improve safety at rail crossings including where there are many bicyclists or people in wheelchairs. Improve communication about and protection regarding HAZMAT while acknowledging Federal exemptions and voluntary actions of railroads.
- **Multi-Modal** – Improve connections of rail service with safe, convenient bicycle access, public transit, and pedestrian amenities
- **Publicity** – Emphatically promote Amtrak service as it resumes and in an ongoing and varied manner.
- **Infrastructure** – Upgrade assets to increase safety, comfort, operations, tourism, and freight competitiveness
- **Planning** – Transit-Oriented Development and further use parcels with freight rail access. Explore opportunities from COVID-19 including implications of population shifts

Summary of Changes

- Information added to address issues raised by stakeholders, particularly on **safety and GHG reduction**
- Refined initiatives from comments (e.g., **separating freight and passenger elements of Albany-Bennington-Burlington route**) and review of analysis (e.g. **improve on-time performance**)
- Expanded future studies (e.g. **service development plan**, public participation on **station needs**, expanded **resilience analysis**)
- Added cost, funding, and implementation information

Pounds of CO2 Emissions Per Passenger,
Essex Junction to New York City
Automobile versus Passenger Rail



Pounds of CO2 Emissions Per Passenger,
Rutland to New York City
Automobile versus Passenger Rail



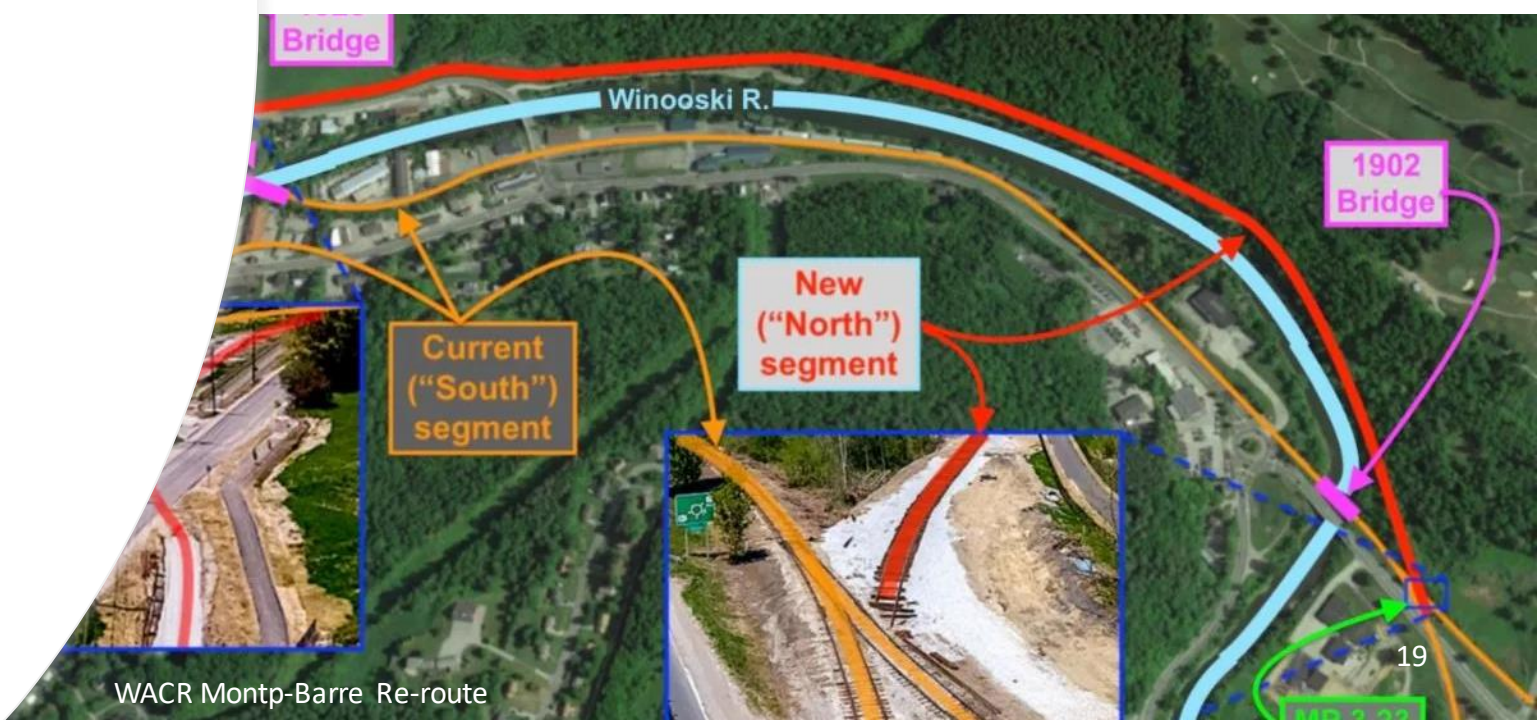
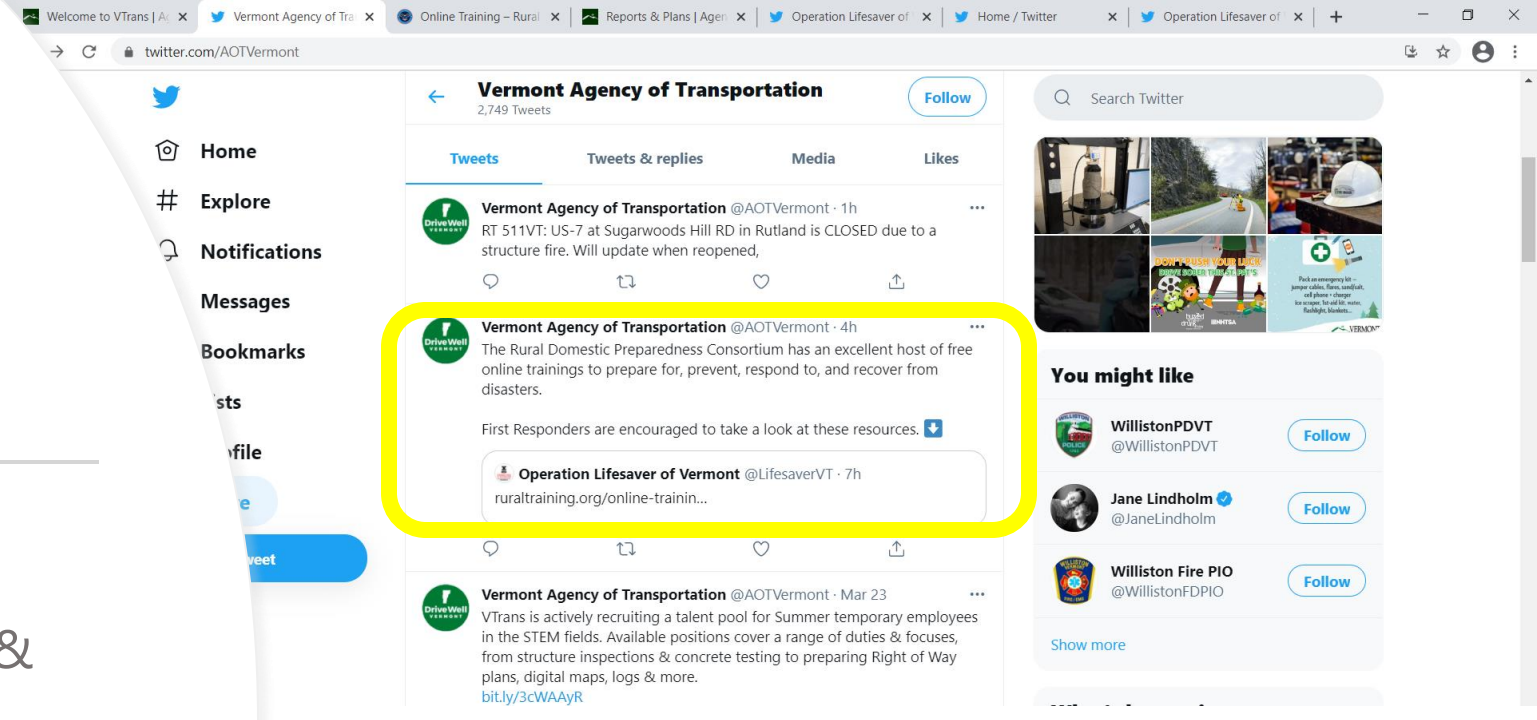
Might We Afford the Recommendations?

- Quite possibly **yes**, if historic funding levels hold reasonably and these preliminary cost estimates aren't too far off.

PERIOD	PASSENGER CAPITAL PROGRAM	FREIGHT CAPITAL PROGRAM	TOTAL CAPITAL PROGRAM	STATE FUNDING SHARE	FEDERAL FUNDING SHARE
Short-Term (next 5 years)	\$15 million	\$29 million	\$44 million	\$9 million	\$35 million
Long-Term (years 6-20)	\$99 million	\$120 million	\$219 million	\$44 million	\$175 million
Total	\$114 million	\$149 million	\$263 million	\$53 million	\$210 million

Freight Rail Program Benefits

- Improved safety
- Growth in amount of freight moved & diversity of shippers/receivers in VT
- Increased system reliability
- Improved air quality
- Economic development



Passenger Rail Program Benefits

- Improved safety and convenience
- More travel options
- Increased system reliability
- Improved air quality and environmental benefits
- Better “last mile” connections and more vibrant communities

Action Request

- VRAC action. Possible starting action language:
The VRAC recommends that the Secretary of Transportation convey the Rail Plan, with minor modifications submitted by April 8th, to FRA for acceptance.
- Provide any refinements to tech memos #3 and #5 by April 8th
- Watch for the Final Plan and help advance it!

But Wait, There's More!

- The Freight Plan is on-going and will pick up steam once the Rail Plan is finalized
 - Will build on Rail Plan information
 - Will add information on truck, air, and water modes



Thank You

For more information on the Vermont Rail Plan Update, visit vtrans.vermont.gov/rail/reports or contact Zoe Neaderland at Zoe.Neaderland@vermont.gov or (802) 793-2778.

For more information on the Vermont Freight Plan Update, visit vtrans.vermont.gov/planning/freight or contact Dave Pelletier at Dave.Pelletier@vermont.gov or (802) 595-9675.