



An application to U.S. DOT's Consolidated Rail Infrastructure and Safety Improvements (CRISI) Program

# Tri-State Regional Rail Upgrade Project

Applicant: Vermont Agency of Transportation (VTrans)



December 1, 2022



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## Attachments

- Attachment 1. Project Narrative (this document)
- Attachment 2. Statement of Work
- Attachment 3. Deliverables and Approved Project Schedule
- Attachment 4. Approved Project Budget
- Attachment 5. Performance Measurements
- Attachment 6. Benefit-Cost Analysis Technical Memorandum
- Attachment 7. Preliminary Engineering Materials
- Attachment 8. Environmental Compliance Documentation
- Attachment 9. Letters of Commitment from Project Partners
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# 1. COVER PAGE

**U.S. Department of Transportation  
Consolidated Rail Infrastructure and Safety Improvements  
CRISI 2022**

Project Title	Tri-State Regional Rail Upgrade Project
Applicant	Vermont Agency of Transportation
Federal Funding Requested Under this NOFO	\$9,654,789
Proposed Non-Federal Match	\$9,849,835 In-Kind: \$0
Does some or all of the proposed Non-Federal Match for the total project cost consist of preliminary engineering costs associated with a Highway-rail Grade Crossing Improvement Project or a trespassing prevention project incurred before project selection?	No
Other Sources of Federal funding, if applicable	N/A
Total Project Cost	\$19,504,625
Was a Federal Grant Application Previously Submitted for this Project?	No
City(-ies), State(s) Where the Project is Located	Brighton and Norton, VT; Stratford, NH; Lewiston, Mechanic Falls and Oxford, ME
Congressional District(s) Where the Project is Located	Vermont - All Congressional District; 2 <sup>nd</sup> New Hampshire Congressional District; 1 <sup>st</sup> and 2 <sup>nd</sup> Maine Congressional Districts
Is this a project eligible under 49 U.S.C. 22907(c)(2) that supports the development of new intercity passenger rail service routes including alignments for existing routes?	No
Is this a Rural Project? What percentage of the project cost is based in a Rural Area?	Yes Percentage of total project cost: 93%
Is this a project eligible under 49 U.S.C. 22907(c)(11) that supports the development and implementation of measures to prevent trespassing and reduce associated injuries and fatalities?	No
Is the application seeking consideration for funding under the Maglev Grants Program?	No
Is the project currently programmed in: State rail plan, State Freight Plan, TIP, STIP, MPO Long Range Transportation Plan, State Long Range Transportation Plan?	Yes

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## 2. PROJECT SUMMARY

The Vermont Agency of Transportation (VTrans), New Hampshire Department of Transportation (NH DOT) and Maine Department of Transportation (MaineDOT) are jointly requesting funding in partnership with the St. Lawrence & Atlantic Railroad (SLR) to complete the Tri-State Regional Rail Upgrade Project (hereafter known as “the Project”). The Project will provide the final piece of SLR’s efforts to increase capacity, attain a state of good repair, and improve railroad safety by upgrading the remaining segments of track across Vermont, New Hampshire, and Maine. The upgrades will increase railcar capacity of the entire line from 263,000 pounds (lb) to the modern standard of 286,000 lb used throughout the United States, Canada, and Mexico, thereby lowering shipping costs and allowing businesses to remain competitive, including those served by multi-modal connections. Currently, businesses can only partially load railcars (i.e., light-loading) due to the weight restriction. After the Project is completed, businesses will be able to fully load 286,000-lb capacity railcars. The Project will ensure sustainable operations for the railway, maintain business for major employers of the region, and help attract new businesses. Key components of the Project include 1) installing approximately 192,455 feet of 115# continuous welded rail (CWR), 2) replacing approximately 3,575 ties over 6.5 miles along with ballast and surfacing, 3) rehabilitating 3 grade crossings, and 4) upgrading 11 turnouts to 115# rail. The majority (93%) of the infrastructure targeted in the Project’s scope is in rural areas, demonstrating the importance of modernizing the infrastructure to allow businesses along the line to be competitive and to support economic growth. This opportunity will help rural communities across three states and demonstrates a unique public-private partnership involving transportation agencies from three states and SLR.

### About the SLR Line:

**Total Miles Operated:** 162 miles (Maine - 70, New Hampshire - 58, Vermont - 34)

**Interchanges:** CSXT (Danville Junction, ME); CP (Sherbrooke, Quebec); CN (St. Lambert, Quebec); NHCR (North Stratford, NH)

**Capacity:** 263,000 lb (Project will upgrade to 286,000 lb)

**Top Commodities:** Forest Products, Petroleum Product, Chemicals and Plastics, Cement

**Major Customers:** RCP Transit, Presby R&D Manufacturing, Maine Wood Treaters, Irving Oil, Savage Safe Handling, Dead River, New England Public Warehouse.

### Tri-State Regional Rail Upgrade Project by the Numbers:

192,455 feet of 115# CWR

3,575 Ties replaced

3 grade crossings rehabilitated

11 turnouts upgraded

93% of Project funds spent in rural areas

### Challenges Addressed:

Capacity, Safety, Freight Mobility, State of Good Repair



### 3. PROJECT FUNDING

The total estimated project cost for the Tri-State Regional Rail Upgrade Project is \$19,504,625 (Table 1). To upgrade this critically important piece of railroad infrastructure to modern standards, \$9,654,789 in federal funds from the CRISI program are requested. These costs include rail upgrades, tie replacements, turnout upgrades, and crossing improvements. MaineDOT, NHDOT, and SLR, will provide \$9,849,835, or a 50.5% match to the federal dollars granted for this project. This match contribution from Project partners is considered cash and will be funded via non-federal Program Income. All funds identified for match are available.

**Table 1. Project Funding Table**

Task #	Task Name/Project Component	Cost	Percentage of Total Cost
1	Administration (Detailed Project Work Plan, Budget, Schedule)	\$250,000	
2	Engineering Design	\$120,000	
3	Environmental Compliance	\$80,000	
4	Construction (CWR, tie replacements, turnouts, crossings)	\$19,014,625	
5	Final Performance Report	\$40,000	
<b>Total Project Cost</b>			
		\$19,504,625	100.0%
<b>Federal Funds Received from Previous Grant</b>			
		\$0	0.0%
<b>Federal Funding Under this NOFO Request</b>			
		\$9,654,789	49.5%
<b>Non-Federal Funding/Match</b>			
	eCFR :: 2 CFR 200.306 -- Cost sharing or matching.	Cash: \$9,849,835 In-Kind: \$0	
<b>Portion of Non-Federal Funding from the Private Sector</b>			
		\$9,849,835	50.5%
<b>Portion of Total Project Costs Spent in a Rural Area</b>			
		\$18,139,300	93%
<b>Pending Federal Funding Requests</b>			
		\$0	0.0%

### 4. APPLICANT ELIGIBILITY

VTrans, who is submitting this multi-state application, is the principal Executive Branch agency for transportation in the State of Vermont (Vermont Administrative Procedures Act, Vermont Statutes Annotated Title 3 Chapter 25). Thus, VTrans meets the applicant eligibility criteria described in the Notice of Funding Opportunity (NOFO) for Consolidated Rail Infrastructure and Safety Improvements (CRISI).

The SLR, the sub-applicant, is a Federal Rail Administration (FRA) Class III short-line railroad that carries freight in rural communities across Vermont, New Hampshire, and Maine. The SLR has 162 miles of track in the United States, with 34 miles in Vermont, 58 miles in New Hampshire, and 70 miles in Maine. The SLR crosses the United States-Canada border at Norton, Vermont, where it operationally connects with its “sister railroad”, the St. Lawrence & Atlantic (Quebec), Inc. (SLQ) in Quebec.



## 5. PROJECT ELIGIBILITY

The Project will improve the infrastructure of the impacted short-line railroad by upgrading approximately 36.4 miles of track, replacing approximately 3,575 ties, and upgrading 11 turnouts, which, as described above, will increase railcar gross weight capacity from 263,000 lb to the modern standard of 286,000 lb. In addition, three highway grade crossings will be improved. Considering its scope, the Project is eligible under the following sections of the NOFO:

**C(3)(a)(vii) Capital Project to Improve Short-line or Regional Railroad Infrastructure:** Upgrade of track infrastructure and turnouts falls within this category. Rail replacement involves continuous welded rail (CWR), tie plates, track spikes, anchors, weld kits, joint bars, track bolts, ballast, and labor installation needs. Tie replacement involves cross ties, track spikes, anchors, tie plates, ballast, and labor installation needs. Turnouts are upgraded to 115#, number 8 or 10, rail bound manganese, non-insulated, samson, Pandrol, and frog plate; and all required ballast and labor for installation.

**C(3)(a)(v) Highway-Rail Grade Crossing Improvement Project:** Three crossings are to be upgraded – Number Six Road on the mainline, and Hotel Road and Rodman Road on the Lewiston Branch. Rehabilitation includes 115# rail, rail seal, joint bars, ties, tie plates, track spikes, anchors, ballast, and concrete surfacing, in terms of materials. Labor needs include crossing welds, saw cutting, hot mix asphalt (HMA) installation/disposal, traffic control and concrete crossing installation.

The Project is applying for two tracks listed in the NOFO: Track 2 – Project Development, and Track 3 – Final Design (FD)/Construction. Track 2 includes the review and approval of a National Environmental Policy Act (NEPA) document by FRA. Track 3 includes the review and approval of the design plan set by the FRA and the construction of the railroad infrastructure improvements.

## 6. DETAILED PROJECT DESCRIPTION

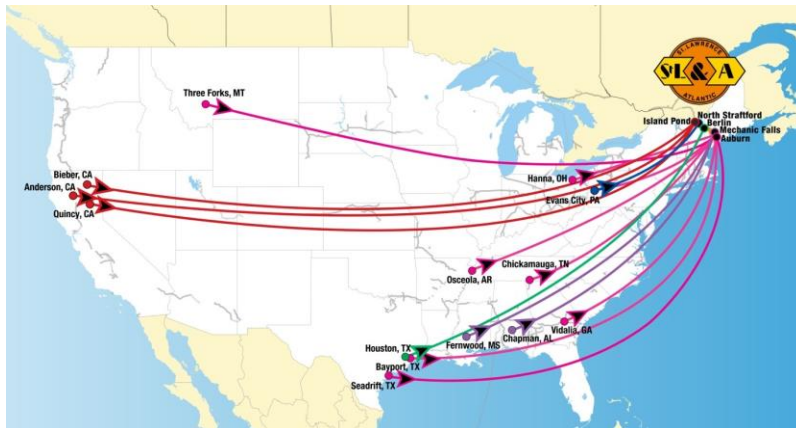
The Project's route crosses Essex County, Vermont (VT), Coos County, New Hampshire (NH), and Androscoggin and Oxford Counties, Maine (ME) (Figure 1). The objectives of the Project include upgrading the track to modern standards capable of carrying fully-loaded 286,000-lb railcars, rehabilitating critical track infrastructure to a state of good repair for safer performance, improving highway grade crossing surfaces, and supporting businesses dependent on rail transportation for their operations. Core components include installing approximately 192,455 feet of 115# CWR, replacing approximately 3,575 ties, upgrading 3 grade crossing surfaces, and replacing 11 turnouts.

The Project will provide the final piece of SLR’s decade and a half effort to upgrade the entire line to modern standards. Since 2006, SLR has been working with the three states’ DOTs and the FRA to upgrade sections of the line, improve interchanges, and maintain a state of good repair. These efforts have involved funding from ten grants, with SLR contributing almost \$7 million to the effort.

Along the line there are major hubs that support propane, lumber and wood pulp, chemical and plastics, and cement industries. This diversity of commodities that SLR regularly transports supports the economic vitality of local communities. Through improvements to this key infrastructure, the Project will increase the competitiveness of SLR’s services and have a positive impact on the growth and development of the area’s businesses.



Figure 1. St. Lawrence & Atlantic Railroad



*SLR supports the distribution of Customers’ products from across the United States*

Among the industries that would benefit from the Project’s improvement to rail infrastructure is the forest products industry, which has suffered from intense international competition and increased production costs in recent decades. The original purpose of the SLR railroad in the 1840s was to support the transport of forest products, which has seen a significant drop with the closure of paper mills. Major impacts have been felt by local communities throughout Maine and New Hampshire, where thousands of jobs have been lost to these closures. However, the forest product industry has been rebounding, with some mills reopening and diverse new products being developed. Providing 286,000-lb railcar capacity for this industry improves their global competitiveness.

An area that has seen strong growth across the United States is the energy industry, for which regional railways play a major role. Transporting dangerous products long distances is more competitive and safer via rail than truck. SLR provides a key component of this transport, transiting across three states and providing interchanges to three Class I railroads - CSX Transportation (CSXT), Canadian Pacific (CP), and Canadian National (CN), as well as shortline New Hampshire Central Railroad (NHCR) which allows access across North America. Annually, SLR transports 1,100 loaded railcars for NGL Wholesale, 1,200 for Irving Oil, 1,000 for Dead River, and 125 for Superior Propane on NHCR. Thus, upgrades to the rail infrastructure are imperative to maintaining the economic transportation of these resources and supporting their safe transportation. These investments benefit the rural communities that rely on these fuel industries and the businesses and residents that live along the rail lines. Providing propane as a competitive fuel source helps the region transition to cleaner burning fuels, which reduce the impacts of climate change.

Capitalizing on sectors of economic growth further adds to the revitalization of rural communities. Promoting rail transportation and investing in sustainable infrastructure creates more competitive opportunities for American companies, thus increasing employment opportunities in rural areas. Moreover, increasing transport via rail keeps trucks off the roads, reducing overall operating costs for companies, improving the safety of local roads and highways, and reducing emissions that lead to health and climate change issues. Congestion reduction on rural roads will also greatly improve quality of life for citizens in their surrounding communities. Overall, the Project strives to achieve these initiatives and support economic development, while improving railroad safety throughout its corridor.

**Maine Wood Treaters (MWT)** continues to **push the wood products market forward** by pursuing new ideas to help Maine’s struggling wood products industry. In 2020, MWT acquired the former Tukey Brothers sawmill in Belgrade, ME to convert to a mill for red pine timbers and boards. The investment was strategic, as red pines planted extensively in the mid-20<sup>th</sup> century under government assistance have reached their mature age. This product is a competitive, low-cost option to the current market alternative, southern yellow pine. **MWT depends on SLR for distributing products to customers.** The strategic location of MWT in Mechanic Falls, ME allows them to take advantage of the low-cost, safe, and efficient transportation offered by SLR.



*Propane cars for Superior Propane on SLR interchange with NHCR in N. Stratford, NH. New CWR on mainline. (SLR photo)*



*Existing old, bolted rail on SLR mainline. (SLR photo)*

On the matter of safety, concerns have arisen due to the older, lighter weight, non-control cooled, bolted rail present on its mainline track. Most of this rail was installed between 1928 and 1955, making it now well past its design life. Typically, 150 rail defects are found annually on the current SLR track, a number which could be greatly reduced by switching to modern 115# CWR. In addition, an upgrade of this outdated and aging rail greatly reduces the risk of derailment and allows railcar gross weight capacity to increase to 286,000 lb, providing more efficient and competitive freight transportation.

Tie infrastructure also plays a major role in supporting railway track. These ties perform the critical job of distributing forces enacted by train movements into the ballast and subgrade. The FRA imposes several criteria on tie quality that vary according to the class of track. In certain cases, temporary “slow orders” must be imposed to reduce the speed of trains going over rail with deficient tie conditions to lower the risk of derailment. The slow orders reduce the maximum train speed from 25 miles per hour to 10 miles per hour until the deficiencies are corrected.

Ties within the Project area are at the end of their useful life and must be replaced to maintain efficient and safe operations. There are approximately 3,575 ties to be replaced along approximately 6.5 miles of track. Replacement of ties involves deploying new ballast and surfacing to ensure a solid foundation for the rail. This Project will use renewable wooden ties.

In addition to rail and ties, three grade crossings will be upgraded. This element of the rail infrastructure is crucial for pedestrian and vehicular safety. High risk crossings are a major concern for public safety, and thus railroads must upgrade these crossings to protect the communities that reside along their rail lines. The crossings that have been identified are Number Six Road, Hotel Road, and Rodman Road. Number Six Road is located on the mainline and was prioritized due to its proximity with Oxford Regional Airport. Hotel Road and Rodman Road are located on the Lewiston Branch in Auburn, ME, and are of concern due to the increased traffic and larger local population in the area. Upgrade of these crossings includes installing new rail, joint bars, ties, tie plates, track spikes, ballast, and concrete surfaces.

Similar to the rail condition on the mainline, turnouts along the SLR are also outdated, of smaller rail weight, and in need of renewal to allow the track infrastructure to support modern rail capacity. The Project will install 115# turnouts at 11 locations: 6 on the Berlin Subdivision, and 5 on the Lewiston Branch. The upgrades will lower the risk of an incident during operations.

## 6.1 Challenges To Be Addressed

The Project aims to address three main challenges:

**Capacity:** The Project will increase railcar carrying capacity from 263,000 lb to the modern standard of 286,000 lb, allowing shippers/businesses to carry more product on each railcar, saving the time and expense of light-loading the railcars or using trucks to haul products to their destination or to another railyard for transloading to/from a railroad with 286,000-lb weight capacity. *This is the final work needed to complete the capacity improvements along the entire line.*

**Freight Mobility:** Increasing rail capacity is especially significant for the businesses along the SLR, as the railway interchanges with three Class I railroads. This provides businesses with the opportunity to select rail routes, ports, and pricing that work best for them when shipping products across North America and overseas. In addition, numerous businesses provide

transloading between rail and truck. These multi-modal connections allow customers that lack their own rail siding to take advantage of rail freight transportation.

**Safety:** The highest priority for SLR is the safety of its system and potential impacts to communities along the line. There have been derailments as rail defects have increased at an accelerating rate. These derailments result in additional hazards to employees, such as the dangerous work required to re-rail equipment. As previously noted, over the last 10 years, there have been an average of 5.2 derailments per year. While most of these derailments have been minor because of existing protocols and the effective issuance of temporary slow orders, it highlights the concerns of derailment along the line. These concerns are especially significant because of the high volume of hazardous materials that are transported by SLR, including propane, chemicals, and solvents. The installation of the CWR will reduce rail deficiencies that lead to derailments and the issuance of slow orders, thereby improving safety and reducing operational inefficiencies. *In August 2009, 20 cars in an 80-car SLR train derailed on the mainline near Gilead, ME, a town on the New Hampshire border. One car carrying ethanol was punctured and vapor escaped the tank cart. A nearby camp was evacuated for several hours, and an investigation revealed the derailment was caused by a pre-existing fatigue crack in the rail. Damage to the train equipment and track exceeded \$1.08 million.*

In addition, the following “state of good repair” challenges will be addressed through the Project:

**General Maintenance Needs:** Much of the rail on the mainline was installed between 1928 and 1955. This track is thus well past its design life and needs replacement to prevent ongoing slow orders, increased derailments, and downgrading of service.

**Unscheduled Maintenance:** Unscheduled maintenance along the line occurs multiple times per year (with greater frequency in winter) due to defective and broken rails.

**Reducing Slow Orders:** On multiple sections of the SLR mainline, slow orders occur due to deteriorating rail conditions, causing delays and impacts to the overall efficiency of the line. Not only do these deficient rail conditions require inconvenient slow orders, but they are also a root cause of derailments. The Project will significantly reduce the need for temporary slow orders and provide safer and more reliable operations.

## 6.2 Expected Outcomes and Performance Measures

Expected outcomes and performance measurements are a foundational component of the Project. SLR, in coordination with VTrans, will be handling project administration and post-build reporting. VTrans, NHDOT, MaineDOT, and SLR propose two performance measures to include in reporting to FRA (Table 2). Attachment 5 provides additional information on the performance measures.

**Table 2. Proposed Performance Measures**

Measure	Unit Measured	Temporal	Primary Strategic Goal	Secondary Strategic Goal	Description
Track Weight Capacity	Yes/No	One Time	Economic Competitiveness	State of Good Repair	Increase in capacity from 263,000-lb railcars to 286,000-lb railcars.
Rail Defects	Defects per mile	Annual	Safety	State of Good Repair	The number of internal rail defects per mile detected by ultrasonic testing within the project area.



### 6.3 Expected Users and Beneficiaries

SLR offers businesses along the line a unique opportunity, as it interchanges with three Class I railroads. To the south, SLR interchanges with CSXT at Danville Junction, ME, offering distribution throughout the United States and providing access to major east coast ports. To the north, SLR/SLQ interchanges with the CP at Sherbrooke, Quebec, and CN at St. Lambert, Quebec, offering opportunities to efficiently distribute products across the border to Canada and throughout the western and southern United States, and providing access to major shipping ports such as New Orleans, Louisiana. In addition, SLR has an interchange with the NHCR. This interchange offers opportunities for SLR customers to distribute in central New Hampshire. More importantly, since SLR is the only interchange for NHCR, SLR is essential for NHCR customers to be able to receive and distribute outside of New Hampshire by rail. CSXT, CP, CN, and NHCR all have at least 286,000-lb capacity.



**Presby R&D Manufacturing, LLC (Presby RDM)**, located in Berlin, NH, provides innovative, affordable products and services to Northern New England, including steel fabrication such as welding, rolling, and machining. The Project would support this small business by allowing delivery of plastic pellets in fully-loaded railcars.

In addition to the direct benefit of increased capacity and freight mobility, the customers of SLR will see improved reliability and reduced transportation times. Businesses that will benefit include the lumber/pulp and paper industry (e.g., RCP Transit, Maine Wood Treaters and New England Public

**NEPW Logistics** is northern New England’s leading asset-based warehousing and transportation provider. Three of their nine warehouse are located on the SLR and offer more than 388,000 square feet of flexible storage space, plus a range of value-added services: cross-docking, paper converting, reverse logistics, and a dedicated trucking fleet. Inbound commodities include wood pulp, pulpboard and OSB. Outbound commodities include paper products. NEPW handles approx. 1,200 railcars per year. The Project would allow NEPW to take advantage of fully-loaded railcars. **Currently NEPW’s SLR locations are in a competitive disadvantage to warehouses located on rail lines providing 286,000-lb capacity.**



Warehouse), cement (e.g., Cement Quebec), chemicals and plastics (e.g., Presby R&D Manufacturing, American Polymers, Savage Safe Handling), and propane customers (e.g., NGL Wholesale, Irving Oil, Dead River, Superior Propane).

These improvements are also anticipated to attract additional business to SLR, including Poland Springs and Sappi who have considerable operations throughout Maine. In addition, the improvements will support economic growth in communities that have been hard hit by the changes in the wood products industry, such as the redevelopment of old mill sites that are underway in Groveton, NH and Gorham, NH.

Having competitive rail service will reduce the amount of freight that is shipped both regionally, nationally, and internationally via truck. As a result, there will be fewer trucks on rural roads, many of which were not designed for heavy truck traffic. Both the traveling public and regional highway maintenance departments will benefit from such reduced congestion and wear on the roads.

Increased safety of operations is beneficial for both SLR employees and the residents of the rural communities along the SLR. Transportation of hazardous materials via rail with modern supporting track infrastructure greatly aids in lowering the risk of fatal rail-borne accidents. In addition, such increased efficiency may attract additional businesses to ship hazardous materials via rail, which is far safer than by truck and would reduce risks throughout the region.

## 6.4 Specific Components and Elements of the Project

The Project is comprised of two major components: upgrades to the existing SLR rail line and improvements to grade crossings along the line. The following section provides details of these components, and Figure 2 illustrates the locations of each improvement. The individual tasks are outlined below and more detail on each task can be found in the Statement of Work (Attachment 2) and the Approved Project Budget (Attachment 4).



Figure 2. Locations of Project Improvements

### 6.4.1 Rail Upgrade Components

**Rail Replacement** – approximately 192,455 feet of 115# CWR are to be installed at the following locations:

Berlin Subdivision, Mile Post (MP) 34.50-37.00, ME – approximately 30,148 linear feet

- Berlin Subdivision, MP 41.00-43.00, ME – approximately 21,120 linear feet
- Berlin Subdivision, MP 45.00-47.00, ME – approximately 21,120 linear feet
- Berlin Subdivision, MP 101.00-103.00, NH – approximately 21,120 linear feet
- Berlin Subdivision, MP 127.20-133.33, NH – approximately 64,733 linear feet
- Sherbrooke Subdivision, MP 0.26-1.20, VT – approximately 9,926 linear feet
- Sherbrooke Subdivision, MP 2.00-3.30, VT – approximately 10,560 linear feet
- Sherbrooke Subdivision, MP 15.00-16.00, VT – approximately 13,728 linear feet

**Tie Replacement** – approximately 3,575 ties are to be installed over 6.5 miles along with ballast and surfacing at the following locations:

- Berlin Subdivision, MP 34.50-37.00, ME – approximately 1,375 ties
- Berlin Subdivision, MP 41.00-43.00, ME – approximately 1,100 ties
- Berlin Subdivision, MP 45.00-47.00, ME – approximately 1,100 ties

**Crossing Rehabilitation** – welding, saw cutting, HMA installation/disposal and more are to be performed at the following locations:

- Berlin Subdivision, MP 41.65, ME – Number Six Road – approximately 38 track feet
- Lewiston Branch, MP 1.83, ME – Hotel Road – approximately 150 track feet
- Lewiston Branch, MP 3.05, ME – Rodman Road – approximately 40 track feet

**Turnout Replacement** – upgrade to 115# turnout will take place at the following locations:

- Berlin Subdivision, MP 149.00-150.00, VT – 6 turnouts
- Lewiston Branch, MP 29.00-32.00, ME – 5 turnouts



*Photo of specialized continuous welded rail train laying new rail on SLR as part of a recent NHDOT project. (SLR photo)*

The Project will install CWR to accommodate fully-loaded 286,000-lb railcars and strengthen infrastructure resilience. With a CWR train, rail can be installed in sections up to 1,600 feet long. This method provides benefits such as faster installation and reduced welds. Using CWR reduces the likelihood of future rail defects and extends the useful life of the system

### 6.4.2 Grade Crossing Information

Railroad that owns the infrastructure at the crossing	Primary Railroad Operator	DOT Crossing Inventory Number	Roadway at Crossing	Description of Work
SLR	SLR	170909U	Number Six Road	Track, surface, traffic control
SLR	SLR	170883U	Hotel Road	Track, surface, traffic control
SLR	SLR	170886P	Rodman Road	Track, surface, traffic control



## 7. PROJECT LOCATION

The scope of the Project crosses rural areas of Essex County, VT, Coos County, NH, and Androscoggin and Oxford Counties, ME (see Section VI.4 for specific locations of the work efforts). Project construction will take place in the Vermont – All Congressional District, the 2<sup>nd</sup> New Hampshire Congressional District, and the 1<sup>st</sup> and 2<sup>nd</sup> Maine Congressional Districts (Figure 3).

The sole urban area located along the Project route is the Lewiston Branch in Androscoggin County, ME, as identified in U.S. Census Bureau’s TIGERweb website. Thus, only \$1,238,372 (7%) of Project costs will occur in an urban area. This means that 93% of the project cost will be spent in rural areas.

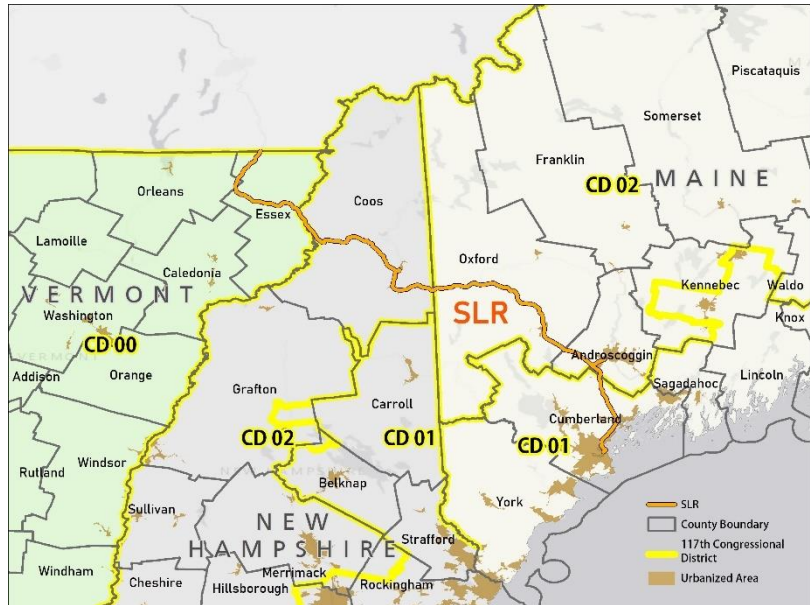


Figure 3. Congressional Districts and Urbanized Areas

## 8. EVALUATION AND SELECTION CRITERIA

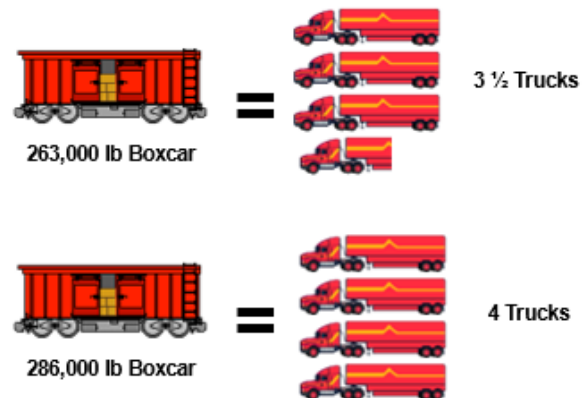
### 8.1 Project Benefits

Overview of the project benefits are provided in the following sections.

#### 8.1.1 Effects on System and Service Performance

Significant benefits of the Project include positive impacts on system and service performance and efficiency. As mentioned previously, SLR’s rail infrastructure is currently restricted to transporting railcars up to 263,000 lb, which imposes limits on the service of the system, as fully-loaded standard railcars cannot be transported. To account for this restriction, railcars traveling on the SLR must be “light-loaded” at 263,000 lb from their origin. Thus, by increasing capacity to the modern standard of 286,000 lb, the Project will allow businesses to carry 10% more product on each railcar and offer customers

#### Railroads Need 286,000 lb. Capacity For Rail Freight Customers To Compete



better service options in a more environmentally friendly manner. This will enable the railroad to increase annual tonnage and overall traffic volumes, making it an even more efficient transportation method.

From a larger perspective, the SLR offers businesses a unique opportunity as it interchanges with three Class I railroads (CSXT, CP, CN), thus affording the ability to efficiently distribute products across the United States and Canada and providing access to major shipping ports. In addition, SLR has an interchange with NHCR, which offers opportunities for SLR customers to distribute freight in central New Hampshire.

As mentioned previously, the Project will provide the final piece of SLR's decade and a half effort to upgrade the entire line to modern standards. Since at least 2006, SLR has been working with the three states' DOTs and the FRA to upgrade sections of the line, improve interchanges, and maintain a state of good repair. These efforts have involved funding from ten grants, with SLR contributing almost \$7 million. Completing this piece will improve the performance throughout the system.

### 8.1.2 Effects on Safety, Competitiveness, Reliability, Trip Time, & Resilience

SLR transports many hazardous materials, ranging from industrial solvents to propane. Because safety is of the utmost importance, operational actions must continuously be implemented to reduce the risk of railcar derailment that could cause a release of hazardous materials. These measures include issuing temporary slow orders when rail deficiencies are found to reduce the probability of a derailment and/or limit the impact if a derailment does occur.

**Savage Safe Handling** provides multi-modal supply chain value enhancements for suppliers and users of bulk products through its integrated service offering of rail transloading, chemical processing, last-mile transportation, and warehousing services. Its location in Auburn, ME, meets the needs of global bulk commodity suppliers and manufacturing customers who produce coated paper, specialty packaging, food, and chemical products. By utilizing long-haul rail freight service and short-haul truck delivery, Savage provides a just-in-time delivery system. Savage handles approx. 1,000 railcars per year. **Having a safe route for hazardous material transportation and achieving 286,000-lb rail weight capacity is important to retain and grow the business.**

Savage has been named a **2022 Top Company for Women to Work For in Transportation by Redefining the Road**, the official magazine of the Women in Trucking Association (WIT). In Redefining the Road's announcement of award recipients, publisher Brian Everett said the companies being recognized are distinguished by characteristics including: "corporate cultures that foster gender diversity; competitive compensation and benefits; flexible hours and work requirements; professional development opportunities; and career advancement opportunities."



Studies have shown that shipping materials by rail is safer overall than transportation by truck, and that shipping trucks are more likely to be involved in roadway accidents than freight trains are to be involved in derailments. Therefore, improving rail infrastructure safety and efficiency helps keep trucks off roads, which lessens the probability of accidents. In addition, fewer truck vehicle miles traveled on roads improves safety for all road users and reduces impacts to the environment (i.e., climate change from emissions).

Businesses shipping products count on efficiency and reliability. The repeated issuance of temporary slow orders creates a less efficient system that increases costs and decreases the competitiveness of the railroad, while signaling to business customers that rail service is unreliable. Customers may then elect to use trucks to move their products, further adding to the risk of accidents and environmental impacts that come with roadway shipping. Because implementation of the Project will lead to a reduction in the need for slow orders as well as derailments from issues such as broken rails, the region will experience improved reliability and economic competitiveness.

From an economic perspective, the Project will serve an important role in maintaining the economic resilience of rural communities along the SLR line. This region suffers from aging populations, lack of a trained work force, and residents migrating to urban areas. Promoting employment in these areas is achieved by supporting the businesses that contribute to growing industries in these states.

**Hancock Lumber** has been in the business since 1848. Today, Hancock Lumber operates high-efficiency sawmills, lumberyards, and component manufacturing facilities. Their mission is to create a work environment that recognizes employees as human beings and ultimately enhances the lives of everyone who works there. Led by over 600 employees, **Team Hancock is a multi-year recipient of the ‘Best Place to Work in Maine’ award.** SLR works with Hancock Lumber to load empty railcars with lumber **for distribution across the United States.**





*Railcars ready to transport lumber from RCP's yard in Island Pond, VT. (SLR photo)*

The forest product industry in particular plays a major role in Maine's economy, with prominence in the rural areas. In terms of local industry and employment, pulp and paper products comprise the largest quantity of manufactured goods in Maine. In 2019, there were 3,496 and 2,992 forest products sector employees in Oxford and Androscoggin Counties, respectively. Considering these high employment numbers, the viability of the forest products industry is critical to the health of Maine's economy and investments in local infrastructures that support this industry are vital to its success. As explained previously, SLR can support these businesses with affordable access to markets across the United States and Canada through its interchanges with three Class I railroads.

### 8.1.3 Efficiencies from Improved

#### Integration with Other Modes

There are numerous multi-modal transload locations along the SLR that interface with truck freight. However, due to the SLR's deficient and outdated rail weight capacity, businesses often elect to truck their products to transload locations further away where there is access to 286,000-lb capacity railcars. This has led to an increase in truck miles and a decrease in efficiency. With the improvements implemented by the Project, these existing transload locations are anticipated to be better utilized, as businesses will elect to ship via SLR as opposed to trucking products from/to other rail lines. This will increase the efficiency of moving products and decrease truck miles traveled on rural roads.

#### 8.1.4 Ability to Meet Existing or Anticipated Demand

In addition to projected growth without the Project, it is anticipated that demand for shipping products on SLR will increase because of the 286,000-lb capacity. Based on discussions with existing customers and projected customers, it is anticipated that SLR could transport up to an additional 4,100 railcars per year by 2029. While this is a significant increase for a rural area, it is well within the capacity of SLR. It is anticipated that any increase in demand will be able

RCP Transit is a **lumber transload facility** located in Island Pond, VT on the SLR. RCP's services including transloading, warehousing and delivery of various lumber materials. **The products transported come in mainly from long haul rail origins out west (approximately 1,200 railcars per year).** The lumber is unloaded, bundled into shipments per customer orders, and trucked to various U.S. destinations. This supply chain system provides much needed jobs for the very rural northern Vermont economy. Recently SLR has begun working with RCP to reload empty railcars to ship out lumber produced in the area. **The Project would increase railcar capacity and allow RCP to remain competitive.**



to be handled within existing train schedules/movements. If demand becomes great enough, SLR has the capacity to schedule additional trains.

## **8.2 Technical Merit**

### **8.2.1 Tasks of the Statement of Work are appropriate to achieve the expected outcomes**

This Project's key outcomes will be the upgrade and increase in weight capacity of the SLR line. Tasks 1 – 3 are designed to ensure continued operation and strategic expansion of the line to meet those goals.

The Project's scope of work has been derived from inspections and testing that have evaluated the Project area and SLR's experience completing similar projects. These studies and experience demonstrate strong project readiness and technical qualifications. The collaboration between VTrans and SLR provides all the skills and experience required for efficient Project delivery.

### **8.2.2 Project Readiness and Project Tracks**

The Project is eligible for Track 3 – Final Design/Construction. Start date of construction is anticipated to be April 2024, following confirmation of Federal funding. A categorical exclusion (CE) is anticipated to apply because the work will be done within the existing rail bed on property owned by SLR. Completed CE worksheets (unsigned) can be found in Attachment 8.

The Project is ready to proceed once grant award, design, and NEPA documents are approved by the FRA. VTrans and SLR can move to construction without delay.

### **8.2.3 Technical Qualification and Experience of Key Personnel/Organization**

VTrans will be the administrators of the grant. As Vermont's leading transportation agency, VTrans has extensive experience administering substantial federal investments that have been made to Vermont's rail system, including:

- FRA High-Speed and Intercity Passenger Rail (HSIPR) Grant –

- FRA Track 1 - \$52.7 million for rehabilitation work along the Vermonter Amtrak service

- FRA Track 3 - \$1 million planning grant for a bi-state intercity passenger rail study along Vermont's western corridor and adjacent communities in New York.

- FHWA Rail Highway Crossing Hazard Elimination in High Speed Rail Corridors - \$2.2 million to rehabilitate 15 crossings on the New England Central Railroad.

- U.S. DOT TIGER VII Grant - \$10 million to upgrade 11 miles of railroad track, rehabilitate several crossings, and add station platforms at three locations.

- U.S. DOT TIGER IV Grant- \$7.9 million to upgrade 18.8 miles of railroad track between St. Albans, Vermont, and the Canadian border.

- U.S. DOT TIGER V Grant – \$8.9 million to upgrade approximately 20 miles of track to FRA class 3 standards, enabling trains to carry loads and safely operate at higher speeds.

- SAFETEA-LU Western Corridor Rehabilitation - \$25 million for line improvements along Vermont's western corridor.

SLR will be responsible for the construction of the Project. SLR has extensive experience completing projects funded through state and federal grant programs. In the last decade, SLR has successfully completed six grants with the FRA and NHDOT that have improved segments of the line, with the Project completing the capacity upgrade for the entire line. Key SLR project team members include:

**Jason Birkel** – Mr. Birkel has been with SLR for 15 years, including the last six as General Manager. He has nearly 20 years of railroad experience leading operations, mechanical and engineering teams. He has managed grant projects with both state and federal funding including the Danville Junction reconfiguration project in Maine, numerous state grants related to track and bridge upgrades as well as over 130 projects. Mr. Birkel is a graduate of the University of Maine.

**Jérémie Largeaud, MSc., Eng.** – Mr. Largeaud has been with SLR for 10 years. Mr. Largeaud worked in the mining exploration sector as a Manager of Engineering Services, where he oversaw all third-party public work within railroad right-of-way, including the rehabilitation of over 100 highway grade crossings. He has supervised numerous public projects, including claims and contractual aspects of several grant programs. He brings to the team strong project management skills, as well as the ability to bring together multidisciplinary teams and to communicate technical information to stakeholders. Mr. Largeaud registered Engineer in the province of Québec with over 15 years of relevant experience.

**Tracie Mason** – Ms. Mason has been with SLR for over 20 years as a Senior Accountant. In this role, she has led the accounting function on numerous state and federal grant projects. She has a keen eye for detail and has always been successful in delivering projects on time and on budget.

**Glen Pilon** - Mr. Pilon began his railway career in 1987 as a trainman and conductor for the CP in Chapleau, Sault Ste. Marie and Sudbury. During nearly 12 years at the Ottawa Valley Railway (OVR), he was an active Operation Lifesaver presenter and SOFA auditor. In 2008, Glen accepted a position at the Transportation Safety Board (TSB) of Canada as Technical Coordinator/Investigator and was later promoted to Senior Regional Investigator. As Regional Safety Manager, Mr. Pilon ensures that all rail operations are carried out safely and in accordance with applicable government and company rules, regulations, policies, and standards.

## 8.2.4 Business Plan Consideration of Private Sector Participation in Financing, Construction or Operation

The project partners (NHDOT, MaineDOT, SLR) are matching the Federal contribution at more than 50% of the Project funds. NHDOT will be contributing \$500,000, MaineDOT will be contributing \$1,900,000, and SLR will be contributing \$7,449,835. SLR, in consultation with VTrans, will manage the construction of the Project. SLR will be responsible for all aspects of the Project's financing, and solely responsible to resolve any cost-overruns. SLR is currently solely responsible for the operation of the line and will be solely responsible for operations following the Project.

## 8.2.5 Legal, Financial and Technical Capacity

There are no outstanding legal issues regarding the work proposed for the Project. All activities of the Project are to be conducted on SLR right-of-way. VTrans and its partners have significant experience administering grants across different scales and with various funding partners. They have the means to oversee the grant and effectively manage the project progress to ensure timely completion of construction. Capability of key personnel is demonstrated above in the technical qualifications section and letters of commitment for financing to match the Federal contribution can be found in Attachment 9. VTrans is in full support of the Project and with the other project partners, will ensure fulfillment of all legal, financial, and technical requirements.

## 8.2.6 Deployment of Innovative Practices

The first Innovative Practice on display during the Project will in fact be an “innovative partnership.” As discussed previously, the Project represents a unique working partnership between state agencies across three states (VTrans, NHDOT, MaineDOT) and SLR. Through this partnership, each agency supports and contributes to the Project’s completion. As a result, the rural communities along the SLR in the three states will see significant benefits as their regional businesses will be able to ship products more efficiently across the United States and Canada. If any one of the states was not a partner, the full benefits of the Project could not be realized. The success of this innovative partnership will hopefully encourage other states to join forces to better the rail system in the United States.

## 8.2.7 Consistency with DOT Planning Guidance and Documents

The proposed Project is consistent with planning guidance and documents set forth by the U.S. Department of Transportation (USDOT), including those required by law, as well as state rail plans developed under Title 49, United States Code, Chapter 227. The Project is consistent with the State Rail Plan for each of the partner states, including the following references:

**Vermont State Rail Plan (2021)** – The plan states there is a demonstrated need to upgrade the State’s rail line to handle 286,000-lb railcars to accommodate the surrounding New England rail network.  
<https://vtrans.vermont.gov/sites/aot/files/planning/documents/Vermont%20Rail%20Plan%205-20-2021%20Final.pdf>

**New Hampshire State Rail Plan (2021)** - An objective of this plan is to remove current weight restrictions and implement the standard 286,000 lb weight capacity in order to enable New Hampshire’s and New England’s railroads to be competitive with the existing North American railroad network. <https://www.nh.gov/dot/org/aerorailtransit/railandtransit/documents/FinalStateRailPlan.pdf>

**Maine State Rail Plan (2014)** - There is an economic push to allow Maine to take advantage of the Class 1 and regional rail networks in the US and Canada by upgrading to 286,000 lb weight capacity and a higher track speed. [https://www.maine.gov/mdot/ofps/docs/Rail\\_Plan\\_7-9-2015.pdf](https://www.maine.gov/mdot/ofps/docs/Rail_Plan_7-9-2015.pdf)

## 8.3 Selection Criteria

### 8.3.1 Proposed Federal and Non-Federal Share

The proposed non-federal share of 50.5%, making the federal share 49.5%.

### 8.3.2 Benefit–Cost Analysis

The Project will confer numerous benefits on a variety of users, beneficiaries, and stakeholders. The Project demonstrates the potential for strong economic benefits, with net benefits of \$37.2 million for a proposed investment of \$12.5 million **or a benefit-cost ratio of 4.0**. Attachment 6 provides details on the benefit-cost analysis.

**Table 3. Benefit-Cost Analysis Summary**

Criteria	Value (millions of 2020\$)
<b>Costs</b>	
Capital Costs	\$12.5
<b>Total Capital Costs</b>	<b>\$12.5</b>
<b>Benefits</b>	
<b>Safety</b>	
Reduction in derailments	\$1.2
<i>Sub-total</i>	\$1.2
<b>Economic Competitiveness</b>	
Freight operating savings	\$38.8
Light loading savings	\$1.1
<i>Sub-total</i>	\$39.9
<b>State of Good Repair</b>	
O&M cost savings	\$1.7
Residual value	\$1.2
<i>Sub-total</i>	\$2.9
<b>Environmental Sustainability</b>	
Truck emissions savings (NOx)	\$0.6
Truck emissions savings (CO2)	\$4.1
Train emissions savings (NOx and SO2)	\$0.3
Train emissions savings (CO2)	\$0.8
<i>Sub-total</i>	\$5.7
<b>Total Benefits</b>	<b>\$49.7</b>
<b>Outcome</b>	
<b>Benefit-Cost Ratio</b>	4.0
<b>Net Present Value</b>	<b>\$37.2</b>

Notes: 2020 base year, 20-year analysis period (2027-2046), 7% discount rate

## 9. PROJECT IMPLEMENTATION AND MANAGEMENT

VTrans will be the administrator of the CRISI grant and will employ processes outlined in the Project Management section of the Statement of Work (Attachment 2). A detailed Project Management Plan will be developed following award of the grant.

As shown in Section 8.2.3, VTrans has extensive experience overseeing federal grants. This experience will be employed to successfully manage the Project.

SLR, in consultation with VTrans, will implement the Project and will select contractors through its procurement department, which has extensive experience with federal procurement regulations. SLR has stringent risk management protocols to ensure on-time and on-budget project delivery.

The project agreement will demonstrate a thorough scope aligning with the scope presented herein, to be completed by SLR. Maximum contributions from the FRA, SLR, NHDOT and Maine DOT are to be outlined, and SLR will be responsible for resolving any cost over-runs. The schedule of the Project will be managed by the SLR team. Regular progress reports will contain applicable billing information and



descriptions of material quantities, labor, equipment, and other cost items, which will be validated by VTrans.

In the field, SLR will monitor the completion of work in accordance with the designated scope as detailed in the Project agreement. Field records will be maintained by the SLR team, which include but are not limited to, inspection logs, quantity spreadsheets, budget spreadsheets, and Project correspondence.

Risks of the Project include funding, schedule, material acquisition, and stakeholder concerns. SLR will conduct a risk assessment of the Project and present it to involved parties to facilitate action required to remediate such risks. All parties will take the necessary actions delegated to them to reduce risks of the project.

Throughout the project duration, progress reports will review status-versus-schedule and identify any shortcomings. Any issues will be prioritized by SLR, and action taken to minimize schedule deviation. Stakeholder risks will be managed by the SLR team through the addressing of vehicular safety and traffic concerns at grade crossings during construction. Traffic control plans will be required and approved to mitigate risk.

## **10. PLANNING READINESS FOR TRACKS 2 AND 3 PROJECTS**

All engineering and design work will be completed by the time of contract execution. As this is a replacement program, SLR is familiar with the scope of preparation needs. As noted previously, it is anticipated that a CE applies to the Project because the work will be undertaken within the existing rail bed on property owned by SLR. Completed CE worksheets (unsigned) can be found in Attachment 8. Preliminary engineering materials can be found in the KML file provided as Attachment 7.

The Project is ready to proceed once the grant, design, and NEPA documents are approved, the FRA. The project will be ready to commence following the execution of contracts, with an anticipated start of construction in the second quarter of 2024. The Project schedule can be found in Attachment 3.

## **11. DESIGN READINESS FOR TRACK 3**

Design of the improvements for this Project are typical in nature for railroad operators and SLR is very experienced undertaking identical types of projects. With support of state and federal grants, SLR has been upgrading segments of the line for a decade and a half. This Project will be the final piece to complete the upgrade of the entire line to 286,000-lb railcar capacity. In anticipation of this Project, SLR has completed the preliminary design of the rail and tie replacements and the turnout rehabilitations identified in Section 6.4 and in Attachments 2 and 7. Since this project has minimal environmental impacts and there are no right-of-way issues, final design can be completed quickly, and construction started.



## 12. ENVIRONMENTAL READINESS FOR TRACK 3 PROJECTS

The SLR has performed a preliminary review of the environmental resources present within the Project corridor and completed a draft of the FRA CE worksheet (available in Attachment 8). This Project is not expected to cause any significant or unusual impacts to any of the identified environmental resources and will be implemented in compliance with NEPA (42 U.S.C. 4321).

The infrastructure improvements described within this application are anticipated to fall under the CE provisions set forth in the FRA Procedures for Considering Environmental Impacts document, recognizing that certain construction activities do not result in significant environmental impacts. It is anticipated that the NEPA analysis will be completed in coordination with the FRA if the grant is awarded, and that the project will likely fall within the work described in 23 CFR § 771.116 (c)(9) and 23 CFR § 771.116 (c)(22). Should the FRA require additional information or studies to obtain approval of the CE or further advancement of the design, these activities are expected to take place after grant obligation.

## 13. STRATEGIC GOALS

### 13.1 Safety

SLR transports many hazardous products, ranging from industrial solvents to propane. Because safety is of the utmost importance, the railroad continuously implements operational actions to reduce the risk of railcar derailment that could cause a release of such materials. These measures include issuing temporary slow orders when rail deficiencies are found to reduce the probability of a derailment and and/or limit the impact if a derailment does occur.

The Project's upgrades will lead to a reduction in derailments and broken rails, leading to an increase in the safety and reliability of the system. In addition to safety on the rails, the Project is anticipated to lead to a reduction in use of trucks to move products. Studies have shown that shipping materials by rail is safer than shipping by truck. Therefore, keeping the rail infrastructure efficient keeps trucks off the roads, where there is a higher probability of an accident. In addition, less trucks traveling on roads improves the safety for all road users.

**Dead River Company** has a propane transload facility in Auburn, ME on the SLR. Propane comes in from various points, including western Pennsylvania, to be used as a heating source for Maine residential and commercial properties. Propane is transferred from railcar to truck and delivered within a 75-100 radius. Dead River **handles approximately 1,100 railcars per year**. Dead River depends on safe and efficient transportation of their propane, a hazardous material. **The Project will result in a safer rail shipping corridor, especially with the installation of new CWR.**

## 13.2 Equitable Economic Strength and Improving Core Assets

**White Mountain Tissue** in Gorham, NH is one of North America’s only independent parent roll tissue suppliers. The mill goes back to 1852 and was recently purchased by Behrens Investment Group and is in the process of being modernized and upgraded. Target markets include bath, towel and napkin for at-home, retail, and select away-from-home applications. White Mountain Tissue produces 36,000 tons a year. The SLR receives approximately 50 railcars per year of pulp through NEPW Logistics, which is transloaded and trucked to the plant. The Project would allow White Mountain to take advantage of fully-loaded railcars and better compete with facilities that have access to 286,000-lb rail capacity.



SLR plays a vital role in connecting businesses in rural locations to the United States and Canadian markets, as well as providing access to major ports on both coasts, through its interchanges with the CSXT, CP, and NHCR railroads, which all have at least 286,000-lb capacity. Therefore, the Project will increase the core assets of this rail infrastructure by allowing fully-loaded railcars to travel seamlessly to and from markets outside of the region. The Project will also provide equitable access to markets outside of the region for businesses in the rural communities along the line, preventing them from experiencing competitive disadvantages, and supporting economic growth in these often under-served communities.

Union jobs will be directly and indirectly supported by the Project. Currently, 40 non-management SLR employees are members of five traditional railroad unions. These employees are directly impacted by this Project. In addition to a safer working environment, SLR business can be retained and grown to support union jobs. Between railroad employees and existing and future SLR customers, a substantial number of

unionized employees are or will be supported, providing a strong economic base for communities across the three states.

The strong economic connection to the SLR can be seen in the large number of local organizations and businesses that took the time to provide a letter of support for the Project (Attachment 10). This support demonstrates how improving the value of core assets will lead to economic growth and competitiveness.

## 13.3 Equity and Barriers to Opportunity

The CDC uses a social vulnerability index for a holistic perspective of where disadvantaged populations may live. The index incorporates factors such as race and income, as well as environmental factors that may pose a health concern to surrounding residents in determining overall social vulnerability. The SLR does travel through socially vulnerable areas and 42% of the line runs through communities identified as low income (70<sup>th</sup> percentile) as defined by EJ Screen.

In addition, USDOT’s “Climate Action Plan” emphasizes the need to prioritize those most vulnerable to the effects of climate change, which often includes residents of such rural, low-income communities. Lower income communities are, in general, more likely to have increased rates of asthma and other health impacts resulting from close proximity to hazardous industries (including freight rail). Improvements to track conditions in these areas will increase the efficiency of rail operations, reduce dwell/transit time, lower levels of noise pollution, and limit

aerosolized pollution from diesel locomotives, all leading to health and quality-of-life improvements for those residing in communities along SLR line.

The Project also comes at a critical time for the forest product industry in Maine, as SLR customers capitalize on new business opportunities to grow the once declining industry and revitalize their communities. Maine Wood Treaters, for instance, continues to expand their business, and SLR plays an imperative role in the distribution of their products.

Maine has been experiencing a shortage of qualified workers, a threat to the economy particularly prevalent in the state with the oldest median age. Many businesses are taking initiatives to engage high school students in technical jobs or prepare them for post-secondary education. One of these businesses is Dead River Company, with over 85 years in the propane industry, they are leaders in their market and have offices in Maine, New Hampshire, Vermont, and Massachusetts. **Through their local offices and participation in activities promoting employment, such as Bridge Academy Maine, they are dedicated to rejuvenating the economy and engaging young people.** Dead River's propane terminal located in Auburn, ME, depends on SLR for safe and reliable transportation of their products. With their impressive growth since 2011 after merging with Fleming Oil Company, **expansion into New Hampshire and Vermont markets** demands high performing distribution support. SLR proves to aid in Dead River's expansion while creating more jobs that engage young individuals in Maine.

By supporting domestic manufacturers and multi-modal distribution services in these rural areas and small towns, residents have jobs in or near their hometown communities. This alleviates dependence on commuting via automobile over long distances to larger cities for employment.

To help promote equity, SLR adheres to an approved Disadvantaged Business Enterprise (DBE) Program (see Attachment 11) in accordance with regulations of the U.S. Department of Transportation (US DOT), 49 Code of Federal Regulations (CFR) Part 26. It is the policy of SLR to ensure that DBEs, as defined in 49 CFR Part 26, have an equal opportunity to receive and participate in Federal Transportation Administration (FTA) and Federal Highway Administration (FHWA) assisted contracts where such goals are identified as a requirement of the contract. It is also SLR's policy:

- (1) to ensure nondiscrimination in the award and administration of applicable DOT-assisted Contracts;
- (2) to create a level playing field on which DBEs can compete fairly for applicable DOT-assisted Contracts;
- (3) to ensure that the Railroad's DBE program is narrowly tailored in accordance with applicable law;
- (4) to ensure that only firms that fully meet 49 CFR Part 26 eligibility standards are permitted to participate as DBEs;
- (5) to help remove barriers to the participation of DBEs in applicable DOT-assisted Contracts; and
- (6) to assist the development of firms that can compete successfully in the market place outside the DBE program.

## 13.4 Climate Change and Sustainability

The Project will upgrade the SLR line to the modern standard of 286,000-lb rail-car capacity. This investment will increase operating efficiency and is anticipated to divert freight shipments from trucks to rail, which will reduce the number of truck vehicle miles traveled (VMT) and associated reductions in emissions. It is estimated that the Project will reduce annual truck VMT by 3.8 million miles and CO<sub>2</sub> emissions by almost 4,800 tons. CO<sub>2</sub> emissions are a leading contributor to climate change. Therefore, efficiencies in freight movement from the Project will contribute to the United States achieving climate change emission reductions in line with the U.S. Climate Action Plan.

To aid in reducing the overall climate impact, the Project will also use renewable wooden ties.

Improving the SLR infrastructure will make it less susceptible to the impacts of climate change. Welded rail is much more resilient to the effects of flooding and potential washouts vs. older bolted rail. The ballast and surfacing will allow proper drainage of the right of way and help to preserve the ties.

**Propane – The “Green” Energy**  
 By choosing propane, one of the cleanest energy sources available today, you’re making a positive choice for the planet. Propane produces significantly fewer greenhouse gas emissions compared to many other energy sources. As a non-poisonous and non-toxic fuel, it won’t contaminate soil or groundwater—keeping our planet cleaner for generations to come. **SLR annually transports approximately 3,400 railcars of propane to support its customers.**



## 13.5 Transformation of our Nation’s Transportation Infrastructure

As discussed previously, SLR offers businesses across the three states a unique opportunity to utilize a local rail shipping system that interchanges with three Class I railroads (CSXT, CN, and CP), as well as the short-line NHCR. All four of these railroads are already operating under the modern standard of at least 286,000-lb railcar capacity.

Recent railroad mergers have brought both CP and CSXT into this region and now provide Class I network connections with the SLR. These Class I systems offer both new opportunities for SLR business as well as potential competition and loss of business which puts SLR at a competitive disadvantage without providing 286,000-lb capacity. SLR is the only rail interchange connection to the State of New Hampshire owned lines operated by the NHCR. Upgrading the SLR will transform rail infrastructure in the region by allowing fully-loaded railcars to be used along the SLR line and easily transferred to any of the three railroads, increasing goods movement efficiency, lowering costs, and providing seamless supply chain access across North America and to major ports. Achieving 286,000-lb capacity will also allow

SLR to handle overhead shipments between the connecting Class I railroads, providing SLR additional traffic. The numerous multi-modal facilities on the SLR provide supply chain connections to businesses that lack direct access to rail.

In addition to upgrading capacity, the Project will meet another of the USDOT’s strategic goals of maintaining critical transportation in a state of good repair. Upholding this initiative ensures the system is performing as required in as-built design or at a higher level, as well as sustaining assets through regular maintenance and replacement programs. The Project is strategic in its approach to the state of good repair by identifying critical areas and prioritizing upgrades to the respective affected areas.



**Figure 4. Reach of SLR’s Direct Connection to CXST, CN, and CP Class I Railroads**

