Chapter 2: Project Context

2.1 INTRODUCTION

Norfolk Southern Railway Company (Norfolk Southern) provides rail freight service across New York State via its Southern Tier route. The Southern Tier route is a critical freight rail link between Buffalo and Binghamton, New York and provides connections to Canada and the Eastern Seaboard of the United States. In addition to serving as a critical rail freight link for Norfolk Southern, the Southern Tier route is used by Canadian Pacific Railway and provides interchange connections to 11 short line railroads. In addition to regional and national services, it serves communities in western and southern New York State and northern and eastern Pennsylvania. Figure 2-1 illustrates the location of the Southern Tier route in New York State and Figure 2-2 illustrates the routes for freight rail using the Southern Tier route.

The Southern Tier route passes through Letchworth State Park in western New York, on right-of-way owned by Norfolk Southern but within the boundaries of the park. This right-of-way within the park boundaries includes the Portageville Bridge, which provides the crossing over the Genesee River between Wyoming and Livingston Counties. The bridge, which opened to rail traffic in 1875, has reached the end of its useful life as a freight rail structure and must now be upgraded or replaced. Figure 2-3 shows the location of the Portageville Bridge.

The Portageville Bridge is a vital, yet currently deficient, component of the Southern Tier route. The bridge is a single track, truss structure that spans approximately 819 feet across and 245 feet above the Genesee River gorge. It is at the end of its useful life as a freight rail structure, and as such, Norfolk Southern must substantially restrict the speed and tonnage of trains that cross the Genesee River. Without action to upgrade or replace the bridge (the “Project”), the crossing may need to be abandoned. This would substantially impair Norfolk Southern’s ability to operate on a substantial portion of the Southern Tier route and would negatively impact the economies of the many locations it serves. Further, the limitations of the existing bridge restrict Norfolk Southern’s ability to leverage enhancements and upgrades it has made to other facilities along the Southern Tier route that have independent utility but also contribute to improved overall service along this route.

This chapter addresses the history and existing context of the Project site, including the existing conditions, deficiencies, and need for enhancement or replacement of the Portageville Bridge.

2.2 PROJECT HISTORY

The Portageville Bridge was constructed by the Erie Railroad Company in 1875. The bridge and the Southern Tier route became part of the Conrail’s national freight network in the 1970s; Norfolk Southern acquired the Portageville Bridge and the entire Southern Tier route from Conrail in 1999. Since then, Norfolk Southern has undertaken numerous capital improvements to the Southern Tier route’s infrastructure. Other individual improvements completed along the Southern Tier route include the replacement of three bridges, each of which has independent utility and is now capable of carrying the industry standard of 286,000 pound gross unit weight traffic, providing benefits to their individual locations while contributing to overall improved service along the route. The Portageville Bridge Project complements Norfolk Southern’s efforts
Current Train Routing over Portageville Bridge

Figure 2-2
Location of Portageville Bridge

Figure 2-3

PORTAGEVILLE BRIDGE

Source: USGS Topographic Map - Portageville, NY Quadrangle
78°2'58"W, 42°34'40"N
to remove the various operational constraints on the Southern Tier route to achieve safe and efficient operations on a local and regional level.

The New York State Department of Transportation (NYSDOT), acting as lead agency pursuant to the New York State Environmental Quality Review Act (SEQRA), commenced environmental review of the Project in accordance with SEQRA in 2008. In September 2008, NYSDOT published a positive declaration and notice of scoping in the New York Environmental Notice Bulletin. NYSDOT conducted a public scoping meeting on October 1, 2008. In addition to the published scoping notice in the Environmental Notice Bulletin, NYSDOT and Norfolk Southern invited representatives of federal and state agencies that might have an interest in the Project, and invited potentially impacted municipalities and the public to attend the scoping meeting. These stakeholders were also invited to provide comment on the Project scope, including Project alternatives, either in person at the scoping meeting and/or by submitting written comments on the Draft Scoping document. NYSDOT and Norfolk Southern considered the comments received and provided responses in a Final Scoping report, which was issued in March 2009 (see Appendix A). The Final Scoping report is the basis of the alternatives evaluation and environmental analysis that followed as documented in this Draft Environmental Impact Statement (DEIS).

Following the public scoping process for the DEIS, Norfolk Southern undertook an alternatives evaluation to consider the potential benefits and potential drawbacks of each of the proposed alternatives and the ability of each to meet the Project’s purpose and need. A total of nine alternatives were identified during scoping and were evaluated in further detail (the No Action/Maintenance Alternative and eight Build alternatives, as described in Chapter 3). The alternatives evaluation determined that six Build alternatives would not meet the Project’s purpose and need, and therefore, these alternatives were eliminated from further consideration. Three alternatives (the No Action/Maintenance Alternative and two Build alternatives) were carried forward for detailed examination in this DEIS. An Alternatives Screening Analysis Report that documents the evaluation of Project alternatives was made available to the public for comment and it was completed in October 2009 (see Appendix B).

As part of its ongoing efforts to involve the public in the environmental review process, in 2009 NYSDOT formed a group of Project stakeholders, including park patrons and municipal representatives and representatives of various federal and state agencies into the Citizens’ Advisory Committee (CAC). The purpose of the CAC is to augment the public review process by providing an additional means to make information available on the Project as planning and design progresses and to solicit comment from the public as well as from involved and interested agencies in order to assist in guiding the Project’s development. To date, two CAC meetings have been held in which comments were solicited from stakeholders on the Project: one in April 2009 and one in November 2009.

This DEIS was prepared to meet the requirements of SEQRA and addresses comments made during the SEQRA public scoping process.

In addition, implementation of the Project will require certain permits and approvals by federal agencies. These approvals may require an environmental determination under the National Environmental Policy Act (NEPA); therefore, this DEIS addresses NEPA requirements to support the environmental review by federal agencies and to assist such agencies in making any findings that might be appropriate under NEPA.
2.3 TRANSPORTATION PLANS AND LAND USE

2.3.1 Local Plans for the Project Area

The Portageville Bridge is located in Wyoming and Livingston Counties in western New York. The railroad right-of-way crosses through Letchworth State Park, a larger than 14,000-acre Park that extends some 17 miles along the east and west banks of the Genesee River. Letchworth State Park is notable for the gorge formed by and waterfalls along the Genesee River that are contained within its boundaries. The lands surrounding the park are largely rural farms and residences. The Southern Tier route (including the Portageville Bridge), which predates the establishment of this area as a state park, runs through the southern portion of Letchworth State Park near its Portageville entrance.

The New York State Office of Parks, Recreation and Historic Preservation (OPRHP) and the planning departments in Wyoming County and Livingston County have not identified any public or private development plans for the area of Letchworth State Park and the adjacent land through which the Southern Tier route runs. However, the ongoing New York State’s Heritage Trail Program will continue to develop a network of public trails in western New York. The Program incorporates an existing segment of the Genesee Valley Greenway Trail that runs through Letchworth State Park and passes beneath the Portageville Bridge.

2.3.2 Transportation Corridor

Importance of the Project Route Segment

The Southern Tier route is one of four Class I railroad routes in New York State and is the primary freight rail route between Buffalo and Binghamton. Class I railroads are railroad companies with annual operating revenues of more than $378.8 million in 2009. The routes used by Class I railroads represent the primary corridors in the nation’s freight rail network, and the Southern Tier route is a critical link in domestic and international goods movement. The Portageville Bridge is the Southern Tier’s crossing of the Genesee River between Wyoming and Livingston Counties and is critical to the operation of this freight corridor (see Figure 2-1).

Alternative Routes

The Southern Tier route is Norfolk Southern’s only east–west rail route through New York State. Unlike trucking firms that use vehicular roadways, rail freight operators must seek permission from other railroads’ owners to traverse their lines. The Empire Corridor to the north and other rail lines through western New York provide freight service to and from the Buffalo area to points east and south, but they are owned and operated by others and do not serve the same destinations as the Southern Tier route. Norfolk Southern would only be able to operate on these alternative routes with the permission of their respective owners, which are competitors of Norfolk Southern, and would have to comply with any scheduling restrictions they impose. In September 2009, diversions to alternative routes were required when the Portageville Bridge was taken out of service for emergency repairs. The three-day shut down caused five-hour delays in Norfolk Southern freight schedules and resulted in substantial operational deficiencies that negatively impacted industries and consumers served by this route.

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1 The Surface Transportation Board defines railroads according to their annual operating revenues, adjusted for inflation. Class I railroads are those with adjusted operating revenues for three consecutive years of $250 million or more.
Area highways also serve as an alternative to freight movement via the Portageville Bridge. Interstate 90 (New York State Thruway) and Interstate 86 (Southern Tier Expressway) are the principal east–west truck routes through New York State. Interstate 390 provides a north–south link between Interstates 86 and 90 approximately 20 miles east of the Portageville Bridge.

**Corridor Deficiencies and Needs**

The Portageville Bridge is more than 100 years old and is incapable of meeting the requirements of modern freight rail operations. The bridge’s condition will not accommodate the weight of modern, industry-standard freight cars, and as such, Norfolk Southern must operate trains at slower speeds (10 miles per hour/10 MPH) than elsewhere on the Southern Tier route. To effectively and efficiently serve its customers, Norfolk Southern seeks to operate industry-standard 286,000 pound car loads at speeds of 35 MPH on the Portageville Bridge. The Portageville Bridge is the only facility on the Southern Tier route that does not meet these industry standards for weight and speed.

**Transportation Plans: The Portageville Bridge Bottleneck**

The *New York State Rail Plan* (New York State Department of Transportation, 2009) identifies the Portageville Bridge as 1 of 10 bottlenecks in New York State’s Class I rail network. The plan cites the Portageville Bridge as limiting the load carrying capacity and operating speed of the Southern Tier route. The report states, “The weight restrictions and low operating speeds significantly impact the line’s overall capacity. Any long-term closing of the Portageville Bridge would threaten the vitality of the entire route between Buffalo and Binghamton.”2 The rail plan identifies that New York State’s Class I freight rail network is critical to the state’s long-term economic vitality.

**Future Plans**

Norfolk Southern has implemented repairs and/or improvements to bring the Southern Tier route to a state of good repair to support modern freight rail operations. These improvements included the replacement of three independent bridges along the corridor that provide distinct, localized benefits while contributing to improved overall performance on the route. In addition, as required by the Rail Safety Improvement Act of 2008, Norfolk Southern will be implementing Positive Train Control on the Southern Tier route.

New Jersey Transit is currently rehabilitating the Bergen Tunnel in northern New Jersey. The Bergen Tunnel project will increase clearances through the tunnel and result in additional double-stack operations between the Buffalo/Niagara crossing and the New York City area. Norfolk Southern has announced plans to institute intermodal service between the Port of New York and New Jersey and Buffalo following completion of the Bergen Tunnel and Portageville Bridge projects. While the combination of the two projects will facilitate double-stack traffic and will improve overall service on the Southern Tier route, each project is nonetheless distinct, has independent utility, and provides its own separate local and regional benefits.

### 2.4 TRANSPORTATION CONDITIONS, DEFICIENCIES, AND ENGINEERING CONSIDERATIONS

The Southern Tier route is Norfolk Southern’s mainline between Buffalo and Binghamton, New York with through connections to Canada and the Eastern Seaboard of the United States. Due to the age of the Portageville Bridge and the associated shortcomings, Norfolk Southern is

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2 New York State Department of Transportation, *New York State Rail Plan*, 2009, page 44.
constrained in its operation of the Southern Tier route. Norfolk Southern must complete the Project to ensure that the Genesee River crossing at Portageville can meet modern freight rail capacity and weight standards and to maintain acceptable levels of safety.

2.4.1 Operations and Maintenance

Functional Classification

The Southern Tier route is a main line connecting Binghamton, NY and points east with Buffalo, NY and points west. As noted above, the Southern Tier route is a critical link in domestic and international goods movement and provides Class I railroad service. Norfolk Southern is the owner of the bridge and operator of the Southern Tier route; in addition, Canadian Pacific maintains haulage rights over the bridge and uses the Southern Tier corridor to move traffic between the western areas of New York and Pennsylvania and other points on its network. The ability for freight railroads, particularly Class I railroads, to carry 286,000 pounds per rail car is paramount, as this weight is the current industry standard, and the overwhelming majority of the national rail network handles the heavier cars. Therefore, the bridge now operates as a bottleneck in the heart of a major east-west transportation corridor. Heavier freight traffic has to be routed entirely around the Southern Tier, which results in longer transit times, more fuel consumed, reduced energy efficiency, and higher transportation cost to customers.

Right-of-Way and Control of Access

The railroad right-of-way within the Project limits was assembled by the Attica and Hornellsville Railroad, a subsidiary of the Erie Railroad, ca. 1850. Norfolk Southern is the current owner of the right-of-way.

Public access to the railroad right-of-way is prohibited, with the exception of any public grade crossings, private grade crossings established either by deed or by agreement between the railroad and adjacent land-owner, or farm crossings established pursuant to New York State Railroad Law § 52.

However, within the boundaries of Letchworth State Park, the railroad right-of-way encompasses several park features. On the west side of the Genesee River, these include a grade-separated crossing with Park Road as well as adjacent segments of Park Road, approximately half of a small parking lot, and the southern trailheads of two trails, the Mary Jemison Trail and the Gorge Trail. On the east side of the river, the right-of-way encompasses a portion of the Genesee Valley Greenway Trail. These features are minor encroachments on the right-of-way and do not interfere with railroad operations.

Speeds

Trains operate at low speed, 10 MPH, across the Portageville Bridge, because of current structural deficiencies as well as the frequent presence of pedestrians trespassing on the bridge. Track geometry would permit optimal speeds of 35 MPH; however, the bridge’s structural fatigue necessitates the far slower speed. For trains in excess of a mile long, which is not uncommon, especially those traveling long distances—including international trains originating from Canada or the Midwest—the speed restriction significantly impacts transit times and causes congestion on the Southern Tier and other Norfolk Southern corridors.

Traffic Volumes

Presently, 12 to 14 freight trains operate across the Portageville Bridge each day. In the future, Norfolk Southern anticipates an increase in its freight traffic on the Southern Tier route, as a
result of implementation of a number of independent projects being undertaken by Norfolk Southern and by others. With these other projects and activities in place, traffic across the Portageville Bridge may increase from the current level of up to 14 trains per day to a future level of approximately 17 trains per day over the long-term (10 years in the future or beyond). The same number of trains (17 trains per day) would be expected to cross the bridge with completion of the Project.

Safety Considerations, Accident History and Analysis

Because of the condition of the Portageville Bridge, Norfolk Southern has implemented enhanced maintenance and inspection measures. After an inspection of the bridge in September 2009 identified broken rivets and structural cracks, engineers deemed it unsafe to continue operations and closed the bridge for three days while emergency repairs were made. All local and through traffic normally routed over the Southern Tier was temporarily detoured onto other railroads. This disruption had the immediate effect of leading to train service delays.

Moreover, in light of the extensive maintenance and inspection requirements and the bridge’s height, the bridge poses a safety hazard for railroad employees who must perform the ongoing maintenance and inspection work that allows the bridge to remain in operation.

In addition, the Portageville Bridge poses safety concerns for park patrons because park users trespass on the bridge for a view of the waterfalls and to traverse the Genesee River between the east and west portions of Letchworth State Park, despite efforts by Norfolk Southern to prohibit trespassing through preventive measures such as fencing and signage. Given the height of the bridge over the gorge and the lack of a safe area for pedestrians on the bridge should a train pass by, the trespassing is a serious safety concern for Norfolk Southern and therefore Norfolk Southern limits the speed of locomotives in part to protect the safety of trespassers. No accidents have occurred on the Portageville Bridge while it has been under Norfolk Southern’s ownership.

Security

Security measures at the bridge consist of warning signs located at either end of the bridge to alert against trespassing.

Police, Fire Protection, and Ambulance Access

There is no vehicular access across the Portageville Bridge. Emergency vehicles use area roadways including Portageville Road and the park road.

Ownership and Maintenance Jurisdiction

Norfolk Southern is responsible for the operation and maintenance of the Portageville Bridge, which lies at milepost 361.66 of the Southern Tier route.

2.4.2 Multimodal

Pedestrians

The railroad right-of-way is private property, and pedestrians are prohibited from trespassing. However, pedestrians trespass on the bridge to view the gorge from its vantage point. The trespassing is a serious safety concern for Norfolk Southern and substantially impacts its operations. As there is poor sight distance on the approaches to the Portageville Bridge, train operators do not have sufficient warning of trespassers, and as such, trains must slow greatly at the approaches to the bridge to minimize the potential for serious accidents. Similarly,
trespassers cannot see oncoming trains and do not have sufficient time to clear railroad property as trains approach.

Bicycles
The railroad right-of-way is private property and bicycles are prohibited.

Transit
There is no commuter rail or intercity passenger rail service on the Southern Tier route between Port Jervis and Buffalo.

Airports and Ports
At present, Norfolk Southern does not provide special service to airports or seaports via the Southern Tier route.

Access to Recreation Areas (Parks, Trails, Waterways, State Lands)
The Southern Tier route does not provide any public access to parks, trails, waterways, or State lands. However, the railroad right-of-way within the Project limits is surrounded by Letchworth State Park. Two trails and the main park road pass directly beneath the Portageville Bridge (through Norfolk Southern’s right-of-way), and a third trail is located in close proximity to the western approach to the bridge, with its trailhead on Norfolk Southern’s right-of-way. Also near the western end of the bridge, a small parking area provides access to the beginning of two of these trails. Approximately half of the parking area is located on Norfolk Southern’s right-of-way.

2.4.3 Infrastructure

Existing Railway Section
Within the Project limits, the Southern Tier route consists of a single main line track. The track is conventional wood-tie construction with 131-pound continuous welded rail and crushed stone ballast. The ballast section is open and free-draining.

Within the Project limits, the Southern Tier route has a maximum curvature of 7.0 degrees and a maximum grade of 0.66 percent.

Existing Features Not Meeting Current Design Standards
Many elements of the structure are loaded beyond their fatigue limit, requiring extensive work to improve the load rating. Based on the results of a fatigue analysis, all of the bottom chord members and diagonal members of the bridge structure, except for two in the center panel of each deck truss, show levels of fatigue beyond acceptable range. In a 2008 inspection report, cracks, missing rivets, and extensive corrosion were noted throughout the bridge, and structural gaps between the lateral columns and pier foundations were observed. These findings demonstrate the substantial degradation of the Portageville Bridge and confirm that it is at the end of its useful life as a rail freight-carrying structure, but are not considered surprising given its more than 100 years of continuous operation.

Track Conditions
The track is maintained by Norfolk Southern in accordance with FRA’s Track Safety Standards (49 CFR Part 213) at FRA Class 4.
Railroad Signal and Communications Systems

Norfolk Southern uses a radio communication system along this segment of the Southern Tier route and employs controlled sidings to allow for two-way traffic operations across the one track Portageville Bridge. There is no electronic signaling equipment within the Project limits.

Interlockings

There are no interlockings within the Project limits. The nearest interlockings are Control Point (CP) “Ross,” located approximately 10 miles east of the Project at approximately milepost 352 and CP “Silver Springs,” located approximately 6.5 miles west of the Project at approximately milepost 368.

Highway Crossings

There are two public roadway crossings within the Project limits as follows:

- Portageville Road (USDOT # 264613H) is located east of the Portageville Bridge at milepost 361.49. It is an at-grade public crossing consisting of asphalt roadway approaches and a timber crossing surface. The crossing is equipped with passive warning devices, consisting of stop signs and cross-bucks. Sight distance is 500 feet to the east and 1,200 feet to the west.

- Park Road (USDOT # 264614P) crosses the Southern Tier route below the Portageville Bridge at milepost 361.78. There is no restriction to the roadway width at the crossing and the bridge provides 22 feet clearance over the roadway.

Drainage System

The Project area’s stormwater control measures consist of ditches along the rail right-of-way leading to the bridge. By design, precipitation infiltrates through the railroad ballast and into the underlying soil in order to maintain the integrity of the rail structure and avoid wash-outs. There are no drainage controls on the existing Portageville Bridge, which has an open truss deck through which stormwater runoff discharges directly to the Genesee River.

Adjacent to the existing bridge approach on the west side of the river, a storm grate drains a small parking area. The storm grate collects water into a concrete-lined drainage basin that conveys water into the park drainage system.

Geotechnical

The Portageville Bridge spans the Genesee River gorge. In general, geologic conditions at the Project site consist of overburden soils overlying sedimentary bedrock. Overburden soils generally consist of lacustrine sand, silt, and clay and glacial drift deposits. The underlying bedrock consists of fine-grained silty sandstones with interbedded shale layers of the Nunda Formation.

In preparation for the Project, geotechnical engineers inspected the face of the gorge wall within the Project site in 2011. The goal of this investigation was to characterize the conditions along the proposed railway alignment, including the rock quality where the Project’s arch bridge foundations would be located. During the investigation, inclined and vertical borings were drilled into the rock on the east and west sides of the gorge. Information collected during the

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3 An interlocking is a segment of railroad with interconnected signals and switches that allow trains to pass through without conflict with other routes.
geotechnical investigation indicates that overburden in the area of the proposed alignment generally consists of topsoil and fill underlain by natural deposits of silt, sand and gravel (stratum 2), clay (stratum 3), weathered bedrock (stratum 4), and underlying bedrock. The rock quality and compressive strength of the underlying sandstone varied, and generally increased with depth.

Structure

The existing bridge is an 819-foot-long steel viaduct carrying a single railroad track, approximately 245 feet above the floor of the Genesee River gorge. The viaduct spans the gorge on six wrought iron towers that were constructed in 1875. The existing superstructure of the viaduct, which was largely constructed in 1903, consists of three spans of pin-connected deck trusses and ten spans of deck plate girders. Figure 2-4 provides a plan and elevation of the existing bridge.

To maintain safe freight rail operations, the Portageville Bridge requires more frequent inspections, supplemented by continuous electronic monitoring, as well as ongoing repairs. Since acquisition from Conrail in 1999, Norfolk Southern has spent over $850,000 to maintain the bridge. As an aged, high-level bridge, the Portageville Bridge is difficult and dangerous to inspect, maintain, and repair. Furthermore, the frequent inspections and repairs required to maintain the bridge are difficult to implement without compromising operations, and indeed in 2009, Norfolk Southern was forced to close the bridge for a three-day period to undertake emergency repairs. Subsequently, Norfolk Southern makes weekly inspections of the bridge and has installed 24-hour vibration and stress monitors. Such heightened and stringent monitoring measures have not been necessary elsewhere on Norfolk Southern’s system and reflect the severity of the deficiencies of the Portageville Bridge. As fatigue and corrosion continue to take their toll on the existing bridge, these maintenance issues and potential service disruptions will likely become more frequent and severe.

Modern, mainline freight rail operations call for a load carrying capacity of 286,000-pound freight cars. To meet this standard, bridges are designed for Cooper E80 live load. The live load refers to individual and cumulative ability of bridge members (i.e., truss members, tower members, etc.) to support the weight of the moving vehicles that use it. A load rating analysis of the Portageville Bridge determined its overall strength rating to be Cooper E29, or 64 percent less live load capacity than a Cooper E80 rated bridge. Thus, to safely use the bridge, Norfolk Southern must operate at speeds and weight limits below Cooper E80 capacity.

FRA has nine classifications for the maximum allowable speed for freight and passenger rail operations. For mainline freight railroads, FRA typically designates Class 4 speed restrictions, which permit freight operations at up to 60 MPH. Because of the poor load rating of the Portageville Bridge and the restrictions resulting from the curvature of its approach tracks (as well as safety concerns related to pedestrians trespassing on the bridge), Norfolk Southern has limited the speed of trains operating over the Portageville Bridge to 10 MPH, which is 50 MPH less than the FRA speed classification for the Southern Tier route and 25 MPH less than it could operate if the bridge met current standards.

Hydraulics of Bridges and Culverts

The Portageville Bridge is located outside of the Federal Emergency Management Agency (FEMA) 100-year floodplain, and the portion of the Genesee River that it spans is not a regulated floodway. Due to the steep banks of the Genesee River gorge, there is no floodplain present in the Project area. The closest floodplain is approximately 0.25 miles south of the Project site.
Existing Portageville Bridge: Plan and Elevation

Figure 2-4
Utilities

There are no known active utilities within the Project limits. There is an abandoned transformer within the existing right-of-way.

2.4.4 Environmental Setting

The bridge and its approach tracks were constructed prior to the dedication of Letchworth State Park in 1906. Rail operations along this corridor have been continuous since before the opening of Letchworth State Park.

The Portageville Bridge spans the Genesee River. The Genesee River bisects Letchworth State Park flowing from south to north. The river forms a gorge and three waterfalls on its course through the park. The natural beauty of the river through this area is recognized as a Wild and Scenic River by the State of New York and as a Study River for the federal Wild and Scenic River program. The Portageville Bridge is located less than 50 feet south of the first of three waterfalls—the Upper Falls. Letchworth Park is also listed on the State and National Registers of Historic Places, and the bridge is one of the contributing elements to this designation.

The bridge spans over park roads and trails that line the Genesee River, and the approach tracks run through wooded areas of the park on either side of the Genesee River. To the west of the bridge, the tracks cross a small stream, and small wetland areas have been identified south of the existing alignment.

The physical location of the bridge within Letchworth State Park complicates options for its replacement and ongoing use. Options to replace the bridge must consider the scenic, natural, and recreational features of the park, the Genesee River, and areas in close proximity to the park.

2.4.5 Economics of Freight Movement

Freight rail is critical to the New York State economy, bringing goods into New York State to serve its consumers, and exporting the products of New York to consumers elsewhere in North America. New York’s geography makes it a key link in freight movement between the United States and Canada as well as between Midwestern hubs (i.e., Chicago and Cleveland) and the Eastern Seaboard.

In 2005, nearly 24 percent ($63.2 billion) of US imports from Canada and nearly 23 percent ($44.3 billion) of U.S. exports to Canada were made by way of New York State. Some 60 percent of the imports and 73 percent of the exports crossed the border at Buffalo/Niagara Falls. Freight railroads carried more than 16 percent of these imports and nearly 5 percent of exports.

The Niagara Frontier urban area freight transportation study estimates a dramatic increase in freight movement through the Buffalo/Niagara Falls area by 2035. From 2004 to 2035, freight movement will increase from 47 million to 93 million tons, and cross-border traffic is projected to triple from 6.4 million to 18.2 million tons.

As stated in the New York State Rail Plan, highway lane miles have remained relatively constant over the past 20 years while traffic volumes have increased dramatically. As a result, highway congestion is on the rise. To maintain efficient and economical transport of goods, producers have become increasingly reliant on the nation’s railroads for shipping, a trend that is likely to accelerate with increased demand for goods movement.

Routes operated by Class I railroads are critical to New York State’s rail freight infrastructure. CSX Transportation’s Empire Corridor and Norfolk Southern’s Southern Tier route are the longest Class I railroad routes in the state and are the primary links to the border crossing at Buffalo/Niagara Falls and points south and east. The CSX route travels nearly the length of the
state between Buffalo and Albany and then turns south toward New York City. However, the Southern Tier route is more direct, traveling a much shorter distance between Buffalo and New York City. Further, the Southern Tier route serves destinations not served by the CSX route, and provides interchange to 11 short line railroads. In addition to regional and national services, the route serves communities and industries in western and southern New York and northern and eastern Pennsylvania.

Recognizing the importance of the Southern Tier route to New York State’s and the nation’s rail infrastructure, Norfolk Southern has invested substantially in the corridor. Since 1999, Norfolk Southern has made substantial expenditures to upgrade three bridge crossings and has repaired and replaced infrastructure as needed along the Southern Tier route to meet the modern industry standards for Class I rail freight operations. Norfolk Southern continues to keep the Southern Tier route in a state of good repair. However, the Portageville Bridge, with its substandard loading capacity and substantial speed reduction requirements, is a recognized bottleneck to the area served by freight operations over the bridge, and its current condition threatens the long-term viability of those operations along this critical rail corridor.

2.5 PROJECT PURPOSE AND NEED AND GOALS AND OBJECTIVES

The purpose of the Project is to provide a modern rail crossing of the Genesee River for Norfolk Southern on the Southern Tier route between Buffalo and Binghamton, New York capable of carrying current industry standard freight rail loads, to the greatest degree possible meeting FRA Class 4 speeds, while reducing ongoing maintenance efforts and costs. This is needed in order for Norfolk Southern to continue safe, reliable, and efficient rail operations on the Southern Tier route in the State of New York. These operations are critical to the economic viability and growth of the Southern Tier and other affected areas of New York.

In support of that purpose and need, after careful consideration of the deficiencies and constraints identified above, Norfolk Southern and NYSDOT developed goals for the Project. Project goals, and objectives to support them, are developed to allow for a careful consideration and evaluation of Project alternatives. The four Project goals are as follows:

1) Eliminate operational constraints along the Southern Tier route caused by the existing Portageville Bridge;
2) Minimize dangerous interaction of railroad activities on the Portageville Bridge and Letchworth State Park patrons that trespass on it;
3) Minimize difficult and costly maintenance; and
4) Optimize existing infrastructure and planned improvements to the Southern Tier route as part of Norfolk Southern’s overall operational strategy in New York and in this region of the country.4

Appendix B of this DEIS provides further detail on the Project goals and methods developed to evaluate the Project alternatives. The alternatives and their initial evaluation are described in Chapter 3, “Project Alternatives.”

4 While contributing to the overall performance of the route, these improvements each have independent utility, provide local benefits, and do not affect conclusions about appropriate improvements at the Portageville Bridge Project.