



U.S. Department of Transportation

Federal Railroad Administration

Finding of No Significant Impact and Section 4(f) Determination

**Northern Lights Express Passenger Rail Project from Minneapolis to Duluth,
Minnesota**

**Counties: Hennepin, Anoka, Isanti, Kanabec, Pine, Carlton, and St. Louis of Minnesota
and Douglas of Wisconsin**

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The NLX Project Level Environmental Assessment was approved by the Federal Railroad Administration (FRA) on April 12, 2017. The entire document is available for review on the project website: www.mndot.gov/nlx.

1. Background

The Federal Railroad Administration (FRA) and the Minnesota Department of Transportation (MnDOT), in cooperation with the Wisconsin Department of Transportation (WisDOT), prepared a Tier 2 Project Level (Tier 2) Environmental Assessment (EA) for the Northern Lights Express (NLX) Project.¹ The Tier 2 EA was prepared in compliance with the National Environmental Policy Act (NEPA) to fulfill the requirements of 42 United States Code (USC) 4321 et seq. and FRA's *Procedures for Considering Environmental Impacts* (64 Federal Register [FR] 28545, May 26, 1999, as updated in 78 FR 2713, January 14, 2013). Further, the Tier 2 EA was prepared to fulfill the environmental review process requirements of Minnesota Statutes (Minn. Stat.) 116D and Wisconsin Administrative Code Chapter Trans 400 and serves as an Environmental Assessment Worksheet (EAW) under Minnesota state law.

As the lead federal agency, FRA provided \$5 million in grant funding for the NLX Project, and MnDOT provided \$3 million in funding. This funding was used to complete the Tier 2 Project Level EA, preliminary engineering plans, service development plan, and financial management plan. No funding for final design and construction for the NLX Project has been identified.

The NLX Project will introduce new higher speed intercity passenger rail service between Minneapolis and Duluth, Minnesota. Stations are proposed in six communities: Minneapolis, Coon Rapids, Cambridge, Hinckley, and Duluth in Minnesota and Superior in Wisconsin. The NLX Project, including station locations, is shown in **Figure 1**. In addition, the NLX Project will include one maintenance facility and one layover facility to provide daily servicing of the trains. These facilities will either be on separate sites in Sandstone and Duluth, or co-located on one site in Duluth. The NLX Project will operate four round trips per day at speeds up to 90 miles per hour (mph) on 152 miles of existing BNSF Railway (BNSF), formerly Burlington Northern Santa Fe Railway, track in Minnesota (approximately 129 miles) and Wisconsin (approximately 23 miles). The NLX Project crosses Hennepin, Anoka, Isanti, Kanabec, Pine, Carlton, and St. Louis counties in Minnesota, and Douglas County in Wisconsin.

¹ A Tier 1 Service Level EA was completed for the project and a Finding of No Significant Impact (FONSI) issued for the Tier 1 EA in August 2013. A condition of the 2013 FONSI was a commitment from MnDOT to complete project level environmental documentation when determined necessary by FRA.

This FONSI is conditioned on the following commitments from MnDOT:

- MnDOT and BNSF achieve agreement on infrastructure improvements that are required and sufficient to sustain the proposed NLX service plan and that the preliminary engineering plans for the identified infrastructure improvements are jointly approved between MnDOT and BNSF, and signed by FRA;
- MnDOT will supplement the environmental documentation, as determined necessary by the lead federal agency, when the NLX Project is funded and moves into final design and construction;
- MnDOT will obtain all applicable permits and approvals prior to the start of construction; and
- MnDOT will perform all mitigation identified in this FONSI and subsequent environmental analysis.

The Tier 2 EA is incorporated in its entirety, with appendices, by reference in this FONSI. The Tier 2 EA is located on the NLX Project website at www.mndot.gov/nlx.

Figure 1: Project Location



2. Statement of Purpose and Need

2.1 Purpose

The purpose for the NLX Project is to provide a means to meet transportation needs through creating a passenger rail service linking Minneapolis and Duluth, connecting with other existing and planned transportation systems.

The NLX Project seeks to introduce a new intercity passenger rail service that will provide a reliable and cost-effective transportation option for travelers between Minneapolis and Duluth. The new service is designed to provide connections not only between the two termini, but to offer a new transportation connection for residents in the largely rural and small city markets of East Central Minnesota, that currently rely on limited intercity bus or automobile travel for all trips. In keeping with Minnesota's statewide initiatives to increase multimodal transportation, intercity passenger rail and associated station stops must provide greater intermodal connectivity² to ensure that more options are available to travelers. The new intercity passenger rail service must be cost-effective, using freight railroad infrastructure, while working in concert with freight railroads to coordinate needed rail improvements to support the new intercity passenger rail service.

2.2 Need

The need for the NLX Project is based on the limitations and vulnerabilities of available travel modes between Minneapolis and Duluth. Existing transportation modes, including highway, bus, and air travel, have inherent problems including congestion near the Twin Cities (including Minneapolis, St. Paul, and surrounding suburbs). While Interstate 35 (I-35) can adequately support vehicular travel outside of the Twin Cities and Twin Ports areas (including the cities of Duluth, Minnesota and Superior, Wisconsin), there is a need to consider other types of transportation options for expanding and changing populations that may not have access to vehicles or bus travel.

² *Intermodal connectivity refers to the ability of users to use and transfer between more than one mode of transportation (personal automobile, bus, train, etc.) to complete a trip. An example of good intermodal connectivity is the ability to take a train from one city to another and then switch to a bus to reach a final destination. As intermodal connectivity is improved, the ability to take a trip using more than one mode of transportation becomes easier.*

The NLX Project will address the following needs for intercity travel between Minneapolis and Duluth:

- Limited statewide intermodal connectivity – The transportation system is important in providing Minnesotans with access to work, school, health care, and recreation and is a critical factor in supporting the state’s economy for movement of goods and services. *Minnesota’s Statewide Multimodal Transportation Plan* identifies “Critical Connections” as a priority objective, stating that MnDOT should “maintain and improve multimodal transportation connections essential for Minnesotans’ prosperity and quality of life” (MnDOT, 2016a).
- Travel demand related to population trends – Minnesota’s population is growing, getting older and more diverse. This growth will in turn increase access needs and travel demand options beyond the current available transportation services.
- Decrease in reliable travel due to congestion – MnDOT has identified I-35 as a High Priority Interregional Corridor that is one of the most heavily traveled roads within Minnesota connecting the regional trade centers of the Twin Cities and Duluth. Future traffic volumes in the state are expected to increase by 50 to 100 percent by 2030 (MnDOT, 2013). While I-35 has sufficient capacity at mid-corridor, volumes in the segments approaching the Twin Cities result in traffic delays during peak periods that reduce travel reliability. Anticipated funding for roadway projects will not be adequate to address congestion and reliability problems.

3. Alternatives Evaluation

The Tier 1 Service Level EA, completed in March 2013, included a multi-level evaluation of a wide range of corridors and potential alternatives for the NLX Project.³ The process included input through public outreach and participation by stakeholder agencies as part of the evaluation process. Route 9, which utilizes the BNSF Railway existing right of way between Target Field Station and the Depot in Duluth, was the preferred alternative carried forward for analysis in the Tier 1 EA (see **Figure 1**) and the basis for further analysis and refinement evaluated in the Tier 2 EA. The scope of the proposed improvements between the Tier 1 EA and Tier 2 EA analyses were a result of the change in the operating plan from eight round trips per day at speeds up to 110 mph to four round trips per day at speeds up to 90 mph, with new passenger rail equipment traveling on BNSF tracks between Target Field Station in Minneapolis and the Duluth Station. Further, the Tier 2 EA evaluated station stops at Target Field Station in Minneapolis; Coon Rapids; Cambridge; Hinckley; Superior, Wisconsin; and Duluth. The Tier 2 EA also evaluated locations for maintenance and layover facilities in Sandstone and Duluth. See Chapter 2 of the Tier 2 EA for additional information on the alternatives evaluation process.

3.1 No Build Alternative

The No Build Alternative reflects existing and committed improvements to the transportation network for the horizon year of 2040. The No Build Alternative does not include implementing the NLX Project. The existing track configuration will remain. BNSF will carry out any rehabilitation or replacement of rail infrastructure to meet the needs for regular freight rail operations. No stations, maintenance or layover facilities specific to NLX Service will be constructed.

The No Build Alternative was analyzed in the EA to serve as a baseline and allow comparison to the Build Alternative and to help decision-makers and the public understand the ramifications of taking no action. See Section 2.3.1 of the Tier 2 EA for additional information on the No Build Alternative.

3.2 Build Alternative (Selected Alternative)

The Build Alternative was chosen as the Project's Selected Alternative after all potential impacts were evaluated; avoidance, minimization and mitigation measures identified, and comments received during the public comment period on the Tier 2 EA were reviewed and addressed. The Selected Alternative best met the

³ Refer to Section 2.1 of the Tier 2 EA for discussion on the selection of the route and service alternatives. The Tier 2 EA is available for review on the project website: www.mndot.gov/nlx.

purpose and need of the NLX Project and was the only build alternative carried forward for further analysis in the Tier 2 EA. The Selected Alternative for the NLX Project will introduce new higher speed intercity passenger rail service between Minneapolis and Duluth and will operate on 152 miles of existing BNSF track in Minnesota and Wisconsin (see **Figure 1**).

The infrastructure improvements for the Selected Alternative for the NLX Project, described below, include improvements to existing track and construction of new track (including new mainline and new sidings), six stations, a maintenance facility, and a layover facility, as well as road crossing improvements, bridge improvements and other rail system improvements to maintain acceptable levels of freight service while providing for new passenger service. Chapter 2 of the Tier 2 EA provides a detailed description of the NLX Project and changes to Project elements that occurred between the Tier 1 EA and Tier 2 EA. The infrastructure improvements evaluated in the Tier 2 EA will continue to be refined when the NLX Project is funded and moves into final design and construction.

3.2.1 Track Infrastructure

Approximately 42 miles of new track (including new mainline and new sidings) is needed to allow the new passenger trains and existing freight trains to operate within the same corridor. Approximately 42 miles of infrastructure improvements, including tracks, sidings, turnouts and crossovers to existing track areas are needed to accommodate the higher speeds of the passenger trains. In addition to new track, these improvements include ballast replacement as part of the existing track rehabilitation. Refer to Table 2-1 for descriptions and Figure 2-4 in the Tier 2 EA for the locations of the infrastructure improvements.

3.2.2 Stations

The six NLX stations will meet the needs of modern intercity passenger rail service and will include an enclosed station building, platform and warming shelters, on-site parking and multimodal transportation access. In addition, all stations will be accessible and comply with the Americans with Disabilities Act (ADA). The station locations are listed in **Table 1**. See Section 2.3.2.9 of the Tier 2 EA for additional information.

Table 1: Station Locations

City	General Location
Minneapolis	Target Field Station
Coon Rapids	Foley Boulevard
Cambridge	City Center Mall
Hinckley	Downtown
Superior, Wisconsin	Downtown
Duluth	New station at Union Depot

3.2.3 Maintenance and Layover Facilities

To accommodate NLX Service, one maintenance facility and one layover facility will be needed. Two maintenance facility site location alternatives have been evaluated: one in which all maintenance and layover activities occur in Duluth, and one in which a maintenance facility would be in Sandstone and an overnight layover facility would be in Duluth (see **Table 2**). Both sites meet the project need and have been evaluated for environmental effects, however, MnDOT and FRA are not selecting a maintenance facility. The agencies will continue to evaluate train schedule and operational and cost refinements, with input from BNSF, and will select one of the sites during final design. MnDOT and FRA will undertake further environmental evaluation if new or expanded environmental impacts are identified through operational or cost refinements in final design.

Table 2: Proposed Maintenance and/or Layover Facilities Locations

City	General Location
Sandstone Maintenance Facility	Minnesota State Highway 23
Duluth Maintenance and/or Layover Facility	Railroad Street

The NLX maintenance facility will be used for inspection, servicing, maintenance and repair activities required to keep NLX trains in service and incorporate train layover and storage needs. The maintenance building will accommodate one 650-foot-long train consist. Additional features of the maintenance facility will be a train wash, office and shop space, yard and lead tracks, shop equipment, vehicular access, exterior lighting and signage and security systems. The maintenance facility will not be used for major rebuilds, main engine change-outs, wreck repairs or component rebuilds, which would occur at an existing facility specializing in

these types of heavy maintenance activities and under contract to the State of Minnesota. See Section 2.3.2.10 of the Tier 2 EA for additional information.

3.2.4 Bridges and Culverts

Bridge and culvert improvements are needed to accommodate the additional track and other infrastructure necessary for freight and passenger trains to operate on the same corridor. Four new bridges will be constructed to accommodate additional track at Mississippi Street and Rice Creek in Fridley and over a drainage ditch and Isanti Brook in Isanti County. Modification of open deck bridges to closed deck bridges will occur over the following waterways: Coon Creek, Grindstone River, West Balsam Creek, Black River, Nemadji River, and Pokegama River. The operating and control systems will be rehabilitated on the Grassy Point swing bridge between Superior, Wisconsin, and Duluth. Appendix E of the Tier 2 EA lists the various culvert improvements that will be completed under the Selected Alternative.⁴ Culverts will be extended to accommodate track infrastructure improvements including siding extensions and curve modifications.

3.2.5 Signal Systems

The NLX Project includes upgrades to train signal and communication systems. Upgrades will include the installation of CTC with a PTC overlay.⁵ Additional control points will be located at powered turnouts and crossovers to increase flexibility and capacity in operations.

3.2.6 Roadways/Grade Crossings

A total of 126 public rail grade crossings exist in the NLX Project. The NLX Project includes improvements to public rail grade crossings, including installation of active warning devices, reconstruction of approach roadways, installation of medians and rail infrastructure improvements, such as construction of an additional track across the roadway. The NLX Project will not close any public rail grade crossings. Private rail crossings are not under the jurisdiction of MnDOT; any changes to private rail crossings will be addressed by BNSF and the adjacent property owners.

⁴ Appendix E of the Tier 2 EA is available for review on the project website: www.mndot.gov/nlx.

⁵ CTC is a train control system whereby a train dispatcher provides operational authority to trains remotely via a wayside signal system and radio communication. PTC is an automated communication-based train control system designed to prevent train accidents required to be installed on certain lines. PTC technology is capable of automatically controlling train speeds and movements should a train operator fail to take appropriate action for rail system conditions.

3.3 Benefits of the Selected Alternative

The Selected Alternative meets the purpose and need of the NLX Project by providing a new intercity passenger rail service that will provide a reliable and cost-effective transportation option for travelers between the Twin Cities and Duluth. The proposed new service offers a new transportation connection for residents in the largely rural and small city markets of East Central Minnesota that currently rely on limited intercity bus or automobile travel for all trips. As Minnesota's population grows older and more diverse, there will be demand for additional travel options that can be met by passenger rail. In addition, passenger rail service provides an additional mode that enables travelers to avoid growing traffic congestion that affects travel time reliability when traveling to and within the Twin Cities. The NLX Project supports Minnesota's statewide initiatives to increase multimodal transportation access.

Because it utilizes the existing BNSF line between Target Field Station and Duluth, the Selected Alternative minimizes required new track infrastructure, most of which would be constructed within the existing BNSF right of way. Although four new railroad bridges are planned, most bridges would be rehabbed, and existing culverts extended rather than new construction. This approach reduces overall capital costs, while maintaining safe existing and future freight rail operations in the project corridor. The Selected Alternative will also include improvements at public rail grade crossings that will benefit public safety for all transportation modes, as well as freight and passenger rail services. Each public rail grade crossing that currently is stop sign controlled will be equipped with automatic gate systems and flashing-light signals. Furthermore, MnDOT will reconstruct 42 of the public crossings to improve site visibility and roadway approaches and install recommended grade crossing warning devices, signage and striping.

The six stations, as well as the maintenance and layover facilities, have been planned and sited in consultation with local communities to be consistent with community goals and land use plans, to enable the communities to integrate and take advantage of the economic investment in the NLX Project facilities.

4. Environmental Consequences and Mitigation

The Tier 2 EA evaluated potential impacts of the No Build Alternative and the Build Alternative (Selected Alternative), described the affected environment, and identified avoidance, minimization and mitigation measures of the proposed NLX Project. The NLX Tier 2 EA analysis did not include any on-site physical review of BNSF right of way. Limited field review was conducted from public rights of way. MnDOT and FRA determined that the appropriate approach was to review that portion of the NLX Project within the BNSF right of way in the following manner:

- Geographic information systems (GIS) data review
- Other relevant resource database review
- Limited observation of the BNSF right of way from adjacent public property

The NLX Project will continue to develop ways to avoid, minimize and mitigate impacts to the resource areas as the Project advances through final design and construction. This will be accomplished through design refinements to the NLX Project, infrastructure improvements and continuing coordination with local, state and federal agencies. MnDOT will supplement the environmental documentation if determined necessary by the lead federal agency, when the NLX Project is funded and moves into final design and construction. Unless otherwise stated, locations and impacts described in this FONSI are in Minnesota.

MnDOT evaluated the following resource areas and found that these have no impacts; therefore, no mitigation is identified:

- Land Use and Land Cover
- Vegetation and Wildlife
 - USFWS National Wildlife Refuges, Wildlife Management Areas, Outstanding Biodiversity Significance Sites, and Scientific and Natural Areas
- Surface Water
 - Navigable Waters
 - Wild and Scenic Rivers
- Groundwater
 - Wells
 - Springs and Sinkholes
- Visual
- Socioeconomics

- Community Cohesion
- Possible Barriers to Elderly and Handicapped

MnDOT evaluated the following resource areas and identified the potential for environmental impacts, as well as avoidance, minimization and mitigation measures that MnDOT commits to as part of the NLX Project:

- Transportation
 - Freight and Passenger Rail Operations
 - Transit
 - Traffic Circulation in Station Communities
 - Bicycle and Pedestrian Facilities
- Right of Way
- Vegetation and Wildlife
 - Native Prairie
 - Invasive Species
 - Wildlife Habitat
 - Animal Mortality and Movement
 - Aquatic Habitats
- Threatened and Endangered Species
- Wetlands
 - Wetlands
 - MnDNR Public Waters
- Surface Water
 - Land Cover
 - Surface Waters
 - Floodplains
 - Shorelands
 - Coastal Zone Management Areas
- Groundwater
 - Wellhead Protection
 - Shallow Groundwater

- Air Quality
- Noise and Vibration
- Contaminated Properties and Regulated Waste
- Cultural Resources
- Farmland and Soils
 - Farmland
 - Soils
- Parks and Recreation Areas
 - Parks and Recreation Areas
 - Trails
- Socioeconomics
 - Community Facilities
 - Community Access
 - Safety and Security/Public Health
 - Infrastructure and Public Services
 - Acquisitions and Relocations
- Environmental Justice
- Economics
- Indirect and Cumulative Effects
- Section 4(f)
- Section 6(f)

4.1 Transportation

4.1.1 Freight and Passenger Rail Operations

4.1.1.1 Summary of Impacts

The NLX Project will provide track and signal improvements that would allow efficient and reliable intercity and commuter passenger rail service while maintaining, or in some cases improving, existing freight rail operational efficiency, which will benefit both BNSF and local businesses that rely on freight service. Proposed NLX

schedules have been developed to complement existing Amtrak and Northstar service. The NLX Project will also improve safety at crossings. During construction, there may be temporary service outages in areas with new or replaced infrastructure. The NLX Service will not impair freight, commuter rail, Amtrak or North Shore Scenic Railroad (NSSR) operations.

4.1.1.2 Avoidance, Minimization and Mitigation Commitments

MnDOT will continue to coordinate with BNSF and will enter into an agreement to provide a set of infrastructure and signal improvements that will maintain freight service levels in conjunction with the provision of passenger rail service. MnDOT will also coordinate with Metro Transit, Amtrak, and NSSR to maintain existing passenger rail services. MnDOT will schedule construction activities to minimize impacts on NSSR operations, including potential service outages. MnDOT will ensure that the appropriate agreements are executed to allow operation of NLX on BNSF track and within BNSF right of way, as well as to utilize Target Field Station. When the NLX Project is funded and moves into construction, MnDOT will coordinate with BNSF to precisely schedule and coordinate construction activities to minimize impacts on both freight and passenger rail operations, including potential service outages. When final mitigation commitments are developed, further environmental documentation will provide the details of what the mitigation is, how it will be achieved and how the mitigation will be determined to achieve its desired outcomes.

4.1.2 Transit

4.1.2.1 Summary of Impacts

The NLX Project will support multimodal connections to transit services and facilities. The NLX Project operations and construction will not significantly impact existing light rail, bus transit, or Northstar Commuter Rail service. The NLX Project will provide opportunities for local transit connections and increase transit ridership. During construction, there will be temporary disruptions or detours where rail grade crossings will be closed for reconstruction or installation of new crossing warning devices.

4.1.2.2 Avoidance, Minimization and Mitigation Commitments

When the NLX Project is funded and moves into construction, MnDOT will coordinate with transit providers regarding temporary crossing closures during construction. MnDOT will also coordinate with Metro Transit to minimize impacts on commuter rail service.

4.1.3 *Traffic Circulation in Station Communities*

4.1.3.1 Summary of Impacts

No significant impacts on traffic circulation and operations are anticipated at the stations and facilities. The Tier 2 EA identifies that NLX traffic in Cambridge would extend the existing traffic queues on 1st Street East that currently extend across the BNSF rail grade crossing. The added NLX station traffic will not substantially impact traffic operations compared to existing conditions.

Under the Selected Alternative, no public and private rail grade crossings will be closed, and public rail grade crossing safety will be improved with rail grade crossing warning devices, signage, striping, and crossing gates, depending on the location and configuration of the public rail grade crossing. Temporary rail grade crossing closures will occur during construction in communities throughout the NLX Project area.

4.1.3.2 Avoidance, Minimization and Mitigation Commitments

When the NLX Project is funded and moves into final design, MnDOT will conduct a detailed traffic analysis of the 1st Avenue East and Buchanan Street intersection in Cambridge. In Hinckley, MnDOT will monitor near the high school and coordinate with the school to minimize potential traffic impacts associated with train and school schedules, if needed. During construction, MnDOT will coordinate with municipalities and other agencies with jurisdiction to minimize disruption to local traffic, specifically in Coon Rapids during intersection reconstruction at Foley Boulevard and the station access road.

4.1.4 *Bicycle and Pedestrian Facilities*

4.1.4.1 Summary of Impacts

The NLX Project provides opportunities for multimodal connections for bicycles and pedestrians at NLX stations. The NLX Project will also provide for enhanced safety at crossings for bicyclists and pedestrians because of new crossing warning devices at rail grade crossings. During construction, there will be temporary disruptions or detours where grade separation construction or rail grade and trail crossings are closed for reconstruction or installation of new crossing warning devices.

4.1.4.2 Avoidance, Minimization and Mitigation Commitments

When the NLX Project is funded and moves into construction, MnDOT will coordinate with municipalities and other agencies with jurisdiction to communicate construction schedules and minimize impacts on bicycle and

pedestrian access because of temporary closures. MnDOT will also install trail closure signs and coordinate with agencies on public information to provide sufficient notice to trail users when construction is planned.

4.1.5 Agency Finding

FRA finds that the NLX Project will not have significant impacts on freight and passenger rail operations when considering mitigation commitments of MnDOT to coordinate with freight and passenger rail providers and stakeholders when the NLX Project is funded and moves into final design and construction. FRA finds that the NLX Project will have benefits to transit services including strengthening network connectivity by serving additional cities and increasing service to existing stops. NLX stations will also strengthen intercity network connectivity by providing facilities for connections between the NLX Project and intercity bus service traveling outside the NLX Project area. Within the NLX Project area, the NLX Project will provide some competition to existing intercity bus service. Based on MnDOT 2016 ridership estimates, approximately 4 to 6 percent of forecasted NLX ridership consists of trips diverting from the existing intercity bus service. Intercity bus providers will likely be able to offset the actual amount of diversion by adjusting bus service schedules and routes to complement the NLX Project. Impacts during construction will be addressed through communication with transit providers to mitigate short-term impacts. FRA finds that the NLX Project will not have significant impacts on traffic circulation in station communities based on the continuing coordination that will occur between MnDOT, municipalities and other agencies when the NLX Project is funded and moves into final design and construction. FRA finds that the NLX Project will not have significant impacts on bicycle and pedestrian facilities when considering mitigation commitments by MnDOT to coordinate with municipalities and other agencies with jurisdiction for construction activity. When final mitigation commitments are developed, further environmental documentation will provide the details of what the mitigation is, how it will be achieved and how the mitigation will be determined to achieve its desired outcomes.

4.2 Right of Way

4.2.1 Summary of Impacts

Approximately 13 acres of right of way acquisition spread over 27 parcels on the 152-mile-long NLX Project corridor between Minneapolis and Duluth will be required for the NLX Project. Of the 13 acres, approximately two acres on two parcels will be easements for the Superior, Wisconsin station, and the other 25 parcels on slightly over 10 acres are in Minnesota. Right of way acquired for stations or maintenance and layover facilities (approximately 9 acres) will likely be a permanent acquisition. Right of way acquired for other rail corridor improvements (approximately 4 acres) is anticipated to be a temporary easement for construction purposes. As noted in Section 4.2 of this FONSI, the NLX Project construction limits include 19 acres outside existing BNSF

right of way. However, only 13 acres of that 19 acres have been identified as potential temporary or permanent right of way acquisitions. The additional 6 acres of right of way outside BNSF property are associated with public agency ownership that will be incorporated by agreement, rather than acquisition. No residential acquisitions are anticipated and one relocation of the City of Hinckley maintenance building is required.

4.2.2 *Avoidance, Minimization and Mitigation Commitments*

Mitigation for acquisitions and relocations will be in accordance with the Uniform Act (49 CFR 24), Minnesota Statutes Chapter 117 and Wisconsin Statutes (Wis. Stat.) Chapter 32, as applicable. MnDOT will negotiate with BNSF and other property owners to secure long-term easements for stations and maintenance and layover facilities when the NLX Project is funded and moves into final design and construction.

4.2.3 *Agency Finding*

FRA finds that the NLX Project will result in approximately 13 acres of right of way acquisition, with no residential acquisitions, and one building relocation. MnDOT will conduct all activities in compliance with the Uniform Act (49 CFR 24), Minnesota Statutes Chapter 117 and Wisconsin Statutes (Wis. Stat.) Chapter 32, as applicable. When final mitigation commitments are developed, further environmental documentation will provide the details of what the mitigation is, how it will be achieved and how the mitigation will be determined to achieve its desired outcomes.

4.3 **Vegetation and Wildlife**

4.3.1 *Native Prairie*

4.3.1.1 **Summary of Impacts**

There may be periodic impacts when maintenance or repairs to existing tracks or rail bed are needed for the NLX Project (amount of impacts may vary depending on the types of maintenance or repair needed). During construction, there will be impacts on nine Minnesota Biological Survey (MBS) railroad prairie remnant locations (seven in Anoka County and two in Isanti County), which includes two Anoka County prairie remnants accounting for approximately 0.47 acre of a 3.84-acre site and approximately 1.02 acre of a 6.9-acre site, due to grading, track work and other rail infrastructure improvements.

4.3.1.2 Avoidance, Minimization and Mitigation Commitments

When the NLX Project is funded and moves into final design and construction, the Minnesota Department of Natural Resources (MnDNR) and MnDOT will coordinate to determine if a vegetation assessment and vegetation management plan are needed to mitigate impacts on native prairies. MnDOT will also complete field surveys to quantify the area of impact relative to the total area of the prairie remnant and plant native prairie species in affected areas, where applicable. If design modifications are not feasible or prudent, areas of prairie impact could be mitigated through planting native prairie species on drainage slopes and other suitable areas within the NLX Project limits in accordance with state agency guidelines.

4.3.2 Invasive Species

4.3.2.1 Summary of Impacts

There is a potential for inadvertently introduced invasive species during construction, operation, maintenance, and rehabilitation.

4.3.2.2 Avoidance, Minimization and Mitigation Commitments

MnDOT will avoid and minimize the potential spread of invasive species through construction practices focused on good housekeeping, such as decontamination of equipment on site, use of weed-free mulch and other best management practices (BMPs) explained in Best Practices for Meeting DNR General Public Waters Work Permit GP2007-0001 at http://files.dnr.state.mn.us/waters/watermgmt_section/pwpermits/gp_2004_0001_introduction.pdf (MnDNR and MnDOT, 2014). MnDOT will develop BMPs and provide to contractors through education, monitoring and construction specifications as spelled out in Minnesota Pollution Control Agency (MPCA) and Wisconsin Department of Natural Resources (WDNR) National Pollutant Discharge Elimination System (NPDES) permit requirements, and MnDNR Public Waters Work Permit requirements.

4.3.3 Wildlife Habitat

4.3.3.1 Summary of Impacts

Operation activities may affect wildlife habitat during maintenance or repairs if repairs are required outside of the existing rail corridor. Maintenance impacts will occur adjacent to existing facilities and, in most cases, immediately parallel to the rail corridor. While loss of habitat in these locations will occur, it represents relatively small areas. Because the NLX Project is proposed along an existing rail corridor, and stations and

maintenance and layover facilities are proposed in developed areas, effects of habitat alteration will be minimal and increases in fragmentation will not occur. During construction, there will be increased construction traffic and machinery noise associated with construction equipment. There may also be dust or sedimentation associated with earth moving activities at limited locations.

4.3.3.2 Avoidance, Minimization and Mitigation Commitments

MnDOT will coordinate with the U.S. Fish and Wildlife Service (USFWS) regarding the Migratory Bird Treaty Act, as well as the MnDNR and WDNR when the NLX Project is funded and moves into final design and construction. During construction, MnDOT will implement BMPs, such as timing construction activities to minimize light and noise impacts, implementing stormwater and erosion control measures and restoring temporarily disturbed areas, keeping bridges cleared of nests and protected from nest-building during construction, and preventing bat roosts by sealing and filling holes and crevices. Any temporary fill placed in wetlands or other surface waters will be subject to the requirements of the U.S. Army Corps of Engineers (USACE) Section 404 permit and Minnesota Wetland Conservation Act approvals, as well as MnDNR Public Waters Work permits. It is assumed that a requirement for clean temporary fill will be incorporated into those permits. After construction, MnDOT will commit to mitigation including re-vegetation within construction limits where appropriate and planting native pollinator-friendly species in areas disturbed by construction, to the extent practical.

4.3.4 Animal Mortality and Movement

4.3.4.1 Summary of Impacts

There is the potential for increased likelihood of mortality due to affected animals not being able to avoid faster and more frequent trains.

4.3.4.2 Avoidance, Minimization and Mitigation Commitments

MnDOT will continue to consult with the MnDNR and WDNR to consider mitigation measures on wildlife crossings where appropriate. MnDOT will consider measures including incorporation of features such as fencing, ballast level alteration, bio-netting, and wildlife crossings, including escape routes from tracks for turtles and other wildlife. To minimize barriers to wildlife movement, installation of fencing will only occur in areas necessary for pedestrian safety and will not extend into waterways.

4.3.5 Aquatic Habitats

4.3.5.1 Summary of Impacts

MnDOT will add piers where a new bridge is constructed over Rice Creek in Anoka County. MnDOT will extend existing culverts over other streams in construction areas (seven in Anoka County, four in Isanti County, and one in Pine County). There will be potential impacts during maintenance- or repair-related activities during the BNSF routine maintenance activities that will happen with or without the NLX Project. There will also be the potential for erosion/sedimentation and other construction impacts on aquatic habitat, including 11 trout streams directly crossed within NLX Project construction limits (six in Minnesota and five in Wisconsin).

4.3.5.2 Avoidance, Minimization and Mitigation Commitments

MnDOT will schedule bridge construction to avoid spawning periods and will coordinate with state and local agencies to ensure all regulatory requirements are followed and appropriate measures implemented to mitigate trout stream impacts. MnDOT will obtain construction permits such as NPDES and Public Waters Work permits when the NLX Project is funded and moves into final design, prior to initiating construction work. MnDOT will implement BMPs during construction to minimize potential impacts, such as the placement of silt fencing along the upland side of wetland boundaries to eliminate the potential of sediment entering the wetlands, implementing stormwater and erosion control measures and restoring temporarily disturbed wetland areas. Erosion prevention BMPs include surface roughening to prepare exposed areas for site restoration, installing erosion control blanket, seeding, disk mulching, hydromulching or installing riprap or other scour protection device at concentrated flow outlets. Sediment control BMPs could include the installation of sediment control logs, silt fence, silt curtain, inlet protection, vehicle trackout controls and similar practices. MnDOT will continue to coordinate with MnDNR when the NLX Project is funded and moves into final design and construction.

4.3.6 Agency Finding

FRA finds that the NLX Project will not have significant impacts on vegetation and wildlife when considering mitigation commitments of MnDOT to consult with MnDNR and WDNR, implement BMPs and take actions to mitigate construction related impacts when funding is secured and the Project moves into construction. When final mitigation commitments are developed, further environmental documentation will provide the details of what the mitigation is, how it will be achieved and how the mitigation will be determined to achieve its desired outcomes.

4.4 Threatened and Endangered Species

4.4.1 Summary of Impacts

Table 3 shows the federal and state-listed species identified to occur within the construction limits, and the findings from USFWS, MnDNR, and WDNR.

Table 3: Threatened and Endangered Species Findings

Federally listed species	Impacts/Finding
Canada lynx (<i>Lynx canadensis</i>) and gray wolf (<i>Canis lupus</i>)	May affect, but not likely to adversely affect No adverse modification of designated critical habitat determinations for Canada lynx and Gray wolf
- Kirtland's warbler (<i>Setophaga kirtlandii</i>) - Piping plover (<i>Charadrius melodus</i>) and Critical Habitat - Rufa red knot (<i>Calidris canutus rufa</i>) - Higgins eye pearlymussel (<i>Lampsilis higginsii</i>) - Snuffbox (<i>Epioblasma triquetra</i>) - Spectaclecase (<i>Cumberlandia monodonta</i>) - Fassett's locoweed (<i>Oxytropis campestris chartacea</i>)	No effect determinations
Rusty patched bumble bee (<i>Bombus affinis</i>)	Not in High Potential Zone. No effect. Consultation Complete
Northern long-eared bat (<i>Myotis septentrionalis</i>)	May affect, but will not cause prohibited incidental take
State Listed Species	Impact/Finding
- Mucket (<i>Actinonaias ligamentina</i>) mussel species (MN) - Elktoe (<i>Alasmodonta marginata</i>) mussel species (MN) - Blanding's turtle (<i>Emydoidea blandingii</i>) (MN) - Beach heather (<i>Hudsonia tomentosa</i>) (MN) - Fluted-shell (<i>Lasmigona costata</i>) (MN) - Bog bluegrass (<i>Poa paludigena</i>) (MN) - Tall nutrush (<i>Scleria triglomerata</i>) (MN)	Potential operations and/or construction impacts

Federally listed species	Impacts/Finding
- Purple wartyback (<i>Cyclonaias tuberculata</i>) (MN) - Spike (<i>Elliptio dilatata</i>) (MN) - Seaside three-awn (<i>Aristida tuberculosa</i>) (MN) - Common tern (<i>Sterna hirundo</i>) (MN) - Wood turtle (<i>Glyptemys insculpta</i>) (WI) - Slender spike-rush (<i>Eleocharis nitida</i>) (WI) - Seaside crowfoot (<i>Ranunculus cymbalaria</i>) (WI) - Arrow-leaved sweet-coltsfoot (<i>Petasites sagittatus</i>) (WI) - Small yellow water crowfoot (<i>Ranunculus gmelinii</i>) (WI) - Floating marsh marigold (<i>Caltha natans</i>) (WI) - Clustered bur-reed (<i>Sparganium glomeratum</i>) (WI) - Tea-leaved willow (<i>Salix planifolia</i> ssp. <i>Planifolia</i>) (WI)	
- Blunt-lobed grapefern (<i>Botrychium oneidense</i>) (MN) - Ghost tiger beetle (<i>Cicindela lepida</i>) (MN) - Ram's head orchid (<i>Cypripedium arietinum</i>) (MN) - Black huckleberry (<i>Gaylussacia baccata</i>) (MN) - Wood Turtle (<i>Glyptemys insculpta</i>) (MN) - Loggerhead shrike (<i>Lanius ludovicianus</i>) (MN) - Snailseed pondweed (<i>Potamogeton bicupulatus</i>) (MN) - Toothcup (<i>Rotala ramosior</i>) (MN) - Fawnsfoot (<i>Truncilla donaciformis</i>) (MN) - Lance-leaf violet (<i>Viola lanceolata</i> var. <i>lanceolata</i>) (MN) - Peregrine falcon (<i>Falco peregrinus</i>) (WI)	No impacts anticipated

4.4.2 Avoidance, Minimization and Mitigation Commitments

Based on consultation with USFWS, construction of the NLX Project will not impact habitat and encountering the federally listed species is not likely. However, MnDOT will complete biological surveys for species within the construction limits before the NLX Project will be built, where necessary, as determined in consultation

with USFWS, MnDNR, and WDNR, including for the northern long-eared bat habitat, including hibernacula and roost trees, and mussels at locations determined by MnDNR. Depending on the survey outcomes, additional measures may be determined necessary during future agency consultation to avoid, minimize or mitigate impacts to northern long-eared bats and mussels. When the NLX Project is funded and moves into final design, MnDOT will consider a 'Passage Bench' to minimize impact on the Canada lynx and gray wolf, as well as other wildlife. In addition, MnDOT will complete surveys for northern long-eared bat habitat, including hibernacula and roost trees. Should either be identified, MnDOT will implement seasonal and location-specific restrictions on tree removal, including removing trees during the winter when the northern long-eared bat is not present. Design modifications that allow for turtles to escape from between the rails could be implemented to further reduce impacts on turtles. Further, MnDOT will work with MnDNR to develop a plan of action to protect habitat and individuals (if present) of seaside three-awn, which is known to occur within the construction limits.

If sensitive plant or animal species are found in locations that will be affected by construction activities, MnDNR, WDNR and/or USFWS will be notified of species occurrence and consulted regarding methods to first avoid and then to minimize adverse impacts. Where impacts would be unavoidable, agencies will be consulted for viable procedures to transplant plant or animal species or other mitigation measures. Upon completion of construction, MnDOT will revegetate disturbed areas with native seed mixes and implement BMPs such as use of wildlife friendly erosion mesh to prevent risk of injury or death to amphibious, terrestrial and avian species in these areas.

4.4.3 Agency Finding

FRA finds that the NLX Project "may affect, but is not likely to adversely affect" the Canada lynx and gray wolf and "may affect, but will not cause prohibited incidental take" of the northern long-eared bat and the mitigation committed to is sufficient to prevent effects to these species. FRA initiated informal consultation with USFWS on the federally listed species in January 2017. On April 12, 2017, FRA received confirmation that the NLX Project is not within the High Potential Zone for the rusty patched bumble bee and consultation for this species is complete. On June 8, 2017, USFWS concurred with findings for the Canada lynx, gray wolf and northern long-eared bat, as listed in **Table 3** (See **Appendix D** of this FONSI).

4.5 Wetlands

4.5.1 Wetlands

4.5.1.1 Summary of Impacts

There are approximately 92 acres of potential wetland impact within the proposed construction limits of the NLX Project (56 acres are in Minnesota and 36 acres in Wisconsin). The 92 acres consist of 321 separate wetlands, with an average impact of 0.3 acre. Approximately 75 percent of the wetland impacts will be due to track infrastructure improvements, especially where the addition of new track is required in rural Pine County, Minnesota, and in Douglas County, Wisconsin. Approximately 20 percent of wetland impacts will be caused by roadway and grade crossing improvements, and the remaining 5 percent due to bridge and culvert improvements, signal system improvements and station and maintenance and layover facilities. Avoidance of all wetlands is not possible because the existing railway alignment that will be used was constructed over a century ago when wetlands were not regulated. The wetlands are listed in Appendix J, Table 6 of the Tier 2 EA.

4.5.1.2 Avoidance, Minimization and Mitigation Commitments

When the NLX Project is funded and moves into final design, MnDOT will complete wetlands delineations, including functional assessments as appropriate, of all wetlands located within construction limits in accordance with the methodology set forth by USACE, to reduce impacts and to inform NLX Project construction. State and federal wetland regulations require that MnDOT attempt to avoid wetland impacts and if avoidance cannot be accomplished, then impacts must be minimized to a practicable extent. As design is refined, MnDOT will avoid and minimize impacts to the extent practicable and will develop more detailed explanations of wetland impacts and additional mapping.

MnDOT will mitigate all unavoidable impacts in accordance with applicable regulations, with replacement ratios ranging from 1:1 to 2:1 and including use of a combination of on-site and off-site permittee-responsible mitigation and purchase of wetland bank credits. Where track improvements are proposed in wetland areas, MnDOT will examine design modifications to minimize impacts. MnDOT will implement construction BMPs to minimize impacts, including placement of silt fencing to manage sediment, implementing stormwater and erosion control measures and restoring temporarily disturbed wetland areas. MnDOT will obtain all federal, state and local wetland and water permits for construction activities when the NLX Project is funded and prior to construction. Potential permits include Section 404 permits for impacts on waters of the United States, Section 401 water quality certification, Minnesota WCA permits, MnDNR public waters permits and WDNR wetland permits.

MnDOT will continue coordination with MnDNR, WDNR, the Minnesota Board of Water and Soil Resources (BWSR), and USACE when the NLX Project is funded and moves into final design and construction. This coordination will include confirmation that the mitigation complies with the 2008 Federal Mitigation Rule (or the most recent version of that rule), and USACE's St. Paul District Policy for Wetland Compensatory Mitigation in Minnesota; identification of mitigation ratios; mitigation for indirect impacts, if needed; and type of mitigation used – bank credits or new construction. Information regarding the availability of wetland bank credits will not be relevant, as the credits available today will change by the time the project has been advanced to a point where a Section 404 permit application will be submitted.

As part of the Section 404 permitting process, MnDOT will develop Section 404(b)(1) documentation to supplement the analysis of alternatives presented in the Tier 1 EA and Tier 2 EA and provide additional information on avoidance, minimization and mitigation identified during final design and when the NLX Project is funded. MnDOT will continue to coordinate with BWSR, MnDNR, WDNR and USACE to determine the most effective mitigation options during final design. MnDOT will consider minimization measures suggested by jurisdictional agencies during final design and those implemented will be documented in future environmental documentation, design plans and permit applications, as needed.

Any temporary fill placed in wetlands or other surface waters will be subject to the requirements of USACE Section 404 permit and Minnesota Wetland Conservation Act approvals, as well as MnDNR Public Waters Work permits. It is assumed that a requirement for clean temporary fill will be incorporated into those permits.

4.5.2 *MnDNR Public Waters*

4.5.2.1 *Summary of Impacts*

There are impacts on two public waters in Anoka County and three public water wetlands in Anoka and Isanti counties, with a combined total of approximately 2.3 acres impacted. Construction-related impacts will be determined when the NLX Project is funded and moves into final design.

4.5.2.2 *Avoidance, Minimization and Mitigation Commitments*

MnDOT will adhere to applicable regulatory rules. Potential permits include MnDNR public waters permits. MnDOT will continue to coordinate with MnDNR, BWSR, and USACE when the NLX Project is funded and moves into final design and construction. MnDOT will also evaluate and update stream crossings in coordination with MnDNR when the NLX Project moves into final design and the means and methods for bridge and culvert improvements are defined.

MnDOT will use construction mitigation measures for surface waters including land cover, such as minimum design standards for work in public waters to accommodate fish spawning and migration, and the development of a construction stormwater pollution prevention plan (SWPPP) for Minnesota and Stormwater Management Plan (SWMP) for Wisconsin. The SWPPP and SWMP will describe structural and non-structural practices to reduce pollutants in stormwater discharges from construction sites. During construction, soil stabilization techniques will be used to avoid and minimize impacts on surface waters. At a minimum, MnDOT will temporarily or permanently stabilize all soils within 14 days of construction temporarily or permanently ceasing in that area. In areas that are more sensitive or with more stringent regulatory requirements, such as within 1 mile of impaired streams, MnDOT will stabilize soils within 7 days of construction temporarily or permanently ceasing. For areas that are located within 200 feet of MnDNR public waters or designated trout streams, MnDOT will complete stabilization within 24 hours of construction temporarily or permanently ceasing. Such measures will be employed until all disturbed areas have achieved final stabilization. MnDOT will conduct final stabilization using approved seed mixes in accordance with MnDOT and MnDNR guidelines, and permit conditions.

MnDOT will use operations mitigation measures including permanent treatment of stormwater runoff from new impervious area as required by the NPDES construction stormwater permits from MPCA and the maintenance of permanent BMPs.

4.5.3 Agency Finding

FRA finds that the NLX Project will impact approximately 92 acres of wetlands and this will be confirmed through future wetlands delineation and coordination with MnDNR, WDNR, BWSR, and USACE. When the NLX Project is funded and moves into final design, MnDOT will complete mitigation under the jurisdiction of these agencies and in compliance with Section 404 of the Clean Water Act (CWA), United States Department of Transportation Order 5660.1A, Executive Order 11990—Protection of Wetlands, Minnesota Wetland Conservation Act, Minnesota Public Waters Work Permit Program, and Wisconsin Wetland Regulatory Program Rules, Wisconsin Administrative Code Chapters NR 103, NR 299, NR 300 and NR 350–353. When final mitigation commitments are developed, further environmental documentation will provide the details of what the mitigation is, how it will be achieved and how the mitigation will be determined to achieve its desired outcomes.

4.6 Surface Water

4.6.1 Land Cover (*Erosion and Sedimentation*)

4.6.1.1 Summary of Impacts

The NLX Project will increase impervious surface up to approximately 47 acres, due to construction of stations and a layover and a maintenance facility. Additional impervious surface will also be created as result of track and bridge work. Existing drainage patterns will be altered where new track and stations will be constructed; however, the direction of runoff will not substantially change. During construction, impacts on land cover will occur from activities that disturb existing vegetation and expose sediment to erosion.

4.6.1.2 Avoidance, Minimization and Mitigation Commitments

MnDOT will minimize impacts caused by disturbance of vegetation and exposure of sediment to erosion through the implementation of BMPs and development of a SWMP and SWPPP. The SWPPP or SWMP will include development of an erosion control plan to prevent erosion and minimize sediment and pollutant transport. MnDOT will construct vegetated swales (drainage ditches) or similar BMPs in rural areas. Urban areas typically rely on curb and gutter to manage stormwater runoff. The construction SWPPP and SWMP will include provisions for minimizing disturbance on steep slopes, controlling dust, efficiently stabilizing exposed soils, protecting stockpiles, good housekeeping practices, and inspection and maintenance of BMPs.

4.6.2 Surface Waters

4.6.2.1 Summary of Impacts

The NLX Project will have water quality impacts on surface waters attributed to erosion, sedimentation and increase in impervious surfaces resulting from construction. There may be potentially higher runoff rates and volumes, and a reduction in the pre-treatment of stormwater runoff entering surface waters due to increased impervious surface. There also will be an increased pollutant loading potential. New piers where a new bridge will be constructed over Rice Creek in Anoka County and the extension of existing culverts over other streams in construction areas (seven in Anoka County, four in Isanti County, and one in Pine County) will impact surface waters. There is the potential for pollutants generated by operation and maintenance activities at passenger stations, maintenance and layover facilities, and loading and unloading activities to affect surface water resources when exposed to precipitation during NLX Project operations. During construction, there will be the potential for sediment and construction-related pollutants to be carried into surface water resources via

stormwater runoff. Temporary changes to land cover could result in higher runoff rates and volumes and a reduction in the pre-treatment of stormwater runoff prior to entering surface waters.

4.6.2.2 Avoidance, Minimization and Mitigation Commitments

Because the NLX Project will disturb more than one acre of land, MnDOT will obtain an NPDES construction stormwater permit from the Minnesota Pollution Control Agency (MPCA) and WDNR and follow local government permit application processes that include plan review, compliance with design standards and permanent maintenance agreements. NPDES permits require the permanent treatment of stormwater runoff from new impervious areas. Additionally, a multi-sector or industrial SWPPP for Minnesota and Wisconsin will be developed and implemented. MnDOT will also incorporate green infrastructure that could include bioswales, rain gardens and permeable pavements for parking lots and access roads, to the extent practical. MnDOT will implement sediment control BMPs such as the installation of sediment control logs, silt fence, silt curtain, inlet protection, vehicle trackout controls and similar practices. The construction SWPPP and SWMP will include provisions for minimizing disturbance on steep slopes, controlling dust, efficiently stabilizing exposed soils, protecting stockpiles, good housekeeping practices, and inspection and maintenance of BMPs.

The mitigation commitments identified for MnDNR Public Waters subsection of Section 4.6, Wetlands, also apply to surface waters.

4.6.3 Floodplains

4.6.3.1 Summary of Impacts

There are 26,130 linear feet of floodplain identified within the construction limits that may be temporarily or permanently filled, primarily due to grading to facilitate track or bridge work, or placement of construction materials. Further evaluation will be completed when the NLX Project is funded and moves into final design. There are also 32 Zone A floodplain crossings in areas of new construction (see Table 4-30 in the Tier 2 EA). None of the floodplain crossings will cause a substantial potential for interruption or termination of a transportation facility needed for emergency vehicles or serving as the community's only evacuation route.

4.6.3.2 Avoidance, Minimization and Mitigation Commitments

MnDOT commits to continued coordination with local floodplain administrators to determine mitigation measures required when the NLX Project is funded and moves into final design and construction. During final design, MnDOT will minimize floodplain impacts to the extent practicable and will reassess the need for any floodplain mitigation and obtain permits, depending on the level or type of impact, if impact cannot be

avoided, in compliance with Executive Order 11988. In addition, stormwater management plans will be developed for the new stations and maintenance and/or layover facilities.

4.6.4 *Shorelands*

4.6.4.1 Summary of Impacts

The NLX Project may have potential permanent impacts on several shoreland areas resulting from track and bridge improvements required for the NLX Project. During construction, there is the potential to deposit sediment onto downstream shorelands.

4.6.4.2 Avoidance, Minimization and Mitigation Commitments

MnDOT will consult with MnDNR and the local unit of government regulating shoreland management to coordinate permitting when the NLX Project is funded and moves into final design.

4.6.5 *Coastal Zone Management Areas – Lake Superior*

4.6.5.1 Summary of Impacts

The U.S. Environmental Protection Agency (EPA)-designated St. Louis River Area of Concern will be impacted due to changes to land cover; only track improvements are planned within the existing right of way.

4.6.5.2 Avoidance, Minimization and Mitigation Commitments

When the NLX Project is funded and moves into final design and construction, MnDOT will continue coordination with the EPA remediation team for the EPA-designated St. Louis River Area of Concern. These efforts will help prevent the NLX Project from hindering EPA remediation and restoration efforts related to the St. Louis River Area of Concern.

4.6.6 *Agency Finding*

FRA finds that the NLX Project will have limited impacts on surface water resources and will not result in significant impacts to surface water resources. Final design will comply with Executive Order 11988 and local permitting requirements related to floodplain management and flood protection. Therefore, the NLX Project will not result in substantial changes or have adverse effects to floodplain values, flood flows or flood elevations, and will not result in a significant floodplain encroachment as defined in federal regulations.

Floodplain crossings will be consistent with local floodplain management goals and objectives, which include maintaining the natural and beneficial floodplain values and avoiding support of incompatible floodplain development. Additionally, floodplain crossings will be designed to avoid and minimize impacts to existing flood profiles on adjacent landowners' properties.

4.7 Groundwater

4.7.1 Wellhead Protection

4.7.1.1 Summary of Impacts

Public water system Wellhead Protection Areas (WHPAs), source water assessment areas, and drinking water supply management areas have been identified within the construction limits. Impacts on groundwater quality in public water systems could occur because of stormwater runoff from stations and maintenance and layover facilities and during construction.

4.7.1.2 Avoidance, Minimization and Mitigation Commitments

MnDOT will notify owners of public water systems in the construction area of proposed construction and comply with wellhead protection plans. MnDOT will review wellhead protection plans in compliance with source water protection requirements. Within WHPAs, MnDOT will examine measures to route stormwater runoff outside the protected area or other protections when the NLX Project is funded and moves into final design and construction. If infiltration rate attenuation is required in a protected area, the treatment facility (for example, stormwater pond) could require lining to ensure that infiltration does not occur. Storage and handling of hazardous materials could have specific requirements in WHPAs.

4.7.2 Shallow Groundwater

4.7.2.1 Summary of Impacts

There is the potential for encountering existing contamination and generating hazardous materials (for example, spills or leaks) that could impact groundwater quality.

4.7.2.2 Avoidance, Minimization and Mitigation Commitments

If groundwater dewatering is necessary, MnDOT will obtain the proper permits from MnDNR (per Minnesota Administrative Rules Chapter 6115) and WDNR (per Wisconsin Administrative Code Chapter NR 820) for the appropriation and disposal of groundwater prior to any work. When the NLX Project is funded and moves into construction, MnDOT will develop and implement a plan for assessing and managing existing contamination in construction areas and develop and implement a contamination plan and spill prevention, control and countermeasures plan to address any leaks or spills that could potentially occur during construction or operation.

4.7.3 Agency Finding

Due to the limited impact the NLX Project will have on groundwater resources, FRA finds that the NLX Project will not result in significant impacts on groundwater resources. Although there are no wells identified within the Project construction limits, if any unused or unsealed wells are encountered they will be addressed in accordance with Minnesota Administrative Rules Chapter 4725 and Wisconsin Administrative Code Chapter NR 812.26.

4.8 Air Quality

4.8.1.1 Summary of Impacts

The NLX Project would have generally small effects on air pollutant emissions and air quality. For most pollutants, there would be a slight decrease in emissions with NLX Project implementation. However, for the 2040 design year, NLX Project implementation is predicted to result in a slight increase in emissions of NO_x and VOC compared to the No Build Alternative. The slight changes in emissions, both increases and decreases, are very small portions of current emission inventories, and are not expected result in any measurable degradation or improvement in air quality in the NLX study area. Because emissions are not expected to exceed GC *de minimis* emission thresholds for any affected pollutant, no coordination with air quality regulatory agencies is required.

Construction activity for stations, maintenance and layover facilities and for rail improvements would generate emissions from equipment exhaust and from fugitive dust due to earthmoving and other construction activities. The construction duration along rail improvements is generally expected to be 2 to 3 weeks at any one location. For stations and maintenance and layover facilities, construction is likely to be completed in one construction season. The emission amounts from construction activity would be expected to be minimal in any one area, and would not be expected to substantially affect ambient air quality, assuming application of BMPs.

Because construction emissions are intermittent by nature and tend to be distributed across the concentration site, any impacts are not nearly as persistent or concentrated at any one location as with a stationary emissions source. Given EPA's increasingly stringent exhaust emissions and fuel quality standards, the emissions from construction equipment should not present either a hazard or a nuisance, as long as engines are properly maintained (that is, no excessive oil burning).

4.8.1.2 Avoidance, Minimization and Mitigation Commitments

As required under federal rules, all locomotive diesel fuel and construction equipment diesel fuel would be ultra-low sulfur diesel, with a sulfur content not to exceed 15 parts per million by weight. Locomotive emissions would be mitigated by limiting idle time to the extent practicable.

The construction emissions would be minimized to the extent practicable by minimizing construction equipment engine idling time. In addition, the construction contractor would be required to prohibit use of, or immediately repair, engines with continuous visible exhaust plumes indicative of excessive oil use or other maintenance issues. Fugitive dust generation during construction would be minimized as appropriate by dust control measures, such as watering of dry, exposed soils during earthmoving activities

4.8.2 Agency Finding

FRA finds that the NLX Project will not result in significant impacts on air quality.

4.9 Noise and Vibration

4.9.1.1 Summary of Impacts

Table 4 summarizes the noise impacts by community, without mitigation and for the differing impacts caused by the two maintenance facility locations in Duluth and in Sandstone. The last two columns indicate the mitigation that will be accomplished by quiet zones (discussed below under Mitigation Commitments). The projected noise impacts from the NLX Project are primarily due to the sounding of horns near rail grade crossings.

The proposed Sandstone Maintenance Facility will create one additional round trip train operation per night between Sandstone and Duluth. This increase in nighttime operations changes the noise impact for the Sandstone alternative and results in fewer moderate residential impacts but an increased number of severe residential impacts. Impacts from location of the maintenance facility in Sandstone include 84 severe and 228 moderate residential impacts and 13 severe and 16 moderate institutional impacts. Impacts from location of

the maintenance and/or layover facility in Duluth include 33 severe and 234 moderate residential impacts and 13 severe and 16 moderate institutional impacts.

The NLX Project will result in one residential vibration impact at a single-family residence in Nickerson, Minnesota, which is caused by the proximity of the residence, located about 35 feet from the existing BNSF track. The vibration levels from higher speed intercity passenger trains are generally lower in level than freight trains, due to the lower weight of higher speed intercity passenger trains compared to heavier freight trains. The improved track standards for a higher speed intercity passenger rail will provide smoother rails to further minimize vibration impacts.

Noise and vibration impacts from construction activities include construction of new tracks and stations, utility relocation, grading, excavation, track work, demolition, and installation of systems components.

The most feasible way to mitigate the noise impacts is to establish quiet zones for all rail grade crossings near noise-sensitive receivers. Only municipalities may establish a quiet zone, in cooperation with the railroad that owns the track and the state transportation authority, by installing and operating necessary safety measures and certifying to FRA that the required level of risk reduction has been achieved. Establishing quiet zones at rail grade crossings of the BNSF corridor would have the additional benefit of reducing the existing noise from freight train locomotive horns. This would be expected to decrease the Ldn at sensitive locations along the NLX Project by up to 5 dBA to 15 dBA compared to existing levels.⁶

4.9.1.2 Avoidance, Minimization and Mitigation Commitments

MnDOT will continue public outreach to communities along the NLX Project alignment to provide information on establishing quiet zones.

As shown in **Table 4**, establishing quiet zones will eliminate all but four moderate noise impacts at one multifamily residential building near Target Field Station in Minneapolis and one severe noise impact at Freedom Park in Braham (residual noise impacts). A noise barrier or providing sound insulation could mitigate the residual noise impact in Minneapolis. The residual severe noise impact at Freedom Park in Braham could be mitigated with a noise barrier, but may not be feasible due to proximity to the track. When the NLX Project is funded and moves into final design and construction, and before any final decision is made regarding noise mitigation at a residential building in Minneapolis and Freedom Park in Braham, MnDOT will conduct a site-

⁶ Ldn refers to the day-night average sound level that describes a receiver's cumulative noise exposure from all events over a 24-hour period, with events occurring between 10:00 PM and 7:00 AM increased by 10 decibels to account for greater nighttime sensitivity to noise. dBA refers to the A-weighted sound level, which describes the receiver's noise at any moment in time, in decibels.

specific 24-hour existing noise measurement to determine more precise noise conditions and if residual noise can be mitigated.

If municipalities in the NLX Project area are unable to establish quiet zones, the incremental noise impact of horn blowing from the NLX Project will be unmitigated. Since a noise barrier cannot extend across a roadway, the implementation of noise barriers will not be an effective mitigation option for the NLX Project where noise impacts are caused by locomotive horn noise.

If quiet zones are not implemented, the NLX Project will have moderate and severe noise impacts, as identified in the applicable columns in **Table 4** that summarize impacts without mitigation. The existing noise levels along the corridor are created by as many as 90 freight trains per day near Minneapolis, and anywhere from 10 to 20 freight trains per day north of Coon Rapids. Freight trains are usually 10,000 feet long and take several minutes to pass a receptor resulting in the impacts identified in **Table 4**.

When the NLX Project is funded and moves into final design, MnDOT will conduct site-specific ground-borne vibration propagation testing at the one impacted residence to determine more precise existing conditions and impacts. MnDOT will recommend specific vibration mitigation measures when more specific characteristics of the train consist are known.

MnDOT will avoid, minimize, or mitigate construction noise and vibration impacts through: avoidance of nighttime construction in residential neighborhoods; locating stationary construction equipment as far as possible from noise-sensitive sites; constructing noise barriers, such as temporary walls or piles of excavated material, between noisy activities and noise-sensitive receivers; routing construction-related truck traffic to roadways that will cause the least disturbance to residents; and using alternative construction methods to minimize the use of impact and vibratory equipment (for example, pile-drivers and compactors).

Table 4: Summary of Noise Mitigation Effectiveness

Receptor Location ¹	Number of Moderate and Severe Noise Impacts					
	Sandstone Maintenance Facility		Duluth Maintenance and/or Layover Facility		With Municipality-Developed Quiet Zones	
	Without Mitigation		Without Mitigation			
	Moderate	Severe	Moderate	Severe	Moderate	Severe
Minneapolis	4 Residential	0	4 Residential	0	4 Residential	0
Fridley	0	0	0	0	0	0
Coon Rapids	0	0	0	0	0	0
Andover	7 Residential 1 School	0	7 Residential 1 School	0	0	0
Bethel	7 Residential 1 Church	0	7 Residential 1 Church	0	0	0
Isanti	22 Residential 1 Church	0	22 Residential 1 Church	0	0	0
Cambridge	4 Residential 2 Churches 1 Cemetery 1 Daycare	9 Residential 1 Cemetery	4 Residential 2 Churches 1 Cemetery 1 Daycare	9 Residential 1 Cemetery	0	0
Stanchfield	11 Residential	2 Churches 1 Cemetery	11 Residential	2 Churches 1 Cemetery	0	0
Braham	12 Residential 1 Park	1 Park	12 Residential 1 Park	1 Park	0	1 Park
Grasston	2 Residential	0	2 Residential	0	0	0
Henriette	11 Residential	0	11 Residential	0	0	0
Brook Park	4 Residential	0	4 Residential	0	0	0
Hinckley	27 Residential	1 Residential 1 School 3 Churches 1 Park	27 Residential	1 Residential 1 School 3 Churches 1 Park	0	0
Sandstone	1 Residential 1 School 1 Church	2 Parks	1 Residential 1 School 1 Church	2 Parks	0	0
Askov	27 Residential 1 School 2 Churches 1 Park	1 Residential	13 Residential 1 School 2 Churches 1 Park	0	0	0
Bruno	4 Residential 1 School 1 Church		1 School 1 Church	0	0	0
Kerrick	7 Residential		1 Residential	0	0	0
Duquette	1 Park		1 Park	0	0	0

Receptor Location ¹	Number of Moderate and Severe Noise Impacts					
	Sandstone Maintenance Facility		Duluth Maintenance and/or Layover Facility		With Municipality-Developed Quiet Zones	
	Without Mitigation		Without Mitigation			
	Moderate	Severe	Moderate	Severe	Moderate	Severe
Nickerson	5 Residential		2 Residential	0	0	0
Holyoke	8 Residential	8 Residential	11 Residential	5 Residential	0	0
Superior, Wisconsin	65 Residential	65 Residential 1 School	95 Residential	18 Residential 1 School	0	0
Duluth	0	0	0	0 Residential	0	0
Total	228 Residential	84 Residential	234 Residential	33 Residential	4 Residential	1 Park
	4 Schools	2 Schools	4 Schools	2 Schools		
	8 Churches	5 Churches	8 Churches	5 Churches		
	3 Parks	4 Parks	3 Parks	4 Parks		
	1 Daycare	2 Cemeteries	1 Daycare	2 Cemeteries		
	1 Cemetery					

¹ Unless otherwise noted, all locations are in Minnesota.

4.9.2 Agency Finding

FRA finds that with the implementation of quiet zones, the NLX Project will have four moderate residential impacts at one building in Minneapolis and one severe impact to Freedom Park in Braham, Minnesota. MnDOT will complete additional noise analysis at the locations with residual noise impacts in Minneapolis and Braham when the NLX Project is funded and moves into final design, in compliance with state and federal laws. The residual severe noise impact at Freedom Park in Braham could be mitigated with a noise barrier, but may not be feasible due to proximity to the track. The NLX Project is also projected to cause one residential vibration impact in Nickerson, Minnesota. MnDOT will conduct site-specific ground-borne vibration propagation testing at the impacted residence when the NLX Project is funded and moves into final design to determine whether more specific vibration measures are appropriate. When final mitigation commitments are developed, further environmental documentation will provide the details of what the mitigation is, how it will be achieved and how the mitigation will be determined to achieve its desired outcomes.

4.10 Contaminated Properties and Regulated Waste

4.10.1 Summary of Impacts

In February 2017, MnDOT prepared a Limited Phase I Environmental Site Assessment (ESA) for the Tier 2 EA providing an evaluation of stations, maintenance and layover facilities, 18 crossing signal upgrade locations,

and four new bridges. The Limited Phase I ESA included a review of the Minnesota Department of Agriculture (MDA) database. Four locations were identified as having a high risk of encountering contamination during construction, four locations were identified as having a medium risk of encountering contamination, and one location was identified as having a low risk of encountering contamination. The results of the analysis in the Tier 2 EA indicate that in the NLX study area, contaminated properties are present that pose a concern for right of way acquisition and construction. Therefore, MnDOT will complete subsequent Phase I and Phase II ESAs prior to any property acquisition or construction of the NLX Project.

The Tier 2 EA noted that one of the sites of concern was a creosote plant that was once located by the Sandstone Maintenance Facility (a site with a high risk for contamination), but the Limited Phase I ESA did not uncover specific location information about the site. The Limited Phase I ESA noted that the site was removed from the MDA Permanent list of Priorities in 2011 and investigation of the site was complete. In a letter dated May 23, 2017 (see **Appendix B** of this FONSI), Minnesota Department of Agriculture (MDA) provided supplemental information regarding the Kettle River Company Creosote Plant (KRCCP) Site. The KRCCP Site was located south of Minnesota Highway 23, north of Highway 123, and west of the BNSF line, including a portion of the proposed Sandstone maintenance facility site. KRCCP used creosote to preserve paving blocks, timbers and railroad ties. The site was added to the Minnesota Permanent List of Priorities in 2002 and is a state-funded project under the oversight of MDA. MDA investigations have found creosote related compounds in soil and groundwater and remedial actions began in 2005. Because this supplemental information, it is now noted that investigation at the KRCCP Site is still ongoing, and not considered complete as stated in the Limited Phase I ESA. MnDOT will coordinate with MDA if development within the delineated KRCCP site occurs. This supplemental information does not alter MnDOT's obligation to complete subsequent Phase I and Phase II ESAs prior to property acquisition or construction at the Sandstone site.

4.10.2 Avoidance, Minimization and Mitigation Commitments

In areas with substantial soil disturbance (that is, stations, maintenance and layover facilities and new bridge construction) and at properties slated for acquisition, MnDOT will complete a targeted Phase I ESA and a Phase II ESA when the NLX Project is funded and moves into final design and prior to construction and property acquisition for the NLX Project. MnDOT will also conduct further investigation on the selected location for the operations and maintenance facilities. A detailed file review at the MDA will be a key component of subsequent investigation. MnDOT will undertake additional measures to address contaminated soil and/or groundwater at the maintenance facility, as required, once the maintenance facility location is selected.

MnDOT will incorporate MDA's recommendation to review MDA's What's in My Neighborhood? Agriculture Interactive Mapping web browser into the Phase I ESAs that MnDOT will conduct when the NLX Project is funded and moves into final design. If it is determined during the Phase I and/or Phase II ESA that construction

of the Sandstone maintenance site will encounter contaminated soil and/or groundwater, or if acquisition of property from any portion of the KRCCP site is needed, MnDOT will review the need for enrollment in the MDA AgVIC program prior to construction. If contaminated properties cannot be avoided, the MnDOT will use the Phase II ESA results to initiate liability protection processes with the appropriate regulatory agencies; implement an environmental construction monitoring and a Contaminated Materials Management Plan, approved by MPCA and WDNR, during construction and implement standard construction BMPs to avoid spills that could contaminate soil, surface water, and groundwater.

In addition, during construction MnDOT will implement standard construction BMPs to avoid spills that could contaminate soil, surface water and groundwater in the NLX Project area and immediately take appropriate action in the event of a release during construction to remediate the situation in accordance with MPCA and WDNR containment and remedial action procedures. MnDOT will develop and implement a Contaminated Materials Management Plan approved by MPCA and WDNR, as needed, and develop a containment plan, environmental monitoring plan, waste management plan, and contingency plan.

MnDOT will include reporting requirements to the Minnesota and/or Wisconsin State Duty Officer in the construction contingency plan and/or other documents directing the procedural requirements for identifying and responding to contaminated media encountered during construction.

4.10.3 Agency Finding

FRA finds that there are no significant impacts related to contaminated properties and regulated waste caused by operations of the NLX Project with the implementation of identified mitigation commitments. With completion of additional Phase I and Phase II ESAs, including at the location of the selected maintenance facility, and implementation of an approved Contaminated Materials Management Plan and contingency plan, MnDOT will mitigate any potential impacts during construction of the NLX Project. When final mitigation commitments are developed, further environmental documentation will provide the details of what the mitigation is, how it will be achieved and how the mitigation will be determined to achieve its desired outcomes.

4.11 Cultural Resources

4.11.1 Summary of Impacts

FRA and MnDOT surveyed architectural and historic properties and received concurrence on eligibility of 34 properties, all in Minnesota, from the Minnesota State Historic Preservation Office (MnSHPO). The Wisconsin State Historic Preservation Office (WisSHPO) concurred there are no eligible properties in Wisconsin

in June 2014. A Phase I archaeology survey was completed in 2016 and both the MnSHPO and WisSHPO have concurred that there are no historic properties for archaeology. FRA met with consulting parties to discuss the eligible and listed properties and potential effects in April and May 2017. FRA submitted a determination of effects (DOE) report to the MnSHPO describing the same findings documented in the Tier 2 EA and indicating that the Project will result in no adverse effects to historic properties to reach resolution on Section 106 for the NLX Project. MnSHPO concurred with this finding on August 31, 2017 (see **Appendix D** of this FONSI).

4.11.2 Avoidance, Minimization and Mitigation Commitments

FRA and MnDOT will continue to consult with MnSHPO, WisSHPO and other consulting parties in accordance with the NLX Programmatic Agreement (PA) per Stipulation VII (C).⁷ In accordance with the NLX PA, future additional survey of architecture history properties and archaeology properties may be required with final design to update existing surveys and to evaluate any areas not previously identified. When funding is available for final design and construction, FRA will consult with MnSHPO to avoid any potential adverse effect from new construction when plans are developed for the Target Field Station (located within the Minneapolis Warehouse Historic District), and at the Duluth Station (adjacent to the National Register-listed Duluth Union Depot) as described in the DOE report. When funding is available for final design and construction, MnDOT will include plan provisions to avoid any indirect construction impacts to the Cedar Potato Warehouse and the Kerrick Cheese Factory and Creamery as described in the DOE report. MnDOT will include provisions so that fencing is appropriately placed to avoid impacts to historic properties. Fencing, construction staging and construction are subject to future discussion with BNSF and other consulting parties.

MnDOT will also recheck the Wisconsin Archaeological Site Inventory when the NLX Project is funded and moves into final design and construction.

4.11.3 Agency Finding

As described in the Tier 2 EA and the DOE report, FRA has determined that the NLX Project has no adverse effects on historic properties.

⁷ The Programmatic Agreement is located in Appendix P of the Tier 2 EA, beginning on page 33. Appendix P is located here: http://www.dot.state.mn.us/nlx/documents/ea/appendices/NLX_EA_Appendix_P_Cultural_Resources_April2017.pdf.

4.12 Farmland and Soils

4.12.1 Farmland

4.12.1.1 Summary of Impacts

There are 2.7 acres of farmland impacts, of which one acre is Farmland of Statewide Importance and none are Prime Farmland. These impacts consist of 37 areas along the length of the NLX Project and are associated primarily with grade crossing improvements.

4.12.1.2 Avoidance, Minimization and Mitigation Commitments

Where practicable, MnDOT will set aside topsoil in impacted farmland during construction to replace or be reused in the NLX Project area.

4.12.2 Soils

4.12.2.1 Summary of Impacts

Portions of the NLX study area between Hinckley and Sandstone are in an area of soft, compressive soils that may require soil correction, which is the removal of soils unsuitable for supporting rail infrastructure and replacement with soils that can support rail infrastructure. Stations would be in developed communities. The maintenance and layover facilities would be in developed communities and/or along existing transportation rights of way. No soil impacts are anticipated from stations or the maintenance and layover facilities.

4.12.2.2 Avoidance, Minimization and Mitigation Commitments

To minimize impacts from soil disturbance, MnDOT will implement appropriate erosion and sediment control measures in accordance with MnDNR. Implementation of BMPs, including silt curtains and revegetation guidelines, would minimize potential impacts due to soil erosion. Further efforts to avoid and/or minimize soil impacts will be developed during the design process. Any excavated unsuitable soils will be hauled off site and properly disposed of at appropriate sites.

4.12.3 Agency Finding

FRA finds that the NLX Project will not result in any significant impacts to farmlands and soils with implementation of mitigation commitments. When final mitigation commitments are developed, further

environmental documentation will provide the details of what the mitigation is, how it will be achieved and how the mitigation will be determined to achieve its desired outcomes.

4.13 Parks and Recreation Areas

4.13.1 Parks and Recreation Areas

4.13.1.1 Summary of Impacts

The NLX Project will not permanently impact parks, recreation areas, or wildlife refuges. The NLX Project will have temporary impacts related to construction of a third track and two new bridges to support the additional track in Fridley and Coon Rapids. Temporary impacts during construction include noise, dust, and visual impacts on Edgewater Gardens Park, Locke Lake Park, Plaza Park, Rice Creek West Regional Trail Corridor, and Springbrook Nature Center.

4.13.1.2 Avoidance, Minimization and Mitigation Commitments

MnDOT will minimize temporary noise, visual and dust impacts on parks during construction by complying with local ordinances applicable to construction activities.

4.13.2 Trails

4.13.2.1 Summary of Impacts

There are no permanent impacts to trails. During construction, the NLX Project will result in temporary trail closures of the following trails: Osborne Road Trail, 85th Avenue Northwest Trail, Coon Rapids Boulevard Extension Trail, Tom Anderson Trail, North Anoka County Regional Trail, Rice Creek West Regional Trail, Isanti-Cambridge Trail, North Country National Scenic Trail, and Cross City Trail. The NLX Project will also result in temporary closure of numerous crossings of snowmobile and ATV trails when railroad crossings experience construction. Construction should have limited impact on snowmobile trails because most construction will not occur in winter.

4.13.2.2 Avoidance, Minimization and Mitigation Commitments

MnDOT will post trail closure signs and work closely with park officials with jurisdiction to provide timely public information regarding closures. MnDOT will develop potential detours to maintain trail access and

connectivity, to the extent practicable. MnDOT will coordinate the exact location and duration of these detours with park officials with jurisdiction and communicate with the public in advance of implementation.

4.13.3 Agency Finding

FRA finds that the NLX Project will have temporary impacts on parks and recreation areas and trails; however, these impacts are not significant when considering mitigation commitments of MnDOT to consult with local officials to avoid, mitigate and minimize temporary closures and disruptions. When final mitigation commitments are developed, further environmental documentation will provide the details of what the mitigation is, how it will be achieved and how the mitigation will be determined to achieve its desired outcomes. Refer to Section 5.0 for further discussion of temporary impacts and Section 4(f) and Section 6(f) Determinations.

4.14 Socioeconomics

4.14.1 Community Facilities

4.14.1.1 Summary of Impacts

There are no substantial impacts on community facilities from the NLX Project and no permanent access changes to community facilities because the NLX Project will not close public or private rail grade crossings. Community facilities that may be affected by NLX stations include: temporary construction-related impacts at the City-owned portions of the City Center Mall; a City of Hinckley maintenance building that will be relocated; a strip of land that will be acquired from the Trinity Episcopal Church for the Hinckley Station; and temporary relocation of the NSSR ticket office during construction of the passenger waiting area for the Duluth Station.

4.14.1.2 Avoidance, Minimization and Mitigation Commitments

When the NLX Project is funded and prior to construction, MnDOT will continue coordination with affected community facilities regarding temporary construction impacts and alternative access. MnDOT will also continue coordination with the NSSR and St. Louis County, the owner of Duluth Union Depot, to identify a temporary space for NSRR's ticketing office functions while the NLX Project passenger waiting area is under construction.

4.14.2 Community Access

4.14.2.1 Summary of Impacts

No public or private crossings are being closed by the NLX Project, and access will remain unchanged within the Project corridor. Only temporary closures will be required during construction where crossings are closed for the reconstruction and installation of new warning devices.

4.14.2.2 Avoidance, Minimization and Mitigation Commitments

MnDOT will develop a traffic management plan for areas with rail grade crossings to identify alternate access during crossing closures and continue public outreach to keep local communities informed of construction schedules and crossing closures.

4.14.3 Safety and Security/Public Health

4.14.3.1 Summary of Impacts

The NLX Project will not negatively affect public safety and health because the Project will comply with all federal regulations for signal and train control systems and fencing will be provided in urbanized areas to support pedestrian safety. Additionally, NLX stations and facilities will provide features to help ensure safety including lighting, ADA accessibility, and adherence to local and state building and safety codes.

4.14.3.2 Avoidance, Minimization and Mitigation Commitments

MnDOT will adhere to local ordinances and safety requirements. MnDOT will install fencing in locations throughout the NLX corridor where there is a high probability people would cross the tracks, such as at grade crossings and in developed areas with residential development on both sides of the tracks. Although NLX trains will operate at maximum track speed through communities as a general practice, MnDOT will consider slowing speeds on a case by case basis for special events at specific locations and would coordinate with local communities for such events.

4.14.4 *Infrastructure and Public Services*

4.14.4.1 Summary of Impacts

The NLX Project will not require new or expanded public infrastructure or services other than roadway improvements at crossings. The stations and facilities will be served by existing public and private utilities extended from public rights of ways to serve site locations in Coon Rapids, Hinckley, and Superior, Wisconsin. The development of proposed NLX stations and facilities may require the replacement or relocation of public and private utilities in some locations.

4.14.4.2 Avoidance, Minimization and Mitigation Commitments

MnDOT will continue coordination with utilities to avoid or minimize utility impacts and to avoid service disruptions during construction.

4.14.5 *Acquisitions and Relocations*

4.14.5.1 Summary of Impacts

Of the 9 acres that will be acquired for stations or maintenance and layover facilities, as identified in Section 4.3, approximately 4 acres are privately owned property. Most of the privately-owned property is vacant and will be acquired at the Superior, Wisconsin Station, Cambridge Station and Hinckley Station, as well as at the maintenance facility site at Sandstone, if that location is selected. A maintenance building owned by the City of Hinckley will be relocated prior to construction of the Hinckley Station. These acquisitions and relocations are not expected to affect socioeconomic and community resources because MnDOT coordinated closely with local communities to locate stations and facilities in areas consistent with local land use and economic development plans and the designs were developed to minimize and avoid impacts on surrounding neighborhoods and community facilities.

4.14.5.2 Avoidance, Minimization and Mitigation Commitments

MnDOT will comply with the Uniform Act (49 CFR 24), Minnesota Statutes Chapter 117 and Wis. Stat. Chapter 32, as applicable, for unavoidable land acquisitions, displacements or relocations of privately owned properties.

4.14.6 Agency Finding

FRA finds that the NLX Project will not have significant socioeconomic or community impacts when considering mitigation commitments by MnDOT to coordinate with affected communities and businesses and follow federal and state requirements, including the Uniform Act (49 CFR 24), Minnesota Statutes Chapter 117 and Wis. Stat. Chapter 32, as applicable. When final mitigation commitments are developed, further environmental documentation will provide the details of what the mitigation is, how it will be achieved and how the mitigation will be determined to achieve its desired outcomes.

4.15 Environmental Justice

Minority and low-income populations are located within the NLX project area. The following resources and their associated NLX Project impacts were evaluated for the environmental justice analysis; these categories were selected because the impacts in these categories tend to be localized and have the potential for high or disproportionate impacts on communities with minority and low-income populations:

4.15.1 Transportation

4.15.1.1 Summary of Impacts

The transportation analysis completed for the Tier 2 EA confirmed no significant impacts on traffic circulation and operations are anticipated at the NLX stations and facilities including areas where minority or low-income populations are present. The analysis also concluded that grade crossing safety will be improved with proposed grade crossing warning devices. This benefit will be provided throughout the NLX Project and in areas with minority and low-income populations.

4.15.1.2 Avoidance, Minimization and Mitigation Commitments

The avoidance, minimization and mitigation strategies identified for transportation related impacts in Section 4.1 are sufficient to address impacts on minority or low-income populations.

4.15.2 Right of Way

4.15.2.1 Summary of Impacts

Of the 9 acres that will be acquired for stations or maintenance and layover facilities, as identified in Section 4.3, approximately 4 acres are privately owned property. Acquisition of private land will only occur at the

Cambridge, Hinckley, and Superior, Wisconsin station sites and the proposed maintenance facility site at Sandstone. While some of these acquisitions occur in communities or census tracts that have minority or low-income populations, the acquisitions will occur on vacant properties and will not directly affect minority and low-income populations. The land that will be acquired will not require the relocation of any residences or businesses.

4.15.2.2 Avoidance, Minimization and Mitigation Commitments

Acquisitions procedures will be conducted in accordance with the Uniform Act (49 CFR 24), Minn. Stat. 117 and Wis. Stat. Chapter 32. No additional avoidance, minimization or mitigation measures are identified for minority or low-income populations.

4.15.3 Air Quality

4.15.3.1 Summary of Impacts

No adverse air quality impacts are anticipated for the NLX Project. Because no adverse impacts were identified, there is no potential for any high and adverse impacts to be disproportionately borne by minority or low-income populations.

4.15.3.2 Avoidance, Minimization and Mitigation Commitments

No disproportionately high or adverse air quality impacts are anticipated on minority or low-income populations; therefore, no avoidance, minimization or mitigation measures are identified.

4.15.4 Noise and Vibration

4.15.4.1 Summary of Impacts

One vibration impact in Nickerson was identified and is not located in an area with identified minority or low-income populations. Noise impacts on residential and institutional uses are anticipated throughout the NLX Project area, and in areas that meet the threshold for low-income and minority populations. Nearly all noise impacts in the NLX Project area are associated with horn blowing at crossings (in areas without existing quiet zones) and range from moderate to severe impacts. Two areas of noise impacts, one four-unit building in Minneapolis (multifamily) and one in Braham (park), are associated with uses in proximity to the rail alignment. However, these two areas are not located in census tracts or communities that meet the threshold

for minority and low-income populations. No noise impacts are associated with the operation of stations and maintenance and/or layover facility sites.

In Pine County, noise impacts occur in several sparsely populated rural communities in the NLX Project area that meet the threshold for low-income and/or minority populations including Henriette (population of 50); Hinckley (population of 1,727); Sandstone (population of 2,786); Askov (population of 371); and Bruno (population of 85). The number of noise impacts will increase along this segment of the corridor if the proposed maintenance facility is in Sandstone. Impacts are not related to the operation of the facility, but instead are due to horn blowing from an additional nighttime round trip train operation that will be required between Duluth and Sandstone if the maintenance facility is in Sandstone. Due to the prevalence of noise impacts in all areas, noise impacts will not disproportionately impact minority and low-income populations.

4.15.4.2 Avoidance, Minimization and Mitigation Commitments

No disproportionately high or adverse vibration impacts are anticipated on minority or low-income populations; therefore, no avoidance, minimization or mitigation measures are identified beyond what is identified for noise and vibration in Section 4.9.

4.15.5 Visual

4.15.5.1 Summary of Impacts

The NLX Project is not expected to alter the general visual character of the adjacent landscape. Most proposed track improvements will occur within the existing BNSF right of way and will not greatly alter the existing visual character of surrounding communities. New signals and gates at grade crossings where there are none today and fencing in developed areas where likely human and train interactions could occur will be noticeable changes to viewers in some locations, but consistent with the existing rail corridor context. Also, the addition of the six NLX stations will be a visual change in some locations, but the new facilities will be consistent with their surroundings and generally will result in minimal visual impacts. The construction of new maintenance and/or layover facilities in locations of existing or former railroad use will similarly result in minimal visual impacts. These visual changes will not present a disproportionately high or adverse effect on minority or low-income populations because these impacts will be of low intensity and will be widely distributed throughout the NLX Project area.

4.15.5.2 Avoidance, Minimization and Mitigation Commitments

No disproportionately high or adverse visual impacts are anticipated on minority or low-income populations; therefore, no avoidance, minimization or mitigation measures are identified.

4.15.6 Socioeconomics

4.15.6.1 Summary of Impacts

The NLX Project will not negatively affect community facilities or services in areas with minority and low-income populations and will not affect community cohesion or access in areas where minority or low-income populations were identified. The existing tracks and freight traffic already constitute a physical presence within all the communities in the NLX Project area. In addition, the NLX Project track infrastructure will be constructed within existing railroad right of way, and all existing public and private crossings will be maintained. Therefore, all local access and connectivity will be maintained.

The NLX Project will provide improved grade crossings and warning devices, which could reduce potential train-vehicle crashes, and improve safety throughout the NLX Project area. This benefit will be realized by communities throughout the NLX Project area and in areas with minority and low-income populations.

4.15.6.2 Avoidance, Minimization and Mitigation Commitments

No socioeconomic impacts are anticipated on minority or low-income populations; therefore, no additional avoidance, minimization or mitigation measures are identified beyond what is identified for socioeconomics in Section 4.14.

4.15.7 Economics

4.15.7.1 Summary of Impacts

The economic impact analysis completed for the NLX Project found that the NLX Service will support existing industries and growth of new businesses by improving access between communities, creating more temporary and permanent jobs and fostering tourism. Many of the service jobs that could be spurred by increased tourism could be accessible to low-income populations.

4.15.7.2 Avoidance, Minimization and Mitigation Commitments

No disproportionately high or adverse economic impacts are anticipated on minority or low-income populations; therefore, no avoidance, minimization or mitigation measures are identified.

4.15.8 Agency Finding

FRA finds that the NLX Project will not have disproportionately high and adverse human health or environmental effects on minority population or low-income populations. Identified avoidance, minimization and mitigation commitments will eliminate or minimize construction-related impacts on the communities. When final mitigation commitments are developed, further environmental documentation will provide the details of what the mitigation is, how it will be achieved and how the mitigation will be determined to achieve its desired outcomes. Overall, the NLX Project will benefit both minority and low-income populations by providing improved accessibility and mobility.

4.16 Economics

4.16.1 Summary of Impacts

The NLX Project will provide positive economic benefits in terms of creating jobs, increasing property values, generating tax revenues, providing travel time savings, and fostering tourism. The NLX Project will have a minor impact on taxable property because of acquisition of approximately 4 acres of private, taxable property that will be required for some station and facility sites.

4.16.2 Avoidance, Minimization and Mitigation Commitments

When the NLX Project is funded and moves into final design and construction, MnDOT will develop traffic management plans to identify alternative access to businesses and services during potential roadway crossing closures and continue public outreach to keep local communities and businesses informed of construction schedules and activities.

4.16.3 Agency Finding

FRA finds that the NLX Project will have positive long-term economic benefits from increased economic growth around stations, increased property values and investments, new employment opportunities, broadening the labor market by connecting workers to wider network of employers, and benefits from increased tourism.

4.17 Indirect and Cumulative Effects

4.17.1 Summary of Impacts

Indirect impacts and cumulative effects, as well MnDOT's commitments for avoidance, minimization and mitigation, are summarized in **Table 5**.

Table 5: Summary of Indirect Impacts, Cumulative Effects and Associated Avoidance, Minimization and Mitigation Commitments

Resource	Induced Development	Cumulative Effects	Avoidance, Minimization and Mitigation Commitments
Transportation	The areas of indirect benefit on transit include ridership forecasts and operational changes including increased transit services. Indirect impacts on the transportation system are not anticipated from induced development at station locations.	The indirect impact of rider diversion in combination with the reasonably foreseeable future actions could affect the regional bus service over time. There is potential for an increased number of people using public transportation due to development and redevelopment around the proposed NLX stations.	No additional mitigation is identified.
Land Use	Indirect effects related to the proposed NLX Project include property conversion related to station-area development.	The NLX Project area in combination with the reasonably foreseeable future actions, could result in land use changes around the station locations. Although future actions are anticipated to have minor effects on development surrounding the stations and on the mode of transportation, no substantial cumulative effects are anticipated.	Development and redevelopment is regulated by the affected local jurisdictions in the NLX Project area. No additional mitigation is identified.

Resource	Induced Development	Cumulative Effects	Avoidance, Minimization and Mitigation Commitments
Right of Way	New station-area development could result in displacements of existing uses, limited by zoning, comprehensive plans and local economic conditions.	Additional transportation investments in the NLX Project area to serve induced development, in combination with the reasonably foreseeable future actions, could lead to the acquisition of right of way and the relocation of residents and businesses.	Although there could be cumulative effects from the acquisition and displacement of residents and businesses, induced development, and available housing in the NLX Project area, the NLX Project will likely create more jobs and housing opportunities than what would be lost. No mitigation is identified.
Vegetation and Wildlife	New development induced by the NLX Project, with implementation of proper BMPs, is unlikely to result in impacts on habitat and wildlife.	Induced development associated with the NLX Project in combination with the reasonably foreseeable future actions will not likely have a cumulative effect on habitat or wildlife because of the urbanized nature of the NLX Project station sites.	No additional mitigation is identified. Parties involved will implement BMPs for any new development and will comply with applicable environmental protection law.
Threatened and Endangered Species	New development induced by the NLX Project may cause indirect impacts on threatened and endangered species. The project will implement BMPs to avoid direct impacts and minimize indirect impacts to the extent practicable.	Induced development associated with the NLX Project in combination with the reasonably foreseeable future actions will not likely have a cumulative effect on endangered species and associated habitat because of the urbanized nature of the NLX Project station sites.	No additional mitigation is identified for indirect and cumulative effects. Parties involved will implement BMPs or any new development and will comply with applicable environmental laws.
Wetlands	Induced development could substantially affect wetlands if new developments were to cause wetland impacts and BMPs are not implemented. No indirect impacts are anticipated if BMPs are implemented.	Induced development associated with the NLX Project in combination with the reasonably foreseeable future actions could have a cumulative effect if new developments were to cause wetland impacts and BMPs are not implemented.	All permanent impacts on wetlands caused by induced development and future actions will be mitigated by parties involved according to applicable regulations and BMPs. No additional mitigation is identified.

Resource	Induced Development	Cumulative Effects	Avoidance, Minimization and Mitigation Commitments
Surface Water	Induced development could substantially affect water quality and increase impervious surface if BMPs are not implemented during the development process. No indirect impacts are anticipated if BMPs are implemented.	Induced development associated with the NLX Project in combination with the reasonably foreseeable future actions could have a cumulative effect on increased sediment and pollutant load if BMPs are not implemented.	All permanent impacts on water quality caused by induced development and future actions will be mitigated by parties involved according to applicable regulations and BMPs. No additional mitigation is identified.
Groundwater	Induced development could substantially affect groundwater resources if BMPs are not implemented during the development process. No indirect impacts are anticipated if BMPs are implemented.	Induced development associated with the NLX Project in combination with the reasonably foreseeable future actions could have a cumulative effect on groundwater quality and availability if BMPs are not implemented.	All permanent impacts on groundwater resources caused by induced development and future actions will be mitigated by parties involved according to applicable regulations and using BMPs. No additional mitigation is identified.
Noise and Vibration	Some indirect noise impacts are likely to occur in the long term because of the potential increase in development density anticipated around the NLX stations. Changes in development density and intensity would bring more people into contact with noise produced by the NLX Project.	Induced development associated with the NLX Project in combination with the reasonably foreseeable future actions will likely result in increased noise impacts associated with more people and traffic in the area.	Noise impacts caused by development or other future actions will be assessed for mitigation on a project-by-project basis. No additional mitigation is identified.
Contaminated Properties and Regulated Waste	If BMPs are followed, no substantial indirect impacts would occur; beneficial impacts would occur through remediation.	Induced development associated with the NLX Project in combination with the reasonably foreseeable future actions would have a positive effect by contributing to the remediation of hazardous materials sites, because such sites would be required to be cleaned up as a condition of development or redevelopment.	Parties involved will be required to follow all state and federal laws concerning hazardous materials. No additional mitigation is identified.

Resource	Induced Development	Cumulative Effects	Avoidance, Minimization and Mitigation Commitments
Cultural Resources	Potential indirect impacts could occur because of induced development at station locations. Impacts on historic properties could occur if redevelopment changes the character of the property's use or setting.	Cumulative impacts could occur from induced development. Historic properties could be impacted if redevelopment changes the character of the property's use or setting.	Effects on historic properties will be identified and addressed in accordance with procedures in the PA for the NLX Project.
Visual	Some indirect visual impacts are possible in the long term because the improved accessibility of the areas around the NLX stations may create increased demand for new development, including higher residential densities and, in some cases, new or expanded commercial activities.	Continued development of transit and transportation facilities, in combination with reasonably foreseeable future actions, could cumulatively change views in the NLX Project area over time. Specifically, views could become more urbanized, and wide-open views could in some cases become more closed.	No additional mitigation is identified.
Socioeconomics	Long-term indirect impacts related to the NLX Project that could affect access to community facilities, community character, and community cohesion if property conversion related to station-area development occurs.	The NLX Project operations are not anticipated to have negative cumulative effects on socioeconomic conditions in the NLX Project area because the infrastructure improvements and maintenance and layover facilities will be located largely within existing railroad right of way or publicly owned properties that are in areas that either previously or currently serve railroad operations.	The types of indirect impacts identified are typically consistent with and governed by applicable land-use plans. No mitigation is identified.

Resource	Induced Development	Cumulative Effects	Avoidance, Minimization and Mitigation Commitments
Environmental Justice	Potential displacement of Environmental Justice populations could result from increased development and redevelopment in the station areas.	The NLX Project operations are not anticipated to have negative cumulative effects on EJ population conditions but anticipate a positive effect over time related to community investment and increased access to transportation options.	Local regulations and policies will minimize potential negative indirect or cumulative effects.
Economics	The NLX Project may indirectly lead to new development and/or redevelopment of land surrounding some of the NLX stations, which could have the effect of increasing property tax revenues for the affected local jurisdictions.	Continued development of transit and transportation facilities in the NLX Project area over time, in combination with the reasonably foreseeable future actions could cumulatively strengthen the business climate by providing improved transportation access to customers and employees.	No mitigation is identified.

4.17.2 Avoidance, Minimization and Mitigation Commitments

Refer to **Table 5** for MnDOT avoidance, minimization and mitigation commitments.

4.17.3 Agency Finding

FRA finds that the NLX Project will not result in significant indirect impacts or cumulative effects when avoidance, minimization and mitigation measures are applied. These include following applicable federal, state and local laws, regulations, policies, and plans for the indirect impacts or cumulative effects as summarized in **Table 5**. When final mitigation commitments are developed, further environmental documentation will provide the details of what the mitigation is, how it will be achieved and how the mitigation will be determined to achieve its desired outcomes.

5. Section 4(f) and Section 6(f) Determinations

5.1 Section 4(f)

5.1.1 Summary of Impacts

Section 4(f) of the U.S. Department of Transportation Act of 1966 (49 United States Code [USC] 303), hereinafter referred to as Section 4(f), provides protection to publicly owned parks, recreation areas, wildlife, and waterfowl refuges, and public or private historic resources. Section 4(f) prohibits the use⁸ of these lands unless U.S. DOT determines either:

- There is no feasible and prudent avoidance alternative and the action includes all possible planning to minimize harm to the property resulting from such use
- The use of the property, including any measure(s) to minimize harm (such as any avoidance, minimization, mitigation, or enhancement measures) would have a *de minimis* impact.⁹

FRA's final determination is that there will be a Section 4(f) use of five Section 4(f) properties located in Anoka County. FRA determined there are no prudent and feasible alternatives to the Section 4(f) use of these properties. Further, during NLX Project construction, some parks, recreation areas and trails could be temporarily impacted by short term rail grade crossing closures or temporary construction easements (See Table 6).

The impacts to Section 4(f) properties include:

- Use of one park (trail corridor) and four trails crossing the NLX Project
- *De minimis* impacts on nine recreational trails crossing the NLX Project
- *De minimis* impacts on three snowmobile and all-terrain vehicle (ATV) trails crossing the NLX Project
- Temporary occupancy¹⁰ of four parks and recreation sites

⁸ A use under Section 4(f) is when land from a Section 4(f) property is permanently incorporated into a transportation facility (23 CFR § 774.17). A constructive use is when a project's proximity impacts are so severe that the projected activities, features or attributes that qualify a resource for protection under Section 4(f) are substantially impaired and the resource can no longer perform its designated function (23 CFR § 774.15).

⁹ A *de minimis* impact is one that, after taking into account avoidance, minimization, mitigation and enhancement measures, results in no adverse effect to the activities, features, or attributes qualifying a park, recreation area, or refuge for protection under Section 4(f).

¹⁰ A temporary occupancy of land is so minimal that it does not constitute a use within the meaning of section 4(f) when the duration is temporary, the scope of work is minor, there are no anticipated permanent adverse physical impacts, and the property is restored to the condition in which it was originally found.

Finding of No Significant Impact and Section 4(f) Determination

- Temporary occupancy of seven snowmobile and all-terrain vehicle (ATV) trails crossing the NLX Project

Additionally, historic properties of national, state, or local significance in public or private ownership have been identified by MnDOT Cultural Resources Unit (CRU) on behalf of FRA. FRA made a determination of no adverse effect on historic properties and MnSHPO concurred with the determination on August 31, 2017, therefore there is no Section 4(f) use of historic properties.

Appendix E is the Final Section 4(f) and 6(f) Evaluation and provides a detailed discussion of efforts to identify potential Section 4(f) properties and impact evaluation. MnDOT presented the proposed impacts on the trails, parks and recreation areas at three public meetings held in May 2017 and accepted comments on Section 4(f) properties during the public comment period for the Tier 2 EA and Draft Section 4(f) Evaluation. MnDOT received comments on noise impacts at Nicollet Island Park, Locke Lake Park, Bunker Hills Regional Park and BF Nelson Park in Hennepin and Anoka counties. The noise analysis did not identify noise impacts at these parks. MnDOT also received comments on noise, vibration and safety impacts at Freedom Park in Braham. The noise analysis identified a severe residual impact. When the NLX Project is funded and moves into final design, and before any final decision is made regarding noise mitigation at Freedom Park, MnDOT will conduct a site-specific 24-hour existing noise measurement to determine more precise noise conditions and if residual noise can be mitigated. The vibration analysis did not identify impacts at Freedom Park. Regarding comments on safety, MnDOT will install fencing in areas of high pedestrian activity in Braham. The NLX Project will operate in BNSF right of way, which BNSF will continue to maintain for safe operating conditions. Although NLX trains will operate at maximum track speed through communities as a general practice, MnDOT will consider slowing speeds on a case by case basis for special events at specific locations, such as Freedom Park, and would coordinate with local communities for such events.

FRA and MnDOT coordinated with officials with jurisdiction (OWJ)¹¹ on the Section 4(f) resources to review the preliminary temporary occupancy and the *de minimis* use findings for trail resources, along with avoidance and minimization measures. MnDOT contacted each OWJ by phone, and FRA sent letters requesting OWJ concurrence on either temporary occupancy or *de minimis* findings on May 2, 2017.

Table 6 summarizes each Section 4(f) resource, type of use and dates of concurrence from OWJs. For historic properties, FRA submitted a Determination of Effects (DOE) to the MnSHPO that has determined no adverse effect on historic properties (see **Appendix D**).

¹¹ An official with jurisdiction is an official of the agency or agencies that own or administer the property in question and who are empowered to represent the agency on matters related to the property.

Table 6: Section 4(f) Properties and Types of Use Evaluated in the Final Section 4(f) Evaluation

Name of Section 4(f) Resource	Property Type	Location	Final Section 4(f) Determination	Section 4(f) Qualifying Description	Official with Jurisdiction (OWJ)	Concurrence Received
Cedar Lake Trail	Trail	Minneapolis, MN	<i>De minimis</i>	Potential intermittent trail closures in sections adjacent to BNSF right of way near Target Field Station.	Minneapolis Park and Recreation Board	July 14, 2017
Grand Rounds Trail	Trail	Minneapolis, MN	<i>De minimis</i>	Potential intermittent trail closures for the section below the BNSF bridge over West River Parkway.	Minneapolis Park and Recreation Board	July 14, 2017
Edgewater Gardens Park	Park	Fridley, MN	Temporary Occupancy	About 0.04 acres for construction of a new rail bridge over Mississippi Street Northeast to support construction of a third track.	City of Fridley	May 22, 2017
Locke Lake Park	Park	Fridley, MN	Temporary Occupancy	Approximately 0.07 acre to construct a new bridge over Rice Creek to support construction of a third track.	City of Fridley	May 22, 2017
Plaza Park	Park	Fridley, MN	Temporary Occupancy	Approximately 0.45 acre to construct a new bridge over Rice Creek to support construction of a third track.	City of Fridley	May 22, 2017
Springbrook Nature Center	Park	Fridley, MN	Temporary Occupancy	Approximately 0.33 acre to extend two culverts.	City of Fridley	May 22, 2017
Rice Creek West Regional Trail Corridor	Park	Fridley, MN	Use	Approximately 0.35 acre to construct a third track.	Anoka County	No concurrence received ¹
Mississippi River Regional Trail	Trail	Fridley, MN	Use	Closure of approximately 120 feet of the trail under and near the BNSF bridge over Rice Creek during bridge construction. An additional 400 feet of the rail south of Locke Park within construction limited will need to be closed during construction.	Anoka County	No concurrence received ¹
Rice Creek West Regional Trail	Trail	Fridley, MN	Use	Closure of approximately 100 feet of trail under BNSF bridge over Rice Creek during bridge construction. An additional 1,600 feet of trail within construction limits will need to be closed during construction.	Anoka County	No concurrence received ¹

Finding of No Significant Impact and Section 4(f) Determination**Section 4(f) and Section 6(f) Determinations**

Name of Section 4(f) Resource	Property Type	Location	Final Section 4(f) Determination	Section 4(f) Qualifying Description	Official with Jurisdiction (OWJ)	Concurrence Received
Osborne Road Trail	Trail	Fridley, MN	<i>De minimis</i> ²	Temporary closure of the trail at the Osborne Road grade crossing for crossing improvements.	City of Fridley	May 22, 2017
85th Avenue Northwest Trail	Trail	Coon Rapids, MN	<i>De minimis</i> ²	Temporary closure of the trail at the 85th Avenue grade crossing for crossing improvements.	City of Coon Rapids	July 10, 2017
Egret Boulevard Northwest Trail	Trail	Coon Rapids, MN	<i>De minimis</i> ²	Temporary closure of the trail at the Egret Boulevard Northwest grade crossing for crossing improvements.	City of Coon Rapids	July 10, 2017
Tom Anderson Trail	Trail	Andover, MN	<i>De minimis</i> ²	Temporary closure of the trail where the BNSF crosses over the trail on a bridge to allow for bridge modifications.	City of Andover	May 8, 2017
Proposed North Anoka County Regional Trail	Trail	Oak Grove, MN	Use	Temporary closure of the trail at the 221st Avenue Northwest grade crossing for crossing improvements.	Anoka County	No concurrence received ¹
Rum River Snowmobile Trail	Snowmobile Trail	Isanti County, MN	Use	Temporary closure of the trail at the 261st Avenue grade crossing (south of the City of Isanti) to allow for crossing improvements.	MnDNR Anoka County Rum River Trail Association	MnDNR: June 7, 2017 Association: May 10, 2017 Anoka County: No concurrence received ¹
Isanti-Cambridge Trail	Trail	Isanti, MN	<i>De minimis</i> ²	Temporary closure of the trail adjacent to the grade crossing at 305th Avenue Northeast to allow for crossing improvements.	City of Cambridge	June 21, 2017
Cambridge-Weber-Starks-Isanti Snowmobile Trail	Snowmobile Trail	Cambridge, MN	Temporary Occupancy	Temporary closure of the trail at the 11th Avenue Southeast grade crossing to allow for crossing improvements.	MnDNR Cambridge-Weber-Starks-Isanti Snowmobile Club	MnDNR: June 7, 2017 Club: July 26, 2017

Finding of No Significant Impact and Section 4(f) Determination**Section 4(f) and Section 6(f) Determinations**

Name of Section 4(f) Resource	Property Type	Location	Final Section 4(f) Determination	Section 4(f) Qualifying Description	Official with Jurisdiction (OWJ)	Concurrence Received
Northern Lite Snowmobile Trail	Snowmobile Trail	Isanti and Kanabec Counties, MN	Temporary Occupancy	Temporary closure of the trail for crossing improvements at the following grade crossings: • 357th Avenue • 370th Avenue • Two crossings near 375th Avenue north of Grandy • Two private crossings north of Braham	MnDNR Northern Lites Snowmobile Club	MnDNR: June 7, 2017 Club: August 23, 2017
Hinckley-Pine City Snowmobile Trail	Snowmobile Trail	Pine County, MN	Temporary Occupancy	Temporary closure of the trail at the grade crossings at Pokegama Avenue near Henriette, and at Old Highway 61 in Hinckley for crossing improvements.	MnDNR City of Pine City Hinckley-Pine City Flames Snowmobile Club	MnDNR: June 7, 2017 City of Pine City: August 8, 2017
Pine 1, 2, 3s Snowmobile Trails	Snowmobile Trail	Pine County, MN	Temporary Occupancy	Temporary closure of the trail for a temporary construction access easement northeast of Askov, and at crossings near Railroad Avenue northeast of Bruno, near MN 23; at Deerfield Road and at Klein Road in Kerrick; at Range Line Road, Erickson Road and Berger Road near Duquette; and at Wolf Drive and DeLong Street near Nickerson. Some closures may be to allow track work to proceed, or for improvements where the trail uses a roadway grade crossing.	MnDNR Northern Pine Riders Snowmobile Club	MnDNR: June 7, 2017 Club: May 28, 2017
Moosehorn Snowmobile Trail	Snowmobile Trail	Carlton County, MN	Temporary Occupancy	Temporary closure of grade crossings at County Road 145 and at Granzow Road near Holyoke.	MnDNR Carlton County Moose Horn Rod and Gun Snowmobile Club	MnDNR: June 7, 2017 Carlton Co.: May 23, 2017 Club: June 1, 2017

Finding of No Significant Impact and Section 4(f) Determination**Section 4(f) and Section 6(f) Determinations**

Name of Section 4(f) Resource	Property Type	Location	Final Section 4(f) Determination	Section 4(f) Qualifying Description	Official with Jurisdiction (OWJ)	Concurrence Received
Saunders Grade Snowmobile/Winter ATV Trail	Snowmobile/ATV Trail	Douglas County, WI	Temporary Occupancy	Temporary closure of the trail near County Road C south of Superior, WI.	Douglas County, WI Forestry Department	June 19, 2017
North Country National Scenic Trail	Trail	Foxboro, WI	<i>De minimis</i> ²	Temporary closure of the trail at the West County Road W grade crossing for crossing improvements.	National Park Service	May 31, 2017
Gandy Dancer Snowmobile Trail and Winter/Summer ATV	Trail, Snowmobile/ATV Trail	Superior, WI	<i>De minimis</i> ²	Temporary closure of the trail at the South Merrill Road grade crossing for crossing improvements.	Douglas County, WI Forestry Department	June 19, 2017
Trail 28 (Snowmobile and Winter/Summer ATV)	Snowmobile/ATV Trail	Superior, WI	<i>De minimis</i> ²	Temporary closure of the trail at the North 58th Street crossing for crossing improvements.	Douglas County, WI Forestry Department	June 19, 2017
Orange Trail (Snowmobile and Winter ATV)	Snowmobile/ATV Trail	Superior, WI	Temporary Occupancy	Temporary closure of the trail at the North 58th Street crossing for crossing improvements.	Douglas County, WI Forestry Department	June 19, 2017
Proposed North 58th Street Trail	ATV Trail	Superior, WI	<i>De minimis</i> ²	Temporary closure of the trail at the North 58th Street crossing for crossing improvements.	Douglas County, WI Forestry Department	June 19, 2017
Cross City Trail	Trail	Duluth, MN	<i>De minimis</i> ²	Temporary closure of the trail crossing just south of downtown Duluth to allow for track improvements.	City of Duluth	June 13, 2017

¹ A letter was received on September 8, 2017 from the Anoka County Parks and Recreation Department requesting additional data on the project noise level for this Section 4(f) resource. This letter requested information, but did not respond to a request for concurrence on the preliminary determination, therefore for purposes of the Final Section 4(f) Evaluation, FRA determined there is a use for the resource. This letter and FRA's response are located in Appendix E.

Finding of No Significant Impact and Section 4(f) Determination

² *The temporary closure of a trail does not meet the criteria for a temporary occupancy as defined under 23 CFR § 774.13. The NLX Project construction activities will temporarily interfere with the protected activities, features, or attributes of the trail. Temporary closures of snowmobile trails meet the criteria for temporary occupancy since work will occur when the trails are not in use.*



5.1.2 *Avoidance, Minimization and Mitigation Commitments*

MnDOT has made the following commitments to minimize and mitigate impacts during construction.

Temporary noise, visual and dust impacts on parks during construction will be minimized through compliance with local ordinances applicable to construction activities, which may include schedule restrictions to avoid nighttime construction, and use of water to suppress dust.

MnDOT will also implement measures to minimize and mitigate impacts to Section 4(f) resources during construction in coordination with Anoka County, as well as the OWJs who concurred with temporary occupancy use and *de minimis* determinations. While the anticipated closures of the park and trail resources will be temporary, FRA and MnDOT considered additional measures that will be taken to reduce the impact of park and trail closures. MnDOT will:

- Avoid closing adjacent trail crossings at the same time so that trail users will have an alternate crossing location.
- Minimize the duration of closures. Trail closures will be less than one week and construction in the park will be limited to one construction season.
- Coordinate with Anoka County to review and comment on traffic control plans with sufficient advanced notice before construction begins on the trail.
- Establish detours where practicable to provide trail users an alternate travel route.
- Schedule closures, especially on heavily used trails, during lower use periods to the extent practicable. Construction at snowmobile trails will occur during summer months to avoid affecting snowmobile use.
- Post trail closure signs and work closely with Anoka County to provide timely public information regarding closures.
- Communicate closures and associated detours with the public in advance.
- Restore all trail crossings and approaches to pre-construction conditions or better.
- Maintain trail connections in the long-term.
- Regrade and re-seed disturbed areas to preconstruction conditions.
- As requested by the City of Coon Rapids, MnDOT will also notify the City of Fridley of scheduled construction activities and mitigation commitments regarding the 85th Avenue Northwest Trail crossing.

5.1.3 Agency Finding

After considering input from the public meetings and confirmation from OWJs, FRA finds that the NLX Project will result in a use, *a de minimis* impact and temporary occupancy of recreational resources listed in **Table 6**. Based on the design and analysis completed for the NLX Project, FRA has determined that permanent and temporary uses by the NLX Project will not adversely affect the features, attributes or activities that qualify properties in the NLX Project for Section 4(f) protection. Further, most of the proposed improvements will occur within existing railroad or highway right of way. The impacts on the Section 4(f) resources will be temporary and are unavoidable, and MnDOT will implement measures to minimize harm as the project advances through the design process and construction. Appendix E provides FRA's Final Section 4(f) and Section 6(f) Evaluation.

5.2 Section 6(f)

5.2.1 Summary of Impacts

MnDOT evaluated potential impacts to Section 6(f) properties in the NLX study area. The Land and Water Conservation Fund (LWCF) Act of 1965 (Public Law 88-578, which is codified as 16 USC 460) provides funding for parks and recreational facilities across the United States. Section 6(f)(3) of the LWCF Act, commonly referred to as Section 6(f), contains provisions to protect federal investments in park and recreation resources and ensure that the public outdoor recreation benefits achieved through use of these funds are maintained.

No permanent acquisition of Section 6(f) or Outdoor Recreation Grant Program lands are anticipated. Temporary easements may be required at one Section 6(f) park, Springbrook Nature Center. The construction work in the park will take less than six months and the property will be returned to preexisting conditions following construction. FRA will provide the Final 4(f) and 6(f) Evaluation (**Appendix E**) to the NPS as part of continuing coordination with the MnDNR and NPS regarding concurrence with its Section 6(f) finding on the Springbrook Nature Center when funding is available to advance the project to final design and construction. MnDOT anticipates that refinements during final design will eliminate impacts.

5.2.2 *Avoidance, Minimization and Mitigation Commitments*

No avoidance, minimization and mitigation measures are identified because the temporary easement for construction activities is expected to meet the criteria of a temporary non-conforming use. If permanent acquisition or easement from Section 6(f) properties will be required, FRA and MnDOT will coordinate with the National Park Service and MnDNR to obtain approval for the conversion and to reach agreement on mitigation.

5.2.3 *Agency Finding*

For reasons stated above, FRA finds that the NLX Project will not result in a conversion of Section 6(f) lands. Appendix E provides FRA's Final Section 4(f) and Section 6(f) Evaluation.

6. Comments and Coordination

MnDOT developed and implemented a Stakeholder Engagement Plan (SEP) early in the Tier 1 EA process to identify public and agency outreach activities and a Public Involvement Plan Supplement, which identified additional outreach activities that built on the work initiated during the Tier 1 EA process.

MnDOT's outreach activities during the Tier 2 EA process included establishing an NLX Steering Committee, hosting stakeholder meetings and workshops, holding public open houses, developing nine project newsletters, and maintaining a project website. Three series of public open houses (12 meetings total) were held between December 2014 and October 2016. The meetings were informal with an open house format featuring visual display boards on varying topics. Verbal and written comments received during these open houses included general support of the NLX Project, as well as concerns about aesthetics, project operations, project costs and grade crossings. All materials, including meeting summaries and collected feedback, are available in Appendix O of the Tier 2 EA and posted on the NLX Project website for review (www.mndot.gov/nlx).

The Tier 2 EA was published on April 24, 2017 and available for public review and comment until May 24, 2017. During the 30-day public review period, MnDOT held three public meetings on May 16, 17, and 18, 2017 from 5:30 to 7:30 PM in Sandstone, Duluth and Coon Rapids, MN, respectively. See **Table 7** for the attendance and number of comments received at each public meeting.

Table 7: Public Meeting Attendance and Comments Received

Location	Approximate No. of Attendees	No. of Oral Comments Provided	No. of Written Comments Provided
Sandstone Senior Center, Sandstone, MN	17; 1 media	5	3
Duluth Depot, Duluth, MN ¹	44; 2 media	2	10
Coon Rapids Civic Center, Coon Rapids, MN	24; 1 media	2	2
Total	85; 4 media	9	15

¹ The public meeting in Duluth also served as a public hearing to meet requirements under Wisconsin Administrative Code Chapter TRANS 400.11, Distribution and Review of Environmental Documents.

Twenty-four oral and written comments were received at the public meetings, as well as 17 additional written comments received during the public review period, from 41 agencies, individuals and businesses. Comments were given a unique identifying code to enable organizing comments by:

- Order the communication was received,
- Discrete comments within the communication, and
- Theme and issue of discrete comments, generally based on the Tier 2 EA sections and subsections.

The comment coding process is fully described in **Appendix B** and **Appendix C** of this FONSI.

All comments received were reviewed and considered when developing this FONSI.

Seventy-nine unique comments were included in the comment letters received from the following nine agencies:

- U.S. Environmental Protection Agency
- Minnesota Department of Agriculture
- Minnesota Department of Natural Resources
- Minnesota Pollution Control Agency
- Wisconsin State Historical Society
- Metropolitan Council
- Hennepin County
- City of Braham
- City of Minneapolis

Agencies provided comments on resources evaluated in the Tier 2 EA, including natural resources, contaminated sites, parks and recreational areas, safety, noise and vibration impacts, archaeological resources, and transit, freight and passenger rail services. Serving as a Cooperating Agency for the NLX Project, the EPA submitted comments on the administrative draft Tier 2 EA on March 30, 2017. On April 5, 2017 FRA held a conference call with EPA staff to discuss FRA's approach to addressing comments in the Tier 2 EA, indicating that due to lack of funding for the NLX Project, many of the detailed evaluations would be more appropriately completed when the NLX Project is funded and moves into final design and construction. As appropriate and necessary, MnDOT will supplement environmental documentation to fully address EPA's comments and recommendations. Agency comments and responses are included in **Appendix B** of this FONSI.

Sixty-nine unique comments were included in the comment letters received from the public. Twenty-one comments indicated general support for the project, while four comments expressed general opposition. Comments also reflected questions about NLX operations including requests for additional stops in communities in the corridor and convenience and the cost-effectiveness of the service. Concerns were raised about noise, safety and economic impacts, particularly in communities that will not have a station stop.

Comments were also received regarding selection of Duluth or Sandstone for the maintenance facility. Public comments and thematic responses are included in **Appendix C** of this FONSI.

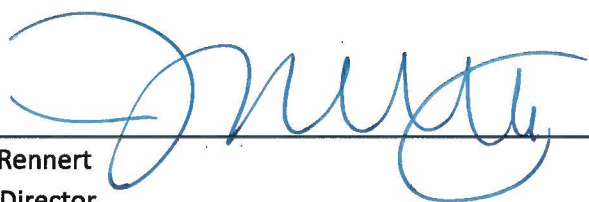
Table 8 provides the themes of the agency and public comments and the number of unique comments received for each theme. Comments and responses are also posted on the project website at www.mndot.gov/nlx.

Table 8: Summary of Comments Received During Public Review of NLX Tier 2 EA

Theme/Issue	Number of Comments
General Support	21
General Opposition	4
Build Alternative – Decision Making Process	1
Build Alternative – Stations	1
Build Alternative – Maintenance Facility	5
Build Alternative – Infrastructure Improvements	3
Build Alternative – Operations	15
Build Alternative – Safety	9
Passenger Rail Operations	3
Transit	4
Traffic Circulation	1
Bicycle and Pedestrian Facilities	3
Right of Way	1
Vegetation and Wildlife	8
Threatened and Endangered Species	4
Wetlands	6
Surface Water	12
Air Quality	1
Noise and Vibration	10
Contamination and Regulated Waste	17
Cultural Resources	1
Farmland and Soil	1
Parks and Recreation Areas	2
Socioeconomics	2
Environmental Justice	1
Economics	6
Indirect and Cumulative Effects	1
Public and Agency Involvement	5
Total	148

7. Conclusion

FRA finds that the April 2017 Tier 2 EA for the Northern Lights Express Passenger Rail Project satisfies the requirements of FRA's *Procedures for Considering Environmental Impacts* (64 FR 28545, May 26, 1999, as updated in 78 FR 2713, January 14, 2013) and NEPA (42 USC § 4321). FRA has determined that the Northern Lights Express Passenger Rail Project, as presented and evaluated in the Tier 2 EA, will have no foreseeable significant impact on the quality of the human and natural environment, provided it is implemented in accordance with the mitigation commitments identified in this FONSI. This FONSI is based on the information presented in the Tier 2 Project Level EA as incorporated into this FONSI by reference, which was independently evaluated by the FRA and determined to adequately and accurately discuss the purpose and need, affected environmental impacts of the Project, and appropriate avoidance, minimization and mitigation measures. Should FRA provide funding for Final Design and/or construction of the Project, FRA will be responsible for ensuring that the Project sponsor, MnDOT, fully implements the environmental mitigation commitments identified in this FONSI in addition to any further environmental analysis that may be required. The Tier 2 EA and Final Section 4(f) Evaluation provide sufficient evidence and analysis for FRA to determine that an Environmental Impact Statement is not required for the Project as presented.



Jamie Rennert
Office Director
Federal Railroad Administration

2/20/2018
Date