TIER 2
ENVIRONMENTAL ASSESSMENT/
DRAFT SECTION 4(f) EVALUATION

Elwood to Braidwood Track Construction Project (MP 44.60 to MP 55.50)

WILL COUNTY, ILLINOIS

July 8, 2025

PUBLIC DRAFT

U.S. Department of Transportation
Federal Railroad Administration

Illinois Department of Transportation

Elwood to Braidwood Track Construction (MP 44.60 to MP 55.50) for the Chicago to St. Louis High-Speed Rail Program
Tier 2 Environmental Assessment/ Draft Section 4(f) Evaluation

Prepared For:
US DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

Prepared By:
ILLINOIS DEPARTMENT OF TRANSPORTATION
and
WSP

Pursuant to:

National Environmental Policy Act (42 USC § 4321 et seq.) and implementing regulations (23 CFR Part 771); Section 4(f) of the US Department of Transportation Act (49 USC § 303) and implementing regulations (23 CFR Part 774); Section 106 of the National Historic Preservation Act (54 USC § 3061408) and implementing regulations (36 CFR Part 800); Clean Air Act, as amended (42 USC § 7401 et seq.) and implementing regulations (40 CFR Part 93); the Endangered Species Act of 1973 (16 USC § 1531 et seq.) and implementing regulations (50 CFR Part 402); and the Clean Water Act (33 USC § 1251 et seq.).

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ABSTRACT: This Environmental Assessment (EA)/Draft Section 4(f) Evaluation assesses the construction of a second track along the mainline service of the Union Pacific Railroad between Elwood and Braidwood (Mileposts 44.60 to 55.50) in Will County, Illinois. It is a Tier 2, or project-level, document for a portion of the Chicago to St. Louis High-Speed Rail Program (HSR Program) that was assessed in a 2012 Tier 1 Final Environmental Impact Statement and Record of Decision.[1] [2]

This EA has been prepared to inform Federal Railroad Administration (FRA) and the US Forest Service (USFS) decision makers and the public about the environmental consequences of the Proposed Action. FRA is the lead agency for National Environmental Policy Act (NEPA) and interagency consultations, and the USFS is a cooperating agency. FRA will use this EA to support the decision-making process, and to determine whether an environmental impact statement should be prepared or whether a Finding of No Significant Impact (FONSI) may be issued.

In addition to the No Action Alternative, two build alternatives were considered, and each includes 1) new track and maintenance access facility; 2) a new bridge over Prairie Creek; 3) improvements to at-grade rail/roadway crossings; and 4) associated signal upgrades, culvert work, and fencing. The build alternatives, and ultimately the Preferred Alternative, would support the HSR Program's purpose to improve high-speed passenger-rail service, resulting in a more balanced use of various Chicago to St. Louis travel options; improve grade crossing protection devices; improve or replace deteriorating or functionally obsolete components; improve maintenance efficiency; and correct existing track drainage problems. Based upon the analysis completed for the proposed Project, Build Alternative 1B is identified as the Preferred Alternative.

This EA is intended to be used by the USFS to inform decisions. Under either build alternative, a short-term authorization for access and construction activities would be requested. Under Build Alternative 1B, a long-term authorization for occupation of NFS lands would be requested. The USFS authorized officer intends to use the environmental analysis in this document to decide whether to issue either or both permits, as requested.

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[1] https://www.idothsr.org/environmental_documentation/tier_1/feis.aspx

[2] https://idot.illinois.gov/content/dam/soi/en/web/idot/documents/transportation-system/planning/hsr/tier-1-rod-executed-12-18-12.pdf

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Executive Summary

The Midwest Regional Rail System plan provided an outline to implement a 21st century passenger-rail system. As part of implementing this plan, the Illinois Department of Transportation (IDOT) began the process of planning the Chicago to St. Louis High-Speed Rail Program (HSR Program) in 2003. The HSR Program's goal was and is to operate trains at 110 miles per hour (mph) along the existing Chicago to St. Louis Amtrak route south of Dwight, Illinois. There were many projects identified to achieve the HSR Program goal. The Elwood to Braidwood Track Construction Project (proposed Project) is one component of the greater HSR Program.

The proposed Project area is 9.59 miles along the Union Pacific Railroad (UPRR) mainline between Elwood, Illinois and Braidwood, Illinois. The proposed Project includes construction of a second mainline track adjacent to the existing mainline track, as well as the construction of a parallel maintenance access facility, grade crossing improvements, new fencing, and culvert, bridge, and signal improvements.

Eight build alternatives were initially considered for the proposed Project and two were carried forward for full analysis in this Environmental Assessment (EA): Build Alternative 1B and Build Alternative 2A (the build alternatives). The build alternatives vary in (1) the location of the second track and maintenance access facility in relation to the existing track; and (2) the use of retaining walls. The No-Build Alternative, which keeps the existing single mainline track, is also included in this EA. The No-Build Alternative does not satisfy all elements of the proposed Project's purpose and need.

Both Build Alternative 1B and Build Alternative 2A would add a second mainline track, replace the Prairie Creek Bridge, relocate the siding and associated turnouts from Milepost (MP) 44.97 to approximately MP 45.52, relocate the existing turnout serving an industrial siding north of Hoff Road to the new west track, remove 3,203 feet of abandoned track, construct a maintenance access facility, install retaining walls, and modify the grade crossing protection devices, fencing, and culverts to accommodate a double-tracked corridor.

The build alternatives are identical except for the area between the Des Plaines State Fish and Wildlife Area and Archer Park in Elwood (MP 51.5 to MP 45.5). In this area, the location of the maintenance access facility location would differ. Under Build Alternative 1B (Preferred Alternative), the maintenance access facility would be on the east side (Elwood to Hoff Road), then the west side (Hoff Road to Damien Mills Road), and then the east side again (Damien Mills Road to Kankakee River Road) In Build Alternative 2A, the maintenance access facility would be on the east side the entire

length. Since the maintenance access facility would be approximately 10 feet wide along the length of the corridor, the movement of this element from the east to west sides would lead to differing right-of-way and easement needs on the adjacent parcels.

Based on the analysis completed and overall opportunities to minimize impacts by the proposed Project, Build Alternative 1B is identified as the Preferred Alternative.

1 Background, Purpose and Need, and Proposed Action

The Illinois Department of Transportation (IDOT) proposes to construct improvements to the existing mainline of the Union Pacific Railroad (UPRR) between Elwood and Braidwood in Will County, Illinois. The proposed Elwood to Braidwood Track Construction Project (proposed Project) includes construction of a second mainline track adjacent to the existing mainline track, as well as an associated maintenance access facility, grade crossings, fencing, culvert, bridge, and signal improvements. The proposed Project is one component of the Chicago to St. Louis High-Speed Rail Program (HSR Program). Exhibit 1-1 and Appendix A, "Environmental Map Set" show the proposed Project location.

The proposed Project is 9.59 miles long covering nearly 310 acres and includes the following:

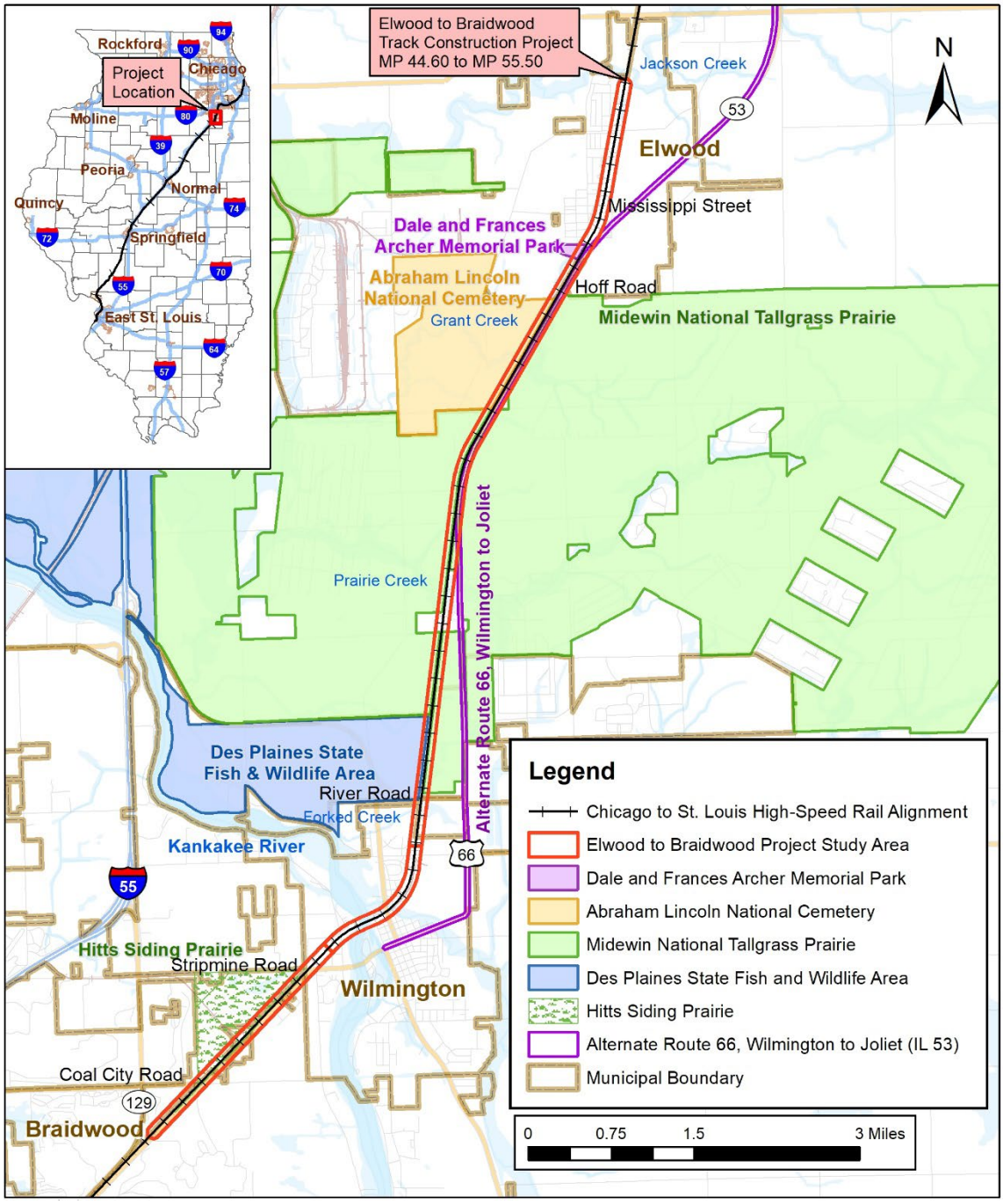
- A second track added from Elwood to Wilmington (Milepost [MP] 44.60 to MP 51.88) and from Wilmington to Braidwood (MP 53.19 to MP 55.50), creating one continuous second mainline track from Elwood to Braidwood (MP 44.60 to MP 55.50).
- A maintenance access facility, which would be a 10-foot-wide private gravel path paralleling the track within the railroad right-of-way for access to the railroad, for the full proposed Project length.
- Replacement and widening of the Prairie Creek Bridge, including the addition of a second track across the bridge, at MP 49.50.
- At-grade crossing improvements at Mississippi Street (in Elwood), Hoff Road, Joliet Arsenal (private crossing), Damien Mills Road (private crossing), and River Road to accommodate the second track.
- Drainage throughout the proposed Project study area.
- 13 culvert improvements throughout the proposed Project study area.
- Positive Train Control signaling, which is a system designed to prevent train-to-train collisions, over-speed derailments, incursions into established work zones, and movements of trains through switches left in the wrong position.
    - Urban- and rural-style fencing in selected areas.
    - Installation of retaining walls.

In January 2012, the Federal Railroad Administration (FRA) awarded Illinois $186.3 million for corridor improvements between Joliet and Dwight, which is supporting project planning and development for the proposed Project, in addition to other projects already completed. FRA is the lead federal agency for environmental review the proposed Project under the National Environmental Policy Act (NEPA), and IDOT is the project sponsor and recipient of the federal funds. At this time, FRA has not awarded a grant for federal funding for construction of the proposed Project. The UPRR would be responsible for constructing, operating, and maintaining the proposed Project, as well as mitigating certain impacts from the proposed Project. An operations service agreement would be developed between IDOT and UPRR to establish the funding responsibilities for maintaining the corridor.

NEPA requires federal agencies to consider the impacts of their actions, including providing federal funding, on the human environment and to disclose considerations in a public document. FRA must also comply with Section 4(f) of the Department of Transportation Act of 1966 (49 USC § 303). This Environmental Assessment (EA) includes a Draft Section 4(f) evaluation in Appendix D6. Appendix C, "Project Background" lists other applicable authorities.[3]

[3] This Environmental Assessment was prepared in accordance with the Council on Environmental Quality's (CEQ) regulations for implementing NEPA (40 CFR parts 1500-1508) that were in effect at the time FRA initiated the Environmental Assessment and with FRA's NEPA implementing regulations at 23 CFR part 771. See Removal of National Environmental Policy Act Implementing Regulations, 90 Fed. Reg. 10610 (Feb. 25, 2025) (Proposing recission of CEQ regulations effective April 18, 2025).

Exhibit 1-1. Proposed Project Location Map



1.1 ILLINOIS HIGH-SPEED RAIL PROJECT HISTORY

In January 2003, IDOT, FRA, and Federal Highway Administration (FHWA) completed a Final Environmental Impact Statement (FEIS) for the Chicago to St. Louis corridor (single-track HSR Program). The Preferred Alternative identified in the FEIS included the provision of high-speed rail (HSR) service, operating at 110 miles per hour (mph), along the existing Chicago to St. Louis Amtrak route south of Dwight, Illinois. Selected improvements included 22 miles of freight sidings, 12 miles of double track (of the 284-mile corridor), station enhancements, one grade-separated crossing, and enhanced warning devices at 174 crossings. No action was selected between Chicago and Dwight. FRA and FHWA issued a Record of Decision (ROD) in January 2004, advancing improvements in the Dwight to St. Louis portion of the corridor. Since the 2004 ROD, IDOT has made major progress with improvements to the corridor in cooperation with the UPRR, which owns the right-of-way south of Joliet and operates rail-freight services in the corridor. The UPRR has extensively rehabilitated and upgraded corridor track, signal systems, and installed four-quadrant gates at many at-grade crossings.

IDOT completed an EA in April 2011 and FRA issued a Finding of No Significant Impact (FONSI) in November 2011 for track improvements from Joliet to Dwight. These improvements included upgrading approximately 36 miles of existing track and associated grade crossings to accommodate 110 mph HSR passenger trains, and adding 6 miles of double track, approximately 2 miles of new sidings, and associated new turnouts. IDOT assessed and cleared additional improvements between Dwight and Joliet for implementation via Categorical Exclusions signed by FRA in November 2014, October 2015, and May 2016.

FRA chose the following "tiered" approach to satisfy NEPA requirements for changing the existing rail corridor from one track to two tracks (double-track HSR Program):

- Tier 1: The first step is a broad, programmatic analysis of the environmental consequences of alternatives, documented in a Tier 1 Environmental Impact Statement (EIS).
- Tier 2: The Tier 1 EIS is followed by more detailed Tier 2 environmental reviews, focused on specific projects and improvements.

In 2012, FRA issued a Tier 1 FEIS and a ROD for the HSR Program to change the existing rail corridor from one track to two tracks (double-track HSR Program). Chicago to Joliet and Granite City to St. Louis were selected as preferred corridors. In addition, in 2012, FRA issued a Tier 2 FEIS and a ROD for improvements in Springfield, Illinois. This EA for the proposed Project is one of several additional Tier 2 documents prepared for

portions of the Chicago to St. Louis corridor addressed in the 2012 Tier 1 FEIS and ROD. (See Appendix C, "Project Background" for more information.)

1.2 PROPOSED PROJECT STUDY AREA

The proposed Project study area (Exhibit 1-1) spans a 9.59-mile-long corridor in Will County along the UPRR mainline between Elwood and Braidwood, Illinois (approximately MP 44.60 to MP 55.50) and is nearly 310 acres in size. Elwood is 54 miles south of Chicago and approximately 9 miles south of Joliet, along Illinois Route 53 (IL-53) and to the east of I-55. Braidwood is 12.5 miles south of Elwood along IL-53.

1.3 PURPOSE AND NEED

The Chicago to St. Louis corridor is part of the Midwest Regional Rail System plan to develop and implement a 21st century regional passenger-rail system. The purpose of the HSR Program between Chicago and St. Louis, as stated in both the 2003 EIS and 2012 EIS, is to enhance the passenger transportation network in the corridor by improving HSR passenger service, resulting in a more balanced use of different corridor travel options by diverting trips made by automobile and air to rail.

The needs outlined in the 2012 EIS for the Chicago to St. Louis HSR Corridor Program were as follows:

- Because of inadequate rail capacity and deficiencies in the existing rail infrastructure, there is currently a modal imbalance within the corridor. Rail travel represents only 1.3 percent of the 51 million annual person trips within the Chicago to St. Louis Corridor, while automobile travel comprises 97.5 percent of these trips. The other two modes, air and bus, comprise only 1.1 percent and 0.2 percent, respectively.

- Between 2007 and 2010, on-time performance for rail passenger service between Chicago and St. Louis ranged from 38 percent to 75 percent. [4]

- The single track between Joliet and St. Louis cannot accommodate existing and projected freight and passenger train traffic resulting in travel time delays and the inability to increase passenger rail service.

- The new Joliet Intermodal Terminal would double the number of freight trains using the Chicago to St. Louis Corridor from six to 12. The number of freight

[4] The average on-time performance was 63 percent in 2023.

trains is projected to increase to 22 by the year 2017, which could affect the performance and capacity for high-speed HSR passenger rail service.

- From 2007 to 2010, rail passenger ridership between Chicago and St. Louis has increased 34 percent. (Over this same period, ridership on the state-supported trains between Chicago and St. Louis increased by 72 percent.) [5]

- Automobile and bus travel between Chicago and St. Louis is limited primarily to I-55. Travel by this one route often can often be unreliable due to traffic congestion, weather, roadway construction, and accidents, all of which can substantially increase travel times.

Automobile travel, which represents 95.5 percent of the trips within the corridor, is the least safe mode of transportation when compared to air, rail, and bus travel. Therefore, there is a need to provide safer alternative modes of transportation along the corridor.

Although air travel has the shortest travel times and is the safest mode of transportation, additional travel time must be considered for passage through airport security and travel to and from the airport. In addition, air travel is vulnerable to weather conditions, which can result in major delays and cancelled flights. Also, there is currently no direct air service from the central part of the corridor to St. Louis, and air travel provides little service to intermediate destinations.

The purpose of the proposed Project is to implement the Elwood to Braidwood section of the HSR Program, as set forth in the 2012 ROD. The purpose of that Program is to enhance the passenger transportation network in the corridor by improving HSR passenger service, resulting in a more balanced use of different corridor travel options by diverting trips made by automobile and air to rail. The 2012 HSR ROD decided on a second track through this portion of the corridor to meet the overall purpose of the Program.

The specific needs of the proposed Project area are as follows:

- Improve deteriorating or functionally obsolete components.

- Improve maintenance efficiency. In conjunction with additional train frequency, the project needs to improve maintenance access to reduce maintenance time and maintenance interference with train operations. Regular inspections or repairs require on-track access for the transport of equipment and material. Without maintenance access, there would be maintenance delays resulting from not

[5] Ridership for state-supported trains increased 24 percent from 2010 to 2019 for an annual total of 627,599 in 2019. Ridership dropped due to COVID impacts in 2020 but continues to trend upward with ridership of 523,302 in 2023 and 586,170 in 2024.

getting track time issued by the dispatcher to transport equipment and materials and perform the work. More frequent trains would reduce the available time a dispatcher could allow equipment, materials, and workers to be on the track without interfering with train operations. More work would have to be done at night to avoid interfering with train operations, which affects worker safety. A suspension of service for on-track equipment originating from Braidwood could consume as much as eight hours of track time. During eight daytime hours, up to five HSR trains could be affected.

- Improve the Prairie Creek Bridge at MP 49.52, which is functionally obsolete and past its useful life.
- Discourage pedestrians from crossing the tracks between grade crossings in urbanized areas.
- Address drainage deficiencies along the entire proposed Project area.

2 Alternatives

This chapter presents an overview of the alternatives being evaluated in this EA. Two build alternatives and a No-Build Alternative are being considered. Build Alternative 1B (Preferred Alternative) and Build Alternative 2A differ from each other based on their use of retaining walls and access facility locations with respect to the existing track and the proposed second track (Table 2-1). This chapter also discusses alternatives IDOT dismissed from further consideration. Appendix C, "Project Background" provides additional details on these alternatives.

Table 2-1.Alternatives Carried Forward for Detailed Evaluation

DESCRIPTION	NO-BUILD ALTERNATIVE	BUILD ALTERNATIVE 1B (PREFERRED ALTERNATIVE)	BUILD ALTERNATIVE 2A
New Track Location	N/A	West side of existing track	
Maintenance Access Path Location (in Relation to Existing Track)	Access only via rail line	East side (Elwood to Hoff Road) West side (Hoff Road to Damien Mills Road) East side (Damien Mills Road to Kankakee River Road)	East side (entire length)
Retaining Wall	N/A	A retaining wall would be constructed for approximately 1,500 feet on the west side of the proposed maintenance access facility, at MP 48.15. The purpose of the retaining wall is to avoid affecting an existing gas line owned by Nicor that parallels the tracks	Approximately 18,000 feet of retaining walls would be used to minimize encroachment on Midewin National Tallgrass Prairie (MNTP), avoid impacts to Industry tracks, and minimize encroachment on IL-53
Other Elements	N/A	Constructs a new Prairie Creek railroad bridge Removes 3,203 track feet of previously abandoned track between Wilmington and Braidwood Would accommodate the new second track by: ▪ Modifying grade crossing protection devices ▪ Installing fencing ▪ Replacing or lengthening culverts and other drainage improvements	
Likely Construction Period	N/A	18 months to 24 months	24 months to 30 months

2.1 NO-BUILD ALTERNATIVE

A No-Build Alternative provides a baseline to compare against build alternative impacts. The existing single mainline track would remain with the No-Build Alternative and would receive routine maintenance. The single track would not satisfy all elements of the proposed Project's purpose and need. The No-Build Alternative would not reduce travel times, improve service reliability, increase the frequency of trips, or increase track capacity. The No-Build Alternative would not contribute to meeting the purpose and need of the Chicago to St Louis HSR Program of which the proposed Project is a part. The No-Build Alternative would not improve or replace deteriorating or functionally obsolete components, improve maintenance efficiency, or correct existing track drainage problems.

2.2 ALTERNATIVES CONSIDERED

The proposed Project is part of a larger HSR Program, for which FRA and IDOT used a tiered environmental process to evaluate a range of build alternatives. Eight total build alternatives were originally developed and considered. They are summarized in Table 2-2 and outlined below:

- Four of the alternatives place the second track to the west of the existing track (Alternatives 1A, 1B, 2A, and 2B) and four place the second track to the east of the existing track (Alternatives 3A, 3B, 4A, and 4B).
- The 1, 2, 3, and 4 alternatives differ in their placement of the maintenance access facility in the UPRR right-of-way.
- The alternatives with an "A" in the name include retaining walls placed to avoid or minimize impacts to MNTP. The alternatives with a "B" in the name are identical to their "A" counterparts except the retaining walls are not included.
- For Alternatives 2A, 2B, 3A, 3B, 4A, and 4B, retaining walls were used to minimize impacts to Alternate Route 66, although an increase in land required over Build Alternative 1B occurs for Route 66 (8.0 acres for 2A, 2B, 3A, 3B, 4A, 4B).

Table 2-2. Alternatives Considered

Alternative	Carried forward into EA or dismissed?	Location of second track	Use of retaining walls to minimize impacts to:	
			MNTP	Alt. Rt. 66
No Action	Carried forward.	Not Applicable (N/A)	N/A	N/A

Alternative	Carried forward into EA or dismissed?	Location of second track	Use of retaining walls to minimize impacts to:	
			MNTP	Alt. Rt. 66
1A	Dismissed – greater permanent Section 4(f)[6] use of MNTP than 2A and substantially more expensive than 1B due to retaining wall along MNTP.	West of existing track	Yes	No
1B	Carried forward – This alternative reduced impacts to Historic Route 66 and met the elements of the project Purpose and Need.	West of existing track	No	No
2A	Carried forward – This alternative had no permanent impacts to MNTP and met the elements of the project Purpose and Need.	West of existing track	Yes	Yes
2B	Dismissed – greater Section 4(f) use than other alternatives.	West of existing track	No	Yes
3A	Dismissed – greater Section 4(f) use than other alternatives.	East of existing track	Yes	Yes
3B	Dismissed – greater Section 4(f) use than other alternatives.	East of existing track	No	Yes
4A	Dismissed – greater Section 4(f) use than other alternatives.	East of existing track	Yes	Yes
4B	Dismissed – greater Section 4(f) use than other alternatives.	East of existing track	No	Yes

Ultimately, two build alternatives (Build Alternative 1B and Build Alternative 2A) were carried forward for further evaluation because they would minimize permanent impacts to Section 4(f) properties in relation to the dismissed alternatives. Alternative 1B was carried forward since it avoids the adverse effect to Historic Route 66 and Alternative 2A was carried forward since it is the only alternative that avoids permanent impacts to MNTP. The other six alternatives considered (1A, 2B, 3A, 3B, 4A, 4B) all had permanent impacts to MNTP or greater Section 4(f) use than the two alternatives carried forward.

Section 4(f) impacts resulting from each build alternative are evaluated in Appendix D6, "Section 4(f) Evaluation" in greater detail. Build Alternative 1B and Build Alternative 2A are summarized in the following section.

2.3 BUILD ALTERNATIVES CARRIED FORWARD FOR DETAILED EVALUATION

Build Alternative 1B (Preferred Alternative) and Build Alternative 2A would add a second mainline track, replace the Prairie Creek Bridge, relocate one turnout, remove abandoned track, construct a maintenance access facility, install retaining walls, and modify the grade crossing protection devices, fencing, and culverts to accommodate a double-tracked corridor.

The build alternatives are identical except for the area between the Des Plaines State Fish and Wildlife Area (DPSFWA) and Archer Park in Elwood (MP 51.5 to MP 45.5). In this area, the new second track would be on the west side for both build alternatives, but the proposed maintenance access facility location would differ. In Build Alternative 1B, the maintenance access facility would be on the east side (Elwood to Hoff Road), then the west side (Hoff Road to Damien Mills Road), and then the east side again (Damien Mills Road to Kankakee River Road) (Exhibit 2-1). In Build Alternative 2A, the maintenance access facility would be on the east side the entire length (Exhibit 2-2). Since the maintenance access facility would be approximately 10 feet wide along the length of the corridor, the movement of this element from the east to west sides would lead to differing right-of-way and easement requirements (Table 2-3).

Table 2-3.Right-of-Way and Easement Needs for the Build Alternatives***

	BUILD ALTERNATIVE 1B (PREFERRED ALTERNATIVE)	BUILD ALTERNATIVE 2A
Right-of-way (ROW) needs*	16.0 acres	10.7 acres
IDOT highway grading easement**	1.0 acre	8.5 acres
Temporary construction easement	11.5 acres	11.1 acres
Permanent easement	0.5 acre	0.3 acre

*ROW is defined as areas that would be permanent acquired by UPRR.

**IDOT highway grading easement is specific to IDOT right-of-way on IL-53 (Alternate Route 66).

***FRA and the US Forest Service may use different terminology in describing right-of-way activities. For example, FRA uses the term "easement", but the Forest Service may use the term "permitted use" or "occupancy permit". This EA utilizes FRA's standard terminology.

The existing railroad right-of-way is 100 feet wide for the length of the proposed Project. Additional right-of-way and easements (an additional 10 feet to 65 feet in width, depending on the location) is needed to accommodate the proposed track and maintenance access facility. (Appendix A, "Environmental Map Set" indicates the corridor width along the entire proposed Project length.) Temporary construction easements would be obtained for re-grading generally in the form of cuts or fills that help accommodate grade changes within the UPRR right-of-way, construction equipment access, and construction staging. The proposed Project would use permanent

easements for culvert inspection and maintenance access. Both temporary and permanent easements would be revegetated when possible after construction is complete.

In general, Build Alternative 1B would use retaining walls minimally, and the tracks and the adjacent properties would be connected by sloping the land. Conversely, Build Alternative 2A would use retaining walls extensively in the area of MNTP to reduce right-of-way acquisition. In total, Build Alternative 2A would include 18,600 linear feet of retaining wall, and Build Alternative 1B would include only 1,500 linear feet.

Exhibit 2-1.Build Alternative 1B (Elwood to Wilmington) – Preferred Alternative

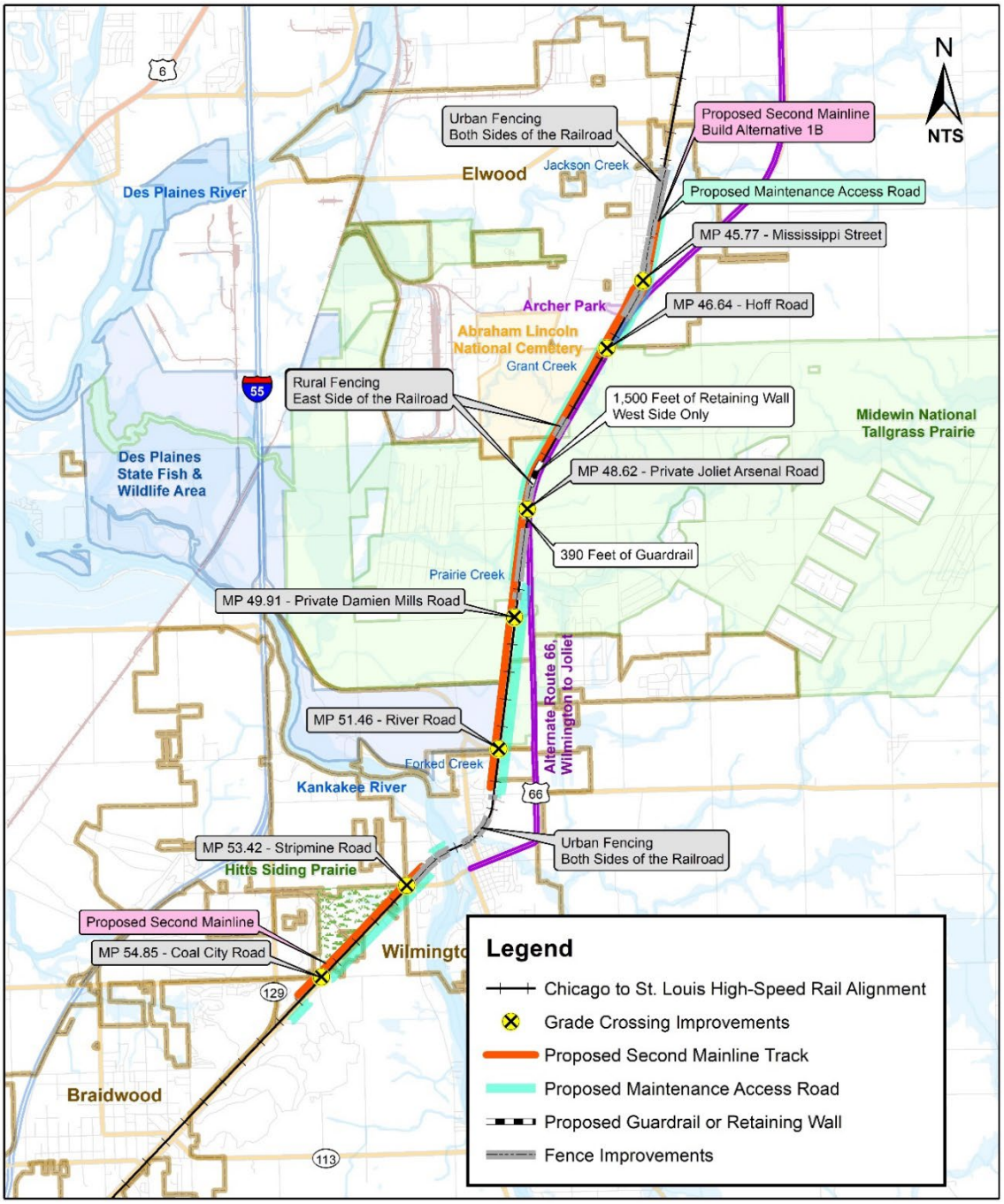
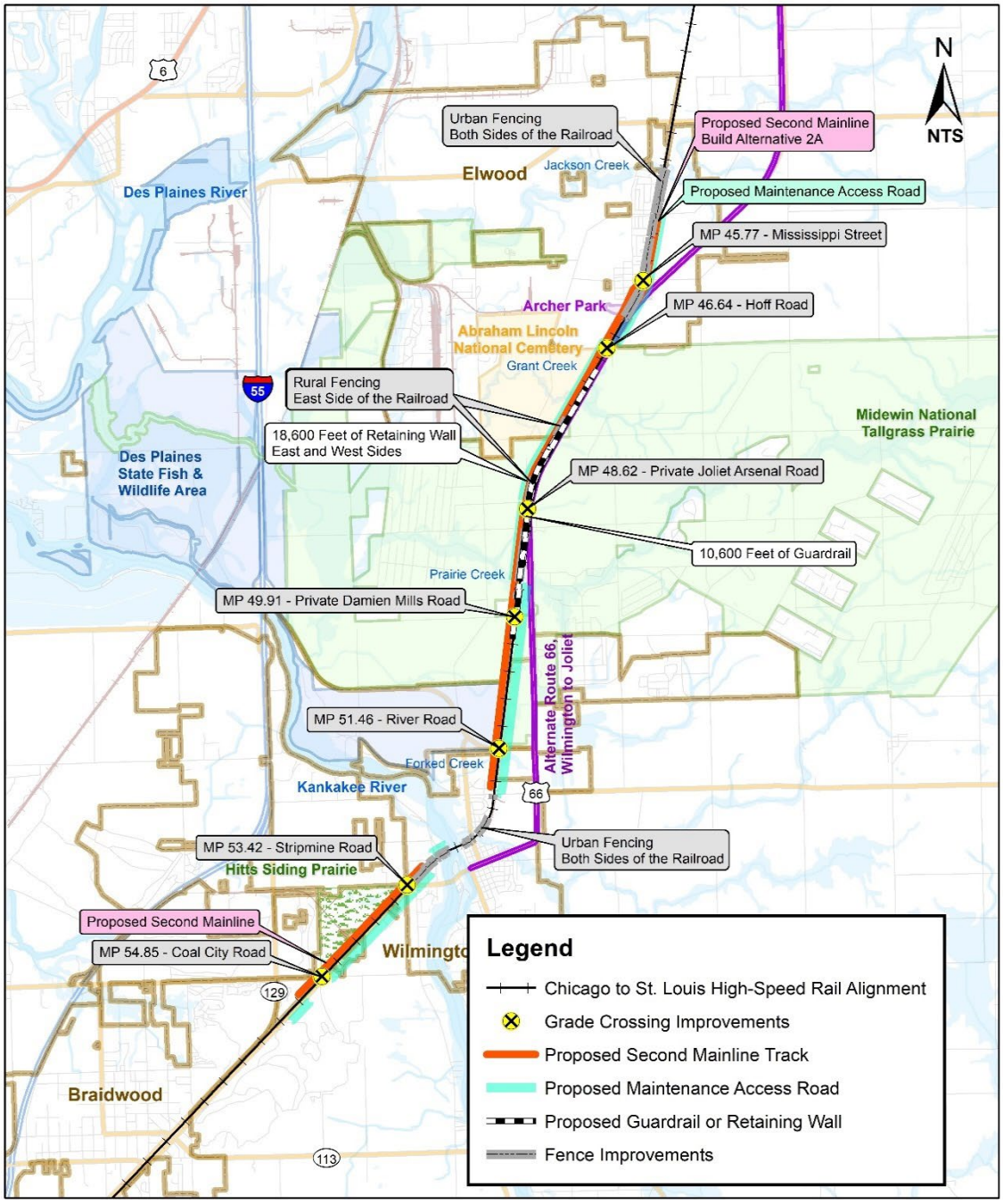


Exhibit 2-2.Build Alternative 2A (Elwood to Wilmington)



2.3.1 Construction

IDOT expects construction to occur over 18 months to 24 months for Build Alternative 1B, and 24 months to 30 months for Build Alternative 2A. Build Alternative 2A would take slightly longer to construct due to the amount of retaining wall associated with the design. Construction work for both alternatives would be confined to the existing and new railroad right-of-way, new permanent easements, temporary construction easements, and track crossing public road right-of-way. The UPRR would manage the construction contractor.

Additional construction duration for Build Alternative 2A would be required due to retaining wall construction and construction staging along IL-53. Build Alternative 2A would have much higher retaining walls than Build Alternative 1B, with walls upwards of 20 feet high.

During construction of both alternatives, coordination would occur between the contractor and the UPRR, Nicor, wayside industries, local municipalities, Will County, Abraham Lincoln National Cemetery, and the Logistics Park Chicago Intermodal Facility to minimize construction-period transportation impacts, such as access restrictions or detours during improvement of at-grade crossings and modifications to the industrial spur lines. Roadway crossings of the tracks would need to be closed as upgrades are made to the signals and track configuration. During these closures, roadway detours would be developed in coordination with key stakeholders. The roadway detours would outline which crossings would be closed and how long they are expected to be closed. The key stakeholders outlined above would be given the opportunity to review and comment on the plans prior to implementation.

For both build alternatives, Prairie Creek Bridge construction would be completed in phases to always keep at least one track open. The contractor would establish exact phases.

Build Alternative 1B would cost approximately $78 million and Build Alternative 2A would cost approximately $117.8 million[7]. The $39.8 million cost difference largely comprises retaining wall construction, which is approximately 90 percent of the cost difference. Culverts, bridges, and constructability make up the remaining difference.

2.3.2 Operating Characteristics

The proposed Project is not expected to change the number of freight trains operating in this part of the Chicago to St. Louis corridor. The build alternatives would provide

[7] The cost estimate for 1B was updated in 2023 and the cost estimates for all other alternatives were increased by the same percentage.

infrastructure improvements so that freight train reliability would improve. The second track would allow trains to pass each other without having to stop in a track siding.

The number of passenger trains associated with the build alternatives would include 14 daytime trains and two nighttime trains, all operating at 110 mph[8]. This would be an increase of seven trains over both the existing condition and the No-Build Alternative. Additionally, the existing daytime Texas Eagle service would operate at 100 mph. Track curves in Elwood (between MP 45.6 and MP 46.0) and MNTP (between MP 48.2 and MP 48.6) limit speeds in those areas to 90 mph. The increased passenger rail service of seven extra trains per day requires long term operating funding that has not yet been secured.

The City of Wilmington or unincorporated Will County will not pursue a Quiet Zone (where horn-blowing at grade crossings is not required) and was not assumed or assessed as part of the build alternatives. The Village of Elwood has established a Quiet Zone at Hoff Road for the Abraham Lincoln National Cemetery. The build alternatives include four-quadrant gates, a supplemental safety feature commonly included at grade crossings within a Quiet Zone. These features would help establish a Quiet Zone in the future, if pursued by the City of Wilmington or unincorporated Will County.

Grade crossing improvements completed as part of the HSR Program are expected to satisfy requirements for Quiet Zone eligibility. Following completion of grade crossing construction, the local roadway jurisdiction may choose to establish a Quiet Zone and will be responsible for following FRA Quiet Zone procedures, which includes providing Notice of Intent to all railroads that operate over the crossing per 49 CFR § 222.43(b) and Notice of Quiet Zone Establishment to required parties per 49 CFR § 222.43(a)(3).

The build alternatives would equip all crossings with constant warning time devices. Similar to the No-Build Alternative, crossing gates would activate up to 80 seconds before a train reaches the crossing, which is consistent with grade crossing warning times along the corridor.

2.4 LOGICAL TERMINI AND INDEPENDENT UTILITY OF THE PROPOSED PROJECT

The logical termini for the proposed Project are based on the overall HSR Program, which was covered in the 2012 Tier 1 FEIS/ROD. The proposed Project would:

[8] While the 2012 ROD included 16 HSR trains per day, funding has not yet been identified for the additional eight HSR trains above existing conditions. When funding is identified, the additional operating service would be implemented.

- Connect logical termini and would be of sufficient length to address environmental matters on a broad scope.
- Have independent utility or independent significance (that is, would be usable and would be a reasonable expenditure even if no additional transportation improvements in the area are made).
- Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

IDOT and FRA decided to separate the Elwood to Braidwood portion of the double-track HSR Program as its own project because the sections listed above connect to sections of two parallel tracks assessed in previous Tier 2 environmental documents (the Joliet to Dwight Track Improvement Project and the Kankakee River Bridge and Track Improvement Project).

Also, the proposed Project would be one part of the double-track HSR Program assessed in the 2012 Tier 1 FEIS. The second track added in association with the proposed Project would be usable and would provide added flexibility to the scheduling of existing trains even if no additional rail improvements are made in the area. Therefore, the proposed Project has independent utility. As a contributor to advancing the double-track HSR Program and meeting its purpose and need, the proposed Project would be a reasonable expenditure of transportation funds. (Appendix C, "Project Background" provides additional details on how the proposed Project has logical termini and independent utility.)

3 Environmental Consequences

3.1 INTRODUCTION

This chapter evaluates the environmental consequences of the No-Build Alternative and the two build alternatives described in Chapter 2. Resource topics are organized into three sections: Section 3.2, "Physical Environment," Section 3.3, "Ecological Systems," and Section 3.4, "Human Environment."

3.1.1 Analysis Methodology

The Tier 1 FEIS and associated ROD for this proposed Project detail the impacts to environmental resources at a high level. This EA provides additional details on the impacts using updated design information and a more detailed review. IDOT used Geographical Information Systems (GIS) software when appropriate to calculate impacts to natural resources (for example, floodplains and wetlands). Detailed discussions of the methodologies are available in the following sections and the associated appendices. Mitigation has been proposed in cases where the impact to the resource would require mitigation or where the coordination with the affected stakeholders has led to a mitigation commitment.

3.1.1 Dismissed Topics from Further Evaluation

FRA dismissed the following environmental resource topics from further evaluation because the topics would have only beneficial effects, would not be a concern in the proposed Project study area, or were dismissed in the Tier 1 FEIS and associated ROD.

3.1.1.1 Groundwater Resources

The proposed Project study area does not contain any sole source aquifers, as designated under Section 1424(e) of the Safe Drinking Water Act and is not located within karst topography according to the Illinois Environmental Protection Agency Source Water Assessment Program. Although groundwater wells are nearby, the build alternatives would not affect groundwater recharge or the quality of the aquifer based on the nature of the improvements.

3.1.1.2 Energy

As documented in the 2012 Tier 1 FEIS (Table 4.3-1 of the 2012 FEIS), energy consumption occurs with the four basic transportation modes used for travel in the HSR Program corridor: air, rail, bus, and automobile. Rail is a more energy-efficient mode than the predominate automobile travel. Because rail capacity can be increased at a relatively small incremental cost, any substantial increase in rail ridership that would arise from implementing the HSR Program would result in conservation of travel-

related energy. In addition, new locomotives used under the HSR Program are more energy efficient than current locomotives. The build alternatives would contribute to this overall HSR Program energy-saving benefit.

3.1.1.3 Economics and Employment

Major employment industries in Elwood, Wilmington, Braidwood, and Will County include educational services, health care and social assistance (grouped together), manufacturing, retail trade, and construction. Beneficial effects would result from creating construction jobs, and no other effects to socioeconomic conditions are anticipated.

3.1.1.4 Public Health and Safety

The rail passenger-miles traveled in the HSR Program corridor is expected to rise to 203 million passenger-miles from the existing 114 million passenger-miles. To the extent that this increase represents a diversion from automobile travel, the safety risk to travelers would decrease in that rail travel is safer than automobile travel based on information presented in Section 2.3.2 of the 2012 Tier 1 FEIS for the HSR Program. Grade crossing improvements and fencing under the alternatives would benefit public health and safety. No other impacts to public health and safety are anticipated.

3.1.1.5 Section 6(f) Properties

According to Section 6(f) of the Land and Water Conservation Fund Act (LWCF Act), properties acquired or developed with LWCF assistance shall be retained and used for public outdoor recreation. It prohibits the conversion of such properties to a use other than public outdoor recreation without the approval of the National Park Service. Replacement of a property is required if there is a conversion of a Section 6(f) resource, in whole, or in part, to a non-recreational use. No Section 6(f) properties are in the proposed Project study area.

3.2 PHYSICAL ENVIRONMENT

Resource topics evaluated in this section include the following:

- Air Quality
- Floodplains and Regulatory Floodways
- Surface Water Resources
- Noise and Vibration
- Agriculture

Appendix D1, "Physical Environment" provides supplemental information to support the analysis.

3.2.1 Air Quality

3.2.1.1 Affected Environment

Air quality is a general term used to describe pollutant levels in the atmosphere. Air quality in the United States is governed by the federal Clean Air Act and is administered by the US Environmental Protection Agency (USEPA). As required by the Clean Air Act and the 1990 Clean Air Act Amendments, the USEPA has established the National Ambient Air Quality Standards (40 CFR Part 50) for six major air pollutants:

- Carbon monoxide (CO)
- Lead (Pb)
- Nitrogen dioxide (NO_2)
- Particulate matter (PM_{10}, $PM_{2.5}$)
- Ozone (O_3)
- Sulfur dioxide (SO_2)

Areas that do not meet the standards for these pollutants are designated as non-attainment areas. Will County is classified as an attainment area for all pollutants except ozone.

Besides the criteria pollutants, the USEPA also regulates air toxins. Mobile source air toxins (MSAT) are compounds emitted from highway vehicles and non-road sources such as rail, marine, and construction equipment known or suspected to cause cancer or other serious health and environmental effects. The USEPA regulations for engines and fuels will reduce regional MSATs over the next several decades. The Motor Vehicle Emissions Simulator (MOVES) model is a USEPA model used to conduct a quantitative MSAT analysis.

3.2.1.2 Environmental Consequences

No-Build Alternative

The No-Build Alternative would result in no construction-related impacts. Operation-related impacts to air quality were evaluated in the 2012 Tier 1 FEIS and ROD.

Build Alternatives

Construction: Construction air quality impacts are temporary in nature and localized to the area of construction. The construction of Build Alternative 1B is estimated to take 18

months, and 24 months to 30 months for Build Alternative 2A. No other HSR Program projects in the Chicago-Gary-Lake County, IL-IN Ozone Non-Attainment area would be constructed at the same time.

Possible air quality impacts from construction may be caused by dust from earth-moving activities such as cut and fill operations, use of unpaved haul roads, exposed soil or aggregate piles, exposed material carried off-site, and by exhaust emissions generated by diesel-fueled equipment during construction.

Best Management Practices (BMPs) would be used prior to, during, and after construction to suppress dust. Control measures would be specified in contractor contracts.

Operations: The build alternatives would introduce eight high-speed passenger trains. This action would increase diesel locomotive emissions of NO_x, volatile organic compounds, and $PM_{2.5}$ in and near the proposed Project study area. However, based on emission estimates presented in Appendix D1, "Physical Environment - Air Quality," these increases would be small—lower than the General Conformity de minimis thresholds. The build alternatives would not generate substantial amounts of MSAT emissions. Regional MSATs are expected to be reduced as a result of the USEPA regulations for engines and fuels over the next several decades.

The following pollutants that can be traced principally to diesel locomotives and construction equipment are relevant to evaluating the build alternatives' impacts: CO, volatile organic compounds, NO_x, O_3, PM_{10}, and $PM_{2.5}$. Transportation sources account for a small percentage of regional emissions of SO_2 and Pb; thus, a detailed analysis is not required. The build alternatives' elements that could adversely affect air quality levels include diesel locomotive emissions and emissions from construction.

For ambient air quality, the last three years of available monitored data from the area show no exceedances of the National Ambient Air Quality Standards for $PM_{2.5}$, PM_{10}, NO_2, and SO_2 standards measured in the area. The O_3 8-hour National Ambient Air Quality Standards is calculated as a three-year average, and the standards were not exceeded in Will County for the three-year period from 2021 to 2023 (See Appendix D1 "Physical Environment - Air Quality" for additional detail).

USEPA regulations for engines and fuels will cause overall MSAT emissions to decline significantly over the next several decades. USEPA's MOVES model forecasts that from 2010 to 2050, the total annual emission rate for the priority MSATs would be reduced over 80 percent, while vehicle-miles of travel are projected to increase by over 100

percent. These changes would reduce the background level of MSAT as well as the possibility of even minor MSAT emission increases from the build alternatives.

The build alternatives are part of the Chicago to St. Louis HSR Program. The 2012 Tier 1 FEIS for the HSR Program found the potential for local air quality impacts to be insignificant. As such, the build alternatives' local air quality impacts also should be insignificant.

3.2.2 Floodplains and Regulatory Floodways

3.2.2.1 Affected Environment

Executive Order 11988 - Floodplain Management requires federal activities to avoid impacts to floodplains and to avoid direct and indirect support of floodplain development to the extent practicable. There are 10 Flood Insurance Rate Maps (FIRMs) that cover the proposed Project study area, all with an effective date of February 15, 2019. A FIRM displays floodplains, including special flood hazard areas and risk premium zones. Based on these FIRMS, the following floodplains are near the proposed Project study area:

- Grant Creek Floodplain
- Prairie Creek Floodplain
- Unnamed Tributary to Kankakee River Floodplain
- Forked Creek Floodplain
- Kankakee River Floodplain and Regulatory Floodway

The extent of the flood zones or floodplains varies (as shown in Appendix D1, "Physical Environment - Floodplains and Regulatory Floodway").

3.2.2.2 Environmental Consequences

No-Build Alternative

The No-Build Alternative would result in no impacts to floodplains or regulatory floodways.

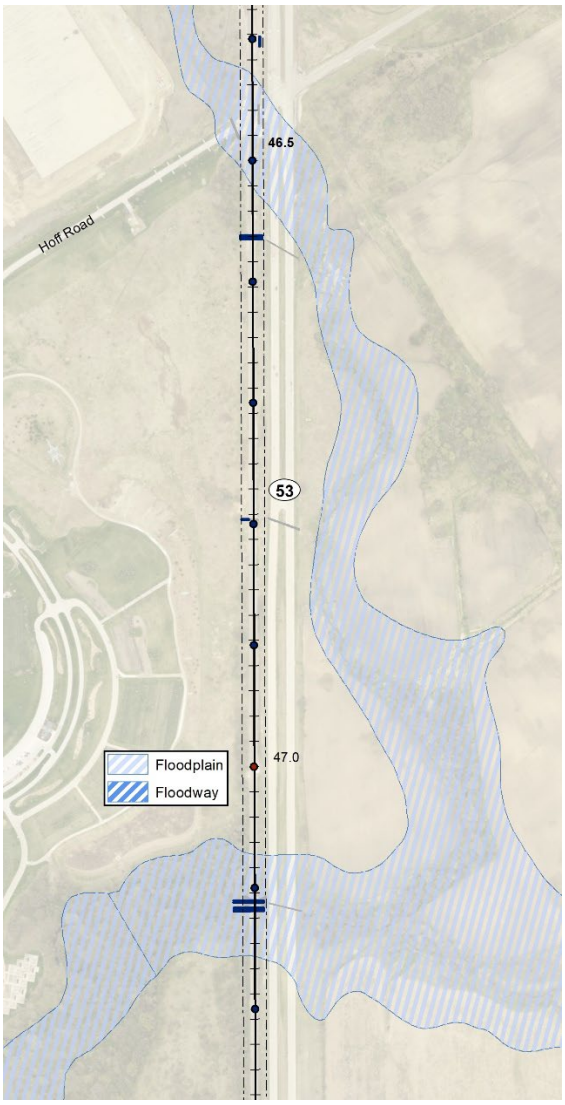
Build Alternatives

The build alternatives would affect floodplains at Grant Creek, Prairie Creek, Unnamed Tributary to Kankakee River, Forked Creek, and Kankakee River Floodplain and Regulatory Floodway through culvert and bridge replacements and extensions. IDOT evaluated the topography cross sections with 100-year water surface elevation to determine the volume fill from grading. Build Alternative 1B (Preferred Alternative) would affect 10.2 acre-feet and Build Alternative 2A would affect 8.1 acre-feet.

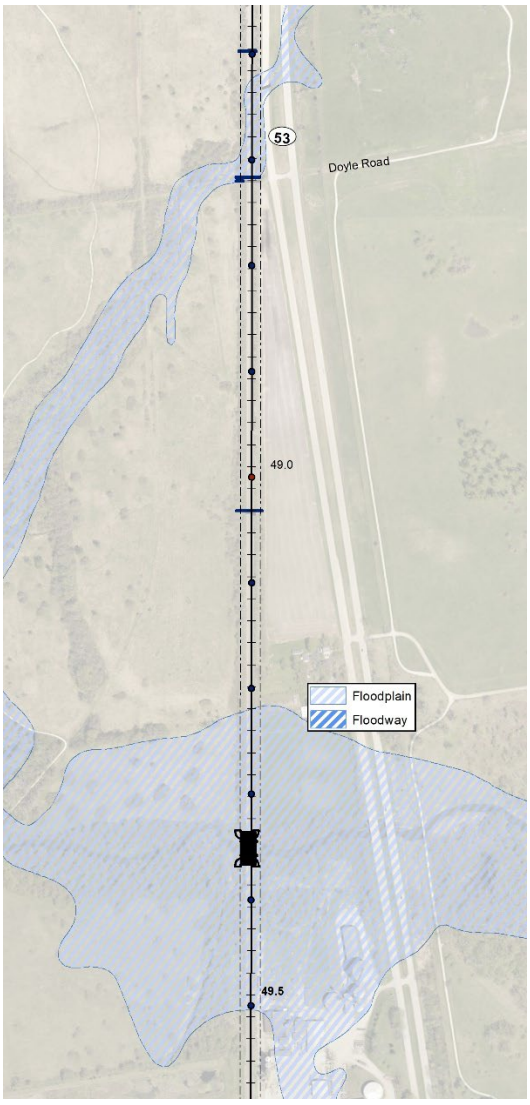
The replacement structures would provide larger capacity to carry floodwaters than the existing structures. Changes in the capacity of the floodplain to store water are expected to be confined to the additional bridge piers; therefore, an increase in the flood height of more than 0.10 foot and an increase in flood limits is unlikely in the floodplains. The 100-year event would not cause overtopping of the railway.

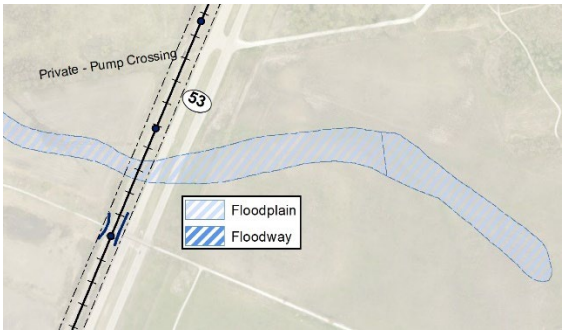
Exhibit 3-1.Floodplain and Regulatory Floodway Location Maps

GRANT CREEK FLOODPLAIN

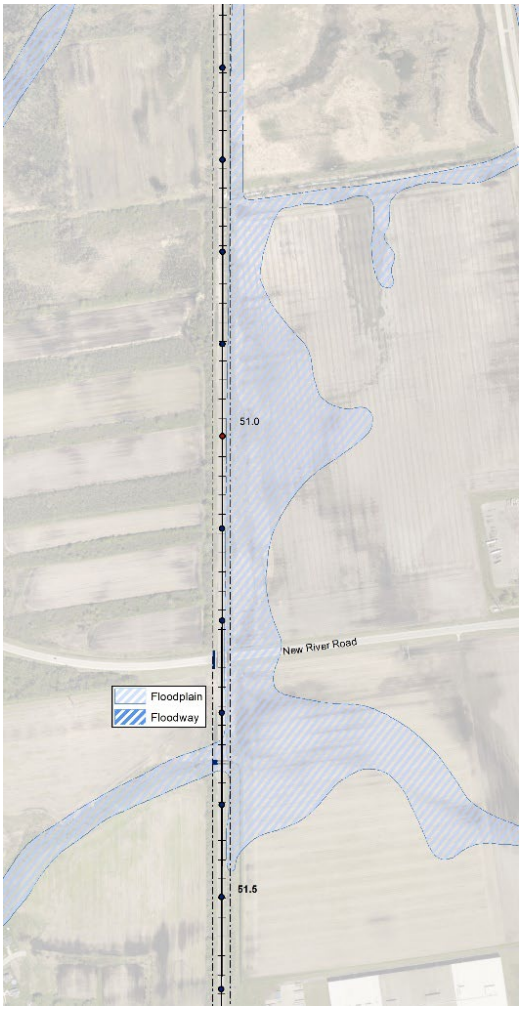


PRAIRIE CREEK FLOODPLAIN

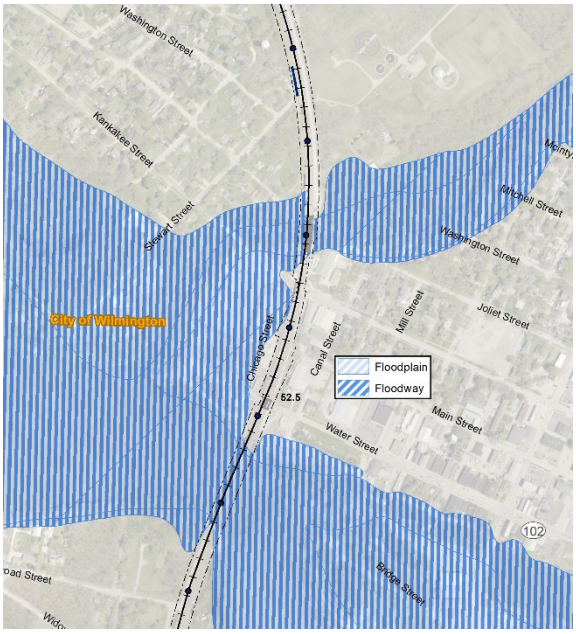




UNNAMED TRIBUTARY TO KANKAKEE RIVER FLOODPLAIN



FORKED CREEK FLOODPLAIN AND KANKAKEE RIVER FLOODPLAIN AND REGULATORY FLOODWAY



3.2.3 Surface Water Resources

3.2.3.1 Affected Environment

The proposed Project study area is in the Kankakee River watershed (Hydrologic Unit Code [HUC] 07120001), and the Des Plaines River watershed (HUC 0712000) in Will

County, crossing or following four streams that are tributaries to the Des Plaines River and three streams that are tributaries to the Kankakee River (see Table 3-1). The Kankakee watershed drains approximately 3,030 square miles in three states (Illinois, Indiana, and Michigan). The Des Plaines River watershed drains approximately 1,440 square miles in two states (Illinois and Wisconsin). Prairie Creek, Grant Creek, two unnamed tributaries to the Kankakee River, two unnamed tributaries to Grant Creek, and one unnamed tributary to Jackson Creek cross by or near the UPRR. Culverts and the Prairie Creek Bridge facilitate drainage flow under the railroad. None of the surface waters has a special designation or water quality impairment. None of the waterways are navigable, listed on the National Rivers Inventory, a National Wild and Scenic River, or under study to be added to the list of National Wild and Scenic Rivers. The Illinois Environmental Protection Agency lists Grant Creek (IL_GA-01) as impaired for aquatic life due to unknown causes and is listed as a medium priority (see Appendix D1, "Physical Environment - Surface Water Resources" for detailed surface water quality characteristics).

Table 3-1. Stream Crossings within the Project Study Area

	Stream Crossing						
Location	Un. Trib. to Jackson Creek	Un. Trib. to Grant Creek	Un. Trib. to Grant Creek	Grant Creek	Prairie Creek	Un. Trib. to the Kankakee River	Un. Trib. to the Kankakee River
Waters Delineation ID	Waters 17	Waters 18	Waters 19	NA	NA	Waters[1]	Waters[2]
IEPA Designation	NA	NA	NA	IL_GA-01	IL_FA-01	NA	NA
Track Crossing Location (MP)	44.8*	46.7-46.8*	46.7-46.8*	47.2	49.5	50.1-51.8	51.57
County	Will						
IEPA Basin	2				10		
IEPA Basin[1]	Des Plaines River				Kankakee River		
Total Drainage Area, sq. miles[2]	Unknown	Unknown	Unknown	15.9*	51.5*	Unknown	Unknown
Total Length, miles[2]	Unknown	Unknown	Unknown	11.0*	27.0*	Unknown	Unknown

* Miles in Illinois

[1] Illinois Environmental Protection Agency. 2016. Illinois Integrated Water Quality Report and Section 303(d) List.

[2] Healy, R.W. 1979. River Mileages and Drainage Areas for Illinois Streams - Volume 2, Illinois River Basin. US Geological Survey Water Resources Investigations 79-11.

The Illinois State Geological Survey Wells and Borings Database shows 27 water wells within 200 feet of the build alternatives, which is the minimum setback for private water supplies. Twenty-two wells function as private water supplies, and five function as community water supply wells. Five of the water wells are less than or equal to 100 feet deep, while the remaining 22 water wells are greater than 100 feet deep. MNTP has an 885-foot deep well located approximately 125 feet west of the existing main track on MNTP property.

No sole source aquifers, as designated under Section 1424(e) of the Safe Drinking Water Act, are within the proposed Project study area.

The proposed Project study area is not within karst topography according to the Illinois Environmental Protection Agency Source Water Assessment Program.

3.2.3.2 Environmental Consequences

No-Build Alternative

The No-Build Alternative would cause no new impacts to surface waters.

Build Alternatives

Permanent bridge piers and temporary construction activities would affect the surface waters. Within creeks, culvert improvements would lead to temporary construction impacts. The proposed Project would lengthen the culverts to allow for the double tracking, which would cause permanent impacts. Bridge and culvert construction would use temporary cofferdams, causeways, and work bridges for placing piles and heavy equipment access, respectively, to minimize temporary impacts. Culvert design within UPRR right-of-way will meet UPRR and United States Army Corps of Engineers (USACE) standards. Cofferdams would be installed to dewater using pumps, creating a dry work environment while the culvert is replaced. Both build alternatives would affect the two creeks and three of the five tributaries. Impacts to surface waters that are classified as Waters of the United States are discussed in Section 3.3.3, "Ecological Systems"(see Appendix D1, "Physical Environment" and Appendix D2, "Ecological Systems" for additional details).

The build alternatives propose no work at Forked Creek or the Kankakee River Bridge.

Other impacts to surface waters commonly associated with railroad construction activities include:

- Increased nutrient loading during construction via runoff from exposed areas
- Increased sedimentation from erosion in the project area associated with grading new alignments and repairing old slopes on the existing rail corridor

- Increased potential for release of toxic compounds such as fuel and oil from construction equipment and other vehicles

Successful minimization of construction-related impacts can be achieved by implementing erosion and sediment control measures on construction sites to prevent soil movement or loss, enhance project aesthetics, and eliminate appreciable damage to off-site receiving channels, property, and natural resources.

To minimize potential impacts to surface waters in the proposed Project area, BMPs for the protection of surface waters would be strictly followed during the construction phase of the proposed Project.

MNTP has an 885-foot deep well located approximately 125 feet west of the existing main track on MNTP property. The new track for the build alternatives would be just over 100 feet from the well, and the access facility would be approximately 20 feet closer. No impacts to the well are anticipated.

The proposed Project will follow state and federal regulations, including Clean Water Act Section 404 and Section 401 (which are discussed further in Section 3.3.3.2, "Wildlife Resources" and Appendix D2, "Ecological Systems").

3.2.4 Noise and Vibration

3.2.4.1 Affected Environment

IDOT evaluated 12 receptors within the noise screening distance (500 feet), which include single and multifamily residences and a cemetery. IDOT evaluated six sensitive receptors within the vibration screening distance (100 feet), which were all residential.

FRA regulations for horn noise specify that operators will apply the horn more than 0.25 mile from the crossing based on the operating speeds of 60 mph or greater. Four of the 12 receptors are within 0.25 mile of at least one crossing; therefore, the noise impact assessment at these four receptors includes horn noise. Two crossings in the proposed Project study area are designated as 24-hour quiet zones within Elwood. Horn noise was not included in the assessment for the Elwood area because of the designated 24-hour quiet zones.

3.2.4.2 Environmental Consequences

No-Build Alternative

The No-Build Alternative would not result in new noise impacts.

Build Alternatives

Construction: Construction activities would cause temporary noise with daytime construction activities having a lesser impact than nighttime construction. Nighttime construction could be necessary to avoid unacceptable disruptions to current rail

operations or street traffic during daytime hours. However, there could be locations in the proposed Project study area where nighttime construction would be unobtrusive, such as near the ALNC and MNTP during nighttime hours where there are no noise receptors nearby. Once details of the construction activities become available, the contractor would communicate with the affected communities regarding minimizing nighttime noise impacts at sensitive receptors.

There would be limited temporary noise effects from construction activities. The loudest construction equipment is expected to be the pile driver for short periods of time. Construction duration is anticipated to be 1.5 years – 30 months. As discussed in Section 2.3, Alternative 2A would take longer to construct due to the extensive noise walls required with that alternative.

Under both build alternatives, construction noise would have to comply with Wilmington, Illinois' noise ordinance which restricts the emission of unnecessary loud sounds during nighttime hours (10pm to 7am). A temporary variance permit can be obtained from Wilmington if construction during nighttime hours is desired by the contractor. The Village of Elwood does not have any construction noise-related ordinances.

Operations: The build alternatives would contribute additional passenger train noise, additional passenger train horn noise, an increase in passenger train speed, and shifts in track location. Based on the noise assessment in Appendix D1, "Physical Environment - Noise and Vibration," the increased passenger train speeds and the additional passenger train volume under both build alternatives would increase passenger train rolling stock noise levels by an average of 3 weighted decibels (dB[A]). Freight train noise would also increase by an average of 3 dB(A) for both build alternatives. The combined passenger and freight train noise increases would be moderate at four sensitive receptor locations and severe at six locations. When evaluating passenger train noise impacts only, noise impacts would be considered moderate at three locations, and the other locations would not experience noticeable increases.

Due to an increase in HSR passenger service speed from 79 mph to 110 mph and the installation of a second track closer to one residence under the build alternatives, the general ground-borne vibration analysis indicates that vibration impacts would occur at one sensitive receptor location. Vibration levels at the residence would exceed FRA vibration criteria by 5 velocity decibels (VdB) over the existing vibration levels. The vibration impact is generally associated with the HSR passenger service speed increase from 79 mph to 110 mph and the installation of a second track closer to this receptor.

Because the general vibration assessment predicted a potential vibration impact and that the predicted vibration levels would be within 5 VdB of the impact criterion, FRA considered the need for a detailed vibration assessment. FRA criteria suggest that a detailed vibration assessment is appropriate at particularly sensitive buildings (such as a concert hall), when a potential vibration impact exists for many residential buildings, or when a HSR alignment will be close to university research buildings where vibration-sensitive optical instrumentation is used. Only one residential receptor would experience a vibration impact from the build alternatives. Therefore, FRA concluded that a detailed vibration assessment was not warranted. (See Appendix D1, "Physical Environment - Noise and Vibration" for additional information about the vibration analysis.)

3.2.5 Agriculture

3.2.5.1 Affected Environment

The proposed Project study area includes the rural communities of Elwood and Wilmington, agricultural land, and nature preserves in unincorporated Will County (see Appendix D1, "Physical Environment – Agriculture" for agricultural zoned areas in the proposed Project study area assumed to have soil types for prime farmland). The US Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) defines prime farmland as land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, and oilseed crops, and is also available for these uses. Most of the soils within the proposed Project study area are considered prime farmland soils per NRCS soil data for Will County.

Agricultural land (identified from land use and soil type data) is in Elwood east of the UPRR and within portions of MNTP leased for agricultural production. No farm grade crossings are within the proposed Project study area. An agribusiness is on the east and west sides of the Damien Mills Road at-grade crossing within MNTP (see Appendix A, "Environmental Map Set" with aerial background).

3.2.5.2 Environmental Consequences

No-Build Alternative

The No-Build Alternative would not affect agricultural lands.

Build Alternatives

NRCS soil mapping (including the categories of prime farmland, farmland of statewide importance, and prime farmland if drained/protected) was overlaid on land use to identify impacts to agricultural land. The farmland required for the build alternatives are strips of land adjacent to the existing railroad alignment and roadway and would not isolate a parcel of land or create adverse travel.

Table 3-2 lists the agricultural land impacts from Build Alternative 1B (Preferred Alternative) and Build Alternative 2A. Build Alternative 1B would require 11.6 acres of right-of-way purchase, of which 5.6 acres appear to be farmed. The permanent easement would be part of the Abraham Lincoln National Cemetery buffer area and would not be farmed. The 10.5 acres of temporary easement would be returned to the property owner after being restored. MNTP contains 5.9 acres of the required right-of-way and 3.6 acres of the temporary easement for Build Alternative 1B.

Build Alternative 2A would require 6.3 acres of right-of-way purchase, of which 4.8 acres appear to be farmed. The permanent easement would be part of the Abraham Lincoln National Cemetery buffer area and is not farmed. The 10.6 acres of temporary easement would be returned to the property owner after it is restored. MNTP contains 6.0 acres of the temporary easement for Build Alternative 2A.

Table 3-2.Agricultural Lands Impacts

ALTERNATIVE	RIGHT-OF-WAY REQUIRED (acres)	PERMANENT EASEMENT (acres)	TEMPORARY CONSTRUCTION EASEMENT (acres)
Build Alternative 1B (Preferred Alternative)	11.6 (5.9 in MNTP)	0.5	10.5 (3.6 in MNTP)
Build Alternative 2A	6.3	0.2	10.6 (6.0 in MNTP)

Farmland required for the build alternatives is adjacent to the existing railroad alignment and roadway, so there would be no severed farms, severed management zones, uneconomic remnants, landlocked parcels, or adverse travel created (see Appendix D1, "Physical Environment – Agriculture" for additional information).

3.3 ECOLOGICAL SYSTEMS

This section evaluates the following resource topics:

- Vegetation and Habitat
- Waters of the United States including wetlands
- Threatened and Endangered Species

Appendix D2, "Ecological Systems - Vegetation and Habitat" provides supplemental information to support the analysis.

3.3.1 Vegetation and Habitat

3.3.1.1 Affected Environment

The proposed Project study area is in the Grand Prairie Natural Division of central and east-central Illinois, Grand Prairie Section. The Grand Prairie Natural Division includes part of Illinois affected by the late stages of the Wisconsin glaciation, which is a poorly drained area characterized by black-soil prairie, marshes and prairie potholes (IDNR, 2014). The Grand Prairie Natural Division is a vast plain formerly occupied primarily by tallgrass prairie, now converted extensively to agriculture.

Habitats within the proposed Project study area are primarily in disturbed railroad right-of-way, and residential, commercial, and undeveloped areas with wetlands and prairies of low to high natural quality. There is also upland forest and woodland edge; but there are no forested areas greater than 20 acres within the build alternatives. Forested riparian and hedgerow areas are within the corridor at Grant Creek and Prairie Creek. The proposed Project would extend through MNTP, DPSFWA, and two Illinois Natural Areas Inventory (INAI) sites: the Hitts Siding Prairie Nature Preserve and the Joliet Army Ammunition Plant INAI site. The INAI sites are high-quality natural communities that reflect pre-settlement conditions and are considered significant.

Regional Forester Sensitive Animal and Plant Species for the USFS, Eastern Region were last published on March 1, 2024. The lists identify three mammals, 12 birds, one reptile, one amphibian, one bivalve, 11 insects, and 15 species of plants within MNTP. To the extent possible, impacts to these Regional Forester Sensitive Species (RFSS) have been minimized through design. Additional information regarding RFSS is included in Appendix D2, "Ecological Systems" and D3, "Ecological Systems Report and Correspondence". Appendix D3 includes a full list of the RFSS and the associated habitat.

Although much of the study area was likely historically covered by prairie, remnant prairie areas are now scarce due in part to succession and conversion to agricultural land. Some of the observed remnant prairies include intermediate areas between forbland (with few prairie species) and remnant prairie, and as such some areas identified as forbland in this study were likely prairie historically. The proposed Project study area contains scattered trees and hedgerows associated with commercial areas, developed areas, and undeveloped areas as well as some forested areas associated with the Prairie Creek and Grant Creek riparian areas. Several streams cross the UPRR. Wildlife usage in the proposed Project study area is likely to be species tolerant of disturbance and human presence.

3.3.1.2 Environmental Consequences

No-Build Alternative

The No-Build Alternative would result in no new impacts to natural communities.

Build Alternatives

Construction: In developing the build alternatives, IDOT considered avoiding and minimizing impacts to upland communities (Table 3-3). Natural areas with the highest potential for high-quality upland communities (such as MNTP) would be avoided to the extent practicable.

Table 3-3.Vegetation Impacts

VEGETATION	BUILD ALTERNATIVE 1B (PREFERRED ALTERNATIVE) (acres)	BUILD ALTERNATIVE 2A (acres)
Forested Area	16.35 (12.86 within UPRR right-of-way)	16.8 (12.86 within UPRR right-of-way)
Significant, Exceptional, or Noteworthy prairies*	2.15	2.45

*Prairies considered Significant are high-quality natural communities reflecting pre-settlement conditions. Prairies considered Exceptional are similar quality, but not meeting other requirements (such as minimal size). Prairies considered Noteworthy do not meet the requirements for Significant or Exceptional remnant communities but have regionally important natural quality.

The affected forested and prairie areas are adjacent to the existing railroad corridor and would not be considered a large acreage of habitat compared to the greater habitats within MNTP, the DPSFWA, the Hitts Siding Prairie Nature Preserve, and the Joliet Army Ammunition Plant INAI site, which are also of high quality.

Operations: The proposed Project would not introduce additional impacts to forested areas or prairies.

3.3.2 Wildlife Resources

3.3.2.1 Affected Environment

Land use within the build alternatives is agricultural interspersed with tree lines, forested areas, wetlands, grasslands, prairie, streams and associated riparian corridors, and urbanized, developed land. Areas with the highest quality wildlife habitat within or immediately adjacent to the build alternatives occur within four conservation areas:

- MNTP
- DPSFWA
- Hitts Siding Prairie Nature Preserve
- Joliet Army Ammunition Plant INAI site

A variety of wildlife habitat is located within these conservation areas, including bird and pollinator habitats. (Appendix D2, "Ecological Systems - Wildlife Resources" lists additional detail regarding the wildlife species in the proposed Project study area.)

This section discusses wildlife habitat excluding federally and state protected species, which are discussed in the Section 3.3.4.

3.3.2.2 Environmental Consequences

No-Build Alternative

The No-Build Alternative would result in no new impacts to wildlife resources. The No-Build Alternative includes several improvements (including grade crossing, drainage, and signals improvements) in the proposed Project study area that were evaluated under previous environmental documents.

Build Alternatives

The proposed construction may impact wildlife habitats or species, including grassland and forest interior avian species. Impacts may occur due to removal of habitat due to the expansion of the rail facilities. Impacts may also occur within small forested areas within the construction zones (each less than 20 acres in size) that do not offer ideal habitats for migratory birds. Furthermore, because this is an existing rail corridor, it has already divided the forested habitat. The construction options are unlikely to further fragment larger habitat areas because their impact is limited to a small zone adjacent to the existing railroad corridor.

IDOT conducted a literature review and application of methods in 2020 to analyze the potential for adverse effects to grassland birds from the build alternatives. Potential adverse impacts to grassland species examined include railroad-noise-related habitat disturbance, suitable habitat impacts from right-of-way and easement acquisition, collisions/direct mortality, habitat disturbance from rail vibrations, habitat disturbance from rail construction, and air disturbance during train movement.

Collisions with trains may cause direct mortality to wildlife. The Elgin, Joliet, and Eastern (EJ&E) Railway study[9] conducted by INHS assessed track mortality on wildlife. During two years of assessment, no mortalities of threatened or endangered species were noted. However, mortality included mammals, birds, reptiles and amphibians. Mortalities increased where train traffic was highest, meaning that an increase in traffic

[9] Impacts of the Elgin, Joliet, and Eastern Railway Line on Natural Areas in the Western Chicago Metropolitan Area. / Heske, Edward J.; Ruffatto, Danielle M. Illinois Natural History Survey, 2014. (INHS Technical Report 2014).

volume may increase wildlife mortality. FRA and IDOT will comply with the Migratory Bird Treaty Act (MBTA).

The MNTP, Abraham Lincoln National Cemetery, DPSFWA, and Hitts Siding Prairie Nature Preserve are adjacent to the railroad right-of-way and are publicly owned lands with existing suitable grassland bird habitat. Habitat disturbances to grassland birds from the build alternatives are not expected at the properties along IL-53 in MNTP, Abraham Lincoln National Cemetery, or the DPSFWA based on the noise-related habitat disturbance analysis. Current train operations cause railroad-noise-related habitat disturbances at the Hitts Siding Prairie Nature Preserve for both passenger and freight trains. The build alternatives could cause an additional 14.84 acres of noise-related habitat disturbances within the Hitts Siding Prairie Nature Preserve. However, this was assumed only when two freight trains on the double track would occupy the tracks at the same time and represents the highest potential noise levels and a worst-case scenario. Additional noise-related habitat disturbances are not expected from a single passenger or freight train.

The EJ&E study looked at railroad corridor impacts on ecology of bird communities. Behavioral observations in individual and nesting birds did not show a response to the passage of trains. The study concluded that the railroad corridor resulted in neither positive nor negative impacts on breeding birds.

Although the build alternatives would increase the number of trains per day and the speed of trains, adverse impacts from collisions and direct mortality would remain low. Little to no research was available to support or quantify potential disturbances from increased rail vibrations, rail construction, and increased air disturbances from train movements. The EJ&E study found that train traffic on the railroad did not adversely affect bird vocalization behavior. Construction would increase noise levels. However, construction would not occur for substantial periods of time or continuously each day. Therefore, its potential to mask avian communications would be limited and depends on the number of pieces of equipment and the duration of construction.

The build alternatives would result in minor habitat fragmentation due to permanent loss of habitat for the expansion of the railroad corridor, including building of retaining walls. Fragmentation would result in a barrier to species due to restricted areas for movement and dispersal. In addition, the build alternatives would increase barriers to wildlife movement. Impacts to fragmentation and movement were minimized by locating the build improvements along existing disturbed areas and by using design enhancements such as natural-bottom culverts.

Build Alternative 1B (Preferred Alternative) would permanently affect 8.83 acres of grassland bird habitat from its acquired right-of-way and easements and would temporarily affect 9.16 acres of grassland bird habitat for temporary construction easements.

Build Alternative 2A would permanently affect 3.72 acres of grassland bird habitat and would temporarily affect 8.43 acres of grassland bird habitat. Additional information on grassland birds found in the project study area can be found in the Grassland Bird Memo is Appendix D3.

In addition to impacts to bird habitat, pollinator habitat is located throughout the corridor and is expected to be impacted because of the action. MNTP provides habitat for seven species of bumble bees, over 30 species of solitary bees, and over 20 species of butterflies.

3.3.3 Waters of the United States

3.3.3.1 Affected Environment

The proposed Project study area contains 39 wetlands and seven water courses that are considered potential Waters of the United States, based on the results of a delineation and pending verification by the USACE. Appendix D2, "Ecological Systems - Waters of the United States" and the delineation report provides additional details on these features.

Wetland types in the proposed Project study area include emergent, forested, and scrub-shrub wetland. Emergent wetlands provide cover, nesting habitat, and foraging habitat for birds such as rails and bitterns. Forested and scrub-shrub wetlands provide important nesting and foraging habitat for numerous wildlife species and year-round breeding habitat for amphibians. They also provide wildlife with a corridor for migration and localized movements. In addition to habitat for wildlife, wetlands serve as stormwater attenuation features, can serve as sediment/toxicant traps, and can remove nutrients from surface water. Furthermore, these wetlands can serve as groundwater recharge areas. Wetlands adjacent to streams also attenuate flood flows from the channel during high water periods.

The build alternatives would cross or cross near the following watercourses: Prairie Creek, Grant Creek, two unnamed tributaries to the Kankakee River, two unnamed tributaries to Grant Creek, and one unnamed tributary to Jackson Creek.

In 2023, the USDA Forest Service (UFSF) published the *Grant Creek Watershed Restoration Action Plan*. The stated goal of the plan is to enhance watershed condition towards the desired Condition Class 1 (Functioning Properly) with sufficient maintenance to prevent

any areas from further degradation resulting in downgrade to Condition Class 3 (Impaired Function). The Grant Creek crosses through the proposed Project Study Area where IL-53 runs parallel to the railroad.

3.3.3.2 Environmental Consequences

No-Build Alternative

The No-Build Alternative would result in no new impacts to Waters of the United States.

The No-Build Alternative would not affect wetlands or waterways.

Build Alternatives

Waters of the United States impacts associated with the build alternatives could include vegetation removal, discharge of clean fill material, and changes to hydrology. Direct wetland impacts would result from construction and placing fill material to construct additional track, and from grading for culverts and bridges. These wetland impacts are based on the delineated wetland boundaries combined with either build alternative right-of-way and construction easement boundaries. The impacts at each wetland by alternative are presented in Table 3-4.

Table 3-4 Waters of the United States Impacts - Wetlands

Alternative	Mile Post	Side of Railroad	Site	Cowardin Classification[1]	Mean C	FQI	Total Area (Acres)	Permanent Impact (Acres)	Temporary Impact (Acres)	Mitigation Needed (Acres)
1B	46.4	East	W007	PEM	2.7	6.6	0.09	0.07	0.00	0.11
	46.4	West	W008	PFO	2.3	4	0.12	0.12	0.00	0.18
	46.4	West	W009	PSS	1	2.4	0.01	0.00	0.01	0.00
	46.5	West	W010	PEM	1.3	3.2	0.59	0.25	0.34	0.38
	46.8	West	W011	PEM	1.8	5.4	0.11	0.05	0.06	0.08
	46.8	East	W012	PEM	2.2	5.4	0.13	0.09	0.00	0.14
	47.1	East	W014	PFO	2.7	9	0.88	0.36	0.52	0.54
	46.5	East	W015	PEM	2.7	6.6	0.22	0.20	0.01	0.29
	48.4	East	W016	PEM	2.1	6.6	0.11	0.11	0.00	0.16
	47.7	East	W017	PEM	0.5	1.6	0.20	0.18	0.01	0.27
	49.4	East	W019	PEM	2	4.9	0.00	0.00	0.00	0.00
	49.3	East	W019b	PEM	2	4.9	0.01	0.00	0.00	0.00
	49.3	West	W019c	PEM	2.5	8.1	0.04	0.04	0.00	0.06
	48.7	East	W020a	PEM	1.4	3.1	0.07	0.03	0.00	0.04

	48.7	West	W020b	PEM	0	0	0.22	0.17	0.05	0.25
	48.5	East	W021	PEM	1.8	5.1	0.09	0.09	0.00	0.14
	50.7	West	W022	PEM	2.1	5.9	1.85	1.82	0.03	2.73
	49.9	West	W022b	PEM	2.5	3.5	0.70	0.67	0.00	1.00
	51.1	East	W023	PEM	2.8	10.1	1.04	1.04	0.00	1.57
	49.8	East	W024	PEM	2.7	4.7	0.16	0.16	0.00	0.25
	51.3	West	W025	PEM	1.4	5.2	0.58	0.56	0.00	0.83
	51.6	East	W026	PEM	1.8	5.4	0.48	0.48	0.00	0.73
	54.7	West	W028	PEM	0	0	0.00	0.00	0.00	0.00
	55.1	East	W030	PEM	1.1	4	1.21	1.21	0.00	1.81
	54.6	West	W031	PEM	3.2	10.6	0.12	0.12	0.00	0.18
	54.4	East	W032	PEM	1.9	9.7	4.94	4.87	0.07	7.31
	54.3	West	W033	PEM	1.2	2.9	0.26	0.26	0.00	0.39
	54.2	West	W034	PEM	2.1	9.6	3.12	3.12	0.00	4.68
	53.1	West	W035	PEM	3	11.6	0.60	0.60	0.00	0.90
	52.9	East	W036	PEM	0	0	0.25	0.25	0.00	0.38
	52.9	East	W037	PEM	0	0	0.06	0.06	0.00	0.08
	51.9	East	W039	PEM	1.5	5	0.12	0.12	0.00	0.17
2A	46.4	East	W007	PEM	2.7	6.6	0.09	0.07	0.01	0.11
	46.4	West	W008	PFO	2.3	4	0.12	0.12	0.00	0.18
	46.4	West	W009	PSS	1	2.4	0.01	0.00	0.01	0.00
	46.5	West	W010	PEM	1.3	3.2	0.59	0.26	0.17	0.39
	46.8	West	W011	PEM	1.8	5.4	0.11	0.05	0.03	0.08
	46.8	East	W012	PEM	2.2	5.4	0.13	0.09	0.04	0.14
	47.2	West	W013	PEM	0.2	0.4	0.04	0.00	0.04	0.00
	47.1	East	W014	PFO	2.7	9	0.88	0.31	0.33	0.46
	46.5	East	W015	PEM	2.7	6.6	0.22	0.20	0.02	0.29
	48.4	East	W016	PEM	2.1	6.6	0.11	0.11	0.00	0.16
	47.7	East	W017	PEM	0.5	1.6	0.20	0.18	0.02	0.27
	49.4	East	W019	PEM	2	4.9	0.00	0.00	0.00	0.01
	49.3	East	W019b	PEM	2	4.9	0.01	0.01	0.00	0.01
	49.3	West	W019c	PEM	2.5	8.1	0.04	0.03	0.01	0.04
	48.7	East	W020a	PEM	1.4	3.1	0.07	0.03	0.04	0.04
	48.7	West	W020b	PEM	0	0	0.22	0.00	0.12	0.00
	48.5	East	W021	PEM	1.8	5.1	0.09	0.09	0.00	0.14
	50.7	West	W022	PEM	2.1	5.9	1.85	1.82	0.03	2.73
	49.9	West	W022b	PEM	2.5	3.5	0.70	0.49	0.00	0.73
	51.1	East	W023	PEM	2.8	10.1	1.04	1.04	0.00	1.57
	49.8	East	W024	PEM	2.7	4.7	0.16	0.16	0.00	0.25
	51.3	West	W025	PEM	1.4	5.2	0.58	0.56	0.00	0.83
	51.6	East	W026	PEM	1.8	5.4	0.48	0.48	0.00	0.73
	54.7	West	W028	PEM	0	0	0.00	0.00	0.00	0.00

	55.1	East	W030	PEM	1.1	4	1.21	1.21	0.00	1.81
	54.6	West	W031	PEM	3.2	10.6	0.12	0.12	0.00	0.18
	54.4	East	W032	PEM	1.9	9.7	4.94	4.87	0.07	7.31
	54.3	West	W033	PEM	1.2	2.9	0.26	0.26	0.00	0.39
	54.2	West	W034	PEM	2.1	9.6	3.12	3.12	0.00	4.68
	53.1	West	W035	PEM	3	11.6	0.60	0.60	0.00	0.90
	52.9	East	W036	PEM	0	0	0.25	0.25	0.00	0.38
	52.9	East	W037	PEM	0	0	0.06	0.06	0.00	0.08
	51.9	East	W039	PEM	1.5	5	0.12	0.12	0.00	0.17

*Additional details found in Appendix D2, "Ecological Systems"

There is a wetland mitigation restoration area in MNTP west of the railroad in the Mola tract. Build Alternative 1B would permanently impact 0.2 acres of these new wetlands. Build Alternative 2A would not impact these restoration areas. No temporary impacts to the wetlands would be caused by either alternative.

Direct impacts to waterways would result from replacing culverts and placing bridge piers within waterways and temporary construction activities associated with bridge construction and removal of existing piers for both build alternatives. Bridge construction would use temporary cofferdams, causeways, and work bridges for placing piles and heavy equipment access, respectively, to minimize temporary impacts. Of the 2.54 acres and 8956 linear feet of potentially jurisdictional watercourses within the proposed Project area, no acres are anticipated to be temporarily impacted, and 2.54 acres are anticipated to be permanently impacted for each of the build alternatives. The impacts at each watercourse are presented in Table 3-5.

Table 3-5 Waters of the United States Impacts - Watercourses

Mile Post	Site	Name (Assessment ID)	Cowardin Classification[1]	Designated Use Impairments/ Cause	HUC-8	Total Area (Acres)	Length within Study Area (Linear Feet)	Permanent Impact (Acres)	Temporary Impact (Acres)
46.7	S001	Unnamed	R4SBC	NA	07120004	0.05	558	0.05	0.00
47.3	S002	Grant Creek (IL_GA-01)	R4SBC	Aquatic life Cause unknown	07120004	0.07	259	0.07	0.00
49.5	S003	Prairie Creek	R4SBCF	Aquatic life	07120001	0.18	161	0.18	0.00

		(IL_FA-01)		Cause unknown					
48.9	S004	Unnamed	R4SBC	NA	07120001	0.28	1,014	0.28	0.00
50.5	S005	Unnamed	R4SBC	NA	07120001	1.92	6,845	1.92	0.00
51.5	S006	Unnamed	R4SBC	NA	07120001	0.04	119	0.04	0.00

*Additional details found in Appendix D2, "Ecological Systems"

The UPRR would submit the delineations of the Waters of the United States to the USACE as a part of the Section 404 permit application. The final jurisdictional impact acreage would be presented in the permit application.

Both alternatives include changes to Grant Creek, which is within the boundary of MNTP's Grant Creek Restoration Plan. Restoration activities associated with the plan by MNTP could impact the sizing of the culverts in the proposed Project study area. Since many of the activities in the restoration plan impact the flow rate of Grant Creek under the railroad tracks, the project team would work with MNTP to coordinate expected hydrologic conditions under the tracks to ensure the culverts are sized appropriately for the changing conditions. The proposed Project culverts at Grant Creek would be partially buried to have a natural stream bottom. The proposed Project would also coordinate reseeding efforts with MNTP to use native seed mixes in the Grant Creek watershed.

3.3.4 Threatened and Endangered Species

3.3.4.1 Affected Environment

On March 17, 2025, FRA generated a species report using USFWS's Information for Planning and Consultation (IPaC), which listed 14 species that may occur within the project area.

Table 3-6. IPaC-generated species for the Project Study Area

Species (Scientific Name)	Listing Status
Hine's emerald dragonfly (*Somatochlora hineana*)	Endangered
Leafy prairie clover (*Dalea foliosa*)	Endangered
Northern long-eared bat (*Myotis septentrionalis)*	Endangered
Rusty patched bumble bee *(Bombus affinis)*	Endangered
Sheepnose mussel (*Plethobasus cyphyus*)	Endangered

Decurrent false aster (*Boltonia decurrens*)	Threatened
Eastern massasauga (*Sistrurus catenatus*)	Threatened
Eastern prairie fringed orchid (*Platanthera leucophaea*)	Threatened
Lakeside daisy (*Hymenoxys herbacea*)	Threatened
Salamander mussel (*Simpsonaias ambigua*)	Proposed endangered
Tricolored bat (*Perimyotis subflavus*)	Proposed endangered
Western Regal Fritillary (*Argynnis idalia occidentalis*)	Proposed threatened
Whooping Crane (*Grus americana*)	Experimental population, Non-essential
Monarch Butterfly (*Danaus Plexippus*)	Proposed threatened

Based on the vegetation and habitat types present, the following federally listed and proposed listed species, candidate species, and experimental population – non-essential species could be present within the footprints of the build alternatives:

- Endangered:
  - Northern long-eared bat (Myotis septentrionalis) may be found roosting in trees during summer months or foraging in forested areas; no hibernacula sites are present in the proposed Project study area.
  - Rusty patched bumble bee (Bombus affinis) (RPBB) may be found on flowering plants during their active season in a variety of habitat types from April through October. The RPBB's wintering habitat includes woodland and forest edges. Four separate areas within the Project study area were surveyed for RPBB as part of the 2020 survey by the project team. RPBB was not found during the surveys. The most abundant bumblebees identified during the survey included brown-belted bumblebee (Bombus griceocollis),
- Proposed Endangered:
  - Tricolored bat (*Perimyotis subflavis*) may be found roosting in trees during summer months or foraging in forested areas; no hibernacula sites are present in the proposed Project study area.
- Threatened
  - Decurrent false aster (Boltonia decurrens) occurs in MNTP, having been unintentionally planted during restoration of the site in the early 2000s. Also,

decurrent false aster is not endemic to Will County, with natural populations found historically along the Illinois River Valley.

- Proposed Threatened:
  - Western regal fritillary (*Argynnis idalia occidentalis*) can be found in prairie habitats
  - The monarch butterfly (*Danaus plexippus*) may be found in various habitats including weedy and degraded areas, open prairie, wetlands, and railroad rights-of-way.

Other federally listed species in Will County were dismissed from further analysis (as noted in Appendix D2, "Ecological Systems - Threatened and Endangered Species" and addressed in more detail in the BA).

The Illinois Endangered Species Protection Act established the Illinois Endangered Species Protection Board to determine which plant and animal species are threatened or endangered in the state and to advise IDNR on means of conserving those species. State-listed species for Will County were identified using the Illinois Natural Heritage Database, and further coordination to identify state threatened and endangered species that may occur in the proposed Project study area was conducted with IDNR. (Appendix D2, "Ecological Systems - Threatened and Endangered Species" provides detail regarding botanical and biological surveys conducted in the proposed Project study area.) Based on the Illinois Natural Heritage Database, the following state-listed species occur in or near the build alternatives: Blanding's turtle, buffalo clover, bulrush, decurrent false aster, eastern straw sedge, eryngium stem borer, hedge hyssop, leafy prairie clover, loggerhead shrike, monkeyface mussel, northern harrier, northern long-eared batoklahoma grass pink orchid, ornate box turtle, pallid shiner, purple wartyback mussel, queen-of-the-prairie, quillwort, river redhorse, salamander mussel, sheepnose mussel, short-eared owl, tubercled orchid, and upland sandpiper.

IDNR determined the following species may be adversely affected:

- Blanding's turtle (*Emydoidea blandingii)* may be found in eutrophic habitats such as ponds, marshes, and small lakes. Suitable habitat of low to moderate quality is present in MNTP and Hitts Siding Prairie.
- Ornate box turtle (*Terrapene ornata*) may be found in open canopy habitat such as savanna, pasture, and grassland. Suitable habitat of low to moderate quality is present in MNTP and Hitts Siding Prairie.

- Eryngium stem borer moth, also known as rattlesnake-master borer moth (*Papaipema eryngii*) inhabits primarily high-quality remnant prairies as well as some grassland, savanna, barrens, glades, and open woodland habitats. The only host plant for the moth is the rattlesnake-master plant (*Eryngium yuccifolium*).

IDNR determined that the proposed Project is unlikely to adversely affect all other state-listed species identified through the Ecological Compliance Assessment Tool (EcoCAT) as potentially occurring in the proposed Project study area were dismissed from further analysis using field surveys (as summarized in Appendix D2, "Ecological Systems - Threatened and Endangered Species").

Other protected species with potential habitat within the proposed Project area are migratory birds protected under the MBTA and bald and golden eagles protected under the Bald and Golden Eagle Protection Act of 2007 (BGEPA).

3.3.4.2 Environmental Consequences

No-Build Alternative

The No-Build Alternative would result in no new impacts to federally or state-listed species.

Build Alternatives

Federally Listed Species

On March 17, 2025, FRA generated a species report using USFWS's Information for Planning and Consultation (IPaC), which listed 14 species that may occur within the project area. Included in Appendix D3, FRA is providing the Biological Assessment (BA) to USFWS in compliance with Section 7 of the Endangered Species Act (16 U.S.C. 1531-1544, 1973). Of the 14 species listed, FRA finds this action will have *no effect* on seven species:, leafy prairie clover (*Dalea foliosa*), sheepnose mussel (*Plethobasus cyphyus*), Eastern massasauga (*Sistrurus catenatus*), Eastern prairie fringed orchid (*Platanthera leucophaea*), lakeside daisy (*Hymenoxys herbacea),* salamander mussel (*Simpsonaias ambigua*), and whooping crane.

FRA finds this action *may affect but is not likely to adversely affect* the rusty patched bumble bee, Hine's emerald dragonfly, and decurrent false aster; and *may affect likely to adversely affect* the northern long-eared bat and tricolored bat.

- Rusty patched bumble bee (*Bombus affinis*) — Direct, permanent impacts to upland grassland, shrubland habitat, upland forest, and woodland edges would occur within the High Potential Zone for the rusty patched bumble bee. Build Alternative 1B and Build Alternative 2A would affect 18.7 and 20.2 acres, respectively, of which 8.9 acres are already in a built environment. Of the acreage reported for Build Alternative 1B and Build Alternative 2A, 5.7 and 3.7 acres,

respectively, of High Potential Zone are in MNTP, with the remaining acreage in UPRR right-of-way. Impacts to Low Potential Zone include 136.2 acres in Build Alternative 1B and 136.4 acres in Build Alternative 2A. A map showing the High Potential Zone is shown in Figure 5 of Appendix D3.

- Decurrent false aster — There are no direct, permanent impacts to the decurrent false aster. Approximately 3.32 and 3.09 acres of suitable habitat for decurrent false aster are present within the Project Study Area for Build Alternative 1B and Build Alternative 2A.

- Hine's emerald dragonfly (HED) – There are no direct impacts to HED larval habitat since none is present within the Project Study Area. The closest known population of Hine's emerald dragonfly is approximately 4.5 miles from the project corridor. HED adults from this population may forage at MNTP, and new undocumented populations may exist within other areas outside the Project Study Area containing suitable larval habitat; therefore, direct minor mortality due to collision may occur.

- Northern long-eared bat (Myotis septentrionalis) and tricolored bat (Perimyotis subflavis) — Approximately 14.61 and 13.42 acres of suitable habitat for the northern long-eared bat and tricolored bat are within Build Alternative 1B and Build Alternative 2A, respectively. Direct impacts to bats are not expected trees would be removed between November 1 and March 31, when bats are in their winter hibernacula. Direct impacts (although very slight) to bats could occur through direct collisions with operational trains or acoustic degradation. However, rail traffic already exists in this location and an increase in train frequency would not affect the surrounding habitat for this species. Acoustic degradation of habitat has already occurred; train noise is already present in this location. Because this is an existing railroad corridor, it is unlikely there would be direct impacts to the northern long-eared bat or tricolored bat because of noise. In addition, most of the increase in train traffic with the build alternatives would occur during the day (one additional nighttime passenger train is planned), while bats are generally foraging at night, further reducing impacts to bats caused by direct collisions or acoustic degradation.

The Biological Assessment (BA) for this project can be found in Appendix D3.

State-Listed Species

This section summarizes environmental consequences to state-listed species (see Appendix D2, "Ecological Systems - Threatened and Endangered Species" for more information).

- Blanding's turtle (*Emydoidea blandingii*) – No Blanding's turtles were encountered during a combined aquatic trapping effort and a combined visual encounter survey effort. The build alternatives would not affect Blanding's turtles.

- Ornate box turtle (*Terrapene ornate)* — No ornate box turtles were encountered during a trapping effort and a combined visual encounter survey effort. The build alternatives would not affect ornate box turtles.

- Eryngium stem borer moth (*Papaipema eryngii*) – Grading for the proposed Project would directly affect the eryngium stem borer moth's requisite host species, the rattlesnake-master plant. Permanent impact to rattlesnake-master plant populations within the utility property adjacent to Hitts Siding Prairie Nature Preserve and INAI (Population C) would occur to 0.16 acre within both build alternatives and an additional 0.16 acre of Population C within the UPRR right-of-way. The build alternatives would affect 0.008 acre of rattlesnake-master plant populations (Sample Population E) within MNTP. Other impacts would be within UPRR right-of-way or other land. This is a small area when compared to the 590 acres of prairie areas with records of rattlesnake-master plants identified between 2013 to 2020. Rattlesnake-master plants do not necessarily indicate eryngium stem borer moth presence. Field surveys in fall 2020 identified only eight individual stems of rattlesnake-master plant containing what appeared to be eryngium stem borer moth holes in the rattlesnake-master plant populations within both build alternatives.

Interrelated and interdependent impacts are not anticipated for these state-listed species.

Known habitat for the eryngium stem borer moth is within MNTP and the Hitts Siding Prairie INAI site. Known habitat for the loggerhead shrike is within the protected DPSFWA and MNTP. The proposed Project would not induce new development within the proposed Project study area. Thus, no indirect impacts to these state-listed species are expected based on construction of the second track with the proposed Project.

Other Protected Species

A bald eagle's nest is located approximately 100 feet from the railroad tracks within MNTP. Reports that specifically investigated the impacts of rail hazards on bald eagles indicate that the major concern comes from direct mortality. Rail hazards to wildlife have likely been greatly increased by the newer high-speed passenger trains. Eagles and other wildlife may have difficulty in effectively responding to objects moving at speeds greatly exceeding those ordinarily encountered in nature. Animals killed by trains attract scavengers such as bald eagles. Two of the eagles in Stone and Nye's 2001 study[10] were observed standing near carrion before they flew into the path of the train, and it is likely that most of the others were struck in similar circumstances. In their study of bald eagle rail mortality, Stone and Nye (2001) suggest that immature birds are more

[10] Stone, W.B, P.E. Nye, and J.C. Okoniewski. 2001. Bald eagles killed by trains in New York state. J. Raptor Research 35:64-65.

vulnerable to rail hazards due to their dependence on scavenging and lack of lived experience and agility compared with adult birds. Stone and Nye (2001) conclude that the greatest impact, positive or negative, will probably be on fledglings of local nesting pairs. Due to the proximity of the bald eagle's nest to the proposed Project area, the proposed Project will comply with the BGEPA and adhere to the National Bald Eagle Management Guidelines of 2007.

Potential impacts to migratory birds are noted in Section 3.3.2.2 and could include collisions with trains, loss of habitat, habitat fragmentation, and barriers to movement.

3.4 HUMAN ENVIRONMENT

The following resource topics are evaluated in this section:

- Transportation
- Community and Land Use
- Cultural Resources
- Parks and Recreation
- Section 4(f) Resources
- Hazardous Materials and Waste
- Aesthetic Environment and Scenic Resources

Appendix D4, "Human Environment" provides supplemental information to support the human environment analysis.

3.4.1 Transportation

The proposed Project would follow state and local regulations regarding traffic detours during construction. The affected environment includes the existing rail traffic, at-grade railroad to highway crossings, parallel highways, and a pedestrian bridge. Traffic patterns and delay were evaluated qualitatively for proposed Project construction and quantitatively for proposed Project operation.

3.4.1.1 Affected Environment

Eight daily round-trip passenger trains are in the corridor (seven HSR trains plus the Texas Eagle train). Freight service is five trains per day, which is expected to grow to 11 trains per day based on growing markets.

Eight at-grade crossings currently exist in the proposed Project study area:

- Mississippi Street (MP 45.77) connects the east and west sides of Elwood.

- Hoff Road (MP 46.64) connects Abraham Lincoln National Cemetery to IL-53.
- Joliet Arsenal Road, a private road (MP 46.82), connects rural land associated with MNTP to IL-53.
- Damien Mills Road (MP 49.91) primarily connects a wayside industry (grain bins) to IL-53.
- River Road (MP 51.46) passes through MNTP and DPSFWA along the north end of Wilmington.
- Stripmine Road (MP 53.42), along the northern edge of Hitts Prairie, connects rural residential development to IL-53.
- Coal City Road (MP 54.85), along the southern end of Hitts Prairie, connects rural development north of Braidwood.
- A single grade-separated crossing, a pedestrian bridge (Iron Bridge), which serves Henslow Trail within MNTP.

IL-53 (Alternate Route 66) is along the east side of the railroad for approximately 2 miles south of Elwood and 2 miles south of Wilmington. Pace Bus Route 511 serves the CenterPoint Intermodal Center through the Mississippi Street at-grade crossing in Elwood during the morning and afternoon shift periods. Table 3-7 identifies the 2019 highway average annual daily traffic volumes.

Table 3-7.Existing Transportation Infrastructure (2019)

ROADWAY	RELATION TO TRACKS	TRAFFIC (ADT)	TRUCKS	PERCENTAGE TRUCKS
Mississippi Street	At-grade crossing	6,350	295	5%
Hoff Road	At-grade crossing	725	13	2%
Joliet Arsenal Road	At-grade crossing	Private crossing; no annual average daily traffic recorded.		
Damien Mills Road	At-grade crossing	Industry crossing; no annual average daily traffic recorded.		
River Road	At-grade crossing	6,850	2,625	38%
Stripmine Road	At-grade crossing	4,900	435	9%
Coal City Road	At-grade crossing	2,300	295	13%
IL-53 (Alternate Route 66)	Parallel route	6,550	950	15%
IL-53	Parallel route	5,550	375	7%

3.4.1.2 Environmental Consequences

Construction: During construction, each public at-grade crossing would be closed while installing the second track at the crossing. The construction contractor would coordinate the timing of public crossing closures with the Village of Elwood, City of Wilmington, City of Braidwood, and the Abraham Lincoln National Cemetery to minimize impacts to traffic flow across the tracks. Detours to alternate crossings would be marked.

At the private crossings, temporary full crossing closures would either not occur or be brief and infrequent since there is no alternate access to the property served. The timing of any full closures would be coordinated with the property owner. During construction, full or partial closures of the Mississippi Street crossing would be coordinated with the Elwood Fire Protection District, because this crossing is the primary route to the east side of Elwood for emergency vehicles (fire and medical).

Operations: There would be no transportation impacts or travel benefits with the No-Build Alternative. The No-Build Alternative would not increase future passenger-rail ridership or reduce automobile travel since track capacity and track condition to provide for reductions in rail travel times and increased service reliability would not be improved. The No-Build Alternative would also not allow for growth in the number of passenger trains. The No-Build Alternative would not meet the purpose and need set forth by the 2012 HSR Program Tier 1 FEIS to which the proposed Project contributes.

With the HSR Program assessed in the 2012 Tier 1 FEIS, passenger-rail ridership would grow to account for 2.8 percent of all trips between Chicago and St. Louis in 2030 compared to 1.7 percent with the existing condition. Passenger-rail travel time between Chicago and St. Louis would be between 3 hours 51 minutes and 4 hours 10 minutes, or an average of 4 hours with greater reliability with the build alternatives. As documented in the 2012 Tier 1 FEIS, the HSR Program could result in an additional 39 minute travel time savings for express trains compared to the 4 hour 39 minute travel time with the No-Build Alternative. The current travel time for passenger trains from the Chicago terminal to the St. Louis terminal is 5 hours 32 minutes.

Both build alternatives would contribute to the benefits of the HSR Program and meeting this proposed Project's and the HSR Program's purpose and need, including the need to reduce automobile travel by improving track capacity and track condition to reduce rail travel times and increase service reliability. The proposed Project would reduce travel times by 19 minutes compared to current Amtrak schedules. The build alternatives would increase passenger train frequency to 9 round trips per day. Overall traveler safety in the HSR Program corridor would increase because travelers would divert from automobile to rail since rail is a safer mode of travel (see 2012 Tier 1 EIS and ROD).

At-grade crossings for both build alternatives for Mississippi Street, Hoff Road, and Coal City Road would move the four-quadrant gates and adjust the road approach to accommodate the second track. A second track would be added at the private crossings for both build alternatives. For these two crossings, the Joliet to Dwight Track Improvement Project has already completed the grading, signal placement, and track panels for the second track.

The No-Build Alternative would not affect any at-grade crossings.

For all alternatives, crossing gates will activate 80 seconds before a train reaches the crossing. For the build alternatives, the additional seven passenger trains would increase the time that a crossing is blocked by approximately 11 minutes per day, split among the passenger trains passing through at different times of day.

The build alternatives would have no permanent impacts to vehicular traffic patterns or changes to access. No accommodation for bicycles or pedestrians would be affected. There would be no displacements of public parking spaces with either the No-Build or the build alternatives.

Appendix D4, "Human Environment – Transportation" shows a detailed review of potential transportation impacts.

3.4.2 Community and Land Use

The proposed Project was reviewed for compatibility with local and regional land use plans, community service interruption, and impacts to special land uses. The affected environment includes multiple municipalities, unincorporated areas, Section 4(f) resource properties, and special lands. Impacts are reported qualitatively for community impacts and quantitatively where applicable for right-of-way acquisition and special lands.

3.4.2.1 Affected Environment

The proposed Project study area passes through Elwood, Wilmington, and north of Braidwood. The zoning in the proposed Project study area is agricultural, residential, commercial, and industrial, and includes zoned federal land (Abraham Lincoln National Cemetery).

The Village of Elwood's Comprehensive Plan states several goals, which include maintaining a well-balanced village environment and balanced transportation system that provides for the safe and efficient movement of people and goods by all modes of transport.

The City of Wilmington Comprehensive Plan states several goals, which include creating a responsible land use composition and supporting public transportation systems, including HSR, Pace Suburban Bus, and Metra.

Residential neighborhoods are on either side of the railroad; however, no residential neighborhoods extend across the tracks. Several large cultural, ecological, and recreational land uses that are Section 4(f) resources are in the proposed Project study area. They include the Dale and Frances Archer Memorial Park (Village of Elwood), Abraham Lincoln National Cemetery (National Cemetery Administration), MNTP (USFS), DPSFWA (IDNR), and Hitts Siding Nature Preserve (IDNR). Additionally, the proposed Project study area runs adjacent to a portion of historic IL-53 (Alternate Route 66). Section 3.4.4 and Section 3.4.6 assess these resources separately.

Special lands include INAI sites (including Illinois Nature Preserves) and Illinois Open Space Lands Acquisition and Development Act sites. No Illinois Open Space Lands Acquisition and Development Act sites are in the proposed Project study area. INAI sites in the proposed Project study area include:

- The Joliet Army Ammunition Plant INAI site is east and west of the UPRR tracks within the MNTP and is 5,741 acres. The Joliet Army Ammunition Plant is classified as having suitable habitat for state-listed species or state-listed species relocations.
- The Hitts Siding Prairie INAI site and Land and Water Reserve is northwest of the UPRR between Stripmine Road and Coal City Road and is 346 acres. The Hitts Siding Prairie is classified having high-quality natural community and natural community restoration sites and contains Hitts Siding Prairie Nature Preserve.
- The Hitts Siding Prairie Nature Preserve and INAI site is separated from the UPRR right-of-way by a utility parcel owned by Commonwealth Edison, and the nature preserve is outside of the build alternatives.

The following INAI sites are in Forked Creek, but are outside of the proposed Project study area:

- The Kankakee River INAI site
- The Wilmington Geological Area INAI site

There is also a large gas line owned by Nicor that runs parallel to the UPRR right-of-way through much of the project area. The distance between the gas line and mainline track varies depending on location.

Appendix D4, "Human Environment - Community and Land Use" discusses types of Special Lands and D6, "Section 4(f) Evaluation" discusses Section 4(f) impacts.

3.4.2.2 Environmental Consequences

No-Build Alternative

The No-Build Alternative would not affect the neighboring communities or their land use. The No-Build Alternative would not support the transportation planning goals set forth by the Village of Elwood, which aims to improve traveler safety and improvements to Mississippi Street downtown, or the City of Wilmington goals that include promoting the public transportation development.

There would be no displacements or other direct impacts to the community services or facilities in Elwood, Wilmington, or Braidwood with the No-Build Alternative.

Build Alternatives

Table 3-8 summarizes project impacts to INAI sites. Acquisition of right-of-way and easements would be primarily strips of land along the railroad that would be required for grading and drainage along the existing corridor and would not result in a notable change to the surrounding properties.

Table 3-8.Impacts to Illinois Natural Areas Inventory Sites

PROPERTY	SIZE (acres)	OWNER	BUILD ALTERNATIVE 1B (acres)	BUILD ALTERNATIVE 2A (acres)
Joliet Army Ammunitions Plant INAI Site[1]	5,741	IDNR	3.4 (temporary) 4.8 (permanent)	4.8 (temporary)
Kankakee River INAI Site	-	IDNR	0.0	0.0
Wilmington Geological Area INAI site	-	IDNR	0.0	0.0
Hitts Siding Prairie Nature Preserve (within Hitts Siding Prairie INAI site)	261	IDNR	0.0	0.0
Hitts Siding Prairie INAI Site	346	N/A	0.05 (grading permit, IL-53) 1.72 (temporary, utility parcel)	0.05 (grading permit, IL-53) 1.72 (temporary, utility parcel)

[1] Hitts Siding Prairie INAI Site extends into existing railroad right-of-way. The table reports impacts outside existing railroad right-of-way only.

The Joliet Army Ammunition Plant INAI site would have 3.4 acres of temporary impacts and 4.8 acres of permanent impacts for Build Alternative 1B, which includes graded side slopes. The Joliet Army Ammunition Plant INAI site would have 4.8 acres of temporary impacts for Build Alternative 2A .

The Hitts Siding Prairie INAI site would be affected equally by the two build alternatives. Approximately 16 acres of the Hitts Siding Prairie INAI site that is within existing railroad right-of-way would be affected by both build alternatives. Both build alternatives would require 1.72 acres of proposed right-of-way in utility parcels (owned by Commonwealth Edison) and 0.05 acre of highway grading permit in the IL-53 right-of-way (State of Illinois). The Hitts Siding Prairie INAI site impacts would not affect Hitts Siding Nature Preserve.

Residential, industrial, commercial, and park space comprise the remainder of the land use types in the proposed Project study area. Two residential detached garages that currently encroach on UPRR right-of-way would be removed in Elwood for both build alternatives. There would be no business impacts as a result of loss of parking and/or change in access for either build alternative.

The build alternatives would be consistent with the surrounding communities' comprehensive plans and would not affect community cohesion. Existing grade crossings would remain open, and no community facilities or services would be affected.

There would be no displacement or other direct impacts to the community services or facilities in Elwood, Wilmington, or Braidwood with the build alternatives. The proposed Project would not result in a notable change to the surrounding community and existing land use except for a visual change along IL-53 (Alternate Route 66) (see Section 3.4.7, "Aesthetic Environment and Scenic Resources").

No alteration to the existing street grid, except for short-term, temporary closures, would occur during construction; these temporary closures would be minimal. In some cases, temporarily diverting traffic to adjacent crossings would be required, which would affect emergency and school bus services that must cross the tracks. (See Appendix D4, "Human Environment – Transportation" for discussion of vehicular traffic impacts.)

Both build alternatives would avoid impacting the Nicor gas line. Build Alternative 1B would require retaining walls in some locations to avoid impacting the gas line. Build Alternative 2A has retaining walls near the UPRR ROW that protect the gas line from impacts associated with the project improvements.

Right-of-way acquisition will comply with the Uniform Relocation Assistance and Real Property Acquisition Act of 1970 (42 USC § 4601 et seq.), as amended, and the USDOT implementing regulations (49 CFR Part 24). The Act applies to all federal or federally assisted activities that involve acquiring real property or displacing residences or

business. Tables of the impacted parcels for Alternatives 1B and 2A are included in Appendix D4 (see tables D4-1 and D4-2). Alternative 1B and 2A affect 56 and 85 street addresses, respectively. The land for new ROW, temporary easements, or permanent easements is generally unused today. Within MNTP, the required ROW and easements are on land that is not developed. The land contains a variety of natural resources and species habitats which are discussed in later subsections. The design plans included in Appendix A show the locations of the right-of-way acquisition needs in relation to the proposed designs. Compatibility with existing land uses is often tied to other effects. (See Section 3.2.1 for air quality, Section 3.2.4 for noise and vibration, Section 3.4.1 for transportation, and Section 3.4.5 for Section 4(f) resources.)

3.4.2.3 Conformance with 2002 Prairie Management Plan

This EA conforms to the 2002 MNTP Land and Resource Management Plan (Prairie Plan) EIS. The Prairie Plan provides broad, program-level direction for management of National Forest System (NFS) lands and resources. As directed by US Forest Service regulations at 36 CFR 219.13, forest plans can be amended as needed to accommodate situations in specific project decisions or to reflect changes in social, economic, or ecological conditions. The proposed Project would result in changed conditions that are consistent with existing Prairie Plan direction. Approval of the proposed Project, therefore, would not require a project-specific Prairie Plan amendment to modify one or more plan components, such as standards and guidelines.

3.4.3 Cultural Resources

Section 106 of the National Historic Preservation Act of 1966, as amended (54 USC § 306108) requires federal agencies to consider the impacts of their undertakings on historic architectural and archaeological resources that are either listed in or eligible for inclusion in the National Register of Historic Places (NRHP) (36 CFR Part 800). Under Section 106, federal agencies must provide the public with information about a project and its effect on historic properties and seek public comment and input unless confidentiality is considered necessary (as specified in 36 CFR Parts 800.2 and 800.3).

3.4.3.1 Affected Environment

The Illinois Historic Preservation Agency created the Historic and Architectural Resources Geographic Information System in 2002 from the Illinois Historic Structures Survey (1971 to 1975) and the Illinois Historic Landmarks Survey. IDOT reviewed the GIS to determine if any historic resources are within the proposed Project's area of potential effect (APE). One NRHP-listed property is within the APE: IL-53 (Alternate Route 66), Wilmington to Joliet. One NRHP-eligible property is within the APE: Abraham Lincoln National Cemetery. IDOT's cultural resources staff reviewed a photographic log of buildings, bridges, and unique culverts that could be older than 50 years within the APE. None of the structures identified in the APE were older than 50

years and none were potentially eligible for listing in the NRHP. (Appendix A, "Environmental Map Set" shows the APE and Appendix D4, "Human Environment - Cultural Resources" provides detailed descriptions of these resources.) A review of Historic and Architectural Resources Geographic Information System on April 14, 2023 did not identify additional resources eligible for listing in the NRHP.

Archaeological Resources

The Illinois State Archaeological Survey completed an archaeological survey and identified 11 archaeological sites within the APE, none of which warrant NRHP consideration because they lack information potential and clear association with significant historical events. No further evaluation of these sites was recommended; therefore, no NRHP-listed or eligible archaeological resources were identified in the APE for the proposed Project.

The Abraham Lincoln National Cemetery and IL-53 (Alternate Route 66) are also Section 4(f) properties listed as historic sites of national significance. Both are in public ownership. (Section 3.4.5 and Appendix D4, "Human Environment" describe Section 4(f) and how it is applied to these resources.)

Abraham Lincoln National Cemetery

The cemetery lies in the northwestern area of the former Joliet Army Ammunition Plant, approximately 50 miles south of Chicago at 20953 W. Hoff Road in Elwood, IL. The cemetery is 982 acres (Appendix D4, "Human Environment - Cultural Resources" shows its boundaries). The US Department of Veterans Affairs, National Cemetery Administration owns and operates the cemetery.

The cemetery is a Section 4(f) resource as a historic site of national, state, and local significance. It is eligible for the NRHP under Criteria A and C as a historic district. (Appendix D4, "Human Environment" provides a description of Section 4(f) and how it is applied to the cemetery.)

IL-53 (Alternate Route 66), Wilmington to Joliet

Located in Will County, IL-53 (Alternative Route 66) extends 2.7 miles along the east edge of the UPRR right-of-way in the proposed Project study area from the now closed Walter Strawn Drive to south of Joliet Arsenal Road.

IL53 (Alternate Route 66) was listed in the NRHP (Reference Number 06000381) in March 2006 under Criterion A for its association with early and mid-20th century transportation and economic developments in Illinois, and under Criterion C as an excellent example of early and mid-20th century road engineering as reflected by its

1926 two-lane and 1945 four-lane sections. The FHWA designated IL53 (Alternate Route 66) in 2005 as a National Scenic Byway under the National Scenic Byways Program.

3.4.3.2 Environmental Consequences

No-Build Alternative

The No-Build Alternative would have no effect on the Abraham Lincoln National Cemetery or IL-53 (Alternate Route 66).

Build Alternatives

Build Alternative 1B would require 0.5 acre of permanent easement and 6.1 acres of temporary construction easement within the Abraham Lincoln National Cemetery. Build Alternative 2A would require 0.3 acre of permanent easement and 3.6 acres of temporary construction easement within the Abraham Lincoln National Cemetery. No existing or planned cemetery facilities would be affected. The build alternatives would not alter, directly or indirectly, the characteristics of the Abraham Lincoln National Cemetery that qualify it for inclusion in the NRHP and would cause no adverse effect to the property. The Illinois State Historic Preservation Office (SHPO) concurred on the Section 106 finding of effect on April 17, 2020. Under Section 4(f), FRA made a de minimis finding.

Build Alternative 1B and Build Alternative 2A have differing improvements near IL-53 (Alternative Route 66) and, therefore, would have different effects on IL-53 (Alternate Route 66), as described below.

Build Alternative 1B includes four grading easements within the IL-53 (Alternate Route 66) right-of-way. The total easement area would be 0.6 acre, located entirely within the NRHP boundary of IL-53 (Alternate Route 66). The temporary grading easement would be the IDOT permit needed to build access to the proposed maintenance access road and would not require a permanent use of IL-53 (Alternate Route 66). FRA made a finding of No Adverse Effect for Build Alternative 1B, which the Illinois SHPO concurred on April 17, 2020.

Build Alternative 2A would include a continuous 8.0-acre easement within the IL-53 (Alternate Route 66) right-of-way. The grading permit would be required for grading sections, constructing guardrail, retaining walls, or performing culvert work along the entire NRHP boundary of IL-53 (Alternate Route 66) where it abuts the UPRR right-of-way for approximately 11,040 feet.

FRA made a Section 106 Adverse Effect finding for Build Alternative 2A on account of visual effects caused by the alternative. The SHPO concurred with the finding on April 17, 2020. The cut and/or fill locations along the railroad alignment, including the

retaining walls, would diminish the setting, feeling, and association important to the significance of IL53 (Alternate Route 66). (See Appendix D4, "Human Environment - Cultural Resources" for additional detail and the Section 106 Report.)

3.4.4 Parks and Recreation

IDOT identified parks through a database search and coordination with the local communities. The affected environment includes local, state, and federally owned parks. Impacts are reported qualitatively for community impacts during construction and quantitatively where applicable, for right-of-way acquisition and noise.

3.4.4.1 Affected Environment

Three public park and recreation areas are in the proposed Project study area:

- Dale and Frances Archer Memorial Park (Archer Park)
- MNTP
- DPSFWA

There are no private park and recreation areas.

Archer Park is used as a disc golf course and includes a walking path. The disc golf course and walking path will not be impacted by the build alternatives. (See Appendix D4, "Human Environment - Parks and Recreation" for additional details on Archer Park.)

No park equipment facilities are within 500 feet of the UPRR in MNTP or DPSFWA. The Henslow Trail in MNTP crosses the railroad via the Iron Bridge. MNTP and DPSFWA also have a habitat and wildlife management function (as discussed in Section 3.3, "Ecological Systems," Appendix D2, "Ecological Systems - Wildlife Resources," and Appendix D4, "Human Environment - Parks and Recreation"). MNTP has a visitors center east of IL-53. The entrance to the visitors center is approximately 1,350 feet east of the proposed UPRR right-of-way.

3.4.4.2 Environmental Consequences

No-Build Alternative

The No-Build Alternative would not affect park or recreation facilities.

Build Alternatives

Construction: Construction activities would be coordinated with park and recreation facility owners and would not limit public access to MNTP, DPSFWA, or MNTP visitors center or trails. There would be short-term disruptions to the Henslow Trail within

MNTP during construction. Access to the MNTP visitors center would be unaffected during construction.

Operations: The build alternatives would retain or relocate the existing fence along the UPRR right-of-way, preventing direct access to the UPRR right-of-way from the park and maintaining this safety feature for park users.

Under the build alternatives, Henslow Trail via the Iron Bridge would be left in place. The MNTP visitors center would be untouched.

Both build alternatives would contribute additional passenger train noise, an increase in passenger train speed, and shifts in track location. IDOT analyzed noise levels in Archer Park for the build alternatives. Although the build alternatives would change noise levels in Archer Park, the change would not be notable because it would be 3 dB(A) at most, which is barely perceptible to listeners. Additionally, freight traffic noise would dominate the noise environment and would not change because of the proposed Project.

3.4.5 Section 4(f) Resources

This section summarizes impacts to resources protected under Section 4(f). Section 4(f) requirements apply to all transportation projects that require funding or other approvals by USDOT, including FRA. Section 4(f) requires consideration of the following:

- Parks and recreational areas of national, state, or local significance that are both publicly owned and open to the public.
- Publicly owned wildlife and waterfowl refuges of national, state, or local significance that are open to the public to the extent that public access does not interfere with the primary purpose of the refuge.
- Historic sites of national, state, or local significance in public or private ownership, regardless of whether they are open to the public.

Section 3.4.2 discusses other special lands, including INAI and Illinois Open Space Lands Acquisition and Development Act sites. (Appendix D6, "Section 4(f) Evaluation" provides a Draft Section 4(f) evaluation for the proposed Project.) The information that follows is a summary of that appendix.

3.4.5.1 Affected Environment

Five Section 4(f) resources are in the proposed Project study area (see Exhibit 3-2). The boundaries of the five resources adjoin the existing UPRR right-of-way. Table 3-9 shows the resources in the proposed Project study area as well as their sizes, the Official with Jurisdiction (OWJ), and the type of approval anticipated for each build alternative. The Final Section 4(f) determinations will be made in the NEPA decision document.

Exhibit 3-2. Project Study Area Section 4(f) Resources

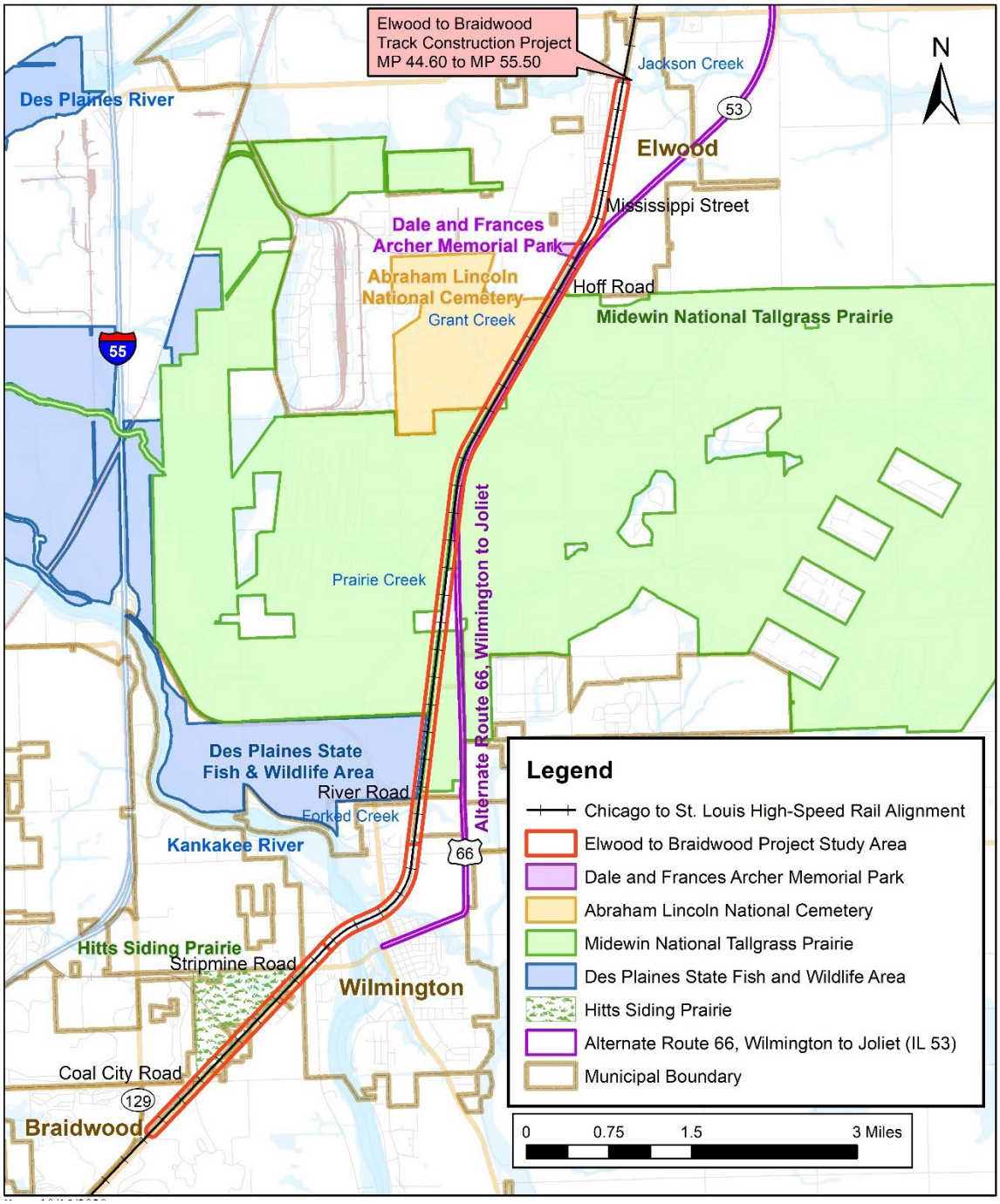


Table 3-9. Section 4(f) Resources

SECTION 4(F) RESOURCE	TOTAL PROPERTY SIZE	OFFICIAL WITH JURISDICTION	TYPE OF SECTION 4(F) PROPERTY	PROPOSED SECTION 4(F) CONCLUSION
Dale and Frances Archer Memorial Park in Elwood, Illinois (Archer Park)	18 acres	Village of Elwood	Walking/running trail Open/green space	Build Alternative 1B: No Use Build Alternative 2A: No Use
IL-53 (Alternate Route 66), Wilmington to Joliet	NRHP-listed IL-53 (Alternate Route 66) is 15.9 miles in length	Illinois Historic Preservation Agency/SHPO	Historic property listed in the NRHP	Build Alternative 1B: *De minimis* Build Alternative 2A: Use
Abraham Lincoln National Cemetery (ALNC)	982 acres	Illinois State Historic Preservation Office (SHPO)	All national cemeteries are considered eligible for the NRHP as a historic district regardless of age	Build Alternative 1B: *De minimis* Build Alternative 2A: *De minimis*
MNTP	18,225 acres	USFS	Wildlife refuge Public recreation area.	Build Alternative 1B: Use Build Alternative 2A: Use
DPSFWA	4,950 acres	IDNR Division of Land8 Management	Public recreation area	Build Alternative 1B: *De minimis* Build Alternative 2A: *De minimis*

3.4.5.2 Environmental Consequences

No-Build Alternative

The No-Build Alternative would avoid all impacts to and use of Section 4(f) resources. Under this alternative, routine maintenance would occur, but there would be no changes to the existing rail infrastructure.

Build Alternatives

Table 3-10 summarizes the Section 4(f) properties discussed above as well as the Section 4(f) use types and anticipated approvals.

Table 3-10 Section 4(f) Use for Each Resource by Project Alternative

SECTION 4(F) PROPERTY	BUILD ALTERNATIVE	TYPE OF SECTION 4(F) USE		PROPOSED SECTION 4(F) CONCLUSION
		PERMANENT USE (ACRES)	TEMPORARY USE (ACRES)	
Dale and Frances Archer Memorial Park	1B	0.0	0	*No Use*
	2A	0.0	0	*No Use*
IL 53 (Alternate Route 66), Wilmington to Joliet	1B	0	0.6	*De minimis*
	2A	0	8.0*	Use
MNTP	1B	6.0**	3.5	Use
	2A	0	6.1	Use
DPSFWA	1B	0	0.9	*De minimis*
	2A	0	0.9	*De minimis*
ALNC	1B	0.5	6.1	*De minimis*
	2A	0.3	3.6	*De minimis*

*The temporary use of 8.0 acres of Route 66 and permanent incorporation of 6.0 acres of MNTP requires avoidance alternatives evaluation and least overall harm analysis.
**For temporary construction easements within the MNTP, prairie grasses or other vegetation that conforms to MNTP's Prairie Plan will be utilized

FRA considered three potential avoidance alternatives in the Draft Section 4(f) Evaluation:

- The Single-Track Alternative, consisting of the existing single track between Elwood and Wilmington and double track elsewhere. Several cultural and natural resources are between Elwood and Wilmington, of which the MNTP makes up 60 percent of neighboring property.
- The No-Build Alternative assumes that no changes are made to the area between Elwood to Braidwood. The existing single track remains.
- The Alternate Rail Corridor.

A review of these avoidance alternatives (detailed in Appendix D6, "Section 4(f) Evaluation") concludes that there is no feasible and prudent avoidance alternative.

Since there is no feasible and prudent avoidance alternative, FRA may approve only the alternative that causes the least overall harm to Section 4(f) properties. FRA performed a

least harm assessment for Build Alternative 1B and Build Alternative 2A (See Appendix D6).

Alternative 1B appears to be the Least Overall Harm Alternative. Alternative 2A appears to have greater relative severity of remaining harm to 4(f) properties due to the permanent visual obstruction of IL-53 (Alternate Route 66). In addition, the cost of Alternative 1B appears to be substantially less than that of Alternative 2A. The final determination will be made NEPA decision document.

3.4.6 Regulated Substances

A Final Preliminary Environmental Site Assessment (PESA) Report and a Draft PESA Report evaluated potential regulated materials within the proposed Project study area. The assessments included on-site field visits. The PESA reports were prepared in compliance with the Illinois State Geological Survey PESA Manual entitled, *A Manual for Conducting Preliminary Environmental Site Assessments for Illinois Department of Transportation Infrastructure Projects*.

3.4.6.1 Affected Environment

Within or adjacent to the proposed Project study area, both PESA reports identified 94 potential contamination sites. Of the 94 sites, 47 locations were identified with recognized environmental conditions (RECs), 30 other locations with *De minimis* conditions, and six locations with neither a REC nor *De minimis* condition. One of the listed RECs is within the UPRR right-of-way.

Generally, the areas of concern identified in the PESAs fall into the following categories:

- Industrial railroad use
- Potential former and or current use of chemicals
- Former above ground storage tank and underground storage tanks
- Potentially affected soils and/or presence of monitoring wells
- Potential former and current use of environmentally sensitive chemicals
- Landfill, former dumping, and natural gas pipeline
- Potential drums, batteries, surficial stains, and solid waste
- Possible presence of asbestos-containing materials and lead-based paint

3.4.6.2 Environmental Consequences

No-Build Alternative

The No-Build Alternative would have no new impacts on potential contamination sites.

Build Alternatives

Both build alternatives would affect 16 of the 47 REC sites, one of which is the existing railroad right-of-way. The build alternatives would have the same calculated impact for 13 of the sites, making up 4.84 acres of the proposed right-of-way, permanent easement, temporary construction easement, and grading permits needed. (Appendix D4, "Human Environment - Regulated Substances" provides descriptions of the 47 REC sites and a corresponding map.)

The build alternatives would have varied right-of-way needs for four sites:

- Railroad right-of-way and adjacent properties
- A farmland/vacant lot
- An undeveloped property
- Trailer sales and storage

The farmland/vacant lot and undeveloped property are within MNTP, which has a pipeline crossing the site identified as the REC. To accommodate the maintenance access road within the UPRR right-of-way for Build Alternative 1B, an additional temporary construction easement would be required from the trailer sales and storage site.

In addition to the existing railroad right-of-way, Build Alternative 1B would affect 23.89 acres and Build Alternative 2A would affect 24.91 acres for proposed right-of-way, permanent easement, temporary construction easement, and grading permits.

Both build alternatives would remove two residential detached garages in Elwood. The presence or absence of asbestos-containing material or lead-based paint would be determined during a pre-demolition building survey.

3.4.7 Aesthetic Environment and Scenic Resources

This section describes the existing visual environment of the proposed Project study area and identifies changes to visual characteristics for viewers resulting from the build alternatives. Aesthetic and visual resources are natural and cultural landscape features that people see and that contribute to the public's enjoyment of the environment. The 2012 Tier 1 FEIS assessed visual resource impacts using the FHWA guidance, *Visual Impact Assessment for Highway Projects*. In the 2012 Tier 1 FEIS, the overall impacts to the aesthetic environment and scenic resources for the build alternatives in Will County

were generally found to be minor/negligible. IDOT used the same FHWA guidance in assessing the build alternatives.

IDOT used FHWA guidance to define landscape units in the proposed Project study area that are visually distinct resources. Landscape units are defined by their visual characteristics and visual quality and analyzed based on whether views *of* the proposed Project and *from* the proposed Project would be affected by the build alternatives.

3.4.7.1 Affected Environment

The proposed Project study area starts south of Jackson Creek (MP 44.6) in Elwood and ends south of Coal City Road (MP 55.5) north of Braidwood. The 2012 Tier 1 FEIS indicates that the proposed Project study area is in the Grand Prairie landscape region, which has a variety of visual types. The proposed Project study area is in Elwood, Wilmington, and just north of Braidwood, which are rural communities between Chicago and St. Louis. The proposed Project study area contains the existing single-track railroad, which passes through residential, industrial, and commercial areas; several reserved natural and wildlife areas (described within the landscape units listed below); Abraham Lincoln National Cemetery; and Historic Route 66. (Appendix D5, "Historic Property Identification and Effects Assessment Report" provides additional detail about the FHWA visual assessment by landscape units.)

3.4.7.2 Environmental Consequences

No-Build Alternative

There would be no change to existing views or visual quality with the No-Build Alternative.

Build Alternatives

The build alternatives generally would include track construction to accommodate double tracks (with associated widening of existing embankments and cuts with loss of existing vegetation) and new right-of-way fencing as components that would change existing views. The two build alternatives have different design characteristics in landscape and have different visual impacts from Hoff Road to River Road (see Exhibit 3-3).

Between Hoff Road and River Road, the fill location for Build Alternative 1B would not involve retaining walls, and it would be on the west side of the existing tracks as it slopes down; therefore, the fill location would not be visible from IL-53 (Alternate Route 66). Generally, the visual impact would be considered negligible given that the vertical elements of the UPRR track would not change and that viewers would be either at a long distance or few.

Build Alternative 2A would include 13,300 feet of discontinuous retaining walls on both sides of the UPRR right-of-way where it is parallel to IL-53 (Alternate Route 66). The resulting loss of existing vegetation, coupled with the area's flat topography, would lead to highly visible retaining walls where none exist. These new visual and atmospheric elements would change the views between the railroad and IL-53 (Alternate Route 66).

Build Alternative 2A would be developed through continued coordination with SHPO and Section 106 consulting parties to resolve the adverse effect by seeking ways to minimize or mitigate the effects in accordance with the existing HSR Programmatic Agreement. (See Appendix D5, "Historic Property Identification and Effects Assessment Report" for additional information.)

Exhibit 3-3.Build Alternatives (Elwood to Wilmington)

BUILD ALTERNATIVE 1B
RENDERING BETWEEN HOFF ROAD AND RIVER ROAD

BUILD ALTERNATIVE 2A
RENDERING BETWEEN HOFF ROAD AND RIVER ROAD

3.5 SECONDARY AND CUMULATIVE IMPACTS

This section covers the secondary (or indirect) and cumulative impacts associated with the proposed Project. Appendix G includes a more detailed discussion on these topics. Secondary or indirect effects may occur if a project changes the extent, pace, and/or location of development and if this change in turn affects environmental resources. Induced growth type indirect effects are changes in the location and/or magnitude of future development attributed to changes in accessibility caused by the transportation project. Encroachment-alteration secondary/indirect effects are physical, chemical or biological changes in the environment because of the project removed in time or distance from the direct effects.

Cumulative impacts are those impacts on the environment which results from the incremental consequences of actions related to the build alternatives when added to other past, present, and reasonably foreseeable future actions. The intent of the cumulative impacts analysis is to determine the magnitude and significance of cumulative effects, both beneficial and adverse, and to determine the contribution of the proposed action to those aggregate effects.

The indirect and cumulative impacts would be similar for the build alternatives. As discussed in Appendix G, the build alternatives would not result in indirect adverse effects generated by induced or secondary growth. Encroachment-alteration secondary/indirect effects would be minor and associated with changes in the environment such as impacts to species habitat and waters of the United States.

The build alternatives when added to other past, present, and reasonably foreseeable future actions would not have the potential to result in significant adverse cumulative impacts. The alternatives would not have the potential to induce development and therefore would not result in any significant adverse cumulative secondary impacts related to induced growth.

A summary of indirect impacts and cumulative impacts for the build alternatives are summarized in Table 3-11.

Table 3-11. Indirect Impacts and Cumulative Impacts for the Build Alternatives

Resource	Secondary/Indirect Impacts	Cumulative Impacts
Air Quality	The mode shift away from autos would result in fewer cars on local roads and marginally less congestion resulting in a positive impact on air pollution.	The Project's positive contribution to air quality would improve cumulative conditions over what they would be without the Project.
Floodplains	Indirect impacts could include floodplain degradation because of point source and nonpoint source pollution. UPRR mitigation measures and best management practices (BMPs) will help to mitigate possible direct and indirect impacts to floodplains.	No adverse cumulative impact. All permanent impacts to floodplains by non-project related future actions would be mitigated according to applicable regulations.
Surface Water	Indirect impacts could include potential surface water degradation because of point source and nonpoint source pollution. UPRR mitigation measures and best management practices (BMPs) will help to mitigate possible direct and indirect impacts to surface waters.	No adverse cumulative impact. All permanent impacts to surface waters by non-project related future actions would be mitigated according to applicable regulations.
Noise and Vibration	No indirect impacts are anticipated.	No adverse cumulative impact.
Vegetation and Habitat	Indirect impacts could include potential vegetation and habitat degradation because of point source and nonpoint source pollution. UPRR mitigation measures and best management practices (BMPs) will help to mitigate possible direct	No adverse cumulative impact. All permanent impacts to vegetation and habitat by non-project related future actions would be mitigated according to applicable regulations.

	and indirect impacts to vegetation and habitat.	
Wildlife Resources	Indirect impacts to vegetation and habitat could impact wildlife. If BMPs are followed, no adverse indirect impacts to wildlife should occur. UPRR mitigation measures and best management practices (BMPs) will help to mitigate possible direct and indirect impacts to wildlife resources.	The build alternatives would result in minor habitat fragmentation or create additional forest edges since it would follow an existing railroad corridor. All permanent impacts to wildlife by non-project related future actions would be mitigated according to applicable regulations.
Waters of the U.S., including wetlands	Indirect impacts could include potential wetland degradation, because of point source and nonpoint source pollution. The indirect impacts of wetland fill in the Project study area could result in associated changes to the overall size of the wetland, hydrology, cover type, species assemblage, or degree of habitat fragmentation. These effects would be limited since the project follows an existing railroad corridor. UPRR mitigation measures and best management practices (BMPs) will help to mitigate possible direct and indirect impacts to Waters of the U.S.	The requirement that wetlands be mitigated at higher ratios than what is impacted is reducing the overall loss of wetland resources and is slightly increasing wetland resources over time.
Threatened & Endangered Species	If BMPs are followed, no adverse indirect impacts to T & E should occur. All permanent impacts to T & E by non-project related future actions would be mitigated according to applicable regulations.	The build alternatives would result in minor habitat fragmentation or create additional forest edges since it would follow an existing railroad corridor.
Transportation	The project may result in marginal improvements to local roads due to a shift in travel to trains.	No adverse cumulative impact.
Community and Land Use	No indirect impacts are anticipated.	No adverse cumulative impact.
Cultural Resources	No indirect impacts are anticipated.	No adverse cumulative impact. All permanent impacts to cultural resources by non-project related future actions would be mitigated

		according to applicable regulations.
Parks and Recreation	No indirect impacts are anticipated.	No adverse cumulative impact.
Section 4(f)	No indirect impacts are anticipated.	No adverse cumulative impact.
Regulated Substances	If BMPs are followed, no adverse indirect impacts should occur.	No adverse cumulative impact. All permanent impacts to regulated substances by non-project related future actions would be mitigated according to applicable regulations.
Aesthetic Environment and Scenic Resources	No indirect impacts are anticipated.	No adverse cumulative impact.

4 Coordination and Approvals

4.1 COORDINATION

This chapter summarizes coordination efforts for the proposed Project (see Appendix F, "Scoping, Agency Coordination, and Public Involvement Materials.").

4.1.1 Agency Coordination

IDOT is the project proponent/sponsor, FRA is the NEPA lead federal agency, and there are five NEPA cooperating agencies. Since 2012, FRA and IDOT have coordinated with the following agencies on the proposed Project:

- USACE (Cooperating Agency since November 20, 2017)
- USEPA (Cooperating Agency since August 23, 2017)
- USFWS (Cooperating Agency since September 12, 2017)
- MNTP (Cooperating Agency since September 8, 2017)
- National Cemetery Administration (Cooperating Agency since April 4, 2024)
- US Department of the Interior
- USDA
- IDNR
- Illinois Department of Agriculture
- Illinois Environmental Protection Agency
- Illinois SHPO
- Illinois Natural History Survey
- Illinois State Geologic Survey
- Will County
- City of Wilmington
- Village of Elwood
- DPSFWA

FRA and IDOT have held quarterly meetings with environmental resource and regulatory agencies to discuss this proposed Project and others in preparation of the 2011 EA/FONSI, the 2012 Tier 1 FEIS, the 2014 Joliet to Dwight Categorical Exclusion, the 2015 Kankakee River EA, and this document. This proposed Project has been discussed at quarterly resource agency meetings between January 2014 and July 2016 with the following invitees: USACE, USEPA, USFWS, IDNR, Illinois Department of Agriculture, Illinois Environmental Protection Agency, Illinois SHPO, and MNTP.

Over 20 meetings have taken place with MNTP officials between 2013-2024 to discuss the design of the project, MNTP review of the project, the Section 4(f) analysis for the project, as well as project status updates.

Coordination and pre-application meetings have occurred between the project team and the USACE to discuss the permits that the project will eventually have to obtain prior to construction. These meetings were initiated in 2015, 2020, and 2024.

Conference calls with USFWS to discuss potential threatened and endangered species impacts with the proposed Project and the need for consultation or conferencing have occurred since 2015. Various coordination meetings and conference calls with the USACE, USEPA, IDNR, Illinois Natural History Survey, and Illinois State Geologic Survey representatives have taken place regarding natural and cultural resource surveys.

Development of a Programmatic Agreement with the Illinois Historic Preservation Agency (SHPO) occurred from March 2012 through January 2014 when the Programmatic Agreement was ratified, as well as discussions of historic and cultural resource survey findings and determinations of effect. There was also a 2017 amendment to the Programmatic Agreement.

The project team met with the Village of Elwood, ALNC, IDNR, and the Hitts Siding Superintendent between 2018 and 2024 to discuss their park resources and plans for development.

A new round of coordination with resource agencies and affected property owners began in 2024.

4.1.2 Public Meetings

This EA will be available for public review and comment for a period of 30 days. IDOT and FRA will conduct a public hearing during the 30-day public availability period. Details regarding the location and date will be posted in local publications and on the project website at https://www.idothsr.org/. FRA will consider all public and agency comments before making a decision.

Public open houses to discuss the Tier 1 HSR Program were held in March 2011, including one in Joliet, north of the proposed Project study area. In October/November of 2012, public meetings were held to discuss alternatives screening criteria for the HSR Program. Public hearings were held on the Tier 1 Draft EIS (DEIS) for the HSR Program in August 2012, including one in Joliet. A public review copy of the DEIS was placed in the Wilmington Public Library.

4.2 APPROVALS AND PERMITS

Implementation of the build alternatives would require the following approvals or permits:

- **Section 404 of the Clean Water Act** – Individual permit would likely be required. The UPRR would obtain the Section 404 permit.
- **Section 401 of the Clean Water Act**
- **Section 402 of the Clean Water Act NPDES permit** – UPRR's contractor would obtain coverage and prepare and implement a stormwater pollution prevention plan.
- **Permit for Construction in Floodways of Rivers, Lakes, and Streams** – UPRR's contractor would obtain this permit issued by the IDNR-OWR.
- **Section 7 of the Endangered Species Act of 1973**
- **Migratory Bird Treaty Act**
- **Bald and Golden Eagle Protection Act (BGEPA)** – FRA anticipates obtaining an Eagle Disturbance Take General Permit prior to construction.
- **Illinois Endangered Species Act Incidental Take Authorization** – IDOT would obtain this take authorization for state-listed species.
- **Air permits** –IDNR permit may be required for potential portable bituminous and concrete plants used in project construction.
- **Section 4(f) of the USDOT Act**

- **Special Use Permits** –For temporary or permanent land use in MNTP.

4.3 US FOREST SERVICE ADMINISTRATIVE REVIEW PROCESS

4.3.1 Pre-Decisional Objection Process

USFS decisions are subject to the pre-decisional administrative review process under 36 CFR §218 Subparts A and B. The objection process provides an opportunity to address public concerns that remain unresolved after the environmental analysis is complete and the draft decision notice has been released. Issuance of the Draft Decision Notice and publication of a legal notice will initiate a 45-day period during which the public or other organizations may file a pre-decisional objection. The opportunity to object ends 45 days following the date of publication of the legal notice. The publication date of the legal notice in the newspaper of record is the exclusive means for calculating the time to file an objection. It is the objector's responsibility to ensure timely filing of a written objection with the reviewing officer.

Objections will only be accepted from those who have submitted specific written comments regarding the proposed Project during a designated opportunity for public comment per 36 CFR 218.5. Issues raised in objections must be based on previously submitted timely, specific written comments regarding the proposed Project unless based on new information arising after designated comment opportunities 36 CFR §218.8(c). "Specific written comments" are within the scope of the proposed action, have a direct relationship to the proposed action, and must include supporting reasons for the responsible official to consider. The objection must contain the minimum content requirements specified in 36 CFR §218.8(d). Other eligibility requirements are identified at 36 CFR 218.25(a)(3) and include name, postal address, title of the project, identity of the individual or entity who authored the comments, and signature or other verification of identity upon request. Incorporation of documents by reference is permitted only as provided in 36 CFR §218.8(b).

This objection process only applies to USFS decisions.

All public comment and objections, including names and addresses of those who comment, will become part of the public record for this proposed Project and will be subject to review pursuant to the Freedom of Information Act.

5 Summary of Alternatives

Table 5-1 summarizes the environmental resource impacts of Build Alternative 1B (Preferred Alternative), and Build Alternative 2A.

Table 5-1 Differentiating Environmental Impacts of the Build Alternatives

RESOURCE	BUILD ALTERNATIVE 1B (PREFERRED ALTERNATIVE)				BUILD ALTERNATIVE 2A			
	Proposed Right-of-Way (acres)	Permanent Easement (acres)	IDOT Grading Permit (acres)	Temporary Construction Easement	Proposed Right-of-way (acres)	Permanent Easement (acres)	IDOT Grading Permit (acres)	Temporary Construction Easement
Physical Environment								
Right-Of-Way/ Easement Needs	16.0	0.5	1.0	11.5	10.7	0.3	8.5	11.1
Air Quality	Not a differentiator between the alternatives Compared to the No-Build Alternative, build alternative emission increases would not exceed the General Conformity *De minimis* thresholds, would not have insignificant local air quality impacts, and would have little or no change to MSATs.)							
Floodplains	2.0 acres floodplain affected		1.4 acres floodplain affected		1.1 acres floodplain affected		2.6 acres floodplain affected	
	Combined 10.2 acre-feet of fill volume at floodplain crossings				Combined 8.1 acre-feet of fill volume at floodplain crossings			
	Hydraulic studies would be completed during IDNR-OWR permitting to incorporate measures to avoid, minimize, and mitigate any flood height increase.							
Noise	Not a differentiator between the alternatives. The build alternatives are associated with four moderate and six severe noise impacts when considering the addition of freight to the existing noise levels.							
Vibration	Not a differentiator between the alternatives.							

RESOURCE	BUILD ALTERNATIVE 1B (PREFERRED ALTERNATIVE)				BUILD ALTERNATIVE 2A			
	Proposed Right-of-Way (acres)	Permanent Easement (acres)	IDOT Grading Permit (acres)	Temporary Construction Easement	Proposed Right-of-way (acres)	Permanent Easement (acres)	IDOT Grading Permit (acres)	Temporary Construction Easement
	The build alternatives would have one receptor with vibration impacts, to be minimized through UPRR and Amtrak maintenance procedures.							
Agricultural	11.6	0.5	0.4	10.5	6.3	0.2	8.0	10.6
Visual	Build Alternative 1B would have no notable change to views.				Build Alternative 2A would change historic views of the railroad from Alternate Route 66.			
Ecological Systems								
Vegetation: Prairies	2.15				2.45			
Vegetation: Forests	16.35 (permanent including in UPRR right-of-way)				16.8 (permanent including in UPRR right-of-way)			
Wildlife	Not a differentiator between the alternatives (similar wildlife impacts)							
Wetlands (Jurisdictional)	17.12		1.10		16.72		0.94	
Surface Water	Not a differentiator between the alternatives. The build alternatives cross four tributaries of the Des Plaines River and three tributaries of the Kankakee River.							
Grassland Bird Habitat	8.83 acres permanent impact 9.16 acres of temporary impact				3.72 acres permanent impact 8.43 acres of temporary impact			
Threatened and Endangered - Northern Long-Eared Bat	14.61 acres of suitable habitat				13.42 acres of suitable habitat			
T&E – Blanding's Turtle and Ornate Box Turtle	Not a differentiator between the alternatives.							
T&E – Eryngium Stem Borer Moth	Not a differentiator between the alternatives (similar habitat impacts). Each alternative would affect habitat for this species, and a small area of rattlesnake-master plants observed to have been occupied by the moth (approximately eight plant stems).							
T&E – Rusty Patched Bumble Bee (*Bombus Affinis*) (RPBB) High quality habitat	18.7				20.2			

RESOURCE	BUILD ALTERNATIVE 1B (PREFERRED ALTERNATIVE)				BUILD ALTERNATIVE 2A			
	Proposed Right-of-Way (acres)	**Permanent Easement (acres)**	**IDOT Grading Permit (acres)**	**Temporary Construction Easement**	**Proposed Right-of-way (acres)**	**Permanent Easement (acres)**	**IDOT Grading Permit (acres)**	**Temporary Construction Easement**
INAI Sites	Joliet Army Ammunition Plant INAI: 3.42 acres temporary impact and 4.8 acres permanent impact Hitts Siding INAI: 1.72 acres permanent impact and 0.05-acre temporary impact (approximately 16 acres of INAI site within UPRR right-of-way would be affected)				Joliet Army Ammunition Plant INAI: 4.8 acres temporary impact Hitts Siding INAI: 1.72 acres permanent impact and 0.05-acre temporary impact (approximately 16 acres of INAI site within UPRR right-of-way would be affected)			
Section 4(f) Findings	3 *De minimis* findings; 1 use greater than *de minimis*				2 *De minimis* findings; 2 uses greater than *de minimis*			
Human Environment								
Transportation	Not a differentiator between the alternatives. The build alternatives contribute to the transportation benefits of the HSR Program.							
Community and Land Use	Not a differentiator between the alternatives. The build alternatives would not have adverse impacts other than property acquisition. No residential or business relocations are anticipated. Two residential detached garages currently in the UPRR right-of-way would be removed in Elwood.							
Cultural Resources	No adverse impacts to historic properties				An adverse effect on IL-53 (Alternate Route 66)			
Parks and Recreation	Similarly affects DPSFWA compared to Build Alternative 2A. MNTP direct impacts include 3.5 acres of temporary easement and 6.0 acres of permanent easement or right-of-way.				Similarly affects DPSFWA compared to Build Alternative 1B. MNTP directly affects 6.1 acres of temporary easement only.			
Regulated Substances	16 REC sites affected (23.86 acres of non-railroad REC impact, 126.89 acres of UPRR REC impact)				16 REC sites affected (24.91 acres of non-railroad REC impact, 126.78 acres of UPRR REC impact)			
Other (Secondary and Cumulative) Impacts*								
Secondary Impacts	Not a differentiator between the alternatives.							
Cumulative Impacts	Not a differentiator between the alternatives.							

*Appendix G, "Secondary and Cumulative Impacts" contains a full discussion of the secondary and cumulative impacts.

6 Commitments and Mitigation

Table 6-1 provides an overview of the proposed mitigation measures and commitments for the proposed Project as identified in Chapter 3. Final mitigation will be provided in the NEPA decision document.

Table 6-1 Proposed Mitigation Measures for Alternatives 1B and 2A

Resources	Alternative 1B Mitigation Measures	Alternative 2A Mitigation Measures	Responsible Party
Air Quality	State and local regulations regarding dust control and other air quality emission reduction controls would be followed during construction. In addition, BMPs would be used prior to, during, and after construction for dust suppression.		UPRR
Floodplains	UPRR would obtain local floodplain permits prior to construction.		UPRR
Floodplains	The UPRR would design the proposed or modified drainage structures in floodplains that drain an area over one square mile—including Grant Creek, Prairie Creek, and Unnamed Tributary to Kankakee River—per the IDNR-OWR Part 3700 rules (or Statewide Permit No. 12, where applicable), and these drainage structures and track improvements would result in an acceptable change in the capacity of the floodplain to carry flood waters, per IDNR-OWR Part 3700 rules (or Statewide Permit No. 12, where applicable).		UPRR
Floodplains	The UPRR would complete hydraulic studies during final design as part of the IDNR-OWR permit process. The final design would incorporate design measures to avoid, minimize, and mitigate any flood height increase in accordance with the IDNR-OWR permit process.		UPRR
Surface Water	The UPRR would use appropriate BMPs prior to, during, and after construction as part of the soil erosion and sediment control plan for the proposed Project included in the Storm Water Pollution Prevention Plan (SWPPP). The UPRR would remove debris and spoil according to state and local regulations.		UPRR
Surface Water	Water well or cisterns directly impacted by the proposed project would be properly abandoned in accordance with Illinois Department of Public Health requirements to minimize potential		UPRR

Resources	Alternative 1B Mitigation Measures	Alternative 2A Mitigation Measures	Responsible Party
	groundwater contamination. If a dwelling with an affected water well or cistern would remain after construction, the associated water well would be replaced, or other suitable alternative provided. UPRR would construct the new water well such that susceptibility to surficial contamination would be minimized (for example, by constructing the well in a deeper aquifer and by following water well code).		
Surface Water	The well identified by MNTP staff on MNTP property would be added to the design and construction plans to inform contractors of its presence.		UPRR
Surface Water	Construction of either alternative would require a National Pollutant Discharge Elimination System (NPDES) permit for stormwater discharges from construction sites. The UPRR would obtain permit coverage either under the Illinois Environmental Protection Agency General NPDES Permit for Storm Water Discharges from Construction Site Activities (General NPDES Permit No. ILR10), or under an individual NPDES permit.		UPRR
Noise and Vibration	The Project website would be used to inform residents regarding construction plans so they can plan around periods of changes in construction noise levels.		IDOT
Noise and Vibration	To minimize vibration impacts in either alternative, UPRR would use maintenance procedures such as regularly scheduled rail grinding, wheel truing programs, vehicle reconditioning programs, and use of wheel flat detectors.		UPRR
Noise and Vibration	Once details of the construction activities become available, the contractor would communicate with the affected communities regarding minimizing nighttime noise impacts at sensitive receptors.		UPRR
Noise and Vibration	If additional sensitive noise receptors are identified by stakeholders during public review of the EA, FRA would determine whether additional noise and vibration analysis is appropriate.		FRA

Resources	Alternative 1B Mitigation Measures	Alternative 2A Mitigation Measures	Responsible Party
Vegetation and Habitat	Temporary impacts would be mitigated by restoring the ground surface to the preconstruction contour and planting exposed areas of soils with a cover crop to the extent practicable.		UPRR
Vegetation and Habitat	UPRR would mitigate temporary impacts to prairie habitat by grading areas of temporary impact to the original contour and then seeding according to Articles 250.05 and 250.06 of the IDOT Standard Specifications for Road and Bridge Construction. Permanent impacts would be quantified, and this information would be coordinated with IDOT's Bureau of Design and Environment. Any unavoidable impacts to prairies would be documented and mitigated in a Prairie Mitigation Plan. Under the 2004 ROD for the HSR Program, acre-for-acre in-kind compensation would be provided for both temporary and permanent impacts to prairie grade C+ (Noteworthy, Significant, or Exceptional) or above. In addition, a prairie mitigation plan would be prepared and implemented as part of construction. The Prairie Mitigation Plan would be coordinated with FRA, IDOT, Army Corps of Engineers, Fish and Wildlife Service, Illinois Department of Natural Resources, Environmental Protection Agency, and MNTP.		UPRR
Vegetation and Habitat	All areas and classes of prairie identified by the botanical survey (Chicago to St. Louis High Speed Rail Elwood to Braidwood (Tier 8) Natural Resources Update (Huff & Huff, 2024)) would be drawn on the contract plans to ensure impacts are avoided or minimized and coordinated with IDOT for review and approval. Significant, exceptional, and noteworthy prairies (Classes A, B, and C) would be avoided to the greatest extent practicable.		UPRR
Vegetation and Habitat	Measures to minimize the spread of invasive species would be implemented to meet Executive Order 13112, "Invasive Species." Measures to minimize the spread of invasive species during construction include rapidly seeding and revegetating bare soil with native/non-invasive species, cleaning construction equipment before entering areas near sensitive habitats, and actively managing invasive plants that become established during construction. These methods would be implemented, where practical, also in compliance with Illinois' state special provisions for controlling invasive species including the applicable portions		UPRR

Resources	Alternative 1B Mitigation Measures	Alternative 2A Mitigation Measures	Responsible Party
	of Section 107 of the IDOT Standard Specifications. Management to reduce invasive species during railroad operations includes the use of herbicides, manual cutting, and timely mowing of grass and forelands. Invasive species control would occur in railroad track areas near high-quality habitats such as MNTP, the DPSFWA, the Hitts Siding Prairie Nature Preserve, and the Joliet Army Ammunition Plant INAI site.		
Vegetation and Habitat	Disturbed areas would be reseeded with an appropriate native seed mix that contains forbs as well as grasses, where feasible. All seed mixes used on MNTP property would need to be reviewed and approved by MNTP.		UPRR
Wildlife Resources	Mitigation for wildlife habitat impacts including pollinators, migratory birds, grassland birds, and bald eagles includes reseeding temporarily disturbed areas with native/non-invasive species.		UPRR
Wildlife Resources	Areas impacted by construction in MNTP would be revegetated after construction is complete. For temporary construction easements within MNTP, prairie grasses or other vegetation that conforms to MNTP's long-term restoration desires would be used.		UPRR
Wildlife Resources	A prairie mitigation plan would be prepared and implemented as part of construction. The Prairie Mitigation Plan would be coordinated with FRA, IDOT, Army Corps of Engineers, Fish and Wildlife Service, Illinois Department of Natural Resources, Environmental Protection Agency, and MNTP. Any unavoidable impacts to prairies would be documented and mitigated in the Prairie Mitigation Plan. Under the 2004 ROD for the HSR Program, acre-for-acre in-kind compensation would be provided for both temporary and permanent impacts to prairie grade C+ (Noteworthy, Significant, or Exceptional) or above.		UPRR
Wildlife Resources	Tree clearing dates would be coordinated with the regulatory agencies to reduce potential impact to federally listed species and the bald eagle.		UPRR
Wildlife Resources	Surveys for ground bird nests within the construction footprint in MNTP would be completed by ecologists prior to construction in MNTP. Any ground bird nests found during the survey would be		UPRR

Resources	Alternative 1B Mitigation Measures	Alternative 2A Mitigation Measures	Responsible Party
	flagged for construction crews. UPRR would email FRA and IDOT the results of the ground bird nest survey.		
Wildlife Resources	To the extent practicable, UPRR would follow the Nationwide Standard Conservation Measures for Migratory Birds.		UPRR
Waters of the United States	UPRR would work to first avoid and minimize impacts to wetlands and surface water locations during final design. Unavoidable adverse wetland and surface water impacts would be subject to the applicable replacement ratios specified in 17 IAC Part 1090.50 (c)(8) and USACE regulations. The replacement ratio for unavoidable adverse impacts to wetlands with Floristic Quality Index of 20 or above or a Mean C-Value of 4.0 or above will be 5.5:1.0. Impacts to wetlands with a Floristic Quality Index of less than 20 or a Mean C-Value of less than 4.0 would be determined based upon the location of the wetland compensation site in accordance with the Illinois Wetland Preservation Act. Mitigation details, including the location of any mitigation, would be coordinated with the regulatory agencies during the permitting process.		UPRR
Waters of the United States	Wetlands would have a mitigation ratio of 1.5:1.0 in accordance with the IWPA. However, this mitigation ratio may be amended, depending on the proposed compensation site, unless the Floristic Quality index is 20 or above or the Native Mean C-Value is 4.0 or above.		UPRR
Waters of the United States	If wetland impacts occur within wetlands developed for prior mitigation, mitigation ratios would be higher and determined through coordination with the Corps.		UPRR
Waters of the United States	UPRR would hold a coordination meeting with USFS regarding hydrologic modeling assumption at Grant Creek prior to completing the hydrologic modeling for the project.		UPRR
Waters of the United States	UPRR would update the wetland delineation prior to Section 404 permitting to confirm quality and extent of wetland impacts.		UPRR
Threatened and Endangered Species	Conservation measures for the rusty patched bumble bee (*Bombus affinis*) foraging and nesting habitat would occur through the following: Worker Environmental Awareness Training (WEAT) would be performed prior to construction, clearing activities		UPRR

Resources	Alternative 1B Mitigation Measures	Alternative 2A Mitigation Measures	Responsible Party
	would be limited to those areas required for construction, and sensitive areas not needed for construction would be fenced prior to construction to alert workers and prevent accidental intrusions. WEAT training is offered by UPRR to contractors to increase environmental awareness. WEAT training covers special-status species conservation, species identification, compliance responsibilities, environmental monitoring and best management practices, regulatory permits, protective requirements, and mitigation measures.		
Threatened and Endangered Species	UPRR would minimize the footprint to minimize impacts to disturbed areas.		UPRR
Threatened and Endangered Species	UPRR and their contractors would coordinate forest clearing and adhere to seasonal work restrictions developed in consultation with regulatory agencies dates with the regulatory agencies to reduce potential impact to federally listed species and the bald eagle.		UPRR
Threatened and Endangered Species	UPRR would obtain an Incidental Take Authorization for the state-listed species, including the eryngium stem borer moth from IDNR for impacts to rattlesnake-master plant populations prior to construction.		UPRR
Threatened and Endangered Species	Tree clearing within medium or high-quality overwintering RPBB habitat would be conducted between August 1 and October 10.		UPRR
Threatened and Endangered Species	Ground disturbance within the RPBB High Potential Zone would avoid nesting season.		UPRR
Threatened and Endangered Species	Where avoidance is not possible, the area of disturbance would be minimized. To protect areas of habitat that would not be impacted but may be near construction activity, non-intrusion fencing would be installed to alert workers of sensitive natural areas. Signs would be posted at the edge of the habitat areas to minimize accidental intrusions into these areas. Temporarily impacted areas within the high potential zone would be seeded with native seed mixes following construction. To the extent practicable, the mixes		UPRR

Resources	Alternative 1B Mitigation Measures	Alternative 2A Mitigation Measures	Responsible Party
	would contain an assortment of plant species specific to the habitat type from the RPBB Midwest Plant Guide (Krill, 2024). Species that are RPBB superfoods should be prioritized.		
Threatened and Endangered Species	Foraging habitat would be established as mitigation for impacts to habitat within the high potential zone. A mitigation ratio of 1:1 restoration would be used. Mitigation would occur on a property yet to be identified. Several public lands occur within the project area, including Illinois Nature Preserves, MNTP, and Abraham Lincoln National Cemetery. IDOT would work with those agencies to identify an area that can be used for mitigation. Mitigation preference would be for within or adjacent to the high potential zone, with forested areas nearby that could provide winter habitat for the bee.		UPRR/IDOT
Threatened and Endangered Species	General avoidance and mitigation measure (AMM) 1: Ensure all operators, employees, and contractors working in areas of Indiana bat, NLEB, or TCBs suitable habitat are aware of all Transportation Agency environmental commitments, including all applicable AMMs.		UPRR/IDOT
Threatened and Endangered Species	Tree Removal/Trimming AMM 1: Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to the extent practicable to avoid tree removal/trimming in excess of what is required to implement the project safely.		UPRR
Threatened and Endangered Species	Tree Removal/Trimming AMM 2: Ensure tree removal/trimming is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree removal/trimming to ensure contractors stay within clearing limits).		UPRR
Threatened and Endangered Species	Tree Removal/Trimming AMM 4: Avoid conducting tree removal/trimming outside documented habitat for the Indiana bat, NLEB, or TCB beyond 100 ft of the road/rail surface during the NLEB pup season. The pup season is June 1st to July 31st.		UPRR
Threatened and Endangered Species	Tree removal for trees that are suitable habitat for the NLEB and TCB would occur between November 1st through March 31st.		UPRR

Resources	Alternative 1B Mitigation Measures	Alternative 2A Mitigation Measures	Responsible Party
Threatened and Endangered Species	Temporarily disturbed areas adjacent to the decurrent false aster population in MNTP would be reseeded with native seed mix.		UPRR
Threatened and Endangered Species	Silt fence or exclusion fencing would be placed around decurrent false aster populations when construction is occurring within 50 feet of the proposed Project limits to reduce the possibility of accidental impact.		UPRR
Threatened and Endangered Species	No work shall occur outside the Action Area where decurrent false aster has been documented.		UPRR
Threatened and Endangered Species	No borrow/waste/use sites shall occur in the area decurrent false aster has been documented.		UPPR
Threatened and Endangered Species	Disturbed areas would be reseeded with native prairie mix.		UPRR
Transportation	Roadway detours would be developed in coordination with key stakeholders. The roadway detours would outline which crossings would be closed and for how long they are expected to be closed. Key stakeholders listed in the prior commitment would be given the opportunity to review and comment on the plans prior to implementation.		UPRR
Transportation	For both alternatives, Prairie Creek Bridge construction would be completed in phases to always keep at least one track open. The contractor would establish exact phases.		UPRR
Transportation	At the private crossings, temporary full crossing closures would either not occur or be brief and infrequent since there is no alternative access to the property served.		UPRR
Community and Land Use	The project team would develop and implement a plan for community coordination during construction. UPRR would meet with all directly affected property owners prior to construction to discuss construction.		UPRR, IDOT

Resources	Alternative 1B Mitigation Measures	Alternative 2A Mitigation Measures	Responsible Party
Community and Land Use	The Nicor Gas Line would be shown on all design and construction plans. During design and construction, UPRR would coordinate with Nicor to establish BMPs for protecting the gas line during construction.		UPRR
Community and Land Use	Mitigation for temporary impacts to INAI sites includes reseeding disturbed areas. All disturbed areas would be reseeded with an appropriate native seed mix that contains forbs as well as grasses, where feasible. Seed mixes used within MNTP would be coordinated and approved by MNTP staff.		UPRR
Community and Land Use	To prevent direct access to the UPRR right-of-way, the existing fence along the UPRR right-of-way adjacent to Archer Park would be retained or relocated within the Project footprint.		UPRR
Cultural Resources	No mitigation for cultural resources is identified for Alternative 1B.	If Alternative 2A is selected as the preferred alternative in the FONSI, there would be continued consultation with the SHPO, Section 106 consulting parties, and the public, as FRA and IDOT resolve the adverse effect by seeking ways to minimize or mitigate the adverse effects and determine appropriate mitigation.	FRA, IDOT, UPRR
Parks and Recreation	UPRR would design and install temporary signage to educate visitors on changing conditions to MNTP trails during construction.		UPRR
Section 4(f)	IDOT would provide a lump sum payment to MNTP for restoration activities to mitigate for the permanent use of MNTP land. This payment may be used for a variety of restoration activities within MNTP, including but not limited to creating wetlands, restoring prairies, collecting seeds or planting vegetation. FRA would calculate the lump sum by multiplying the acres of land needed for long-term use by the current market value of one acre in a wetland bank at the time of the transaction. The payment would be issued when construction begins. MNTP would provide IDOT and FRA with status reports annually by		IDOT, FRA, MNTP

Resources	Alternative 1B Mitigation Measures	Alternative 2A Mitigation Measures	Responsible Party
	February 1 on the implementation of this mitigation beginning when the funds are issued and concluding when the funds are fully expended.		
Section 4(f)	Areas impacted by construction in MNTP would be revegetated after construction is complete. For temporary construction easements within the MNTP, prairie grasses or other vegetation that conforms to MNTP's long-term restoration plans would be utilized.		UPRR
Section 4(f)	Regulated substance issues that may arise in the construction phase would be managed in accordance with the current IDOT *Standard Specifications for Road and Bridge Construction and Supplemental Specifications* and "Recurring Special Provisions" or the UPRR *Hazardous Material Policies, Procedures and Policies.* Depending on the context, UPRR would decide on the appropriate specification to use.		UPRR
Regulated Substances	Accidental spills of hazardous materials and waste during construction or operation of the transportation system would require special response measures. Occurrences would be handled in accordance with local government response procedures. Refueling, storage of fuels, or maintenance of construction equipment would not be allowed within 100 feet of wetlands or water bodies to avoid accidental spills affecting these resources. Prior to the start of construction, an emergency response plan would be prepared by UPRR or its contractor for use during construction of the selected build alternative.		UPRR
Regulated Substances	Further environmental studies would be conducted if the proposed improvements require excavation adjacent to a property identified with a REC or requires excavation, including subsurface utility relocation, for an easement on state or state jurisdiction right-of-way.		UPRR
Regulated Substances	In some cases, the portion of the build alternatives that involves the REC would be risk managed and not require additional assessment. If the affected property containing the REC would be a full take, then the property would be ineligible to be risk managed. If risk management is not possible, further environmental study would be required. Specifically, a		UPRR

Resources	Alternative 1B Mitigation Measures	Alternative 2A Mitigation Measures	Responsible Party
	Preliminary Site Investigation would be needed to determine the nature and extent of possible contamination.		
Regulated Substances	Prior to the acquisition of property or a temporary or permanent easement by the state, and prior to construction, a Preliminary Site Investigation would be performed at each affected property containing an REC to determine the nature and extent of the waste present in state or state jurisdiction right-of-way.		UPRR
Regulated Substances	Pre-demolition building surveys would be conducted prior to building demolitions to ensure proper abatement (including appropriate regulatory notifications in accordance with National Emission Standards for Hazardous Air Pollutants.		UPRR
Aesthetic Environment and Scenic Resources	The UPRR right-of-way would be revegetated with a ground cover at the end of construction.		UPRR