CHAPTER 1
PURPOSE AND NEED

This chapter describes the history of the project, the project area, the purpose of and need for the project, decisions to be made based on this document, connected actions, applicable regulations, and permits and approvals that are expected to be required prior to construction.

1.1 INTRODUCTION

The Illinois Department of Transportation (DOT) and Iowa DOT, in conjunction with the Federal Railroad Administration (FRA), are evaluating alternatives for the reestablishment of passenger rail service between Chicago, Illinois, and Iowa City, Iowa (the Project), which is part of the Midwest Regional Rail Initiative (MWRRI). See Section 1.2, Project History, for more information about the MWRRI.

As described in more detail in Section 2.1, Introduction, the service plan identified in the MWRRI calls for an ultimate service level of five round-trips per day (for a total of 10 passenger trains per day [TPD]); however, consistent with the incremental approach adopted by the MWRRI, Illinois DOT and Iowa DOT are proposing an initial service level of two round-trips per day (four passenger TPD). In addition, the MWRRI envisions an ultimate train speed of 90 miles per hour (mph) for the maximum authorized track speed on the section from Chicago to Wyanet[1] and a maximum authorized track speed of 79 mph from Wyanet to Iowa City when operating five round-trip TPD. For the initial service, Illinois DOT and Iowa DOT are proposing 79 mph on the entire route. The initial service was evaluated by Amtrak in its feasibility studies (Franke et al., 2008a; Franke et al., 2008b). Illinois DOT and Iowa DOT have determined that the initial service level would provide viable stand-alone service and would have independent utility; that is, developing the initial service does not force Illinois DOT or Iowa DOT to expand the service elsewhere. As addressed in Chapter 2, Alternatives, two alternatives have been identified for the section from Chicago to Wyanet where multiple rail lines are present. Because only one rail line connecting Wyanet to Iowa City currently exists, only one alternative has been identified for this section (see Figure 1-1, Potential Intercity Passenger Rail Routes, Chicago to Quad Cities and Iowa City).

This Environmental Assessment (EA) is a Tier 1 service level analysis. The EA evaluates both the initial service and the ultimate build-out proposed in the MWRRI, as well as the two alternative routes and the No-Build Alternative. At this time, Illinois DOT and Iowa DOT are proposing only the initial service on the route from Chicago to Iowa City. The operating agreements with the host railroads and Amtrak address only the initial service level. Any future increase in service levels will necessitate additional compliance with

[1] There is no station stop at Wyanet; however, Wyanet is where the alignment transitions to the Iowa Interstate Railroad.

the National Environmental Policy Act (NEPA) of 1969 (42 United States Code [USC] 4321 et seq.).

1.2 PROJECT HISTORY

The MWRRI was established in 1991 as part of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) (Public Law [PL] 102-240) and its reauthorization in 1998 with the Transportation Equity Act for the 21st Century (TEA-21) (PL 105-178). ISTEA and TEA-21 included a broader national effort to support high-speed rail investment. Nine transportation agencies across the Midwest and Amtrak sponsored the MWRRI:

- Illinois Department of Transportation
- Indiana Department of Transportation
- Iowa Department of Transportation
- Michigan Department of Transportation
- Minnesota Department of Transportation
- Missouri Department of Transportation
- Nebraska Department of Roads
- Ohio Rail Development Commission
- Wisconsin Department of Transportation

As a result of the MWRRI and the national high-speed rail initiative, numerous corridors were identified, with Chicago as the hub. A number of studies were completed to identify and refine the corridors. Between 1996 and 2004, the MWRRI was refined from a series of individual corridors into a transportation plan. Numerous studies were also completed with regard to bus service integration into the MWRRI; financial, economic, market, and transportation analysis; infrastructure and capital costs; operating costs; and institutional and organizational issues. These efforts culminated in 2004, when the MWRRI issued the MWRRI Project Notebook (Transportation Economics & Management Systems, Inc., 2004a) and the Midwest Regional Rail System (MWRRS) Executive Report (Transportation Economics & Management Systems, Inc., 2004b). Since 2004, efforts have progressed to develop the various corridors. In 2006, Chapter 11, Benefit Cost and Economic Analysis, of the Midwest Regional Rail Initiative Project Notebook was updated (Transportation Economics & Management Systems, 2006a). The reports issued from these studies included the following passenger rail corridors in the MWRRS (see Figure 1-2):

- Chicago to Detroit/Grand Rapids/Port Huron, Michigan
- Chicago to Cleveland, Ohio
- Chicago to Cincinnati, Ohio
- Chicago to Carbondale, Illinois
- Chicago to St. Louis, Missouri
- St. Louis, Missouri, to Kansas City, Missouri
- Chicago to Quincy, Illinois
- Chicago to Omaha, Nebraska

- Chicago to Milwaukee, Wisconsin, and to St. Paul, Minnesota/Green Bay, Wisconsin

The Chicago to Iowa City corridor is a portion of the Chicago to Omaha corridor. The MWRRI includes many high-speed (110-mph) passenger rail corridors, but the Chicago to Iowa City service is planned for conventional speed (79 mph) and not high speed. The Project includes two round-trip TPD at maximum authorized track speeds of up to only 79 mph between Chicago and Iowa City. Depending on the specific route selected, under the MWRRI plan a portion of the Chicago to Iowa City corridor would be upgraded in the future to allow for maximum authorized track speeds of 90 mph when operating five round-trip TPD.

The existing railroads that are proposed to be used to provide passenger service were all in place by 1862 (Colton, 1862; Wikipedia, 2009a; Wikipedia, 2009b; Wikipedia, 2009c) and are among the oldest railroads in the region. The railroads were initially constructed to carry passengers and to haul a variety of freight and have evolved into very busy railroads. Most of the passenger service along these routes began when the rail lines were constructed and generally was terminated between the 1950s and the 1970s, when railroad passenger service declined nationally. However, one section (between Chicago and Naperville) has been providing regular commuter rail service since 1863 (Wikipedia 2009a). This section is on the alignment of the Preferred Alternative, discussed in Chapter 2, Alternatives.

As stated in the Midwest Regional Rail Initiative Project Notebook (Transportation Economics & Management Systems, Inc., 2004b), full implementation of the MWRRI would significantly improve Midwest passenger rail service by:

- Upgrading existing rail rights-of-way (ROW) to permit frequent, reliable, high-speed passenger train operations
- Accommodating operation of a hub-and-spoke[2] passenger rail system that provides through-service and connectivity in Chicago to locations throughout the Midwest region
- Introducing modern train equipment that offers improved amenities operating at speeds of up to 110 mph
- Providing multimodal connections and feeder bus systems to improve access to the rail system
- Introducing a contracted rail operation that improves efficiency, reliability and on-time performance

With full implementation (estimated to occur in 2025), the MWRRS would encompass approximately 3,000 route miles in the sponsor states and would attract approximately 13.6 million passengers annually. Approximately 90 percent of the Midwest region's population would be within an hour's ride of an MWRRI rail station and/or within 30

[2] A hub-and–spoke passenger rail system is one that provides transportation to a central location. From this central location (the hub), one can travel to various other destinations (the spokes).

minutes of an MWRRS rail station (Transportation Economics & Management Systems, Inc., 2004b).

1.3 PROJECT AREA

The Project area consists of existing rail corridors between Chicago and Iowa City. The proposed build alternatives include combinations of the existing freight and passenger lines of Amtrak, Metra, BNSF Railway Company (BNSF), Canadian National Railway Corporation (CN), CSX Transportation Company (CSXT), and Iowa Interstate Railroad (IAIS). One new connection would be required in Wyanet for the Preferred Alternative (Route A – Amtrak-BNSF-IAIS), which would leave the existing ROW and would require acquisition of approximately 7 acres of land[3].

1.4 PROJECT PURPOSE AND NEED

The purpose of the Project, and of the MWRRI, is to expand existing and develop new regional passenger rail service to help meet future travel demands in the Midwest. The Project would expand and create a rail transportation alternative to automobile, bus, and air and would meet needs for more efficient travel by:

- Decreasing travel times
- Increasing frequency of service
- Improving reliability
- Providing amenities to improve passenger ride quality and comfort

There is a need to reduce the congestion and the transportation-related effects of further population growth over the long term. Many communities between Chicago and Iowa City have experienced rapid growth since 2000 and have seen increased congestion on roadways (Franke et al., 2008a; Franke, et al. 2008b). As discussed in Section 3.3, Socioeconomics, the Project area population increased by 15 percent between 1970 and 2008 (U.S. Census Bureau, August 5, 2009).

In addition to roadway congestion, the University of Iowa and nationally recognized hospitals are located in Iowa City, and approximately 20 percent of the University of Iowa student body (about 30,000 students) is from Illinois. Furthermore, the Quad Cities area (a region comprising the cities of Moline, East Moline, and Rock Island, Illinois; Davenport and Bettendorf, Iowa) offers numerous tourist attractions, including the Mississippi River, river boating, riverboat casinos, and the Rock Island Arsenal as well as museums and other cultural attractions (Franke et al., 2008b). Approximately 60 percent of the visitors to the Quad Cities are from the Chicago area (Franke et al., 2008a). Bus service and personal automobile are currently the only two modes of transportation that provide a direct connection for individuals traveling between Chicago and Iowa City. The nearest commercial airport to Iowa City is in Cedar Rapids, Iowa, which is approximately 30 miles north of Iowa City. The passenger rail service will fulfill a need for a

[3] A dispute exists between BNSF and the adjacent property owner with respect to the ownership of the parcel in question. This Tier 1 Service Level EA takes no position with respect to the dispute and has therefore identified the parcel as a potential acquisition. The alternatives alignments for the connection and the associated site-specific impacts will be evaluated in a Tier 2 Project Level NEPA document.

transportation alternative to and from these areas while relieving congestion on existing infrastructure.

1.5 DECISIONS TO BE MADE

Illinois DOT, Iowa DOT, and FRA must comply with NEPA due to the proposed use of High-Speed Intercity Passenger Rail Program funds for the Project. "The NEPA process is intended to help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment" (40 Code of Federal Regulations [CFR] 1500.1). NEPA requires the evaluation of a proposed project to determine if impacts on the environment will be significant. If it is determined through the EA that no significant impacts will result from the proposed action, then a Finding of No Significant Impact (FONSI) is issued by the sponsoring federal agency.

FRA has issued guidance supporting an approach that includes service level NEPA documents followed by project level NEPA documents, which can be accomplished with a tiered NEPA approach (FRA, August 14, 2009). With a tiered approach, the Tier 1 Service Level NEPA document evaluates impacts of a project as a whole, with focus on more qualitative than quantitative impacts. Following completion of the Tier 1 Service Level NEPA document and the associated decision document, Tier 2 Project Level NEPA documents are developed to evaluate quantitatively the environmental impacts within one or more specific sections.

The purpose of this Tier 1 Service Level EA is to provide FRA and the public with full understanding of the service-wide environmental impacts of the alternatives developed to meet the Project purpose and need. Prior to implementation of passenger rail service between Chicago and Iowa City, Tier 2 Project Level NEPA documents will be developed for the sections identified in Chapter 5.0, Next Steps.

1.6 CONNECTED ACTIONS

The Project is part of the MWRRI although it proposes only the expansion or addition of passenger rail service between Chicago and Iowa City. The implementation of passenger rail service along the other corridors included in the MWRRI is connected to the Project, but would be evaluated separately.

1.7 APPLICABLE REGULATIONS AND PERMITS

The following Federal regulations, statutes, and orders apply to and were focused on during preparation of this Tier 1 Service Level EA for the Project:

- Clean Water Act of 1977 (33 USC § 1251-1376)
- Endangered Species Act (50 CFR 17)
- Executive Order 11988, Floodplain Management (42 Federal Register [FR] 26951)
- Executive Order 11990, Protection of Wetland (42 FR 26961)
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (59 FR 7629)

- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency (65 FR 50121)
- Federal Railroad Administration Procedures for Considering Environmental Impacts (64 FR 28545 and 49 CFR Part 260.35)
- National Environmental Policy Act of 1969 (42 USC § 4321 et seq., signed January 1, 1970)
- Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (40 CFR 1500–1508)
- Section 4(f) of the U.S. Department of Transportation Act of 1966 (49 USC § 303)
- Section 6(f) of the Land and Water Conservation Act of 1965 (16 USC § 460)
- Sections 9 and 10 of the Rivers and Harbors Act of 1899 (33 USC § 401)
- Section 106 of the National Historic Preservation Act, as amended (16 USC § 470)
- Section 404 of the Federal Water Pollution Control Act (33 USC § 1344)
- Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (42 USC § 61)
- Use of Locomotive Horns at Highway-Rail Grade Crossings, Final Rule (40 CFR 222 and 229)

Illinois DOT and Iowa DOT would be required to obtain the following permits prior to the start of any construction that is needed:

- Section 404 General or Individual Permits – The U.S. Army Corps of Engineers (USACE) administers the Clean Water Act (CWA) on behalf of the U.S. Environmental Protection Agency (EPA). Section 404 permits are needed for projects involving the discharge of dredge or fill material into waters of the U.S., which include wetlands and surface waters with a connection to a navigable waterway.

- Section 401 Water Quality Certification – This section of the CWA requires an applicant for an action that may result in discharges into waters of the U.S. to obtain clearance for this discharge from the state. Section 401 water quality certifications will be needed for both Illinois and Iowa.

Since the focus of this Tier 1 Service Level EA focuses on the broader impacts of the Project as a whole, the Tier 2 Project Level NEPA documents are expected to identify additional state and local level permits and approvals that are needed based upon specific activities to be completed. State and local permits and approvals will be discussed in the Tier 2 Project Level NEPA documents.

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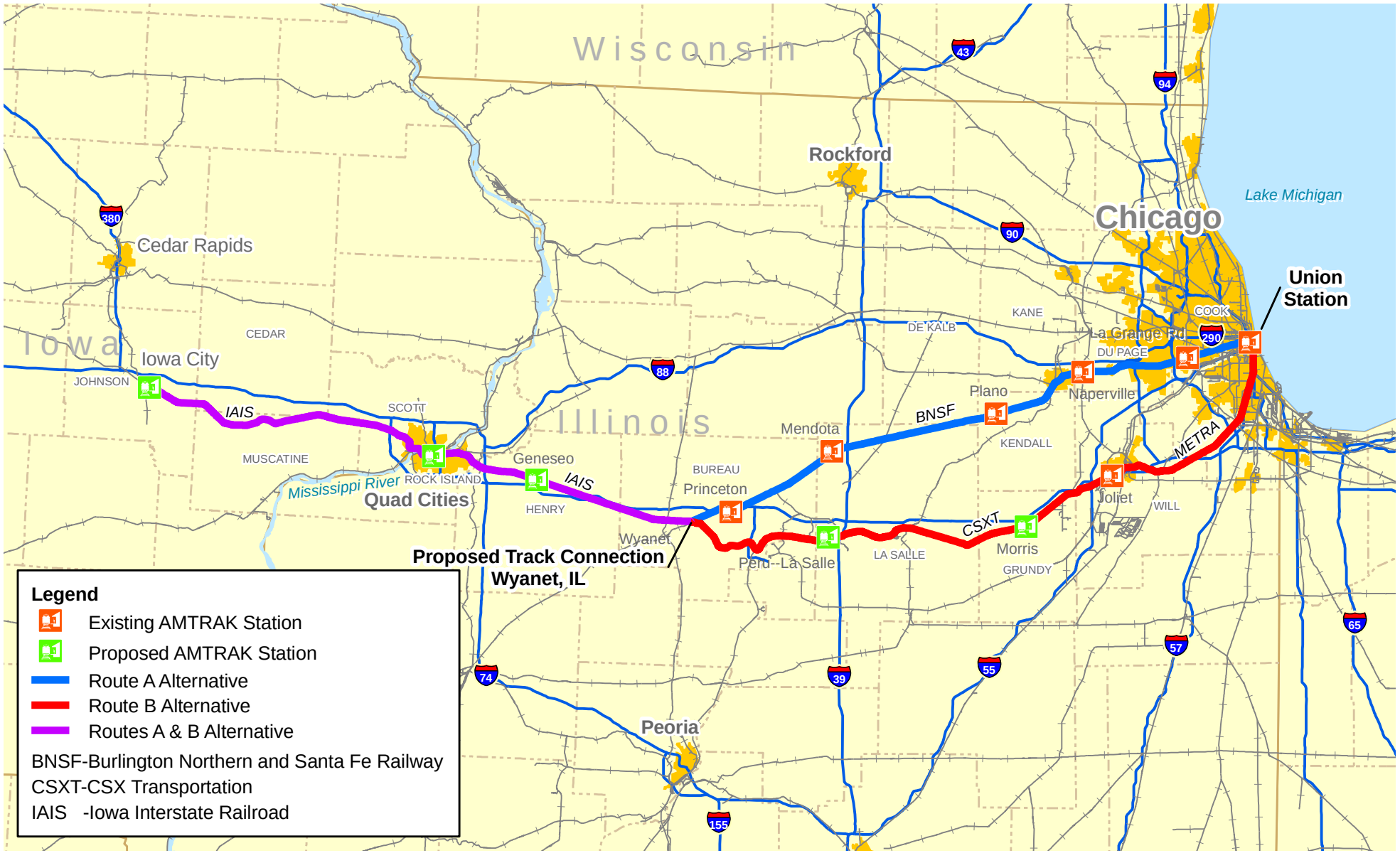

25 12.5 0 25 Miles

Scale

Iowa Department of Transportation
Iowa Connections
Get on Board
Illinois Department of Transportation

Potential Intercity Passenger Rail Routes, Chicago to Quad Cities and Iowa City

Source: Feasibility Study on Proposed Amtrak Service
Quad Cities to Chicago - January 7, 2008
Chicago to Iowa City - April 18, 2008

Chicago to Iowa City Intercity Passenger Rail Service

DATE
September 2009

FIGURE
1-1

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*Indiana DOT is evaluating additional passenger rail service to South Bend and to Louisville.
**In Missouri, current restrictions limit train speeds to 79 mph.

Not to Scale

Iowa Department of Transportation
Iowa Connections
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Illinois Department of Transportation

MWRRS

Source: Transportation Economics & Management Systems, Inc. 2004b
Midwest Regional Rail System Executive Report

Chicago to Iowa City Intercity Passenger Rail Service

DATE
September 2009

FIGURE
1-2