Chapter 1
Purpose and Need

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1 PURPOSE AND NEED

1.1 Introduction

The Federal Transit Administration (FTA) and Northern Indiana Commuter Transportation District (NICTD) are conducting the environmental review process for the West Lake Corridor Project (Project) in Lake County, Indiana, and Cook County, Illinois, in accordance with the National Environmental Policy Act (NEPA) and other regulatory requirements. This Draft Environmental Impact Statement (DEIS) has been prepared as part of this process, with FTA as the Federal Lead Agency and NICTD as the Local Project Sponsor responsible for implementing the Project under NEPA.

1.1.1 History of Project

The concept of providing more direct access to transit in central, southern, and western Lake County, Indiana, has been considered for more than 25 years in regional transportation studies. As early as 1989, the Northwestern Indiana Regional Planning Commission (NIRPC) released the *West Lake County Transportation Corridor Study* (NIRPC 1989), which identified a South Shore extension as a potentially viable means to expand mass transit in the region. Since that time, multiple evaluations have occurred. In 2011, NICTD's *West Lake Corridor Study* concluded that a rail-based service between the Munster/Dyer area and Metra's Millennium Station in downtown Chicago would best meet the public transportation needs of the Study Area (NICTD 2011). In June 2014, NICTD and Northwest Indiana Regional Development Authority (RDA) released the *20-Year Strategic Business Plan*, which highlighted the importance of the Project (NICTD and RDA 2014). **Figure 1.1-1** shows the regional setting of the Project that evolved from these prior studies and is advanced for further analysis in this DEIS.

1.1.2 Document Organization and Content

This DEIS is organized in two volumes. **Volume I** contains the main analysis, and **Volume II** includes the appendices.

Volume I: Main Analysis

- Executive Summary
- Chapter 1: Purpose and Need
- Chapter 2: Alternatives Considered
- Chapter 3: Transportation
- Chapter 4: Community and Social Analysis
- Chapter 5: Physical and Environmental Analysis
- Chapter 6: Secondary and Cumulative Effects
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- Appendix E: Section 106 Consultation
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Figure 1.1-1: Regional Setting for West Lake Corridor Project

1.2 Purpose and Need Statement

1.2.1 Project Purpose

NICTD and FTA propose the Project as a branch extension of the existing South Shore Line (SSL) to provide direct commuter rail service to the high-growth areas of central and southern Lake County, Indiana. The Project purpose is to increase transportation options for central and southern Lake County residents traveling to downtown Chicago, reduce travel time and travel costs, and promote economic development opportunities in Lake County.

1.2.2 Project Need

Previous studies have identified key transportation-related problems in the Study Area. These issues have been further refined as part of the environmental review process, incorporating input received from the public, agencies, and other stakeholders during the Scoping phase. The identified needs, and how the Project purpose meets each need, for the Project, are as follows:

- Increase transportation options for accessing downtown Chicago
- Reduce travel time to downtown Chicago
- Reduce the parking burden at existing transit stations
- Reduce travel costs
- Promote economic development

The following subsections include discussions on transportation-related conditions in the Study Area, and provide support for the identified needs.

1.2.2.1 Increase Transportation Options for Accessing Downtown Chicago

Existing transportation options available to Study Area residents seeking access to Chicago jobs are limited to travel by automobile or by automobile to Metra Electric District (MED) and SSL commuter rail services. Forecasted Study Area population growth will exert increasing demands on regional roadways, Metra, and the SSL, which are already operating at or near capacity (Policy Analytics, LLC 2014). Thus, the Project purpose to increase transportation options is supported by the lack of direct transit service to downtown Chicago from the high growth parts of the Study Area.

Population Growth

According to the United States (US) Census Bureau, Northwest Indiana has seen major changes in land use patterns and distribution of population between 2000 and 2010, which has had, and will continue to have, major implications for transportation systems. Northwest Indiana (i.e., Lake, Porter, and LaPorte Counties) experienced population growth greater than the surrounding areas between 2000 and 2010 (US Census Bureau 2000, 2010). During this timeframe, the population in Northwest Indiana increased 4 percent compared to population declines in the City of Chicago (-7 percent) and Cook County (-3 percent). In particular, the following central Lake County municipalities experienced high population growth rates during this span: Munster (+10 percent), Dyer (+18 percent), and St. John (+77 percent). Conversely, historic urban areas along Lake Michigan saw declines in population: Gary (-22 percent), East Chicago (-8 percent), and Hammond (-3 percent) (US Census Bureau 2000, 2010). Commuter rail service in Northwest Indiana is provided in the established communities along Lake Michigan, and not in the areas experiencing population growth.

According to NIRPC's *2040 Comprehensive Regional Plan (CRP)*, the Northwest Indiana area is expected to add another 170,000 people (+22 percent) by 2040, increasing to a total population of approximately 772,000 (NIRPC 2011). Pursuant to this forecast, Lake County is anticipated to capture approximately 75 percent of this growth, adding 127,000 people (+26 percent) by 2040. The population in North Township, which includes Hammond and Munster in the Study Area, is expected to increase by 38,500 people (+24 percent). The population in St. John Township, which includes the towns of Dyer and St. John, is expected to add about 23,000 people (+34 percent) (NIRPC 2011).

Employment Focus is Chicago

Since the decline in rust-belt industries, Northwest Indiana has become an exporter of workers. A lower cost of living in the Indiana portion of the region attracts many families who have jobs in Chicago, but want more affordable housing. At the same time, Indiana residents want access to the higher paying jobs in Chicago (Policy Analytics, LLC 2014).

The American Association of State Highway and Transportation Officials (AASHTO) developed tools to analyze Census journey to work travel flow data as part of the Census Transportation Planning Products (CTPP). According to American Community Survey (ACS) data, the number of Lake County residents who are also employed in the county remained roughly the same between 2000 and 2010, while the number of Lake County residents working in Northeastern Illinois grew from 45,095 to 52,004 (+15 percent) (CTPP 2000; US Census 2010) (see **Table 1.2-1**).

Table 1.2-1: Northwest Indiana Residence-Work Location, 2000 and 2006-2010

Residence	Work in Same County		Work in Northeast Illinois	
	2000	2006-2010	2000	2006-2010
Lake County	146,406	146,421	45,095	52,004
Porter County	38,893	41,267	5,906	6,191
LaPorte County	35,776	34,713	1,137	1,419

SOURCE: CTPP 2000; US Census Bureau ACS 2006-2010.

Over 9,900 residents of Lake County, or 4 to 5 percent of all employed residents of the county, worked in downtown Chicago (i.e., the area bounded by Division Street-Halsted Street-Roosevelt Road-Lake Michigan) during the 2006 to 2010 period (CTPP 2000; US Census Bureau ACS 2006-2010). The Chicago Metropolitan Agency for Planning (CMAP) forecasts that downtown Chicago employment will grow from 479,700 jobs in 2010 to 675,900 jobs in 2040, an increase of 196,200 jobs (+41 percent) (CMAP 2014c).

Based on the analysis of the CTPP and US Census Bureau ACS 2006-2010 data, Lake County is expected, at a minimum, to sustain its share of residents working in downtown Chicago because of population gains, but also due to worker-to-job deficits in Northwest Indiana. Not only do Lake and Porter Counties have more workers than jobs, but the workers-to-jobs deficit increased from 2000 to 2006-2010, as shown in **Table 1.2-2**. Both Chicago and Cook County showed a growing surplus of jobs. Key population centers within the Study Area (i.e., Hammond, Munster, and Dyer) are within a 25- to 30-mile commute to downtown Chicago, making these jobs within commuting reach to residents of those communities. For the 2006-2010 period, Lake County exported over one-fifth (22 percent) of its employed residents to jobs in Cook County (CTPP 2000; US Census Bureau ACS 2006-2010).

Table 1.2-2: Workers versus Jobs in Northwest Indiana, 2000 and 2006-2010

Area	2000			2006-10			Change in Job Deficit/ Surplus
	Workers	Jobs	Workers versus Jobs	Workers	Jobs	Workers versus Jobs	
Lake County, IN	208,955	192,865	-16,090	211,795	194,539	-17,256	**-1,166**
Porter County, IN	72,440	56,140	-16,300	75,895	57,670	-18,225	**-1,925**
Cook County, IL	2,371,160	2,554,120	+182,960	2,377,334	2,581,745	+204,411	**+21,451**
City of Chicago	1,192,140	1,336,555	+144,415	1,219,311	1,396,768	+177,457	**+33,042**

SOURCE: CTPP 2000; US Census Bureau ACS 2006-2010.

One of the incentives for Lake County residents to seek employment in Cook County is the substantial premium in average wages. For most industries, Cook County jobs pay an average of 40 percent more than Lake County (Policy Analytics, LLC 2014). The higher incomes that these wages generate produce substantial economic benefits, as incomes returned to Northwest Indiana are used to purchase homes, enroll in school, and buy goods and services. Higher wage premiums in Chicago, coupled with Lake County's lower cost of living, present desirable economic opportunities for Northwest Indiana residents.

Transit Services

Existing transit options for accessing downtown Chicago from the Study Area are limited to NICTD's SSL, which extends along the northern edges of Lake, Porter, and LaPorte Counties. Users of the SSL who live in the Study Area must travel by car to the closest stations in East Chicago or Hammond (http://www.nictd.com/).

Another transit option that serves downtown Chicago is Metra, a commuter rail operator that principally serves suburban Chicago commuters. The MED line extends south from downtown Chicago and terminates at University Park in Illinois. Residents living in the Study Area can travel west by car to access the MED main line stations (University Park to Kensington).

Within northern Indiana, other public transportation is primarily focused on serving the urban areas of northwest Lake County. These include two bus service operators serving in-city transportation needs in East Chicago and Gary: East Chicago Transit (ECT) and Gary Public Transportation Corporation (GPTC). Neither of these urban bus services extends to Chicago:

- **East Chicago Transit (ECT):** ECT is a local bus transit operator in the City of East Chicago. It operates three fixed-route bus services and a complementary paratransit service Monday through Saturday within East Chicago. Connections are possible to the SSL and GPTC (http://www.eastchicago.com/page10/page90/index.html).
- **Gary Public Transportation Corporation (GPTC):** GPTC operates a system of 10 fixed-route bus routes in Northwest Indiana and complementary paratransit within the City of Gary, Indiana. Connections are provided to the SSL, ECT, and intercity buses. GPTC also provides service to the Gary Airport (http://www.gptcbus.com/).

The Project would provide an additional transportation option that would be more convenient for residents in the Study Area traveling to downtown Chicago.

1.2.2.2 Reduce Travel Time to Downtown Chicago

The purpose of reducing travel time for Study Area residents is supported by the need to provide service that has travel times that are competitive with the ever-increasing congested roadway system

connecting Northwest Indiana to downtown Chicago. In addition, the purpose would be met by reducing travel time to commuter rail stations and parking facilities with available capacity.

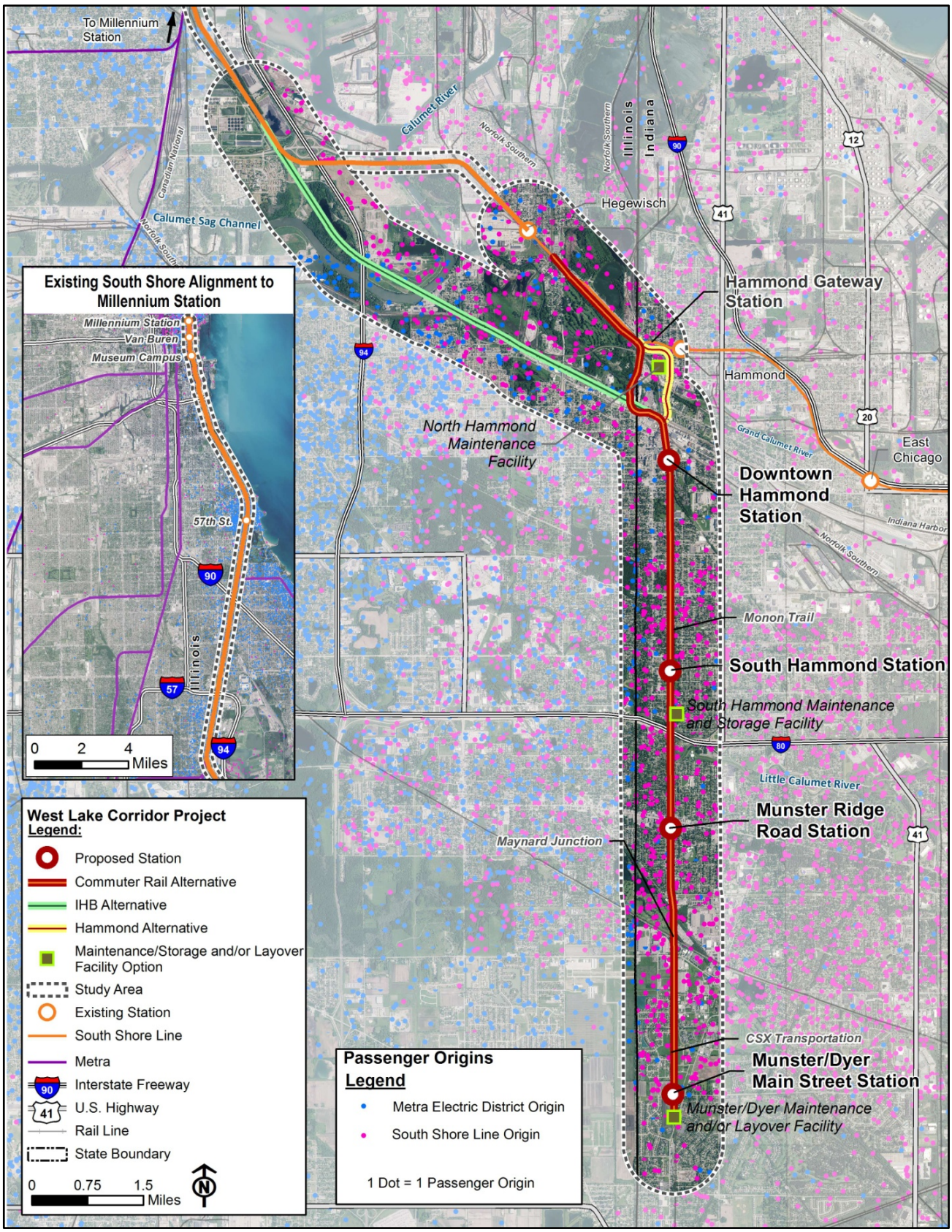
The Policy Analytics research of 2014 observed, “The highway connections between Northwest Indiana and Chicago are congested, especially during peak times” (e.g., trips are 40 percent faster in the off-peak). The research notes that the addition of more traffic from population growth to an already congested network will further slow throughput. Offloading some commuters from highways to commuter rail can improve the efficiency of the highway system (Policy Analytics, LLC 2014).

Under current conditions, travelers from the Study Area destined for downtown Chicago travel by automobile either directly to downtown Chicago or to an existing commuter rail station, either MED or SSL. Travelers by automobile use the existing regional roadway network, comprised of key highways such as the Dan Ryan Expressway; Lake Shore Drive; Bishop Ford Expressway; I-90 Skyway; Frank Borman Expressway (I-80/94); I-65; US Routes 30, 41, and 231; and portions of State Routes 2 and 53. Many of these roadways experience congestion during peak travel periods, yielding slow travel speeds and extra travel time compared with non-peak travel periods. For example, the Dan Ryan Expressway is typically congested on a daily basis, as indicated by average vehicular speeds of 25 miles per hour (mph) to I-55 and 16 mph for the final 2 miles to the Jane Byrne Interchange (CMAP 2014a). The Bishop Ford Expressway and I-90 Skyway, which are principal feeders to the Dan Ryan Expressway, also experience slow peak period travel speeds (41 mph and 33 mph, respectively) and variability in travel times (CMAP 2014a). Travel forecasts for roadway corridors heading north and west from Lake County show increases in traffic volumes, including the Frank Borman Expressway (I-80/94); I-65; US Routes 30, 41, and 231; and portions of State Routes 2 and 53 (NIRPC 2011).

As population continues to grow, vehicle miles traveled (VMT) is projected to increase as well. Growth in VMT reflects the continuing regional dependence on automobile travel often associated with decentralized highway-oriented development. It is also noteworthy that VMT is projected to grow faster than population. NIRPC modelers have projected VMT to increase by 37 percent between 2012 and 2040, while population is expected to grow by 22 percent (Scott Weber, NIRPC, email dated December 17, 2014), suggesting an increased reliance on automobile travel. This will place further demands on the existing regional transportation system.

Travel time for transit users is a combination of time spent in an automobile and on a transit vehicle. According to the *South Shore Line Onboard Passenger Survey*, approximately 90 percent of riders access the SSL by driving to a station and parking. This survey found that nearly 25 percent of passengers using the Hammond and East Chicago stations had residential origins that were more than 10 miles from each of the two stations (NICTD 2013). Considering that the distance to Millennium Station from these two stations is just over 20 miles (Hammond: 21 miles and East Chicago: 23 miles), these long access lengths add considerably to total travel time for affected riders. Metra’s *Systemwide Origin-Destination Passenger Survey* also found that many Lake County residents are driving long distances to board the existing MED line to head north into Chicago (Metra 2006). Commuters residing in Lake County average 12.2 miles to reach a MED station. This is illustrated on **Figure 1.2-1**, which shows that many riders of both lines reside in the western part of Lake County. An overlap of SSL/MED commuter sheds is also evident on both sides of the Indiana-Illinois state line.

Table 1.2-3 compares ACS travel time data between automobile travelers and public transit users. Commuters who used private automobiles (drove alone or carpooled) reached their destinations faster than workers who reported taking transit. Nearly half of private vehicle commuters completed their trips in less than an hour, compared to less than 20 percent of transit commuters. This can be attributed to the fact that rail transit travel times in the Study Area currently include access time to get to and from stations.



SOURCE: Metra 2006; NICTD 2013.

Figure 1.2-1: Rider Origins on SSL and MED, 2006 and 2013

Table 1.2-3: Percentage of Workers by Travel Time and Mode, 2006-2010 (Lake County to Downtown Chicago)

Travel Time (minutes)	Private Vehicle	Public Transit
59 or less	48%	18%
60 to 89	40%	48%
90 or more	12%	34%
Total	100%	100%

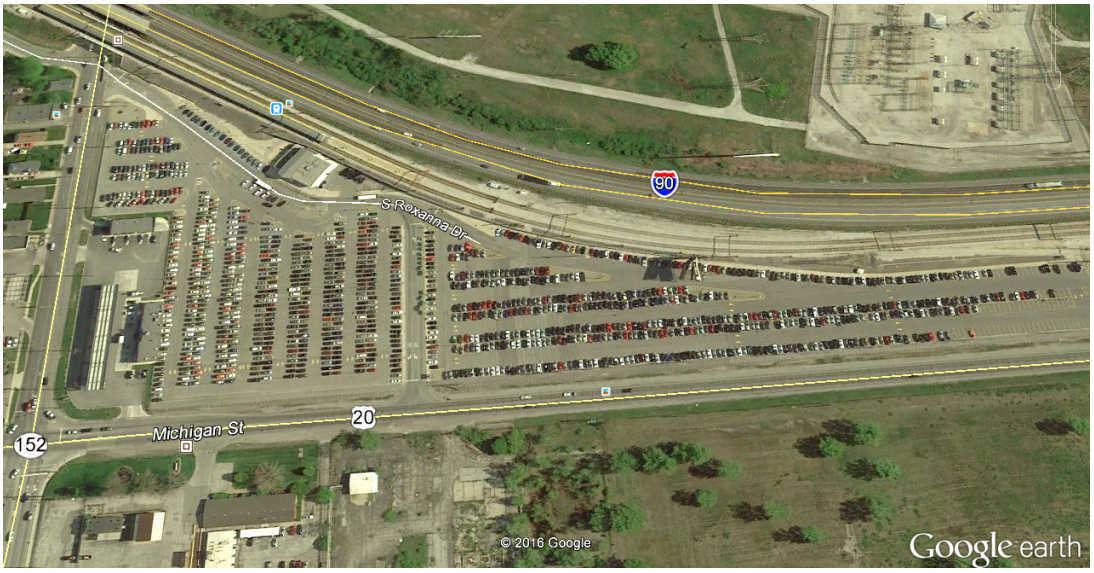
SOURCE: CTPP 2000; US Census Bureau ACS 2006-2010.

However, as stated above, driving times can be highly variable from day to day depending on traffic conditions. Variability in highway travel time is largely a product of congestion. Congestion in the Chicago metropolitan area was reported to be the eighth worst in the country (Texas A&M Transportation Institute 2015). Commuter rail service, in contrast, is far more predictable and reliable. In 2014, NICTD rush hour trains were on-time for 91 percent of trips (NICTD 2015a), while MED trains were on-time for 98 percent of trips (Metra 2015).

Taken together, there is a need to overcome the increasing unpredictability of automobile commuting time and to reduce or eliminate the automobile component of transit travel time in the Study Area. Further, an alternative solution to driving is needed to increase the region's commuter capacity and reduce congestion on roads and highways leading to and from downtown Chicago.

1.2.2.3 Reduce the Parking Burden at Existing Transit Stations

Limited transit options for Study Area residents are causing the nearest existing transit stations to experience parking conditions at or near capacity. An example of this condition is seen at the existing SSL East Chicago Station (see **Figure 1.2-2**). This facility is largely land-locked, and the local road network used to access the site is congested. Considering that 90 percent of SSL riders use a park-and-ride to access stations, Study Area riders would be impacted by constrained parking at existing SSL stations, and would benefit from facilities in their home communities.



SOURCE: Google Earth, photo May, 2016.

Figure 1.2-2: East Chicago Station Parking Use, 2013

1.2.2.4 Reduce Travel Costs

The Project purpose of reducing the cost of travel to downtown Chicago is supported by the need to offer alternatives to the high cost of driving to downtown Chicago. This need is primarily driven by the cost to park in downtown Chicago, as explained below.

The price of commuting can be an important factor in choice of travel mode (Victoria Transport Policy Institute 2015, Litman 2013). SSL monthly fares from Lake County are $183.00 for Zone 4 (i.e., Hammond and East Chicago Stations) and $196.50 for Zone 5 (i.e., Gary stations) (NICTD 2016). The majority of SSL riders' out-of-pocket cost is the train fare, since 80 percent of riders do not pay for parking at boarding stations and 78 percent walk to their ultimate destination in downtown Chicago (NICTD 2013).

By comparison, for commuters who drive to downtown Chicago for work, costs include vehicle operation (e.g., fuel, tolls), maintenance, and parking in downtown Chicago. The *North America Central Business District Parking Rate Survey* found that median monthly rates in downtown Chicago averaged $289, well above the national average of $165 for central business districts (Collier's International 2012).

In a study of working family spending patterns for 27 metropolitan areas, costs associated with transportation represented 29 percent of incomes, about the same as housing costs overall. The research also found that families tend to trade off lower housing costs (e.g., Lake County, Indiana) for higher transportation costs (Center for Housing Policy 2006). Providing Study Area transit alternatives at a lower cost would minimize the burden of being more distant to jobs, while still allowing them to take advantage of comparatively lower area housing costs.

1.2.2.5 Promote Economic Development

The local planning context of the Project recognizes that improved transit service to downtown Chicago would result in economic benefits such as increased access to jobs for Study Area residents. Additionally, current planning documents incorporate a long-term vision for the growth of businesses and jobs within the Study Area. Previously completed studies emphasized the addition of new transit service as a critical means for achieving this vision, citing transit-oriented, mixed-use redevelopment, town center plans, walkable communities, and attracting young families and workers as specific goals. The advancement of a commuter rail project consistent with these visions and planning is a common thread uniting entities responsible for making land use decisions and promoting economic development within the Study Area. The purpose of promoting economic development is supported by the recognition of entities responsible for land use decisions to view the Project as a catalyst for development.

In its long-term vision for the future, the Northwest Indiana RDA anticipates wages and local spending to enhance and expand economic development in Northwest Indiana over time (RDA 2007). At the local level, the communities in Northwest Indiana are encouraging growth and working toward managing change in a way that emphasizes livability and economic benefit. The local communities within the Study Area have adopted comprehensive plans, as described below. These plans emphasize economic development and redevelopment, attracting and retaining population, particularly young families and workers.

- The *Town of Dyer Comprehensive Plan* (2012) argues that, "transportation planning now needs to anticipate commuter rail" and indicates that the land use effects of commuter rail service would be advantageous to Dyer (Dyer 2012).
- *A Vision for the 21st Century: 2010 Comprehensive Plan* (Munster 2010) foresees the catalytic effects of future transit service in its downtown area. The town envisions transit-oriented, mixed-

use redevelopment that focuses on a walkable community of residents and businesses, and creates an activity destination for surrounding neighborhoods and the region.

- The *City of Hammond Comprehensive/Land Use Pla*n (City of Hammond 1992) recommends the Project as one of the projects to support their goal of improving transportation in Hammond.

In addition to recognizing the economic benefits of improved transit service to Chicago, the long-term vision of RDA, NIRPC, and communities in the Study Area also includes developing and sustaining a reverse commute travel pattern. This is a vision in which transit users from other locations would come to central, southern, and western Lake County when the demand for access to local employment and other destinations in the region matures.

1.2.3 Goals and Objectives

Goals and objectives were developed based on the transportation needs, issues, and opportunities that have been identified for the Project. Goals are high-level statements that provide overall context for what the Project is trying to achieve. Objectives are lower-level statements that establish the basis for defining evaluation measures to be used to compare how effectively each alternative addresses and best meets the Project's Purpose and Need. The goals and objectives are listed in **Table 1.2-4**.

Table 1.2-4: West Lake Corridor Project Goals and Objectives

Project Need	Goal	Objectives
Increase transportation options for accessing downtown Chicago	Improve regional mobility	• Provide new commuter rail service to high growth areas in central, southern, and western Lake County, Indiana • Expand NICTD service coverage in underserved areas of Northwest Indiana • Increase NICTD ridership
Reduce travel time to downtown Chicago	Improve transportation links to downtown Chicago	• Connect Northwest Indiana residents to higher paying jobs and major activity centers in downtown Chicago • Provide fast and reliable commuter rail service to downtown Chicago from the West Lake Corridor
Reduce the parking burden at existing transit stations	Improve regional accessibility to an expanded commuter rail network of services	• Maximize return on investment by reducing parking burden at existing commuter rail stations • Provide easily accessible stations in the Study Area that are supported by multiple modes including parking, kiss-n-ride, bicycle and pedestrian access
Reduce travel costs	Provide equitable access to transportation	• Provide reasonably priced commuter rail service to downtown Chicago, especially compared to driving • Minimize costs to access and use local commuter rail stations
Promote economic development	Support the economic vitality of Northwest Indiana	• Complement regional and local plans for economic development and encourage transit-supportive land use patterns • Minimize out-migration of existing residents by improving links to downtown Chicago jobs and encouraging mixed-use, mixed-income development in Northwest Indiana • Create Northwest Indiana jobs through the construction and operation of the Project • Stimulate job-based development in station areas

SOURCE: Project Needs, Goals, and Objectives were developed by NICTD for this DEIS based upon previous studies conducted for the West Lake Corridor, including the *West Lake Corridor Major Investment Study* (NICTD 2000), *West Lake Corridor New Start Studies: Purpose and Need Final Report* (NICTD 2006), *Comprehensive Economic Development Plan, Phase I and II* (RDA 2007) *and the 20-Year Strategic Business Plan* (NICTD and RDA 2014).

1.3 Next Steps

This DEIS document will be circulated for public and agency comment over a 45-day review period. During this time, three public hearings will be held to present the results of this DEIS and formally record all substantive comments received. In order to complete the environmental review process (see **Figure 1.3-1**) a combined Final Environmental Impact Statement (FEIS) and Record of Decision (ROD) would be prepared by FTA and NICTD. The combined FEIS/ROD will respond to substantive comments received on this DEIS, and state the proposed action, environmental findings, and mitigation requirements. In accordance with the Fixing America's Surface Transportation (FAST) Act and 23 United States Code (USC) § 139(n), FTA intends to issue a single document that consists of the FEIS and ROD unless it is determined that circumstances, such as changes to the proposed action, anticipated impacts, or other new information, preclude issuance of such a combined document.

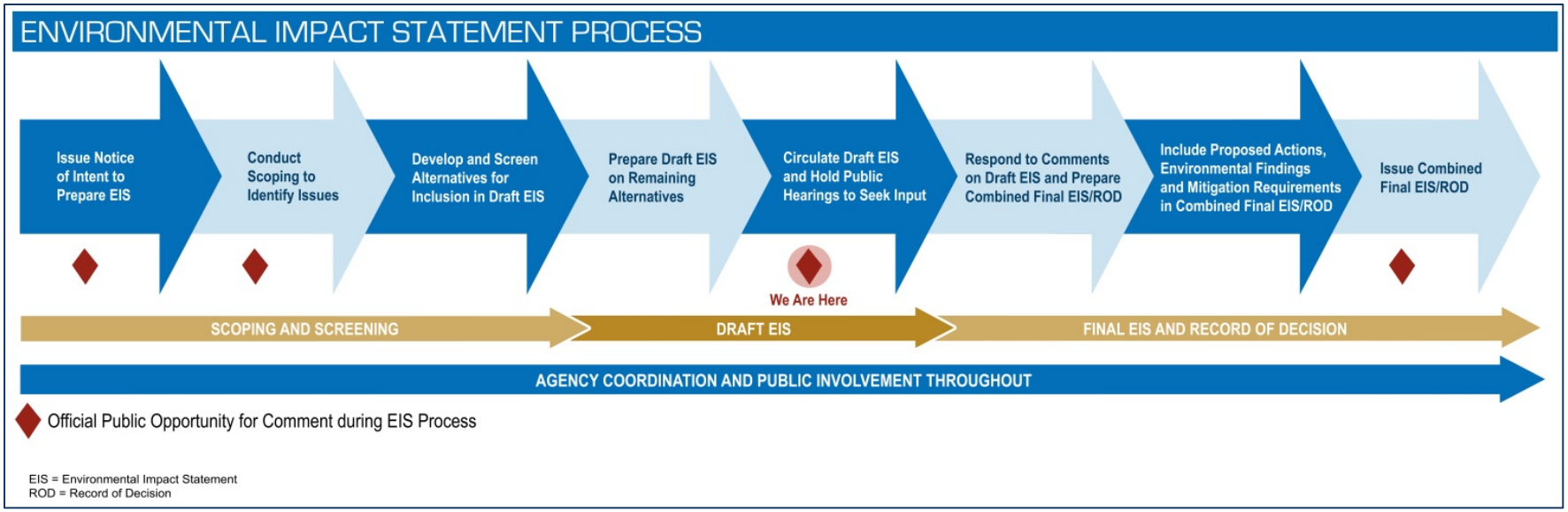


Figure 1.3-1: Environmental Impact Statement Process