

## 15. SOCIOECONOMICS

This section characterizes the socioeconomic resources within the project area that would be potentially affected by construction and operation of the proposed Northern Rail Extension (NRE). The description of socioeconomic baseline conditions and impacts focuses on the following specific resources:

- Demographic characteristics;
- Economy;
- Public facilities and services; and
- Communities and neighborhoods.

### 15.1 Applicable Regulations

The Council on Environmental Quality regulations for implementing National Environmental Policy Act of 1969 state that effects to be taken into account are “ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health” (40 Code of Federal Regulations (CFR) 1508.8). The regulations state that “economic or social effects are not intended by themselves to require preparation of an environmental impact statement” (40 CFR 1508.14). However, when “an environmental impact statement is prepared and economics or social and natural or physical environmental effects are interrelated, then the environmental impact statement will discuss all of these effects on the human environment” (40 CFR 1508.14).

### 15.2 Affected Environment

From a socioeconomic perspective, the project area encompasses the communities within the potential rail line and the potentially affected communities outside the rail line (Figure 15-1). To fully describe this broad area, three different geographic levels are used: (1) the communities directly along the proposed rail line, including North Pole, Eielson Air Force Base (AFB), Harding-Birch Lakes, Salcha, Delta Junction, and Fort Greely; (2) the Delta region, an unorganized area within the Southeast Fairbanks Census Area which includes Delta Junction, Fort Greely, Big Delta, Deltana, Dot Lake, Dry Creek, and Healy Lake as well as some communities along the proposed rail extension; and (3) the Fairbanks North Star Borough (FNSB).

#### 15.2.1 Demographic Characteristics

Table 15-1 provides an overview of population trends in the project area. The populations of the Delta region and FNSB have been relatively stable in recent years. Fort Greely’s population has rebounded following redevelopment of the military base as a missile site for the National Missile Defense Program. Housing scarcity in the Delta region has accompanied the population growth at Fort Greely.

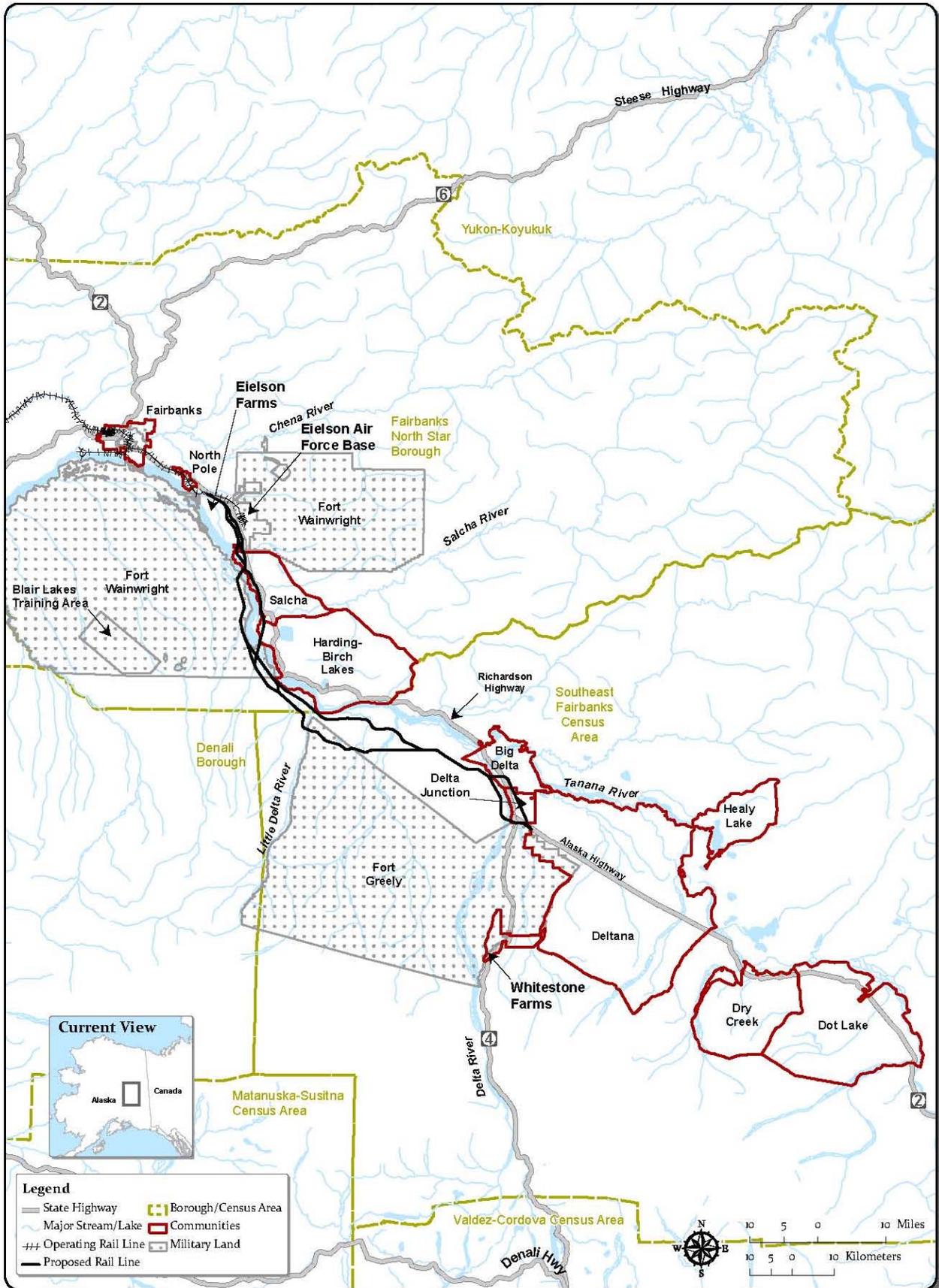


Figure 15-1 – Map of Socioeconomic Project Area

**Table 15-1**  
**Population in the Project Area, 2000–2006**

	2006	2005	2004	2003	2002	2001	2000
Southeast Fairbanks Census Area	6,772	6,464	6,139	5,922	5,944	5,907	6,174
Delta Region	4,613	4,181	3,886	3,608	3,564	3,569	3,887
Big Delta	728	731	734	726	782	791	749
Delta Junction	1,039	988	947	961	886	876	885
Deltana	1,896	1,900	1,739	1,706	1,668	1,652	1,570
Dot Lake	32	25	28	29	18	25	19
Fort Greely	756	376	271	5	11	23	461
Healy Lake	46	28	33	33	42	39	37
Village of Dot Lake	22	32	32	39	34	31	38
Dry Creek	94	101	102	109	123	132	128
FNSB	87,849	87,608	85,398	82,160	84,753	83,282	82,840
Eielson AFB	4,447	4,548	4,676	4,433	5,840	5,152	5,400
Fairbanks	30,552	31,071	30,083	28,924	29,774	29,523	30,224
North Pole	1,710	1,599	1,528	1,602	1,601	1,469	1,570
Harding-Birch Lakes	245	241	244	218	206	196	216
Salcha	946	949	919	867	923	905	854

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section.

## 15.2.2 Economy

Over the past several decades the Alaska Highway, which connects Alaska to Canada and the continental U.S., and ends in Delta Junction, has helped the Delta region's economy become more diversified in the military, oil transportation, highway tourism, and agriculture sectors. Currently, Fort Greely is the largest employer in the Delta region, followed by Teck-Pogo, Inc.—the operator of a large gold mine northeast of Delta Junction—and by the Delta/Greely School District. In addition, for more than 20 years the Delta region has been Alaska's second most productive agricultural region.

Fairbanks is inland Alaska's largest urban and commercial center. In addition to serving as the region's transportation hub, Fairbanks is the economic, medical, educational, and cultural center. The economies of Fairbanks and surrounding communities have benefited from the strong military presence of Fort Wainwright and Eielson AFB, and also from the University of Alaska, Fairbanks. The economic role of the tourism industry continues to increase as Fairbanks grows as a tourism and business destination. Oil refineries in North Pole are major employers in the city and provide aviation fuel to Eielson AFB, Fort Wainwright, and Fort Greely, and diesel fuel to the central heat and power plant at Fort Greely.

## 15.2.3 Public Facilities and Services

Delta Junction is the only city government jurisdiction in the Delta region. Public services provided by the city extend to residents beyond the city's boundaries and include solid waste collection, library, community center, and fire and rescue services. Police services are provided by Alaska State Troopers. Households in the Delta region have individual wells and septic systems. Electricity is provided by Golden Valley Electric Association, Inc., a nonprofit, member-owned cooperative that provides electrical service to FNSB, the Denali Borough, unincorporated areas within these two boroughs, and along Richardson Highway to Fort Greely. Health care services in the Delta region are limited to a small medical clinic, dental practice, and chiropractor. The Delta/Greely School District provides pre-kindergarten through grade 12

public education. The district currently operates seven schools. A private, K-12 school is operated by the local Whitestone Farms, a religious communal group near Big Delta, with a total enrollment of approximately 54 students.

Two incorporated cities are located within the FNSB, Fairbanks and North Pole. The cities provide police, fire, and emergency medical services to their residents and maintain streets and roads within city limits. Public services provided by FNSB are landfills, public transportation, libraries, parks and recreational and emergency services. The Borough also maintains, upgrades, and builds public works facilities, including schools in the Borough and roads within service areas. Two privately-held, publicly-regulated subsidiaries of Fairbanks Sewer & Water, Inc.—College Utilities Corp. and Golden Utilities Corp.—provide water and wastewater treatment services in the greater Fairbanks area. Fort Wainwright and North Pole have their own water systems and North Pole also has its own sewage treatment plant. Fairbanks is the location of Fairbanks Memorial Hospital and the Denali Center medical facilities. Fort Wainwright operates Bassett Army Community Hospital. The FNSB School District operates 33 schools throughout the Borough.

#### **15.2.4 Communities and Neighborhoods**

The Delta region is characterized by small communities, some with strong ties to the region. As in many rural towns in Alaska, the residents of the communities in the Delta region are dispersed over a wide area. A number of social groups based on religious affiliation are also present in the Delta region, including Whitestone Farms. The Fairbanks area can be characterized as a dense urban area rimmed by lower density suburban and semi-rural areas and communities that have close interaction with the urban center. Included in the FNSB portion of the project area is the Eielson Farm Community, which has evolved into a mixed agricultural, individual homestead and subdivision community.

### **15.3 Environmental Consequences**

#### **15.3.1 Methodology**

The discussion of socioeconomic impacts addresses the potential direct and indirect effects of the proposed NRE and No-Action Alternative on selected demographic characteristics (housing), public facilities and services, economic activity, and communities and neighborhoods in the project area.

Direct effects on housing are assessed on the basis of whether or not an alternative affects housing availability or prices. Direct effects on public facilities and services are evaluated on the basis of changes in demand for education, public safety, utilities, or health care. The discussion of direct effects on economic activity includes changes in interregional accessibility; the ability to attract new and more intense development; changes in employment and gross economic output; and costs and benefits to transportation users and nonusers. Direct effects on communities and neighborhoods are assessed on the basis of whether an alternative changes existing patterns of travel or community interaction. Indirect effects on the socioeconomic environment are examined in terms of induced economic and residential development resulting from changes in access.

Data sources used in the analysis include construction cost and employment estimates for the Port MacKenzie Rail Extension prepared by Northern Economics Inc. (2007) for Alaska

Railroad Corporation (ARRC); the 2000 U.S. Census; freight tariffs published by ARRC (2006c); and personal communications with industry and government representatives. In addition, the socioeconomic analysis draws on effects described in Chapter 9, Noise; Chapter 11, Transportation Safety and Delay; Chapter 13, Land Use; and Chapter 14, Visual Resources in this environmental impact statement (EIS).

### **15.3.2 Common Impacts**

In general, analysis of the socioeconomic effects of the proposed NRE differs from other resource analyses in this EIS because there are few measurable differences in effects among the build alternatives. This is because most socioeconomic effects would result from whether the project as a whole proceeds, and not from which specific build alternative may ultimately be authorized by the Surface Transportation Board. However, there are some socioeconomic impacts that do differ across alternative segments, including effects on communities and neighborhoods. These impacts are described for each alternative segment or group of alternative segments in Section 15.3.3.

For the purposes of this socioeconomic analysis, the proposed NRE would have two phases likely to result in impacts: construction and operations. This analysis assumes that the operations phase immediately follows the construction phase.

#### **Construction Impacts**

##### **Effects on Employment and Gross Output**

According to ARRC, the differences in construction costs across the build alternatives would not be significant. However, the timing of construction activities would differ depending on the construction scenario. Under a full construction scenario, construction would begin at both ends of the rail line, North Pole and Delta Junction and around the Delta River or Delta Creek crossing. ARRC anticipates that the project would be finished in 3 to 4 years. With a phased construction scenario, construction on the Tanana River bridge could start prior to rail line construction due to the long lead time needed for bridge spans and logistically because of the need to complete the bridge before construction on the west side of the Tanana River rail line could begin. Under this scenario, the Tanana River bridge could be constructed several months or years before the rail line would be constructed. With either a full construction scenario or a phased construction scenario, construction would be conducted throughout the year. Severe winters would limit winter-time construction to land-clearing activities, most bridge construction, and interior work associated with facility buildings.

An estimate of project construction costs was unavailable; therefore, Section of Environmental Analysis (SEA) based project construction costs on ARRC's conceptual cost estimate for the Port MacKenzie Rail Extension prepared by Northern Economics, Inc. (2007). This estimate translates to \$6.43 million on a cost per rail mile basis, including construction management and engineering costs; right-of-way (ROW) costs; the costs of constructing the railbed, tracks, bridges, culverts, and grade crossings; and the costs of installing signal and safety devices. Applying this cost per rail mile estimate to the approximately 80-mile long proposed NRE yields a cost estimate of \$514.3 million. The construction of a passenger depot facility would increase the estimated total expenditures to \$518.8 million, assuming the cost of the facility is comparable to that of the Denali National Park Rail Station (Parmalee, 2002). The total expenditures would be lower if a smaller scale passenger station is constructed.

An estimate of employment during the construction phase of the project was unavailable; therefore, SEA based the number of temporary jobs created by onsite construction activities on an economic study of the Port MacKenzie Rail Extension (Northern Economics, Inc., 2007).<sup>1</sup> Assuming that the number of construction jobs created is proportional to the construction cost of the rail extension, it is anticipated that the Northern Rail Extension would generate from 3,200 to 3,600 direct full-time and part-time jobs during the 3 to 4 year construction period.<sup>2</sup>

The geographic distribution of project expenditures and employment creation would depend on the location of firms supplying the labor and materials needed on the project. While some of the design and engineering services could be performed at offices outside Alaska, and materials such as steel rails, rail line ties, and signal and safety devices could be sourced outside of Alaska, the majority of expenditures would be made in Alaska. Based on the estimated percentage of in-state expenditures for the Port MacKenzie Rail Extension presented in Northern Economics Inc. (2007), it is assumed that 70 percent, or \$363.2 million, of the total project construction expenditures would be made in Alaska.<sup>3</sup>

The concentration of major engineering, construction, and manufacturing firms in Fairbanks makes it probable that this city would benefit from some of these construction period expenditures. However, given the limited pool of labor in the project area, the majority of the construction workers would likely move to the project area on a temporary basis from other regions of Alaska. Some workers from outside Alaska may also be employed, but this number would likely be low because the size and diverse skill set of Alaska's workforce is sufficient to minimize the need for workers from outside the state.

The direct in-state project expenditures on labor, goods and services would initiate subsequent rounds of income creation, spending and re-spending, producing a multiplier effect on Alaska's economy. Contractors, vendors, and manufacturers receiving payment for goods or services required by the project would, in turn, be able to pay others who support their businesses. In addition, persons directly and indirectly employed by the project would generate additional jobs and income in the economy as they purchase consumer goods and services to meet household needs. SEA estimated the multiplier effect of in-state construction expenditures of the proposed NRE using output and employment multipliers calculated for the Port MacKenzie Rail Extension by Northern Economics Inc. (2007).<sup>4</sup> Based on an output multiplier of 1.85, it is estimated that the total impact of project construction expenditures on gross output (total sales) in the Alaska economy would be approximately \$670 million. Based on an employment multiplier of 1.83, the

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<sup>1</sup> According to Northern Economics Inc. (2007), the estimates of expenditures and jobs for the Port MacKenzie Rail Extension were based on information from previous studies, personal interviews, rule-of-thumb engineering estimates, IMPLAN data, and cost data from other similar facilities.

<sup>2</sup> Because jobs are generated by project expenditures, the number of jobs created each year would be roughly proportional to the dollar amount spent each year.

<sup>3</sup> The estimated percentage of in-State expenditures for the Port MacKenzie Rail Extension was based on information regarding the cost of steel rail, culverts, and other materials and equipment that would be needed to be imported into the State for the project. These same construction cost items would be imported for the Northern Rail Extension.

<sup>4</sup> Multipliers reflect changes in the State's economy resulting from project construction and operation costs. If it is assumed that the percentage of expenditures made within the State is the same for the two rail extension projects, the multipliers should be similar. According to Northern Economics Inc. (2007), the multiplier economic effects of the Port MacKenzie Rail Extension were evaluated using 2004 IMPLAN data. The aggregate coefficients and multipliers used for that project are applicable for the Northern Rail Extension, as these values tend to change slowly over time.

estimated total number of full-time and part-time jobs created during the construction phase of the project, including direct and secondary jobs, would be between 5,900 and 6,600.

The proportion of the total output and employment that would accrue to businesses in the project area would be small. As noted above, most of the firms supplying the labor and materials that would be needed on the project are located outside the project area. In addition, the majority of construction workers would be housed in construction camps. These camps would be self-sustaining, with their own sleeping quarters and cooking areas, and therefore the direct interaction between workers in camps and local businesses would be minimal. To the extent that construction crews spend money in local hotels, restaurants, and shops, the effect of these expenditures on retailers would be concentrated in the Fairbanks area because there are few retail outlets in the Delta region communities. The effect on business activity in the Fairbanks area would be positive, though low in relation to the overall economy of the area.

### **Effects on Housing**

The effects of project construction on housing in the project area would be minimal because the majority of construction workers would be housed in construction camps. Moreover, a portion of the workforce would be composed of people who already live in the area. They would place no additional demands on local housing.

While a project of this scale might be expected to attract some dependent family members, as well as the construction workers themselves, it is likely that the ratio of dependents to workers would be low. Those outside workers bringing dependents with them would likely house them in Fairbanks. To the extent that there is an increase in the local population arising from the in-migration of construction personnel and their families, there would be increased demand in the local housing market. The housing demand spike created by the construction-related population would be temporary and would ease after 3 or 4 years. The availability of housing in the Fairbanks area as well as construction camp housing would determine the effect on the local housing market as employment scales up. The number of housing units in the Fairbanks area is large compared to any potential increase in demand that would occur during the construction phase of the proposed NRE. With a population of approximately 87,000 residents, the FNSB has a housing stock of over 33,000 units according to the U.S. Census statistics for 2000.

### **Effects on Public Facilities and Services**

The effects of project construction on public services in the project area would be minimal. Ongoing coordination with utility providers would need to be conducted by ARRC during the preliminary engineering, final design, and construction phases of the proposed NRE to identify any potential conflicts and formulate strategies to overcome potential problems. To the extent that any utility effects could occur, they would need to be scheduled by ARRC to minimize disruptions in duration and geographic expanse. Adjacent properties would need to be notified by either ARRC or the utility prior to any temporary changes to utility service.

Most of the construction labor force would be housed onsite in construction camp housing. Moreover, a portion of the workforce would place no additional demands on local public services because it would be composed of people who already live in the area.

Only a very small number of dependents of construction workers drawn from outside the region would likely relocate to the project area. Therefore, there would be only a small additional enrollment in the local school district as a result of the construction phase of the project. The additional enrollment would not have a significant effect on the resources of the local school

district. The medical facilities in the Fairbanks area are adequate to handle any increased demand that could result from population growth during the construction phase of the project.

The main fiscal effect arising from the construction phase would be from the bed tax generated by construction workers staying at hotels in Fairbanks. Delta Junction, the only municipality in the Delta region with tax-raising powers, does not levy a bed tax. Negative fiscal effects arising from construction activities would be limited to the potential for increased demands on the public safety services of fire, police, and ambulance. Given that the population growth resulting from the construction phase of the proposed project is expected to be small, the fiscal effects would be negligible.

## **Operations Impacts**

### **Effects on Employment and Gross Output**

An estimate of project operation and maintenance costs was unavailable; therefore, SEA based the annual cost of operating and maintaining the proposed NRE on the cost estimate for the Port MacKenzie Rail Extension presented in Northern Economics Inc. (2007). Assuming that the operation and maintenance costs are proportional to the length of the rail extension, it is anticipated that the annual in-state operation and maintenance costs for the proposed NRE would be about \$2.8 million to \$3.7 million including the maintenance costs for track, bridge structures, and the railbed.

According to ARRC, operation and maintenance for the proposed NRE would increase ARRC employment by six to ten full-time employees. There are existing maintenance facilities in the area that could accommodate the new line, so the majority of new employment created during the operations phase would likely be drawn from the labor pool in the Fairbanks area. Given the large size of the Fairbanks labor pool, the impact of the additional jobs created by project on this pool would be negligible.

SEA estimated the multiplier effect of in-state operation and maintenance expenditures using output and employment multipliers calculated for the Port MacKenzie Rail Extension by Northern Economics Inc. (2007).<sup>5</sup> Based on an output multiplier of 1.83, it is estimated that the total impact of the operation and maintenance expenditures of the NRE on gross output (total sales) in the Alaska economy would be \$2.7 to \$3.7 million per year. Based on an employment multiplier of 1.87, the estimated total number of jobs created during the operations phase of the project, including direct and secondary jobs, would be between four and seven per year.

### **Effects on Housing**

The majority of the new employment created during the operations phase is likely to be drawn from the labor pool in the Fairbanks area. Therefore, there would not be an influx of workers that would require additional housing.

### **Effects on Public Facilities and Services**

Since the majority of the new employment created during the operations phase would likely be drawn from the labor pool in the Fairbanks area, the new employment would place a negligible additional demand on public facilities and services.

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<sup>5</sup> See Footnote 4.

## **Effects on Transportation System Users and Nonusers**

Transportation investments can have a direct effect on economic activity by reducing travel time or cost and improving accessibility within or among regions. The proposed NRE would introduce a new mode of transportation into the Delta region and thereby provide the prospect of a higher level of transportation service for those businesses and travelers who would use the rail extension. The proposed NRE could also potentially reduce congestion on Richardson Highway by removing some military convoys.

While difficult to predict, the changes in travel costs and accessibility attributable to the proposed NRE could, in turn, contribute to economic growth and development by allowing time and money previously spent on travel to be used for other purposes, attracting businesses and residents to places with increased accessibility or improved quality of life, and reducing overall costs to society. The population and employment growth that result, together with the effects of that growth, comprise the induced or indirect effects of transportation investments. These effects, which are beyond those directly attributable to the changes in the transportation system, are considered indirect effects and are discussed in the section on regional effects.

## **Regional Development Effects**

Industry representatives were contacted by SEA and asked how they thought changes in access resulting from the proposed NRE might affect economic growth in the Delta region, especially in the agriculture, mining, and tourism sectors. The strong consensus was that the proposed NRE is not likely to be a determining factor in the decision to move forward with initiatives in these sectors. While the improved accessibility provided by the rail extension could in some measure facilitate additional industrial and commercial activity in the Delta region, other factors would likely be key determinants of future economic growth in the region.

With respect to agricultural development, rail service to the Delta region could supply a lower-cost alternative for transporting some types of agricultural commodities, such as feed grains. Between 2007 and 2009, about 10,000 acres of private land in the Delta region are expected to be removed from the Natural Resource Conservation Service/U.S. Department of Agriculture (NRCS/USDA) Conservation Reserve Program and possibly be returned to production (Hadley, 2007). Farmers have the option of reenrolling the land in the program. However, it is uncertain if the in-state market would support additional grain production, especially given the doubtful future of the Matanuska Maid Creamery (Hadley, 2007; Hamilton, 2007; Kaspari, 2007). The State of Alaska operated this state-owned processing plant from the mid 1980s until the creamery was closed in November of 2007. After its closure, the creamery was transferred to private hands and resumed operation in early 2008; however, the long-term sustainability of the creamery is not certain. A potential future closure of Matanuska Maid would jeopardize the economic viability of the major in-state buyers of Delta-grown grain such as the Port MacKenzie dairy farms (Kaspari, 2007). On the other hand, the prospect of a shrinking Alaska market, combined with current strong prices for barley and oats, has led to renewed interest in exporting Delta-grown grain to outside markets via railcar-barge service (Geier, 2007; Kaspari, 2007). The profitability of exporting grain from Alaska will depend on whether current high grain prices continue and whether Alaska grain production increases to achieve economies of scale (Geier, 2007). Use of the proposed NRE to transport large quantities of grain would require the construction of adequate handling and loading/offloading facilities at the Delta Junction terminus.

The rail extension could provide an alternative travel experience for tourists, thereby possibly enhancing Delta Junction's position as a tourism destination. However, it is difficult to predict

whether the visitor services, tours, and accommodations required for expansion of Delta Junction's tourism industry would materialize (Hickok, 2007; Lane, 2007).

It is possible that future mining operations for base minerals (*e.g.*, zinc, coal) that are transported in bulk to smelters outside Alaska for processing might benefit from the proposed NRE. It is unlikely that future mining operations for precious metals such as gold and silver would benefit from the rail extension because the amount of product transported from these mine sites is relatively small (Hanneman, 2007).

The indirect effect of rail line operations on population growth and demand for public services in the Delta region is difficult to predict. The improved accessibility that would result from the proposed NRE, in combination with the significant difference in the price of housing in the Delta region compared to the Fairbanks area, could induce some households to move to the Delta region while continuing to work in Fairbanks. However, the increase in commuters is limited by the number of Fairbanks jobs that pay enough to support the cost of a commute. To the extent that the proposed NRE increases the attractiveness of living in the Delta region, an increase in the region's population would increase demand for public services. Offsetting the costs associated with the increase in demand, a higher population would also bring with it some increase in revenue from user fees and population-based revenue sources such as municipal assistance. In addition, school funding is based in part on enrollment; therefore, additional school-age children would bring with them additional state foundation formula funding.

### **No-Action Alternative**

Under the No-Action Alternative, ARRC would not construct an extension of the existing rail line or construct the dual-modal bridge over the Tanana River to transport commercial freight, military supplies, or passengers. Consequently, the No-Action Alternative would have no effect on socioeconomic resources in the project area.

## **15.3.3 Impacts by Alternative Segment**

### **Effects of Displacement and Relocation**

All displacement and relocation activities that occur as a result of the proposed action would be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act). The Uniform Act ensures the fair and equitable treatment of persons whose real property is acquired or who are displaced as a result of a Federal or federally-assisted project. Government-wide regulations provide procedural and other requirements (appraisals, payment of fair market value, notice to owners, etc.) in the acquisition of real property, permanent easements, and temporary easements and provide for relocation payments and advisory assistance in the relocation of persons and businesses.

Construction of Salcha Alternative Segment 2 would require the relocation of the Salcha Elementary School in Salcha. This is the smallest school in the FNSB School District, with an average enrollment for the 2006-2007 school year of 100 in grades K-6 and a regular staff of five certified teachers and three full-time classified employees (Fairbanks North Star Borough School District, 2007). The cost of building a new school of comparable size is estimated to be \$7 million to \$10 million, not including the cost of land purchase (Kito, 2007). Along Salcha Alternative Segment 1, several residences within the ROW would likely be permanently displaced. This segment would also cross the Salcha Airstrip east of the Tanana River. SEA currently assumes that construction of the rail line would prevent continued use of the airstrip in

its present location. See Chapter 13 for estimates of general land use and property impacts for each alternative.

### **Effects on Communities and Neighborhoods**

Eielson Alternative Segment 1 would result in the loss of approximately 2 acres of farming surface area from the Eielson Farm Community, but this small amount of commercial displacement would not change existing patterns of travel or social interaction within the Eielson Farm Community and would have a negligible effect on agricultural output, the livelihoods of the affected farmers, and the economy of the Eielson Farm Community as a whole.

Salcha Alternative Segment 1 and the staging area and access road on the east side of the Tanana River would affect approximately 25 to 30 residences. Most of these effects would be temporary because the area could be restored after construction and original land use could be re-established, but effects on several residences within the ROW would be permanent. Salcha Alternative Segment 2 would temporarily affect approximately 150 homes or businesses. Salcha Alternative Segment 2 would also require relocation of Richardson Highway. As more fully described in Chapter 11, the new segment of road would be built first, then the switch would take place, and traffic would be rerouted with minimal disruption to existing travel patterns.

The effects of all alternatives on community cohesion would be minimal. As more fully described in Chapter 11, the proposed NRE would not interfere with the accessibility of facilities and services within any of the communities along the rail line, and would only have limited and minimal delays on grade crossings, roadway transportation, and rail traffic. In addition, nearly all segments near residential areas are in or adjacent to an existing transportation alignment (roadway), reducing the potential for creating new divisions of existing communities.