

III. AFFECTED ENVIRONMENT

The project area follows the Matanuska River Valley in southcentral Alaska. The Matanuska River is a major glacial-fed river draining into the Knik Arm of Cook Inlet. Along the north perimeter of the valley are the Talkeetna Mountains, bordering to the south are the Chugach Mountains. Steep mountainous terrain, river-cut slopes, and glacial U-shaped valleys occur along the route. Numerous glacial features such as moraine traces, till deposits, glaciolacustrine, and glaciofluvial deposits are evident. A large alluvial fan deposit has accumulated where the Matanuska and Knik Rivers drain into the Knik Arm.

The potential for seismic activity in this region is high. Along the north perimeter of the Matanuska Valley, from west to east, is the active Castle Mountain fault. Because this is an area with an active fault there is potential for earthquake induced ground creep, landslides, avalanches, and ground rupture.

The Matanuska River Valley is located in a transitional zone between coastal and interior climates. The average summer temperatures range from 40 to 69 degrees Fahrenheit with winter temperatures averaging between minus 3 to plus 39 degrees Fahrenheit. Estimated annual precipitation is 14 inches with 69 inches of snowfall. Late summer and early autumn are the periods of the heaviest rainfall. The Talkeetna and Chugach Mountains and the Matanuska River influence climate and create conditions which produce precipitation on the windward slopes.

Vegetation along the project area is categorized into two land ecosystems, tundra and coniferous. Tundra includes both moist and alpine tundra plants. Most of these treeless areas are muskegs and grassy openings on mountain foot slopes. Coniferous includes upland spruce-hardwood forest and lowland spruce-hardwood forest.

This portion of the Glenn Highway is within the Matanuska-Susitna Borough. Statistics for 1987 provided by ISER list the Matanuska-Susitna Borough population at 39,700. Four communities along the highway are in the vicinity of the project: the city of Palmer, and the unincorporated settlements of Sutton, Chickaloon, and Matanuska Glacier. Estimated community populations provided by the Alaska Department of Fish and Game (ADF&G) and the Department of Community and Regional Affairs (DCRA) are included in Table 1.

**Table 1
Area Populations**

COMMUNITY	POPULATION	YEAR
Palmer	2,988	1989
Sutton	279	1989
Chickaloon	136	1983
Matanuska Glacier	179	1983

The State's oil related industry with its subsequent revenues to the municipalities influenced high growth rates in the Borough. The State Department of Labor determined that 89 percent of these population gains were the result of in-migration; State residents moved into the Borough to take advantage of the lower cost of housing compared to Anchorage. The total labor force in the Borough was 17,572 in July of 1986 (ADOT&PF, 1987). According to ISER, 30.9 percent of the Borough's workforce was employed outside the Borough in 1980, 37.8 percent in 1985, and in 1988, 37.9 percent.

The economic base of the region has changed historically. Within the project area there exists a major coal deposit in the Matanuska Coal Fields which has been mined since the early 1900s. Discoveries of local coal resources led to the development of several active mines, including those at Wishbone Hill, Eska Creek, and Chickaloon River. The Alaska Railroad was constructed to Chickaloon by 1916 because of the U.S. Navy's interest to acquire coal. The track was removed in the 1940s and 1960s after the mines were closed. Although coal mining is not currently active, mines may be developed at Wishbone Hill and Castle Mountain.

During the 1930s, the economic base of the region shifted to agriculture. Two hundred families from Midwestern states arrived for settlement in 1935 through the Federal Matanuska Valley Colony Program. Palmer was established during this period as the agricultural center for the valley.

Beginning in the 1950s, when Anchorage became a major distribution center, the Matanuska-Susitna Borough became an alternate residence for Anchorage employees. Palmer and Wasilla economies expanded to include support industries such as construction, retail trade, and services; Borough economy became integrally linked to the economy of Anchorage.

Rural areas of the Borough are removed from major concentrations of employment. Highway related services, mining, hunting, and trapping, and other recreational activities, are major income producing activities. A few commercial lodges provide employment.

The Matanuska River Valley is an area with abundant natural resources. This ample resource base supports an array of recreation and tourism activities which are of significant economic importance to the Matanuska-Susitna Borough and the regional economy. Several State Parks exist in the project area along the Glenn Highway with camping and picnicking facilities.

Located along the Glenn Highway from MP 56.7 to MP 80.8, in the foothills of the Talkeetna Mountains, is the Matanuska Valley Moose Range. The Moose Range was organized in 1984 in response to the increasing need to both utilize and protect area resources. Local moose populations and habitat, along with other wildlife, are maintained and enhanced while encouraging public multiple use of the area. The management plan policies apply to State held land, approximately 76 percent (101,000 acres) of the total Range area.

The fish and wildlife resources are among the most diverse in the state. The Matanuska Valley area provides habitat for about 134 species of birds, 14 species of freshwater and anadromous fish, and 28 species of mammals (DNR, 1986). Hunting of moose, bear, Dall sheep, small game, and birds is popular in this area especially during Fall. Sport fishing is predominant in the area and occurs not only in the Matanuska River but in lakes and many anadromous fish streams as well. Fish harvested are Dolly Varden, rainbow trout, arctic grayling, whitefish, and several species of salmon.

Opportunities for hiking, horseback riding, cross-country skiing, snowmachining, and driving off-road vehicles are abundant. The extensive trails of the historic Chickaloon-Knik-Nelchina Trail System and several old mining roads are utilized for these recreational purposes. River sports such as whitewater kayaking and rafting are popular on the Chickaloon and Matanuska Rivers.