

### 3 AFFECTED ENVIRONMENT

#### 3.1 The Community

Talkeetna is located 113 air km (70 air mi) north of Anchorage, Alaska within the MSB. The community is located at the confluence of the Talkeetna and Susitna rivers (see **Figure 1**). It is a rural, unincorporated community with a current population of about 772. Talkeetna is popular for its recreational fishing, hunting, boating, flightseeing, skiing, and dog mushing. Local businesses provide services to Mt. McKinley climbers and tourists.

##### 3.1.1 Transportation

Talkeetna is connected to the George Parks Highway via the Talkeetna Spur Road. The community is also connected by train to Anchorage and Fairbanks via the ARRC system. The primary means of transportation to the community are the Talkeetna Spur Road and the railroad. Automobiles are the primary means of transportation within the community.

Talkeetna is the transportation center for tourists visiting DNPP. Air transportation is used year-round at Talkeetna Airport. There is no scheduled air service, but the airport is served by many non-scheduled air taxi operators. In addition, there are summer charter and air taxi helicopter operations at the airport. Talkeetna Airport is owned and maintained by DOT&PF. Aviation activity is mostly related to the tourism industry; several air taxi operators provide services for flightseeing, mountain climbers, and other recreationists.

##### 3.1.2 Socioeconomic Conditions

The population of Talkeetna has risen steadily over the past 30 years. The townsite population was listed as 76 in 1960 and 256 in 1990.<sup>1</sup> The current population is estimated to be 772.<sup>2</sup>

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<sup>1</sup> Census figures for 1990 reflected the population in the immediate townsite area only. The 1990 Census recorded an additional 341 persons living in the study area but outside the Talkeetna Townsite for a total study area 1990 population of 597 persons.

<sup>2</sup> The 2000 Census changed the reporting area from just the Townsite to include the outlying areas (in addition to the Townsite) in the total population for Talkeetna.

Talkeetna's economy derives primarily from tourism due to its proximity to DNPP, Mt. McKinley, and Denali State Park. The transportation and communications industries account for over half of the employment base for Talkeetna. Retail businesses in Talkeetna are mostly tourism related. Guide and air taxi services are also important to the economy.

Government employment accounts for another large portion of Talkeetna's economy. Federal agencies with employees in Talkeetna include the U.S. Postal Service, NPS, and U.S. Fish and Wildlife Service (USFWS). State agencies include the DOT&PF and Denali State Park Rangers. The MSB has some school district employees in the area. The remaining employment in the area is spread among mining, agriculture, fishing, forestry, and services.

### ***3.1.3 Places of Public Assembly***

The Talkeetna Airport is approximately 0.8 km (0.5 mi) from the Talkeetna business district. The business district is characterized by small shops, cafes, a few motels, and other businesses. There are no large shopping centers in Talkeetna. The Talkeetna Elementary School is to the west of the airport across the ARRC tracks and Talkeetna Spur Road approximately 0.4 km (0.3 mi) from downtown. Other places of public assembly within the community include a softball field about 0.8 km (0.5 mi) northwest of the airport, a public library, an NPS headquarters building, a volunteer fire department, the Talkeetna River park, a boat launch, a village park, and churches. A new ARRC passenger depot was constructed adjacent to the west side of the ARRC right-of-way (ROW) approximately 0.2 km (0.1 mi) southwest of the existing airport runway.

### ***3.1.4 Land Use, Land Status, and Land Ownership***

The Denali Subdivision adjacent to the airport to the northwest is designated as an RLUD by the MSB. Some residences have been built in this subdivision, although the land is not extensively developed. The Talkeetna Heights Subdivision lies to the west of the Denali Subdivision; the Talkeetna River Subdivision is located to the north, away from the airport and adjacent to the Talkeetna River.

The ARRC tracks and ROW are located south of the airport roughly parallel to the Talkeetna

Spur Road in this area. The ARRC station is located to the west of the south end of the existing airport runway along the ARRC ROW.

## 3.2 Natural Environment

### 3.2.1 Topography, Geology, and Soils

The Talkeetna Airport is located on relatively level terrain between the Susitna River and low hills to the east. The area is a broad abandoned floodplain near the confluence of the Susitna and Talkeetna rivers. The floodplain is characterized by slightly elevated, well-drained, alluvial terraces, and low flat, poorly drained areas. The ground surface at the airport has been modified by clearing, grading, and fill.

Soils in the area are typical of those associated with streams and rivers. At the airport, three soils types are found: well-drained, fine, sandy loams over sand or gravelly sand; poorly drained soils; and moderately permeable silt loam soils. Elevated alluvial terraces typically have 15 cm (6 in.) of organic material overlaying 0.6 to 1.2 m (2 to 4 ft) of moist silt. The silt is underlain with sandy gravel with few fines, but contains cobbles and occasional boulders. In some areas, loose silty sand is encountered between the silt layer and the gravel layer. The gravel layer extends to at least 6.6 m (21.5 ft). The soil profile for the adjacent lowland areas is similar to that of the terraces; in these areas, the near surface soils are soft and the water table is much closer to the surface. Relic permafrost may occur in the uncleared areas to the east of the existing runway.

### 3.2.2 Climate

Talkeetna's climate is characterized by relatively cold winters and warm summers. The climate is influenced by the effects of the coastal maritime and interior continental zones.

Temperatures can range from -58°C (-48°F) to 33°C (91°F). Winds are generally light, but can exceed 55.6 km/h (30 knots). Winds at the Talkeetna Airport are calm about 30 percent of the time and less than 7.4 km/h (4 knots) about 46 percent of the time. The dominant wind direction is north (24 percent) with south winds occurring 16 percent of the time. Annual precipitation is about 74 cm (29 in.) with 259 cm (102 in.) of snow.

### 3.2.3 Flora and Fauna

Talkeetna and Talkeetna Airport are located within the Susitna River Basin physiographic region, bounded on the west and north by the Alaska Range, on the east by the Talkeetna Mountains, and on the south by Cook Inlet. The lowland region surrounding Talkeetna Airport is an interspersed of upland habitats and extensive wetlands, home to a wide variety of flora and fauna.

Terrestrial mammals that occur in the Talkeetna Airport area include moose, grizzly bear, brown bear, wolf, coyote, and red fox. Smaller mammals that occur in the region are beaver, lynx, marten, mink, muskrat, river otter, weasel, porcupine, snowshoe hare, and red squirrel.

Bird species that occur in the area include waterfowl, geese, Raptores, passerines, spruce grouse, and willow ptarmigan. Trumpeter swan habitat occurs west of the Susitna River in the vicinity of Talkeetna, but no trumpeter swan activity has been documented in the airport area.

Vegetation communities in the area include: bottomland spruce/hardwood, mixed birch/hardwood, and lowland black spruce/hardwood forests. Extensive wetland habitats are also present in the area.

The Susitna and Talkeetna rivers provide spawning and rearing habitat for five species of Pacific salmon: chinook, coho, chum, sockeye, and pink salmon. Resident species found in the Susitna and Talkeetna river drainage include lake trout, rainbow trout, arctic grayling, burbot, Dolly Varden, and round whitefish.

### 3.2.4 Wetlands

Three general types of wetlands occur in the vicinity of the Talkeetna Airport: palustrine, lacustrine, and riverine. Of the three types, palustrine is the most widespread. This type of wetland is found along Twister Creek, between the existing runway and Twister Creek, and at the south end of the runway. Riverine wetlands are found within Twister Creek and the Susitna River while a flooded gravel pit north of the existing runway represents lacustrine wetlands.

### 3.2.5 Floodplains

Most of the land occupied by the Talkeetna Airport is within the 100-year floodplain of the Susitna and Talkeetna rivers as designated by the Federal Emergency Management Agency (FEMA) (**Figure 2**). Concurrent to this master plan, FEMA is revising the Flood Insurance Rate Map (FIRM) for Talkeetna in response to revised U.S. Army Corps of Engineers (USACE) mapping of the 100-year floodplain. This new mapping indicates that the flood water present at Talkeetna Airport during the 100-year flood would be significantly deeper than the previous FIRM indicated. The figures in this document represent the latest available FEMA maps.

### 3.2.6 Coastal Zone Management Program

The MSB Coastal Zone Management Program boundary extends to the 305-m (1,000-ft) contour interval for the Talkeetna River, including all lands and waters within the 100-year floodplain or 61 m (200 ft) on each side of the river ordinary high water mark, whichever is greater. The FIRM indicates that the 100-year floodplain along the Susitna and Talkeetna rivers encompasses essentially all of the lands west of the southern half of the existing runway and all the wetlands along Twister Creek. All uses and activities within this boundary must comply with the enforceable policies of the MSB Coastal Zone Management Program. In addition, activities outside the coastal boundary which could adversely affect coastal resources and uses within the boundary, i.e., spill-over effect, are subject to the Coastal Zone Management Program. The Coastal Zone Management Program, as amended in October 1988, includes policies applicable to airport activities that address coastal development, energy facilities, timber harvest and processing, mining and mineral processing, transportation, utilities, and recreation.

### 3.2.7 Coastal Barriers

Coastal barriers as defined in the Coastal Barriers Resources Act of 1982, Public Law 97-348, do not exist in this area.

### ***3.2.8 Wild and Scenic Rivers***

There are no rivers within the project area that are designated as Wild and Scenic under the Wild and Scenic Rivers Act, Public Law 90-542 (Internet Web site: [www.nps.gov/rivers/wildriverslist.html#ak](http://www.nps.gov/rivers/wildriverslist.html#ak)).

### ***3.2.9 Farmland***

There is no farmland near the Talkeetna Airport. The State of Alaska does not have any unique or prime agricultural lands as defined by the Farmland Protection Policy Act of 1981, Public Law 97-98.